

**THE IMPACT OF AUTHENTIC LEADERSHIP ON WORK ENGAGEMENT
AND JOB SATISFACTION**

Presented

by

Rui Manuel Gonçalves Janota

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AND JOB SATISFACTION**

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ABSTRACT

Authentic Leadership emerged as an appealing leadership model based on the employee's self-awareness, relational transparency, internalized moral perspective, and the balanced processing of information. This research evaluated the impact of Authentic Leadership on Work Engagement and Job Satisfaction, among the sales representatives of pharmaceutical companies operating in Portugal, grounded in the framework of the Institutional Theory. This study employed a quantitative, explanatory, cross-sectional research design by using a four-part structured questionnaire, which combined three established instruments, to collect data from 1.415 respondents. The results of this research suggest that Authentic Leadership has a positive impact on both employee Work Engagement and Job Satisfaction, implying that features of this leadership style create a healthy workplace environment. In addition, this positive impact grows with a rise in institutional alignment as Authentic Leadership aligns with, rather than opposes, compliance demands. This research shows that Authentic Leadership behaviors enhance both ethical culture and business outcomes. It further reveals that institutionalized compliance can strengthen authenticity by clarifying values and expectations, shifting compliance from coercive control to strategic empowerment. This study introduces a new concept of “Tempered Authenticity,” revealing that employees can balance candor with contextual sensitivity in regulated environments. The integration of Institutional Theory proposes an ethical performance equilibrium where compliance and performance reinforce each other.

Keywords: *Authentic Leadership, Organizational Trust, Organizational Commitment, Work Engagement, and Tempered Authenticity.*

ACKNOWLEDGEMENT

From a “non-researcher’s” point of view, this research might be considered a rather lonely endeavor. That was at least my first impression when I initially started the DBA program at the SSBM. With time, I gradually realized that doing empirical research is very much about networking. Individual work is undoubtedly an important aspect, but to succeed, one has to build a network of contacts - professional and academic contacts. If these acknowledgments were a formal part of my thesis, I would say: Succeeding with a DBA means creating an alliance network around your dissertation.

My particular gratitude goes first to my supervisor, Professor Hrvoje Volarević, who supported me with his knowledge and advice throughout the entire process.

I am also grateful to all of the sales representatives who participated in my data collection process. The process went remarkably smoothly, considering that most of the participants work outdoors, on different schedules, and in various geographies across the country. Without their kind support, my research would not have been possible.

This dissertation is dedicated with profound gratitude to my wife, whose unwavering support and patience have sustained me throughout this journey. Her encouragement, resilience, and belief in my capacity to persevere have been an enduring source of strength. Without her constant presence and sacrifices, the completion of this work would not have been possible.

Last, but certainly not least, to my daughters, may this achievement serve as an enduring example of the value of perseverance, discipline, and lifelong learning. I hope that you will always pursue knowledge with curiosity and determination, and that you will find

inspiration in the belief that commitment and integrity can transform aspirations into accomplishments.

Lisbon, November 2025.

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LIST OF ABBREVIATIONS

AL	Authentic Leadership
ALQ	Authentic Leadership Questionnaire
APIFARMA	Portuguese Pharmaceutical Industry Association
EMA	European Medicines Agency
EU	European Union
INFARMED	Portuguese National Authority for Medicines and Health Products
IT	Institutional Theory
IT-BMS	Institutional Theory - Based Measurement Scale
JS	Job Satisfaction
JSS	Job Satisfaction Survey
WE	Work Engagement
SEM	Structural Equation Modeling
UWES	Utrecht Work Engagement Scale

CHAPTER 1 - Introduction

1.1 Background of the Study

The fast-paced changes in workplaces at a global level have initiated a paradigm shift in how leadership is theorized, practiced, and assessed. Increased complexity, volatility, and employee disengagement have resulted in traditional leadership concepts failing to sustain commitment and improve psychological well-being and ethics (Avolio and Walumbwa, 2014). Authentic Leadership (AL) emerged as an appealing leadership model based on the employee's self-awareness, relational transparency, internalized moral perspective, and the balanced processing of information (Walumbwa *et al.*, 2008). AL emphasizes leadership's ethical and psychological dimensions by encouraging leaders to act according to their fundamental values and cultivating trusting relationships (Alilyyani *et al.*, 2018).

The success of AL is significantly linked to increased transparency, integrated purpose, and relational stability sought by both a Millennial and Gen Z workforce in their organizational lives (Rego *et al.*, 2016). AL seeks to develop followers' intrinsic motivation and identity with organizational values, unlike other charismatic or transactional leadership models focusing on performance measures and contractual compliance with incentives (Gardner *et al.*, 2011). A leader practicing AL demonstrates to their employees that they can be themselves and creates a psychologically safe climate that fosters sustained engagement and satisfaction (Read and Laschinger, 2015). These dynamics are particularly relevant in the context of global burnout surges, post-pandemic workplace shifts, the great

resignation phenomenon, and the heightened focus on mental health in the workplace (Nakov *et al.*, 2022).

With the evolving organizational behavior and leadership styles, AL has gained increasing scholarly and managerial interest, especially following some global corporate scandals, pervasive employee disengagement, and increasing calls for moral accountability in the workplace (Walumbwa *et al.*, 2008).

Although there is growing interest in leader authenticity, the body of empirical research is limited regarding the processes behind how the AL style is associated with Work Engagement (WE) and Job Satisfaction (JS). For example, while extant literature consistently shows that AL relates to employee outcomes, there is little agreement on whether it is robust across various occupational sectors, cultures, and demographics (Tomkins and Nicholds, 2017). Also, the directionality and causality of these relationships remain unclear because many of the studies are cross-sectional and based only on self-report measures that further limit the generalizability of the findings (Hoch *et al.*, 2018). In addition, the contemporaneous developments in hybrid and remote work environments that have evolved due to COVID-19 have created further layers of complexity regarding the leadership-followership relationships. With physical distancing, restricted informal interactions, face-to-face visibility, relational transparency, and moral consistency, some of the approaches of AL have become more difficult to implement and measure. Bai *et al.* (2020) argue that such additional complexities trigger a rethink of successful leadership in the new information technology era, an urgent need to develop models supporting sustainable worker satisfaction and motivation in times of uncertainty, and a geographically distributed workforce. Harter and Adkins (2015) also highlighted that

researcher and professional, in turn, have championed AL because of its ability to create deeper employee engagement, satisfaction, and psychologically healthy workplaces where trust and ethicalness are the norm, rather than the exception.

Leadership does not operate in a vacuum - it is exercised, interpreted, and replicated in institutionalized contexts of complexity with formalized regulation, social relations, and cognitive schemes (Scott, 2008). That is why it is insightful to reinforce comprehension of how institutional logics affect AL, particularly in regulated industries where a balancing of normative compliance and performance output is required. Institutional Theory (IT) is an insightful frame to consider because regulation systems, societal norms, and cultural-cognitive schemata are rendered into sharp focus as drivers of organizational action. It creates a more nuanced comprehension of the practice of leadership construction, replication, and legitimation in the longer term (Lemoine *et al.*, 2019).

This research is contextualized and framed in the unique context of the pharmaceutical industry in Portugal, with particular emphasis placed upon its sales staff. These sales teams are governed by a wider European regulatory regime defined by strict compliance duties, ethical promotion principles, and well-defined performance accountability structures. As reported by Sousa and Rocha (2019), these sales teams face a twin mandate to achieve aggressive sales targets in the face of competitive pressures while at the same time ensuring strict ethical performance, particularly relating to pharmaceutical promotion, interactions with medical professionals, and accountability relating to public health. The intersection of these duties dictates that a leader must inspire and engage staff to ensure a strong sense of institutional governance. The application of AL in such a situation faces critical questions about its practicality, perception, and institutional acceptance.

The pharmaceutical sales teams in Portugal offer a rich setting in which to examine such dynamics, where AL must respond to relational authenticity and compliance-driven legitimacy and put key questions around its adoption, acceptance, and applicability at the center stage in highly regulated contexts.

1.2 Problem Statement

At the core of any scientific research project lies a rooted feeling of restlessness and curiosity - this project is no exception. This research arises from several factors, and it is grounded in different interests. On a broader level, AL is a construct still under development, especially at the empirical level, and additional scientific research is required to consolidate this concept (Esper and de Almeida Cunha, 2015). On a stricter level, the crises and scandals that have hovered over the world of organizations make it even more pertinent to study this construct. Scandals that occurred in companies such as Enron, WorldCom, Lehman Brothers, Theranos, and Volkswagen (emissions scandal, also known as dieselgate) over the past two decades, as well as multiple cases of moral and financial scandals in well-established companies, persistently surfaced, not only in the United States but also in Europe, reflecting a leadership crisis causing values to emerge that emphasize AL.

In Portugal, during the same period, two enormous scandals badly damaged the national economic reputation and simultaneously threw doubt upon the appropriateness of business governance practices. Banco Espírito Santo (BES), founded in 1869, was Portugal's oldest and most respected banking group. The bank was to fail and announce insolvency in 2014, and accounting misstatements and backroom maneuvers to identify significant losses had catastrophic effects on Portuguese bank institutions and national

economic performance. Portugal Telecom (PT), the primary communications service provider of Portugal, was established in 1994 and was charged with the provision of communications in Portugal prior to its shutdown in 2015, which was induced by imputations of poor corporate governance, a lack of transparency, and accountability surrounding such a central organization.

Around the same period, a study from Cunha *et al.* (2014) also highlighted that Portugal appears to have one of the lowest levels of trust compared to the rest of Europe. All this instability that the country went through, which led to an intervention from 2011 to 2014 by the International Monetary Fund, the European Central Bank, and the European Union (EU), translated into the implementation of austerity measures, highly unpopular and resulting in widespread protests, social unrest, as well as low levels of WE and JS. In this background, it is absolutely pertinent to understand the impact that AL (as opposed to other leadership styles that neglect authenticity) can have on the daily lives of individuals and organizations.

AL proposes a new way of leading based on the leader's authenticity, ethics, and positive and transparent relationships with followers (Walumbwa *et al.*, 2008). Authenticity in the exercise of leadership typically refers to the adoption of self-awareness, informed decision-making, high moral values, and transparency dimensions (Gardner *et al.*, 2005). AL practitioners (leaders and followers alike) are deeply attuned to their strengths and weaknesses and committed to the organization. As Sharp *et al.* (2015) mentioned, these employees leveraged their ethical practices to inspire efficiency and engagement in others.

In an increasingly global and constantly changing job market, organizations recognize the importance of stimulating employees' competitiveness, skills, and motivation while capturing and retaining talent. In this sense, many authors see WE and JS as fundamental constructs for building effective organizations (Albrecht and Travaglione, 2003).

In a context of almost constant economic challenges, regardless of its nature and origin, organizations are struggling with an even greater dilemma: if, on the one hand, they need to capture and retain talent, on the other, the constant market fluctuations do not allow them to establish lasting contractual bonds, as they did in the past, which leads to a deterioration in trust relationships between employees and organizations. Short-term contractual relationships have decreased employee engagement (Ward and Meyer, 2009). This uncertainty that simultaneously impacts organizations and employees makes it even more pertinent to verify whether AL influences the different dimensions of organizational trust and whether these foster equal or different intensities in the WE and JS levels in employees' work.

While organizations need competent, motivated, energetic, dedicated, committed, and involved individuals in their work in order to achieve high levels of effectiveness and excellence (Bakker and Leiter, 2010), the current perception is that the majority of employees are increasingly detached from their work and far below their potential.

The leader-follower relationship is (most of the time) grounded in a formal contract between the employees and the organization, following the labor legislation in each country, which establishes each party's rights and duties. However, and no less importantly, the organization's institutional structure influences and molds leadership exerted in specific

institutional environments. Such transformation of social dynamics into organizational elements is fundamental to conceptualizing the IT concept, which suggests that institutional pillars such as leadership critically influence macro-level outcomes, such as WE and JS.

The complexity of organizational life, combined with recurring corporate governance failures and declining employee morale, has rekindled scholarly interest in leadership models that promote ethical conduct, relational transparency, and alignment between personal values and organizational practices (Avolio *et al.*, 2018). AL gained prominence as an attractive and influential leadership model, and as a viable antidote to destructive leadership behaviors and short-termism in decision-making. Earlier empirical studies consistently capture positive relations of this construct with JS and WE (Waheed and Yang, 2019). However, in spite of its prominence in the study of leadership, a correlated theoretical and empirical gap still endures, specifically of the institutional embeddedness of AL and the mediator function of its actions in employee outcome measures.

This gap is more acute in high-compliance domains like the pharmaceutical industry, where leadership practices are not only shaped but positively constituted by regulative imperatives, occupational norms, and cognitive-culture expectations (Greenwood *et al.*, 2011). In these contexts, legitimation and persistence of leadership practices are no longer a result of short-term performance alone, but instead of whether these are compatible with institutional logics that provide acceptance and persistence. Existing theories like the Job Demands-Resources model and the Self-Determination Theory are utilized to account for the motivational basis of AL, but these accounts fall short

of describing the macro-sociological drivers that create and maintain leadership practices in the long term. Unlike other theories, the IT provides a more inclusive framework for investigating leadership practices as legitimate social practices informed by regulative structures, normative pressures, and cognitive schema (Scott, 2008).

The Portuguese pharmaceutical industry presents a unique context in which sales forces operate, in a competing logic of efficiency-driven performance versus compliance-based conduct, which creates a paradox for leadership enactment. These drivers might threaten the viability and sustainability of AL in this environment. Is a leadership founded on authenticity, ethicality, and moral judgment feasible in an environment where outputs are highly standardized and aligned with institutional agendas? If it is, then how will it impact WE and JS?

If AL is to progress from a fleeting management trend, it must be considered in terms of a practice guided by institutional forces, organizational sensemaking, and actor-driven agency.

The current study addresses these gaps by repositioning AL as an institutionally contingent phenomenon, rather than a universally applicable leadership style. It interrogates how institutional logics in the Portuguese pharmaceutical sector shape AL's perceived legitimacy, adoption, and sustainability, and how this affects employee-level outcomes. By focusing on sales forces, a subpopulation often overlooked in leadership studies but critical in revenue generation and market representation, the study captures the micro-level implications of macro-institutional structures. Moreover, by integrating the IT with leadership, this research contributes to a multi-level understanding of how leadership practices are shaped by, and contribute to, the institutional environment.

There is a need for studies that move beyond psychological reductionism and examine leadership as a socio-institutional construct, mediated by sectoral norms, formal regulations, and cultural scripts. This study responds to that need by applying the IT to the investigation of AL within the Portuguese pharmaceutical salesforce, offering a contextualized, multi-level analysis of how leadership becomes a tool for both ethical engagement and institutional compliance.

1.3 Research Objectives

Though different leadership theories emphasize the significance of ethical considerations, AL stands out from others in that it focuses on transparency and self-awareness (Azanza *et al.*, 2013). A deeper understanding of how AL characteristics regulate actions, interactions, and work quality can certainly foster and promote WE and JS (Sousa-Lima *et al.*, 2013). According to Wong and Laschinger (2013), authenticity is positively associated with this construct. Given the potential impact of this combination of characteristics on the work environment, it is crucial to further understand the relationship between these two constructs and their effects on organizations (Burriss *et al.*, 2013). Supplementary advancements in the perception of AL effects in the industrial sector could lead to the implementation of management programs to enhance employee-employer relations and increase WE and JS (Azanza *et al.*, 2013).

As mentioned above, the crisis, instability, and scandals that have affected the country, and the fact that Portugal appears as one of the countries with one of the lowest levels of trust compared to the rest of Europe, make it even more pertinent to study these constructs. Furthermore, the scientific research on AL has focused mainly on the leader

and not on its implications for the follower and the organization as a whole (Hildenbrand *et al.*, 2021).

Understanding the impact of these variables on the day-to-day lives of employees and organizations, that is, when employees perceive that their leaders practice authenticity in their management standards, will contribute to a deeper knowledge of the WE and JS levels. Moreover, analyzing how these different variables relate to each other in the Portuguese organizational landscape of the pharmaceutical industry context can guide management teams in a sector characterized by a high degree of institutionalization.

Leadership traits that uphold ethical standards are crucial for the management of others (Sousa-Lima *et al.*, 2013) and remain vital to competitive organizations, such as those in the pharmaceutical industry. The conclusions of this research aim to identify solutions to various industry-related challenges, such as improving retention rates, increasing work satisfaction, reducing job stress, decreasing absenteeism, and boosting productivity and profitability (Savković and Gajić, 2016). Additionally, the positive effects of AL can help mitigate job stress, potentially preventing burnout and absenteeism (Faircloth, 2017).

Generically, the main objective of this research is to contribute to a better understanding of the effects of AL and the consolidation of constructs, such as WE and JS, in the context of the sales forces of the Portuguese pharmaceutical industry. In a sector increasingly defined by its ethical imperatives and performance constraints, understanding the institutional feasibility of ethical leadership can inform academic debates and practical strategies for leadership development, employee retention, and organizational integrity. As such, this study pursues three main generic objectives:

- Examine how AL affects both WE and JS among the sales teams of the pharmaceutical companies operating in Portugal. This study aims to empirically explore the interplay of various aspects of AL, including self-awareness, relational transparency, balanced processing, internalized moral perspective, and related levels of employee WE and JS.
- Investigate the institutional norms, values, and regulative framework governing the AL and the corresponding employee outcomes. This objective addresses the role of institutional logics, regulative, normative, and cultural-cognitive, in shaping employee perceptions of leadership legitimacy. It explores whether the impact of AL on engagement and satisfaction is amplified, neutralized, or constrained by industry-specific institutional pressures, such as compliance codes, ethical mandates, and organizational culture; and
- Determine if AL can be institutionalized to become a normative leadership practice for pharmaceutical sales companies in Portugal. In addition to examining leader behaviors at an individual level, this objective determines if AL can be routinized, codified, and transferred through management levels and organizational systems. This insightful understanding of the multifaceted relationship between AL, WE, and JS amidst the IT framework is the core of the research objectives of this study.

1.4 Research Questions

The complexity of leadership practice in highly regulated sectors such as pharmaceuticals requires a departure from individual-centric explanatory models and calls for a more holistic framework that recognizes institutional embeddedness. The IT

emphasizes that leadership behavior is not merely a function of individual traits or dyadic relationships but is also shaped, constrained, and legitimized by regulative, normative, and cultural-cognitive systems' expectations (Greenwood *et al.*, 2011). To that extent, this study formulates its research questions with explicit reference to AL, WE, and JS, within the theoretical frameworks of IT and the unique organizational field of the sales forces teams of pharmaceutical companies operating in Portugal. The questions are designed to explore both the direct influence of AL on employee outcomes and the institutional conditions that mediate or moderate this relationship.

The primary research questions are:

1. How does Authentic Leadership (AL) influence Work Engagement (WE) and Job Satisfaction (JS)?
2. What role do institutional norms and values play in shaping the impact of Authentic Leadership (AL) on employee outcomes?
3. Are Authentic Leadership (AL) practices related to tenure and Employment Contract Type?
4. Are Authentic Leadership (AL) practices institutionalized in pharmaceutical sales organizations?

For each one of these research questions, a set of validation hypotheses will be formulated and tested in order to support and substantiate the replies and corresponding conclusions.

1.5 Theoretical Framework

Few studies have attempted to investigate the effect of institutionalization upon AL. Historically, leadership models have drawn upon micro-theories focusing upon individual attributes, behavioral styles, and inter-personal relations.

In spite of the notable contributions of theories like transformational and transactional leadership to the understanding of motivational dynamics, they often isolate leadership from the institutional setting. Such abstraction becomes problematic in highly regulated, ethically complex, and performance-driven environments such as the Portuguese pharmaceutical sector. For this reason, leadership styles should not be understood as mere manifestations of personal beliefs or psychological predispositions but are instead inherently bounded, regulated, and legitimized by dominant institutional logics. These behaviors are also structured, constrained, and legitimized by institutional logics, a combination of rules, norms, and cultural schemas that define what is considered acceptable, effective, and (Greenwood *et al.*, 2011).

The present study adopts the IT as its core theoretical framework to address this oversight. This sociological perspective enables a deeper understanding of leadership as a set of behaviors and a socially constructed and institutionally embedded practice. In doing so, the research reframes AL, typically conceptualized in psychological literature as a trait-like or developmental construct, as a practice that must achieve institutional legitimacy in order to generate sustainable outcomes such as employee WE and JS (Lemoine *et al.*, 2019). The IT delves into social organization's foundational and enduring aspects, representing a widely embraced theoretical framework that underscores rational myths, isomorphism, and legitimacy. It investigates how schemas, rules, norms, and routines are

institutionalized as legitimate frameworks guiding social behavior (Scott, 2005). Several aspects of the IT elucidate the creation, dissemination, adoption, and adaptation of these elements across time and space, as well as their eventual decline and abandonment. According to this theory framework, the present research seeks to investigate how WE and JS are affected in quantitative terms by AL and to check the validity and applicability of such an influence in institutionalized organizations.

The IT explains the institutionalization process of new practices rippling gradually as part of an organization's practices, policies, and belief systems over time. According to Lemoine *et al.* (2019), reviewing and analyzing this process closely and critically explains the evolution of the model of AL from individual leader behaviors to become a routinized, replicated, propagated, and sustained model of leadership within different units of an organization and management levels. Maybe this routinization of AL could be evidenced in its inclusion as part of leadership development programs, formal inclusion as a part of performance measurement systems, recognition in symbolic activities like rewards, or public acknowledgment by top management. This process of institutionalization is shaped by institutional work, the efforts of actors to create, maintain, or disrupt institutional norms. Significantly, the IT also facilitates an analysis of the tensions and contradictions that may arise when competing institutional logics intersect. The tension between commercial performance and ethical accountability is particularly acute in pharmaceutical sales. Leaders may face institutional pressure to appear authentic and ethical (aligned with normative expectations), while simultaneously being evaluated on performance metrics that prioritize revenue (aligned with market logic).

By grounding the research in the IT, this study, as mentioned in Table 1, contributes to a multi-level understanding of leadership, where employee outcomes (WE and JS) are not only mediated by leadership behaviors but also by the broader institutional environment that legitimizes or delegitimizes those behaviors.

The IT allows this study to move beyond individual-level explanations of AL and examine the structural, normative, and cultural foundations that condition its emergence, reception, and impact. Within the regulated and ethically sensitive environment of the Portuguese pharmaceutical sector, this framework is uniquely positioned to capture how leadership is enacted, interpreted, sanctioned, and potentially embedded into the organizational fabric.

Table 1 - Theoretical Contributions of Institutional Theory to this Study

Analytical Focus	Conventional View	Institutional Theory Perspective
Leadership	Individual-driven behavior	Socially constructed and legitimized practice
Context	Often minimized or generalized	Central rules, norms, and culture define behavior
Outcomes	Driven by motivation or need-satisfaction	Conditioned by institutional alignment and legitimacy
Sustainability	Focus on trait development	Focus on institutionalization and diffusion
Tensions	Rarely explored	Explicitly addressed via conflicting logics

Source: Adapted from the literature review.

The IT allows this study to move beyond individual-level explanations of AL and examine the structural, normative, and cultural foundations that condition its emergence, reception, and impact. Within the regulated and ethically sensitive environment of the Portuguese pharmaceutical sector, this framework is uniquely positioned to capture how leadership is enacted, interpreted, sanctioned, and potentially embedded into the organizational fabric. By positioning AL as an institutionally contingent construct, the research provides a more nuanced, context-sensitive, and theoretically robust understanding of leadership and its consequences for employee well-being.

1.6 Scope and Context of the Study

The present study is situated at the intersection of leadership theory, institutional sociology, and sector-specific organizational behavior. It focuses exclusively on sales professionals in the Portuguese pharmaceutical sector, a domain offering a distinctive institutional environment marked by stringent regulation, performance orientation, and ethical obligations. The research scope is deliberately delimited to this cohort to allow for a focused analysis of how AL as an institutionally contingent construct influences WE and JS under industry-specific constraints and normative expectations ways (Pereira *et al.*, 2021).

Pharmaceutical salesforces are central in pharmaceutical industry value chains, acting as information intermediaries, meeting commercial needs, and providing patient care. Like most EU states, pharmaceutical sales representatives in Portugal are subject to restrictions placed not just by personal performance indicators but by ethical principles propagated by bodies like the Portuguese Pharmaceutical Industry Association

(APIFARMA) and the European Medicines Agency (EMA). Their multiple roles add to a complex institutional setup where formal norms, sectoral conventions, and informal social norms govern professional behavior.

This complex environment of varied rules and norms, institutional constraints, and legitimating forces greatly influences leaders' behaviors. AL can either support existing institutional practices or subvert them, depending on the interpretative schemes employed by employees, management, and external constituents (Scott, 2008). In organizations that stress non-hierarchical values, a leader's effective communication will be easier to elicit a positive response. However, it will be more likely to face resistance in an environment with hierarchical authority or strict rules.

This research focuses on Portugal's geographical setting, where information has been collected from pharmaceutical sales representatives working in diverse regions, therapy areas, and institutional arrangements (multinational, local, and generic firms). Even though Portugal is not a major pharmaceutical market in the EU, it has undergone substantial growth, wide-scale reorganization, and ethical challenges. All these aspects have increased the need for critical leadership roles in fostering performance outputs and preserving normative standards and institutional accountability.

The data collection method used a consistent survey instrument administered among sales professionals to measure their perceptions towards AL, WE, JS, and the alignment of leadership practices to dominant institutional norms. By limiting the sample to sales staff only and intentionally excluding executives, administrators, and line-production workers, the research achieves conceptual accuracy and ensures that the

measurement of leadership is guided through the perceptions of critical stakeholders who are actively involved in frontline management tasks.

In addition, the current research aims to explain the operational dynamics of AL in the context of pharmaceutical sales in Portugal, using both contextual and theoretical bases. This focus increases internal validity and allows for a more accurate specification of institutional factors affecting the leadership-outcome relationship. Recognizing the limitations intrinsic to the research parameters, the following considerations are made:

1. **Conceptual Boundaries:** his study does not consider alternative leadership frameworks, i.e., transformational leadership or servant leadership, and does not draw on psychological theories such as the Job Demands-Resources model or Self-Determination Theory;
2. **Population Boundaries:** Only sales representatives and their immediate supervisors have been included. Other roles within pharmaceutical organizations have been excluded;
3. **Sectorial Boundaries:** This study is deliberately focused on the pharmaceutical industry and does not consider other health occupations, including, but not limited to, medical professionals or nurses; and,
4. **Geographic Boundaries:** Coverage is limited to Portugal; however, it is recognized that institutional forces and leadership perceptions might vary depending on different national settings due to differences in legal traditions, social norms, and degrees of market development.

Compliance with these specifications enables this research to maintain its analytical scope and stick to its primary goal: to systematically examine the effects of AL, as

moderated by institutional systems, on the commitment and satisfaction of agents operating in ethical dilemmas and high-performance selling environments. The expected results seek to advance theory and yield policy-driven outcomes that enhance leadership development, policymaking, and institutional design in the pharmaceutical industry.

1.7 Significance of the Study

This study's theoretical and practical significance lies in new insight into transforming leadership management as a construct embedded within institutional contexts, particularly in contexts of complex regulatory structures, such as the pharmaceutical sector of Portugal. Operating from a model of the IT, this research transcends the traditional psychological or motivational model and opens the door to new ways of considering legitimacy, diffusion, and the sustainability of leadership in complex organizational contexts.

In terms of theoretical significance, this study addresses a critical gap in leadership literature by introducing an institutional level of analysis to studies of AL, a research tradition that is overwhelmingly weighted at the individual level with models such as the Job Demands-Resources (JD-R) model and Self-Determination Theory. Although those models explained how AL produces motivation well, they are almost mute on how leadership behaviors are legitimized, reproduced, and contested at institutional scales. This research provides a multi-level theoretical contribution to the extent that leadership behaviors must be conceived not as discrete events but interpreted and reproduced in a regime of regulative, normative, and cultural-cognitive structures.

Additionally, this research contributes to institutionalization literature by examining whether and how AL can be institutionalized from a discretionary leadership style to an integral normative organizational competence. In doing so, it extends the work of Zilber (2002) and Lounsbury (2007) in examining alignment and incongruences of micro-level leadership practice with macro-level institutional logics and examining employee-level outcome measures, such as WE and JS, that are affected by such alignment. Through applying a focus to a case where professional ethics, regulation, and performance pressure converge, the study contributes to conceptual knowledge of institutional logics that constrain and/or enable ethical leadership.

In relation to the empirical significance, this study is among the first to investigate the interplay between AL and institutional forces within the context of Portuguese pharmaceutical sales. Existing empirical work in this industry has largely focused on compliance, performance metrics, or customer engagement (Pereira *et al.*, 2021). Very few studies have attempted to connect these organizational phenomena with leadership frameworks, let alone examine how leadership legitimacy is constructed in environments where accountability and regulatory scrutiny are paramount. By capturing perceptions from frontline sales professionals, this study provides contextually embedded empirical evidence that can inform leadership theory and industry-specific human resource management practices. This study also contributes sector-specific knowledge to the growing European pharmaceutical industry research body. Although smaller in scale compared to markets like Germany or France, Portugal offers a compelling empirical setting due to its dual character, being simultaneously part of the larger EU regulatory regime and shaped by localized cultural, economic, and professional dynamics.

Investigating leadership within this mixed regulatory-cultural context brings empirical richness and enhances the external validity of the IT when applied to Southern European contexts.

In terms of managerial significance, this research provides suggestions of practical relevance for pharmaceutical sales managers, human resource professionals, and compliance officers. With excessively high levels of employee burnout, disengagement, and churn in pharmaceutical salesforces, and most particularly in the situation of increasing performance pressures, the leadership models that do not just generate outputs but guarantee psychological health, ethical strength, and professional pride are in desperate demand. If institutionalized well, AL can act as a vehicle to enhance employee morale and stay regulatory compliant at the same time.

The institutional context of the study also provides managers with resources to create leadership behavior accountable to sectoral norms and compliance arrangements so that leadership performance is neither fleeting nor individual-specific but predictable and organisationally transferable. Further, organizational-level policy design can learn from the study, e.g., recruitment, promotion, and performance management processes. For example, leadership performance targets can be formulated to include conformance to institutional values, ethical climate indicators, and sales or team performance. The study then brings out a bridge from leadership practice to institutional design, and more integrated and sustainable organizational practices in the pharmaceutical industry become possible.

From a policy and social perspective, the current research has wider ramifications for the agenda of pharmaceutical industries' regulators and policymakers. As pharmaceutical marketing ethics and transparency compliance (e.g., statements of doctors'

involvement, off-label advertising) are ever more publicly scrutinized, the scrutiny of leadership culture underlying these regulatory concerns is of key importance. This research offers empirical backing to regulation culminating in leadership behavior from a public health ethics perspective and, therefore, of responsible, more transparent, and more credible pharmaceutical practice.

In conclusion, this study is significant because it explores an under-theorized relationship of AL in institutional contexts and because it does so within a high-stakes, ethically constrained, and performance-driven sector. This study offers theoretical depth, empirical novelty, and practical utility by reframing AL through the lens of the IT and embedding the research in the Portuguese pharmaceutical sales context. It contributes to a paradigm shift in leadership studies: from individual personality traits to institutionalized patterns of behavior, from psychological motivation to normative legitimacy, and from leader effectiveness to organizational sustainability.

1.8 Structure of the Dissertation

This dissertation is organized into eight chapters. Each chapter further develops IT's conceptual framework to discuss AL's impact on determining WE and JS in salesforces in Portugal's pharmaceutical industry. The structure follows a consistent pattern in observing a sequence from theoretical foundations to empirical research, and contextual assessment to practical applications.

- Chapter 1: Introduction. The first part of the introductory chapter forms the conceptual framework for the study and provides contextual justification, such as a statement of the issue, research objectives, research question, and scope and purpose of

investigation. Further, this first chapter explains why it selects IT and why the pharmaceutical salesforce in Portugal is an area of focus for an empirical study. The chapter concludes with a detailed preview of what is in the thesis structure.

- Chapter 2: Literature Review. This chapter synthesizes extant literature on AL, WE, and JS, identifying conceptual gaps and inconsistencies. The review of the IT is also included in this chapter.
- Chapter 3: Institutional Context of the Pharmaceutical Industry. The third section describes the institutional arrangement in the pharmaceutical sector, stressing international developments, entrenched norms, and ethical debate regarding pharmaceutical regulation, in addition to national controls, marketplace forces, and compliance frameworks relevant to sales activity and leadership in the Portuguese setting. Finally, this chapter concludes with a consideration of the roles played by sales professionals as institutional actors in navigating regulatory, normative, and commercial obstacles, laying a theoretical and contextual scaffold for an impending study conducted in an empirical vein.
- Chapter 4: Conceptual Model. This chapter introduces the conceptual framework of the study based on leadership behavior, employee outcomes, and institutional influences in Portuguese pharmaceutical salesforces. It clarifies the reasons for applying IT by referring to the sector's intricate regulatory and cultural setting, while detailing the key research questions and hypotheses derived in this framework.
- Chapter 5: Research Methodology. This chapter elaborates on the methodological framework employed in the study. It justifies the use of a quantitative design, explains the rationale for IT-based measurement tools, and outlines the sampling strategy

targeting Portuguese pharmaceutical salesforces. The chapter discusses the reliability and validity of the instruments used, ethical considerations, and the statistical procedures applied for data analysis, including mediation and institutional alignment testing.

- Chapter 6: Data Analysis and Empirical Findings. The fifth chapter presents the results of the quantitative analysis. Descriptive and inferential statistics are used to explore the relationships between AL, WE, and JS. Particular attention is paid to how these relationships are moderated or mediated by institutional variables such as perceived normative alignment and regulatory compliance.
- Chapter 7: Discussion. This chapter interprets the empirical results in light of the theoretical framework and literature reviewed. It discusses the implications of the findings for IT, leadership legitimacy, and organizational sustainability. It revisits the research objectives and questions, outlines the limitations of the research design, and suggests directions for future inquiry. The discussion critically reflects on the tensions between normative and performance-driven institutional logics and evaluates the potential for AL to become institutionalized in pharmaceutical sales environments.
- Chapter 8: Conclusions. The final chapter summarizes the key findings and theoretical contributions of the study, concluding with policy and managerial recommendations particularly aimed at human resources departments, compliance officers, and sales team leaders seeking to embed AL within institutional frameworks for long-term organizational benefit.

CHAPTER 2 - Literature Review

2.1 Introduction

Over the past few years, leadership has been associated with several scandals that have generated significant controversy and concern about the role of leaders in organizations and their impact on society (George, 2010). Cases of moral and financial scandals in well-established companies are persistently surfacing. In some of these cases, leaders have chosen to distance themselves from sound management practices at a certain point in time, resulting in significant losses for the organization and, in some instances, even its dissolution. In this context of suspicion, there is a growing concern about preserving and promoting ethical, genuine, and value-based values in leaders while increasing employees' trust in their leaders.

AL emerges as a new leadership model based on the concept of authenticity and leaders with a high moral character, who care about others, who have high ethical values that are reflected in their actions, thus ensuring that employees seek to achieve organizational objectives in a balanced, transparent, and authentic way, while also avoiding misconduct (Avolio and Gardner, 2005).

AL encompasses a group of positive psychological capabilities of employees' trust, hope, positive emotion, optimism, resilience, and creativity (Walumbwa *et al.*, 2008). Authentic leaders can increase followers' commitment, motivation, satisfaction, and involvement, thus improving work results and performance through creating personal and social identification with the leaders. According to Luthans and Avolio (2003), authentic

leaders recognize individual differences while promoting the ability to identify followers' talents and skills and help them transform them into strengths.

This literature review serves two main purposes: Firstly, it aims to clarify the concepts included in this research, namely their theoretical definitions as well as their antecedents and consequents; Secondly, it pursues the identification of studies whose results suggest relevance in analyzing the relationship between the various constructs included in this research.

2.2 Authentic Leadership

2.2.1 Leadership

Leadership is one of the most studied topics throughout the history of management, based on various theoretical perspectives, and has permanently established a close link between leaders and followers (Treviño and Brown, 2005). No single or unique proposition for an accurate definition of leadership can be found in scientific literature. Probably one of the most accurate considerations around the definition of leadership was stated by Stogdill (1948), "*There are almost as many definitions of leadership as there are persons who have attempted to define the concept.*".

Leadership can be described as a process of fostering alignment among a group's values, aiming to influence or persuade followers towards goals that resonate with their shared interests within a specific situational framework. According to Northouse (2021), leadership is the mechanism a person uses to influence another group of persons to achieve a common goal. Salehzadeh (2017) also defines leadership as a process where one intentionally exerts influence over others to guide, structure, and facilitate activities and

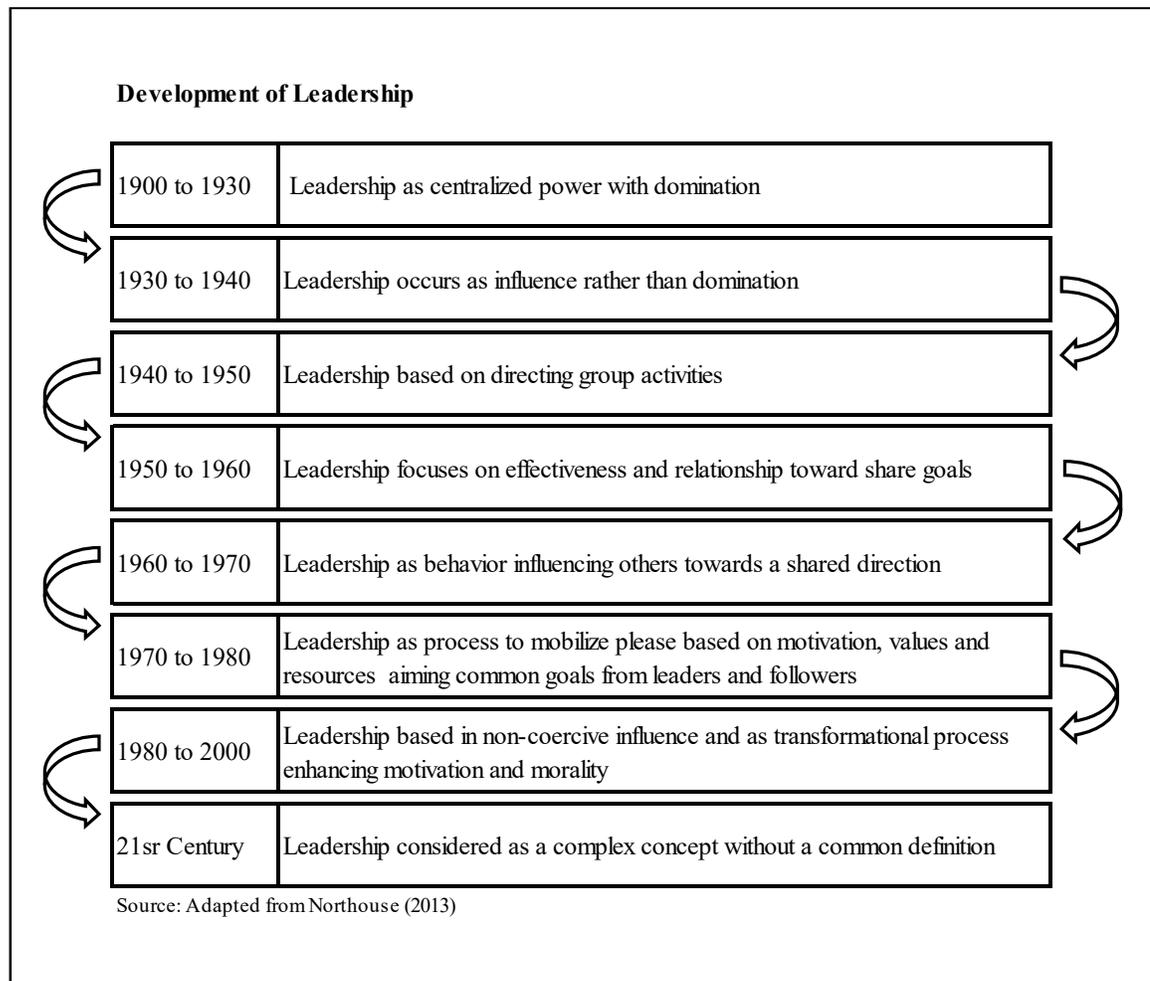
relationships within a group or organization. Variations in definitions have led to the development of diverse models for conceptualizing and assessing the concept of leadership (Hernandez *et al.*, 2011). Leadership is, therefore, a complex and multifaceted but widespread phenomenon with several distinct dimensions.

Leadership, a pivotal domain within management and organizational sciences, captivates a broad spectrum of scholars at micro, meso, and macro organizational levels, spanning various scholarly perspectives and academic fields (Bernerth *et al.*, 2018). Yukl (2012) states that leadership is an interpersonal process aiming to influence and promote efforts toward shared goals and performance through underlying processes. Theoretical frameworks explore whether leadership stems from inborn qualities, leader behaviors, or conduct, with some studies focusing on cognition and emotion to elucidate leadership and its impacts (Northouse, 2021).

Dansereau *et al.* (2013) argue that leaders' behaviors and their effects relative to followers are considered the cornerstone elements of leadership for most conceptualizations. However, certain traditional leadership paradigms overlook followers and assume that leaders interact with their followers in identical ways. Leadership, being a relational process or phenomenon, entails a symbiotic interaction between leaders and their followers (Salehzadeh, 2017). Thus, the role of followers in leadership effectiveness is pivotal in legitimizing the leadership itself. Follower beliefs, behaviors, and consensus play a crucial role in the leadership process, meaning that leaders cannot remain unaffected by the influence of their followers (Shamir, 2007). Although Judge and Piccolo (2004) stated that some specific leader behaviors exert only influence on followers, numerous other studies have concluded that leadership is best understood as a process involving influence

and occurring within a group setting characterized by shared goals and directions (Shaw, 2007).

Figure 1 - The Development of Leadership



Although leadership scientific research traces its roots back to the early 20th century, a social scientific approach to understanding leadership emerged only in the 1930s (Avolio *et al.*, 2009). As illustrated in Figure 1, according to Northouse (2021), the dominant and centralized power of the leader in the early decades of the past century has

been evolving into a new form of leadership based on values, morality, motivation, common goals, and non-coercive attitudes.

Comprehensively, the definition of leadership, its contextual scope, the expectations of leader behavior, and the responsibilities that are pursued have evolved over the last decades. Parallel to this, leadership research grapples with issues of shared understanding and consistency across theories and practices and a lack of integration across various orientations, including leader and follower viewpoints and contextual considerations (Avolio, 2007).

Leadership is no longer the authority of people at the top of the organization - leadership occurs at all levels of the organization, and, as highlighted by Liu *et al.* (2022), leaders at the top must develop the leadership skills of individuals below them.

2.2.2 Key Leadership Models

Having reviewed the fundamental concepts surrounding the definition of leadership, it is now important to investigate the role and significance of leadership within organizations and which are the key leadership models deployed in such organizations. The ongoing debate on leadership's effects and its significance in the organization's performance has become a constant source of scientific research. Scholars diligently investigate these matters to ascertain the true magnitude of leadership's influence on organizational dynamics. According to Yahyagil and Çeri-Booms (2010), these research endeavors have revealed a broad spectrum of leadership effects on organizations' operations.

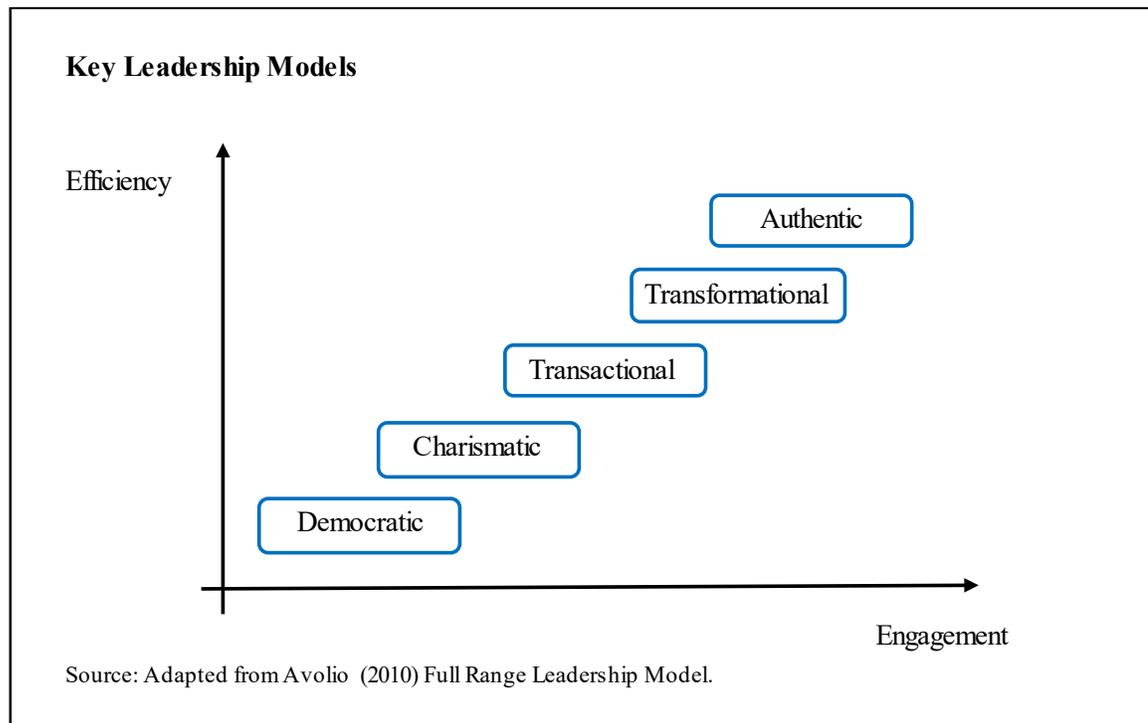
While earlier research, exemplified by Lieberman and O'Connor (1972), which scrutinized 167 organizations across 13 industries during the 1910s and 1930s, failed to uncover substantial leadership effects on organizational outcomes, subsequent studies have clearly validated these positive impacts. For instance, subsequent research from Smith *et al.* (1984) clearly reveals that effective leadership positively impacts organizations' results. Already in this century, Ceri-Booms (2010) confirmed the positive correlation between leadership and corporate performance, profit level, profitability, and stock prices of such organizations. Also, Nohria and Khurana (2010), in their "Handbook of Leadership Theory and Practice," have found that successful leadership positively affects organizational performance.

Leadership involves facilitating organizational change. When circumstances demand organizational transformation to align with new paradigms, leadership becomes essential in steering the organization toward its intended targets. In large organizations, the influence of top-level leaders at every tier is pivotal in executing decisions and actions. However, the individual contributions of leaders across all levels also contribute to the overall outcome, although variances in performance may impact the final results to some extent (Kotter, 2007). As highlighted by O'Reilly *et al.*, (2010), regardless of individual leadership impact, the alignment or misalignment of leaders across hierarchical levels can either bolster or hinder the successful execution of a strategic initiative within the organization.

The following sub-chapters focus on the key leadership models used in organizations, which are the precursors and lay the basis of the AL model. Figure 2

illustrates the five key leadership models based on an adaptation of Avolio's (2010) Full Range Leadership Model.

Figure 2 - Key Leadership Models



2.2.2.1 Democratic Leadership

The concept of democratic leadership may evoke associations with politics and political leadership, but it serves as a leadership model applicable to various types of organizations. Like the leadership concept, the democratic leadership model lacks a clear and fully unanimously developed definition, although the conceptual framework of Democratic Leadership underscores the importance of collective and egalitarian actions (Gastil, 1994). Democratic leadership is noted by encouraging group participation, discussion, and collaborative decision-making, aiming for evenly distributed

responsibilities among all members (Hilton *et al.*, 2021). This approach prioritizes each member's maximum involvement and participation in group activities to define objectives (Caillier, 2020). Democratic leadership entails guiding individuals in a manner that aligns with fundamental democratic ideals and practices, including but not limited to self-determination, inclusivity, equitable participation, and thoughtful deliberation (Gastil, 1994).

In this leadership model, an intrinsic expectation is constructive engagement, involving identifying, analyzing, and resolving group issues through group deliberation. Unlike other traditional leadership models, where leaders bear sole responsibility for problem-solving, in this democratic model, this responsibility is shared among all participants and members of the organization (Gastil, 1994). The democratic leader plays a crucial role in motivating and encouraging individuals to recognize their collective responsibilities. Furthermore, democratic structures emphasize open dialogue and discussion, often facilitated by the leader (Auliyah and Andriani, 2023).

2.2.2.2 Charismatic Leadership

Another key leadership model found in many organizations is the charismatic leadership model. As the name suggests, charismatic leadership possesses a certain charm or appeal that enables leaders to influence their followers. Choi (2006) described charisma as the individual's inherent qualities that allow them to display exceptional power or distinction, setting them apart from ordinary individuals and legitimizing their influence.

Conger *et al.* (2000) discovered a positive correspondence between charismatic leadership and performance and satisfaction. The authors concluded that such a model

creates a strong rapport between a leader and his followers. Charismatic leadership followers would typically show greater respect, confidence, and contentment with their leader. Such followers would also show shared purpose, intensified identity, perceived group performance, and feelings of empowerment (Queen, 2023).

Whereas charismatic leadership is most commonly hypothesized as a separate category model, leaders whose leadership is based on other theories can also display traits such as those of charismatic leaders or their opposites. The boundaries between these leadership models are not rigid, as each possesses unique features. A leader assumes a charismatic quality when effectively persuading their followers to embrace a shared vision (Supratman *et al.*, 2021). However, while charismatic leaders possess promising attributes and are often praised, measuring these qualities using scientific methods presents challenges, as stated by Queen (2023). Moreover, it is hard for academics to define charisma as a concept clearly and operationally while trying to identify what factors allow it to come into effect (Brown *et al.*, 2020). Consequently, it is possible to argue that establishing the charismatic leadership model is partly based on fortune or accident since there are no set guidelines for attaining such leadership, nor is it feasible to define a specific line of action.

2.2.2.3 Transactional Leadership

Burns (1978) is credited with introducing and developing the transactional leadership model, which states that leadership unfolds through two primary avenues: transactional and transformational. Understanding transactional leadership implies interpreting the concept of transaction, which denotes an exchange. Hence, transactional

leadership pertains to the interchange between a leader and their followers (Paracha *et al.*, 2012). Goodwin *et al.* (2001) also describe transactional leadership as a model that prioritizes motivating followers through rewards or discipline while promoting the expected rewards for different behaviors. Transactional leadership involves a reciprocal arrangement between a leader and their followers, wherein promises of rewards are exchanged for improved performance. On the other hand, transactional leadership addresses inadequate performance through corrective measures (Bass and Bass, 2009). As best defined by Kuhnert and Lewis (1987), transactional leadership is a process characterized by promises and commitments that foster mutual satisfaction for both the leader's interests and the followers' expectations, and it is underscored by respect and trust. Despite some researchers, like Obiwuru *et al.* (2011) and Paracha *et al.* (2012), highlighting the positive impact of transactional leadership on performance, attributing it to increased follower JS, some other authors draw attention to the drawbacks of this leadership model. Pedraja-Rejas *et al.* (2006) stressed that transactional leadership might negatively impact performance, as it does not seek feedback from followers, hindering further development. The coercive nature of transactional leadership, characterized by promises, punishments, and threats, can also negatively impact followers' self-esteem, leaving them feeling stressed, angry, subjugated, and victimized (Bass and Riggio, 2005).

The recent election of Mr. Donald Trump to the presidency of the United States of America will mark a new era in leadership, sparking the discussion around transactional leadership, associated with his governing style.

2.2.2.4 Transformational Leadership

As mentioned above, the transformational model is the second avenue through which leadership unfolds (Burns, 1978). Transformational leadership stands out as one of the most prevalent leadership models in contemporary organizations, as it entails leaders who inspire followers to pursue a shared vision by motivating them through inspiration, encouraging critical thinking, and fostering new perspectives on issues, thus establishing a clear link between the roles of leadership and followership (Northouse, 2021).

Transformational leadership encompasses four dimensions: idealized influence, intellectual stimulation, inspirational motivation, and individualized consideration, as outlined by Bass and Avolio (1994). Idealized influence comprises behaviors that create follower admiration, respect, and confidence, which reveal leaders' caring for followers' needs, ethical behavior, and sharing risk. Inspirational motivation comprises expressing expectations clearly to highlight organizational goal commitments with enthusiasm and optimism as key stimuli for creating team spirit. Intellectual stimulation comprises leaders in the quest for followers' fresh thinking and innovative solutions with creative approaches to job performance. Lastly, individualized consideration involves leaders attending to their followers' thoughts, recognizing their achievements, and addressing their improvement needs (Bass and Avolio, 1994).

Several scientific research articles confirmed that transformational leadership significantly influences productivity levels, subordinate satisfaction, creativity, goal achievement, and follower well-being (Eisenbeiß and Boerner, 2013). As López-Zafra *et al.* (2008) observed, transformational leadership promotes an emotional intelligence level while endorsing leaders' development in cohesive groups, stimulating morale, motivation,

and ethical standards. Transformational leadership is renowned for its innovative, productive, and supportive nature (Paracha *et al.*, 2012).

While transformational leadership is often regarded as the positive extreme of the leadership spectrum, acknowledging its negative aspects can provide valuable insights for researchers seeking to enhance this leadership model and devise new structures (Yukl, 1999). Transformational leadership lacks clarity regarding the link between its effects and processes. Clarification between the model and its outcomes requires a more explicit narrative that validates how each dimension interacts and its impact on the organization's performance (Yukl, 2012). Additionally, while the influence of transformational leadership on individual followers is well explained, its influence on group or organizational processes is not clearly defined (Yukl, 1999). Stevens *et al.* (1995) also noted the uncertainty under which transformational leadership may be unfavorable or harmful, and such uncertainty tends to favor top management, shareholders, and other stakeholders, potentially leading to bias within the organization.

2.2.2.5 Authentic Leadership

It is in the aftermath of transformational leadership that AL emerges. Partially sharing some of the characteristics of transformational leadership, such as confidence, optimism, cognitive flexibility, high moral character, authentic leaders' vision, articulation, and sensitivity to the environment, and some other characteristics of charismatic leadership, such as ethical concerns, AL stands out due to its distinctive features. In the following chapters, these idiosyncratic features are fully detailed.

2.2.3 Authenticity

The concept of authenticity is not a recent development - its roots trace back to ancient Greek philosophy, encapsulated in the principle of knowing yourself (Gardner *et al.*, 2011). The term "*authentic*" finds its origin in the Greek word "*authento*," signifying having total power – a concept that refers to individuals controlling their surroundings (Kernis and Goldman, 2006). However, this concept began gaining prominence and being more developed in the second half of the 20th century. Maslow, a humanistic psychologist, stands out when it comes to understanding the construct of authenticity, as he focused his attention on the development of individuals who are in balance with their nature and who see themselves with clarity and accuracy (Erickson, 1995).

Similar to the concept of leadership, multiple definitions of authenticity can also be found in literature - below, in Table 2, some definitions from several renowned authors are highlighted.

In all these different definitions, it can be concluded that authenticity is based on transmitting what you think, being true, expressing your feelings, and demonstrating your emotions. For this to happen, the individual's actions and behaviors must be congruent in transmitting and reflecting these same values and principles. Individuals with principles of authenticity align their behaviors and actions with their internal values and beliefs (Harvey *et al.*, 2006). Identically, Avolio and Gardner (2005) consider that a leader's authenticity is based on self-awareness, self-acceptance, self-knowledge, faith, actions, and relationships, privileging and promoting authentic relationships with those led based on transparency, trust, integrity, and high moral standards.

Table 2 - Definitions of Authenticity

Authors:	Definitions:
Trilling (2009)	Transparency to yourself and for others - conversely, inauthenticity is hiding not only from others but from yourself.
Erickson's (1995)	Portrayed not as a fixed state but as a flexible, context-dependent notion that leaders can embrace according to circumstance (the individual is not entirely authentic or inauthentic).
Harter <i>et al.</i> (2002)	A combination of personal experiences, thoughts, emotions, needs, desires, or beliefs is needed to know yourself and behave according to your true self while expressing your thoughts and beliefs.
Kernis (2003)	A group of actions based on your true being and nature, based on your values, feelings, preferences, and needs. It does not happen when an individual does not express their true being and acts to please others or, even worse when they aim for a reward or want to avoid punishment (authenticity requires the embodiment of the genuine self rather than opting to conform to others' expectations or, worse yet, when actions are driven by the pursuit of rewards or the fear of punishment).
Avolio <i>et al.</i> (2004)	Knowing yourself, accepting yourself, and remaining true to yourself. The state that authenticity is the individual's tendency to act, or not, based on their values, which are present in individual behaviors and postures.

Besen <i>et al.</i> , (2017)	The personal experiences that someone has, whether they are thoughts, emotions, needs, desires, preferences, or beliefs, are the processes captured so that the individual knows himself.
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Source: Adapted from the literature review.

Authenticity involves the individual's personal experiences, such as thoughts, beliefs, values, and emotions, but also actions and behavior per their "*true self*", where they express what they really think and what they truly believe and behave according to what they defend, believe, and express (Gardner *et al.*, 2020). Authenticity reflects the extent to which the individual is true to themselves, that is, the extent of agreement between the true self and the behaviors exhibited by the self (Gardner *et al.*, 2011). Kernis (2003) argues that authenticity comprises the consistent practice of the four critical behaviors mentioned in Table 3.

Table 3 - Authenticity Components

Authenticity components:	
Self-awareness	The notion and recognition of your strengths, as well as your weaknesses, emotions, and values;
Impartial processing of information	Objective acceptance of the attributes of each element;
Authentic behavior	Acting according to your true self;
Relational authenticity	Entailment and promotion of openness and honesty in relationships.

Source: Adapted from Kernis (2003).

Considering that authenticity is the primary characteristic of an authentic leader, it is therefore essential to analyze the concept of an authentic leader, which is often confused with the concept of authenticity itself.

2.2.4 Authentic Leaders

Leading has probably never been as challenging and complex as it is today. Constant changes, new challenges, advanced technologies, and competition between markets require, more than ever, a restoration of trust, hope, optimism, and genuine relationships between all stakeholders (customers, suppliers, employees, and shareholders). The lack of authenticity among leaders triggered the development of AL, namely, cases of corruption, harmful management, and a lack of transparency. This led to global scandals and several organizations going bankrupt. Besen *et al.* (2017) argue that the role of an authentic leader cannot be overstated, as their actions and heightened awareness are instrumental. By cultivating transparent relationships, authentic leaders enable decision-making rooted in trust and commitment among their followers - these behaviors foster a sense of purpose and connection in the workplace.

Once more, no single definition of authentic leaders can be found in the scientific literature - Table 4 highlights some definitions from several renowned authors.

Table 4 - Definitions of an Authentic Leader

Authors:	Definitions:
Walumbwa <i>et al.</i> (2010)	A self-aware professional who uses balanced processing and applies relational and moral transparency.
Avolio <i>et al.</i> (2018) and Avolio <i>et al.</i> (2004)	A professional true to himself who aligns his behavior with his values and ideals. It is a professional guided by his values and his conscience, who acts according to his morality, having values that highlight collective interests in favor of his interests - a professional who stands out for his integrity and consistency. These authors characterize an authentic leader as a confident, hopeful, optimistic, resilient professional who prioritizes his followers' development - aware of the ethical and moral perspective, acts according to his beliefs and values, and transparently interacts with others.
Besen <i>et al.</i> , (2017)	A professional who applies coherence in his actions and influences followers towards proactive, ethical, and responsible behaviors while building an environment of trust and integrity, supporting knowledge management processes. This professional facilitates communication with followers and other stakeholders openly and shares critical information, perceptions, and feelings.
Shamir and Eilam-Shamir (2018)	A professional who leads by being himself, not acting according to the expectations of others, and aiming to make a difference in the organization. They are not focused on status, honor, or other personal rewards but rather on putting the organization's and his team's goals first.

George (2022)	A high-integrity professional committed to building lasting organizations, with a deep sense of purpose, and faithful to his values. A professional who considers the needs of all interested parties recognizes the importance of their work for society and is passionate about their causes and the values that guide their personal life, which are the same ones that guide their life.
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Source: Adapted from the literature review.

Despite these different definitions, in all of them, the moral and positive values of the leader are highlighted, whether individually, in relation to the leader, or globally, in relation to the organization as a whole. As summarized by Shamir and Eilam-Shamir (2018), authentic leaders are professionals who have the following four attributes, highlighted in Table 5.

Table 5 - Authentic Leader's Attributes

Core attributes of authentic leaders	1. They do not need to use the term leader to define themselves, as they think about themselves as leaders and perform this role constantly, not just when working.
	2. They have achieved a high level of self-resolution or clarity of their own self-concept.
	3. Their objectives are self-consistent.
	4. Their behavior and attitudes are self-expressive.

Source: Adapted from Shamir and Eilam-Shamir (2018).

2.2.5 Authentic Leadership Theory

AL emerges in a context in which organizations urge leaders to act honestly, with transparency, and respect. As Besen *et al.* (2017) highlighted, the need to achieve objectives, as well as the growth and development of organizations, remains unchanged, so the perspective of AL becomes increasingly important, so that organizations can respond and be prepared for changes and difficulties that arise at a global level. Re-establishing trust, hope, and optimism in the face of critical situations and supporting people in their search for meaning based on authenticity are at the core of AL theory (Avolio and Gardner, 2005).

Numerous corporate scandals, harmful and dishonest management, and the significant social challenges that public and private organizations face in contemporary times have contributed to the focus on authenticity and AL (Jensen and Luthans, 2006). Kernis and Goldman (2006) documented a series of mental and behavioral processes that explain how individuals discover and construct a sense of perception and how these perceptions are maintained in different situations and over time. Amongst these perceptions, the following stand out: authentic functioning, understanding of followers, openness to objectively recognize self-assessment of desirable and undesirable aspects, actions, and orientation towards interpersonal relationships. All these topics are, no doubt, linked to the concept of authenticity, encompassing the following main key components: self-awareness, relational transparency, balanced processing, and internalized moral perspective (dimensionality further detailed in the next chapters). This analysis of authenticity provided the theoretical foundation for structuring the AL theory (Walumbwa *et al.*, 2008). As mentioned by Jensen and Luthans (2006), the concept of authenticity has

recently been integrated into leadership reflections and theories, driven by the lack of principles, such as transparency, consistency, integrity, and balance in leadership attitudes. Since then, authenticity has intersected with concepts relating to leadership, ethics, and transparent and positive behaviors.

AL can be described as a process designed based on positive psychological capabilities, which promotes self-awareness and self-regulated positive behavior from both leaders and followers, fostering positive self-development (Gardner *et al.*, 2005). Or, as argued by Avolio *et al.* (2018), AL takes into account the actions of the leader and his followers, where transparency and the leader's objectives guide the followers' development. From a more strict perspective, an authentic leader is an original person, true to himself, motivated, and guided by values and convictions of authenticity (Shamir and Eilam-Shamir, 2018).

An authentic leader commits to a behavioral pattern characterized by openness and transparency in the relationship with his followers, shares information intending to make decisions, accepts the opinions of others, and promotes their values, motives, and feelings so that their followers can evaluate, with greater precision, the competence and morality of their actions (Avolio *et al.*, 2009). An authentic leader seeks to be transparent towards his followers and the organization, neglecting his own interests in terms of the collective and common good, thus exposing to others his desire to understand his own leadership with the purpose of serving them more effectively. Shannon *et al.* (2020) also defend that AL translates into an articulated process of the leader's capabilities in a highly developed organizational context, arguing that internal strengths, visibility, credibility, dedication to

shared projects, the embodiment of values and principles, courage, humility, and respect for others are essential to lead authentically.

There is, in fact, evidence that, at the individual leader level, AL is effective in promoting human enterprise and achieving positive and lasting results in organizations (George *et al.*, 2007). AL encompasses a group of positive psychological capabilities of employees' trust, hope, positive emotions, optimism, resilience, and creativity (Walumbwa *et al.*, 2008). Authentic leaders can increase followers' commitment, motivation, satisfaction, and involvement, thus improving work results and performance through creating personal and social identification with the leaders. According to Luthans and Avolio (2003), authentic leaders recognize and promote individual differences while having the ability to identify people's talents and help them transform them into strengths. By acting authentically and observing ethical standards, leaders can re-establish trust in business and leadership, thus promoting the development of their organizations, their members, and the community. When leaders know themselves and act according to their true values, beliefs, and strengths while helping others do the same, they more easily achieve levels of employee well-being in the organization, positively impacting their performance.

Authentic leaders are themselves. They do not conform nor compete with the expectations of others, being portrayed as having self-knowledge and personal points of view, which reflect the clarity of their own values and convictions acquired through lived experiences, emotions experienced, and a whole process of reflection on them. For Bennis (2009), leadership without their own perspectives and without their own points of view is not leadership. This does not mean that it should be different from the point of view of

others who have or have had that position, but it is essential that it is personal in the sense that it has developed from personal experiences, personal reflection, and personal learning. Authentic leaders do not falsify their leadership - they do not lead to achieving status, honor, or any other personal rewards (Shamir and Eilam-Shamir, 2018). AL is not imitative but original and genuine, based on values and convictions. For these authors, authentic leaders do not pretend to be leaders only because they are just in a leadership position - it is part of them. It does not mean that they are necessarily unique or very different from others. However, the process through which they arrive at their beliefs is not a process of imitation.

However, AL is more than just the authenticity of the leaders - it also encompasses authentic relationships with followers, characterized by transparency, openness, trust, orientation towards clear goals, and an emphasis on the development of followers. Walumbwa *et al.* (2010) described AL as a pattern of leader behavior that supports and promotes positive psychological capabilities and a positive ethical climate, leading to greater self-awareness, transparency, balanced processing, and morality.

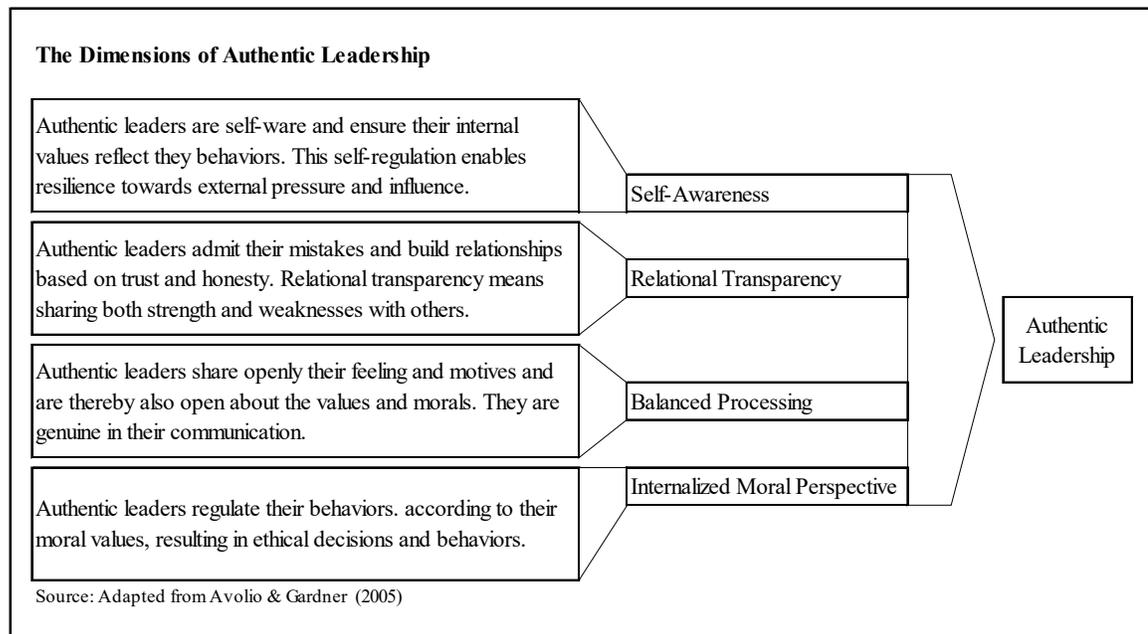
2.2.6 The Dimensionality of Authentic Leadership

The multi-dimensionality of AL is well explored in scientific research - while early studies have identified self-awareness and self-regulation as the foundational components of this construct (Gardner *et al.*, 2005), later research identified the self-regulation aspect, which encompasses internalized regulation, balanced information processing, relational transparency, and authentic behavior. Gardner *et al.* (2005) model, as the basis of the AL theory, drew significant inspiration from Kernis (2003) authenticity concept and Ryan and

Deci (2000) self-determination theory. Gardner *et al.* (2005) proposed that internalized regulation and authentic behavior are conceptually equivalent, thus combining these two dimensions to form the internalized moral perspective. They suggested that AL has four main dimensions: self-awareness, balanced processing, relational transparency, and internalized moral perspective, which are characterized and described below.

In this sense, AL is a multidimensional process composed of self-awareness, relational transparency, balanced processing, and internalized moral perspective (Ilies *et al.*, 2005), as illustrated in Figure 3.

Figure 3 - The Dimension of Authentic Leadership



However, it is important to highlight that, as Avolio *et al.* (2009) mentioned, these four dimensions can only provide validity to AL if and when considered together rather than individually for each of the dimensions. When taken in sync, these four dimensions

enable leaders to be better prepared to overcome the challenges and obstacles they face throughout their performance (Jensen and Luthans, 2006).

2.2.6.1 Self-Awareness

Self-awareness is the first distinctive characteristic of AL, and it concerns how the leader sees himself over time and is aware of his impact on others Kernis (2003). Authentic leaders know and understand their strengths and weaknesses and can observe their effect on others (Walumbwa *et al.*, 2011). Self-awareness is a process by which a person can reflect on their values, identity, emotions, goals, knowledge, talent, or capabilities, often triggered by external circumstances (Gardner *et al.*, 2020). Mayer *et al.* (2002) advocate that self-awareness of thoughts, values, and motives encompasses awareness of emotions.

Therefore, as clearly identified by George *et al.* (2017), self-awareness of one's values is a prerequisite for authenticity and AL. As Kernis (2003) states, self-awareness, including clarity and certainty of self-knowledge, is an essential determinant of psychological well-being. It is expected that the self-awareness of authentic leaders is reflected in high levels of clarity and self-confidence (Gardner *et al.*, 2005).

Followers tend to view leaders with higher self-awareness as more authentic (Northouse, 2021), possessing the ability to clearly communicate their attributes, principles, standards, aspirations, and weaknesses to their followers. This transparency allows for a mutually flowing interaction in which an equal involvement is possible, enabling greater reliance upon and familiarity within the bond. When such perceptions are in balance with a significant amount of congruence between each entity involved's attributes, principles, standards, and aspirations, there is a possibility for greater reliance

upon and familiarity within the bond, which can ultimately create intimate bonding in the long term.

AL followers possess distinct attributes that set them apart from other leadership models. For instance, while transformational and ethical leadership may emphasize morals, they often do not incorporate self-awareness into their frameworks (Brown *et al.*, 2020). Additionally, charismatic leaders are adept at inspiring followers to rally behind a vision through socialization, self-awareness, and moral focus (Bass and Steidlmeier, 1999). Numerous studies have demonstrated the correlation between self-awareness and leadership effectiveness, highlighting the significance of self-awareness in advancing to leadership positions (Church, 1997).

Self-awareness allows leaders to effectively articulate their attributes, values, and principles in front of their subordinates, even if such subordinates hold leadership roles at different ranks within their organization. Such communication allows for the flow of the leader's authenticity within their organizational environment. Such openness includes representing the leader's strength and accepting and openly declaring their weaknesses, thus fostering an intimate and trustworthy connection with their followers. Researchers have also verified and identified the positive impacts of self-awareness on both organizational effectiveness and efficiency in attaining organizational objectives (Gardner *et al.*, 2020).

2.2.6.2 Relational Transparency

Transparency has gained increased importance for leaders who seek to promote a culture of sincerity in organizations. In this sense, trust and transparency are two

interconnected concepts. For Walumbwa *et al.* (2012), the leader must present himself authentically and transparently to generate a feeling of trust among everyone. According to Kernis (2003), behaving authentically means acting in harmony with one's values, preferences, and needs, not acting in an attempt to meet other individuals, obtain rewards, or evade punishment. Transparency creates a trusting environment by openly communicating information, opinions, and thoughts, and not expressing unsuitable or destructive emotions. Relational transparency entails openly and honestly presenting one's true self to others. As referred by Kernis (2003), this disposition is contingent upon an individual's inclination to share their core feelings, motives, and inclinations with others suitably, thus rendering transparency a form of self-regulation.

Gardner *et al.* (2020) argue that this dimension of AL also involves the presentation of someone genuine, as opposed to a fake self, creating bonds based on intimacy and trust, and encouraging followers to have the same behavior. The need for transparency is essential to the development of AL (Luthans and Avolio, 2003). Authentic leaders express their true feelings and emotions to their followers transparently, which can help their followers to have positive feelings towards them.

Tapara (2011) highlighted that the concept of relational transparency stands in contrast to impression management, which involves manipulating others' perceptions to make a favorable impression. Unlike transformational and charismatic leaders, authentic leaders don't solely rely on words to inspire or lead, as charismatic leaders often do through impression management (Gardner and Avolio, 1998). Instead of just words, authentically reflect the character, attitude, and thoughts, distinguishing leaders within the AL framework. Avolio and Gardner (2005) assert that due to authentic leaders' authentic

approach, followers also tend to become authentic, as their genuine demeanor attracts others towards authenticity. Gardner *et al.* (2005) stated that authentic relationships are characterized by openness, trust, transparency, and guidance toward worthy objectives while emphasizing the follower's development.

In its essence, relational transparency is an approach characterized by openness and honesty towards others, allowing them to perceive both their leaders' positive and negative aspects. By becoming acquainted with their leaders' limitations, values, principles, beliefs, perspectives, and ways of understanding, followers, as referred to by Kernis (2003), are expected to demonstrate increased participation, creativity, and innovation within the organization.

2.2.6.3 Balanced Processing

Balance processing is the third of the four dimensions of AL, and it refers to a self-regulated process in which leaders aim to examine all pertinent information before deciding (Gardner *et al.*, 2020). Authentic leaders should consider various points of view even if they may conflict with their own opinions (Walumbwa *et al.*, 2008). As Avolio and Gardner (2005) claim, authentic leaders must impartially collect all information, always being able to take the opinions and assessments of other people into account, granting them this opportunity to express their points of view.

Authentic leaders do not deny, distort, exaggerate, or disregard their private knowledge, internal experiences, and externally derived evaluative information (Kernis, 2003). They are equally receptive to both positive and negative interpretations of themselves, and their leadership approach to balanced processing, often regarded as the

heart of personal integrity and character, profoundly shapes leaders' decision-making processes and strategic actions (Ilies *et al.*, 2005).

According to Northouse (2021), leaders who exhibit balanced processing can analyze others' viewpoints reasonably and objectively while remaining open about their perspectives, thus embodying AL qualities. Although confronting opposing viewpoints may challenge a leader's established stance, such diversity of perspectives can also enhance and enrich decision-making processes (Walumbwa *et al.*, 2008). Gardner *et al.* (2005) also define balanced processing as collecting information and comprehending both the positive and negative aspects of oneself, stimulating personal development.

This third dimension of AL is not so much a behavioral pattern characterized by an impartial approach that requires leaders to refrain from favoritism toward any particular standpoint (Northouse, 2021). Leaders exhibiting balanced processing should be ready to encounter unfavorable information or differing opinions, as they should not discriminate among their followers based on their values, opinions, viewpoints, or any other characteristics. Even such dissenting opinions or information could prove beneficial to the leader.

2.2.6.4 Internalized Moral Perspective

The last key element constituting AL is the internalized moral perspective. According to May *et al.* (2003), AL involves moral and ethical conduct (morality), which is transferred to all levels of the organization. Thus, the internal moral perspective concerns the internal moral/ethical standards that guide the leader and are used to self-regulate their behavior based on values and ethics, to the detriment of organizational and social pressures.

An internal moral perspective relates to an internalized and integrated form of self-regulation where your decisions and behaviors are consistent with such values (Avolio and Gardner, 2005). Therefore, leaders are expected to exhibit high moral standards for steering organizations toward actions within legal, rational, and ethical frameworks. Luthans and Avolio (2003) observed that leaders of corporations embroiled in scandals and financial collapses often lacked these essential attributes. Moral and ethical considerations constitute distinctive features of the AL model compared to others. However, there exists a risk wherein a leader, particularly a charismatic one, might prioritize their values, solely seeking their self-interests rather than those of others. In contrast, an authentic leader operates in the best interests of others, as they are aware of their leadership roles and follow the highest moral standards (Sparrowe, 2005).

According to this dimension of AL, Leaders use moral and ethical standards as their guiding principles and remain steadfast in their attitude despite external influences (Tapara, 2011). Authentic leaders notably possess these attributes and prioritize the welfare of others compared to other leadership models (May *et al.*, 2003).

2.2.7 Authentic Leadership Definitions

Table 6 highlights several definitions from renowned authors on AL. Over these two decades of prolific scientific research, one common factor can be observed in all these definitions of AL - there is no leadership without followers. In this sense, AL postulates that it is essential to harmonize values between leaders and followers. As mentioned in the analysis of the AL dimensions, leaders seek contributions from followers, which will further contribute to a positive social exchange, improving the quality and frequency of

leader and follower interactions (Hsiung, 2012). Consistent evidence linking AL to the exchange between leaders and followers (in a positive correlation) can be found in the scientific literature (Xiong *et al.*, 2016).

Table 6 - Definition of Authentic Leadership

Authors:	Definitions:
Avolio <i>et al.</i> (2004)	AL is a process based on positive psychological capabilities that promote improved awareness and positive behavior on the part of leaders and followers, thus fostering positive self-development.
Treviño and Brown (2005)	AL follows an internalized moral perspective, making followers view their leaders as coherent and principled decision-makers, which promotes positive social exchange.
Avolio and Gardner (2005)	AL takes into account the actions of the leader and his followers, where transparency and the objectives of the former guide the development of the latter.
Gardner <i>et al.</i> (2005)	AL is a process based on self-awareness, balanced information processing, relational transparency, and moral and ethical transparency.
Ilies <i>et al.</i> (2005)	AL promotes relational transparency among leaders, which includes openness and truthfulness in relationships, promoting and stimulating social exchange.
Walumbwa <i>et al.</i> (2008)	AL is a model of leader behavior characterized by promoting positive psychological capabilities and a positive ethical climate to stimulate greater self-awareness and moral perspective, as well as a more balanced treatment of information and transparency of relationships with their employees, promoting self-development.

Avolio <i>et al.</i> (2009)	AL is management work, which assumes a determining factor in improving organizational performance, knowing the weaknesses and strengths, being aware of the vision of the world, and being aware of the vision of others and the impact it has on those around them.
Gardner <i>et al.</i> (2011)	AL is a set of interrelated behaviors about how leaders act toward followers, make ethical decisions, and use and share information.
Gatling (2014)	AL promotes dialogue between stakeholders, allowing for more positive results for both people and organizations.
Besen <i>et al.</i> (2017)	AL encompasses authentic relationships between leaders, their followers, and other stakeholders, characterized by guidance, transparency, openness, and trust, aimed at worthy objectives and emphasizing the development of followers.
Kotzé and Nel (2017)	AL is associated with individuals seen as credible and aware of how they think and behave.
Novitasari <i>et al.</i> (2020)	AL promotes employee innovative work behavior, as well as psychological capital and employee innovative work behavior.
Bradley-Cole (2021)	AL helps illuminate the content of close, high-quality social exchanges between leader and follower.
Fu <i>et al.</i> (2022)	AL positively influences employees' behavior because it creates a solid and supportive organizational working environment, allowing them to actively take more responsibilities at work and be more engaged with the organization's goals.
Ahmad <i>et al.</i> (2023)	AL involves an interpersonal process between the leader and followers built upon three main elements: purposeful intention, spiritual connection, and sustainable legacy.

Source: Adapted from the literature review.

AL is a tool for establishing trust in the organization and for helping people on the team develop their abilities and strengths, be more positive, have more open thinking, and add value and meaning to the most critical aspects (Avolio and Gardner, 2005). These authors also highlight the importance of AL within organizations, as it helps people find meaning and commitment to work while promoting a structure and an environment that supports leaders and employees. In addition to authenticity, AL also implies the existence of relationships between the leader and his followers - relationships that are characterized by transparency, openness, and trust - that is, AL through clear objectives and with an emphasis on the development of followers (Gardner *et al.*, 2005).

Trust appears to be another of the fundamental qualities of AL, as mentioned in the definitions in Table 6. The positive combination of feelings, interests, opinions, objectives, and values in work relationships creates the identity necessary to achieve trust, manifesting harmony, congruence, adhesion, and acceptance in situations in which there is identity between the parties. In this sense, they increase expectations and the willingness to take risks. Xiong *et al.* (2016) argue that trust is a bond established between the organization and the leader, supported by credibility, reliability, and honesty. Trust is an essential criterion for maintaining the stability of any social relationship between leaders and followers, whether inside or outside organizations. As Cooper *et al.* (2005) referred to, AL is focused on principles, values of authenticity, and trust.

2.2.8 Criticisms

Like any other leadership theory, the AL model hasn't escaped criticism surrounding its theoretical foundations, practical implementation, and methodological approaches (Alvesson and Einola, 2019).

Blake *et al.* (2022) highlighted that the validity of AL theory in non-Western contexts is questionable, as the concept remains in its infancy. Ford and Harding (2011) argue that the true self at the core of the AL model is impossible and that attempting it would be destructive to their organization, as this theory does not acknowledge the leader's imperfections and subjectivity. Tenbrunsel and Messick (2004) explored the difficulties in implementing two of the dimensions of AL: self-awareness and internalized moral perspective. Self-awareness constitutes a fundamental element of the AL framework, rooted in positive organizational psychology and ethical decision-making, and associated with the notion of self-awareness, which does not explore pathological behavior. The internalized moral, which allows an ethical decision-making process, might fade with self-deception.

Although a significant number of scientific research papers sought to explain the consequences of AL, not much attention has been directed toward its boundary conditions in organizations (Munyon *et al.*, 2021). Eagly (2005) highlighted that leader who exhibit high levels of transparent articulation and actions aligned with their core values do not always attain relational authenticity with their followers. Such a relationship deficit could be attributed to the incompatibility of values between leaders and followers, stemming from reluctance to accept the leader's legitimacy. As a result, a leader can act based on

authenticity but fail to evoke the required identification for positive group and organizational results (Eagly, 2005).

Algera and Lips-Wiersma (2012) also raised several concerns about how authenticity or inauthenticity has been comprised in the theoretical context of the AL theory. These authors argue that inauthenticity is inevitable, as being authentic means forming one's understanding of meaning, which doesn't necessarily mean having aligned goals and values or being inherently ethical. According to these authors, the theory should develop a broad understanding of how an organization's members behave authentically rather than just on the leader.

Johnsen (2018) also criticized the method used to distinguish authentic leaders from inauthentic ones. According to this author, focusing just on one's values would be more suitable than assuming that ethics arise from adhering to shared values for the organization's greater good. Johnsen (2018) argues that commitment to shared values could hinder ethical behavior - some leaders engage in unethical actions not because they lack values but because they are overly attached to their own values.

According to the AL theory, Ford and Harding (2011) suggested that authentic leaders become so immersed in the organization that they lose their individuality while aiming to make followers no more than mere objects. This criticism underlines that AL does not promote a leader-follower relationship but rather a domination-suppression relationship.

Hopkins and O'Neil (2015) argued that the developed theory overlooks how AL applies to women. The authors pointed out a dual dilemma where women must choose between conforming to gender norms or fulfilling leadership behavior expectations. In

predominantly male-dominated organizations, women are pressured to fit into an environment dominated by men, perpetuating a focus on traditionally masculine leadership traits that alienate them from leadership roles.

Despite these criticisms, AL theory persists in experiencing substantial expansion in empirical investigation, and it is recognized as a positive leadership theory that can address the contemporary demands of organizations. Limited empirical research acknowledges valid alternatives to the AL model (Banks *et al.*, 2016).

2.2.9 Research Gaps

AL scientific research is still in the early stages of development. This leadership theory suggests that a leader's characteristics can influence the beliefs and productivity of the followers. If followers perceive their leaders as authentic, it is suggested that they will be willing to work harder to achieve their organizations' goals (Dirks and Ferrin, 2002). However, the literature on AL does not establish a body of findings to substantiate such theoretical propositions. The literature on AL was initially developed from practitioners' accounts of the nature and need for AL. Empirical tests of the relationships between AL and followers' performance and JS are limited (Gardner *et al.*, 2005). Little empirical research examines the mediating effects or influence process between AL and follower outcomes. This gap in research is addressed below, starting with alternative mediating processes. Previous scientific research has demonstrated that psychological capital has four primary constructs (self-efficacy/confidence, hope, optimism, and resilience), possibly mediating the relationship between AL and performance outcomes (Walumbwa *et al.*, 2011). Luthans (2002) stated that self-efficacy/confidence is the most established construct

and has a solid competitive effect. Self-efficacy represents the social capital process. Therefore, this study focused on self-efficacy as a possible mediator. There is still little empirical research on how self-efficacy affects the relationship between AL and performance.

Although there are theoretical justifications for mediating the relationship between AL and follower responses through social exchange constructs such as trust, there is little empirical research on the relationship between AL, the social exchange process, and follower performance outcomes (Gardner *et al.*, 2005). This gap in research needs to be tackled to comprehend the full impact of AL. Peus *et al.* (2012) suggested trust as a possible mediator because trust can reflect during the exchange process and is the fundamental element in social exchange theory. This study, therefore, focused on trust as a possible mediator.

Psychological safety can help employees feel comfortable making improvements and correcting mistakes in their current jobs (Harper and White, 2013). The authors claim that employees with excellent psychological safety are more likely to discuss and report errors to avoid problems because they feel safe doing so and may have higher levels of job performance. Nielsen *et al.* (2011) also highlighted that few empirical studies have tested the relationship between AL ship and psychological safety. Psychological safety is reflected in the employee's uncertainty management process. This study, therefore, focused on the influence of psychological safety as a possible mediator due to employee uncertainty management. A study conducted by Walumbwa *et al.* (2008) on MBA students found that AL positively correlated with transformational leadership and positively affected outcomes after controlling for transformational leadership. Another study in 2011 by the same

authors demonstrated that collective psychological capital and group trust promoted the connection between AL and citizenship group behavior and performance, even controlling for transformational leadership. Understanding the effects of AL after controlling for transformational leadership is essential in explaining the role of authenticity if a leader acts as a transformational leader.

There is little empirical research examining the mediating mechanisms through which AL affects employees, especially in terms of WE and JS, in the context of the pharmaceutical industry in Portugal.

2.3 Work Engagement

2.3.1 Introduction

WE is the second construct highlighted in this dissertation literature review of this study. This concept has aroused the interest of many researchers and organizations. Engagement is grounded in the notion of commitment - the term "engagement" originates from the French language (*en+gage*), signifying a commitment to oneself (Marciano, 2010). Like the AL concept, the WE construct is transversal to several scientific areas. In their research, Schaufeli *et al.* (2006) conceptualized WE as a satisfying and positive mindset regarding one's work activities, which is characterized by vitality, dedication, and absorption.

According to these authors, vitality (*vigor*) refers to high energy levels, mental resilience, availability, and the capability to devote to work activities. Dedication represents inspiration, commitment, gratification, and a sense of belonging to be a part of that organization and job. Finally, absorption regards a state of complete focus and

happiness that leads the employees to be unaware of the passage of time and to feel swept away by their tasks. In this definition, Schaufeli *et al.* (2002) highlight the importance of a pervasive and persistent engagement regarding vigor, dedication, or absorption instead of a perception focused on a particular event or short-term experiences.

Although several definitions of WE can be found in scientific literature, many authors agree that work-engaged employees have high energy levels, identify strongly with their work, are enthusiastic about it, and are often fully immersed in the work (Bakker *et al.*, 2008).

The following subchapters provide a brief historical overview of scientific literature on the WE construct, its development background, general definitions, main theoretical frameworks, and its intrinsic and symbiotic relation with the AL concept.

2.3.2 Work Engagement Framework

The normalization of the WE concept can be traced back to Kahn (1990). However, as highlighted by Adekola (2011), the employees' behaviors, needs for fulfillment, and sociodemographic characteristics have been broadly discussed in scientific research since the middle of the past century. However, until the turn of the millennium, Kahn's work stood as one of the few empirical investigations into WE. Organizations have come to understand the importance of having proactive employees who demonstrate initiative while taking responsibility and committing to high-quality performance standards (Bakker *et al.*, 2008).

One of the first approaches to this construct refers to how employees employ and express themselves physically, cognitively, emotionally, and mentally during their work

activities, obtaining better performance of their physical, cognitive, mental, and emotional capabilities. WE produces positive results at a personal level, namely personal growth and development, and at the organizational level, mainly quality of performance (Kahn, 1990).

Preliminary scientific research also demonstrated that work resources, such as social support, support from colleagues and supervisors, performance feedback, autonomy, and learning contexts, are positively associated with WE (Schaufeli and Salanova, 2007). These authors characterized work resources as the physical, social, and organizational aspects of performance, which can stimulate growth, development, personal learning, and job retention. The leadership style applied in the work context has also been identified as a constraint or catalyst of WE (Christian *et al.*, 2011).

Personal relationships based on trust and supervisory support, which promote psychological safety while balancing the workload levels, working conditions, type of control, rewards, and recognition, are identified as critical drivers influencing employees' WE (Kahn, 1990). The author also highlighted two crucial aspects of WE: first, employees' sense of safety, enabling them to be authentic and express themselves without fearing negative repercussions on their self-image, status, or career; and second, their psychological, emotional, and physical availability.

Availability presupposes an alignment between the work environment and personal capacity to invest in these functions, thus reducing the lack of resources.

Since the beginning of this century, a significant number of investigations on WE have been conducted in the scientific literature. This expansion is attributed to the growing significance of human capital within businesses and the increased interest in positive psychology within the scientific community (Schaufeli *et al.*, 2002). This author outlines

the shift in managerial practices in recent years, characterized by continuous change, permanent learning and evolution, teamwork, and diversity in the workplace.

2.3.3 Work Engagement Theories

For employees to participate actively in their jobs, there should be a level of predictability, faithfulness, and security coming from their organizational setting. These characteristics remain a base for the organization's WE environment levels, including social interaction, leadership behaviors, and organizational norms and culture. Within the scientific literature, two main groups of theories can be traced to Maslach *et al.* (2001) and Demerouti *et al.* (2001).

Maslach *et al.* (2001) proposed a job burnout model caused by the following organizational mismatches: workload, control, rewards and recognition, perceived fairness, community and social support, and values. This theoretical model assesses emotional exhaustion, depersonalization (cynicism), and reduced personal accomplishment by allowing individuals to gauge their levels of burnout across each dimension. Job burnout is nurtured by high emotional exhaustion and depersonalization scores, such as prolonged exposure to chronic workplaces and low scores on personal accomplishment, associated with role ambiguity, lack of social support, and organizational injustice (Maslach *et al.*, 2001). This model emphasizes the importance of simultaneously addressing individual and organizational factors to prevent and mitigate burnout - such initiatives should include stress management strategies, fostering supportive work environments, promoting work-life balance, and enhancing job autonomy and control.

Demerouti *et al.* (2001) introduced an alternative theoretical framework, known as the Job Demands-Resources (JD-R) model, which posits that the interplay of job demands and resources influences the manifestations of WE and burnout. These authors contend that job demands encompass the features of a position that necessitate employee physical, cognitive, or emotional exertion, exemplified by workload. In contrast, job resources pertain to factors present within the workplace environment, including leadership support, feedback, autonomy, and even individual characteristics.

This theoretical construct suggests that a greater availability of job resources in conjunction with reduced job demands corresponds to elevated levels of WE. Nonetheless, it is observed that job resources exhibit a stronger correlation with increased levels of WE, whereas job demands are more significantly associated with heightened levels of burnout.

Table 7 highlights the main definitions of WE found in scientific literature and supported by the two above-mentioned theoretical frameworks.

Table 7 - Definitions of Work Engagement

Author:	Definitions:
Kahn (1990)	Physically, cognitively, and emotionally committed employees of an organization mobilized toward achieving their common goals.
Salanova <i>et al.</i> (2000)	The motivating state associated with the work results in vigor, dedication, and absorption due to high energy levels, great mental endurance, and a strong desire for effort and persistence to carry out daily tasks while losing track of time.
Rothbard (2001)	The concept is constituted by cognitive availability, time management, and employee absorption, which translates into the intensity and focus employees apply to their work.
Harter <i>et al.</i> (2002)	A combination of cognitive emotions composed of feelings of support, individual encouragement, fulfillment, a sense of belonging, and the opportunity to continually progress and learn.
Bakker <i>et al.</i> (2008)	Positive, rewarding, affective, and emotional state related to work, characterized by vigor, dedication, and absorption, with employees displaying high energy levels and strongly identifying with your work, an antidote to job burnout.
Simbula and Guglielmi (2013)	High levels of employee involvement, whether physically, emotionally, or cognitively.

Oliveira and Rocha (2017)	Enthusiastic, inspirational, proud, and challenging spirit - display of high energy levels, mental resilience, and willingness to invest effort and persistence.
Decuyper and Schaufeli (2020)	A psychological state of commitment is associated with favorable views of life-work balance.
Junça Silva and Lopes (2023)	Affective process through which perceived organizational support decreases stress and increases performance.

Source: Adapted from the literature review.

In all the definitions, one of the most common distinct characteristics is that WE aim to be more than a momentary and specific state but rather comprises a more persistent and affective-cognitive attitude that does not target a specific objective, event, individual, or behavior. All these researchers associate WE with motivation and positive construction associated with work.

2.3.4 The Promotion of Work Engagement

The workplace culture establishes the foundation for employee engagement. According to Lockwood (2007), organizations must provide connection, contribution, and credibility to their employees to further promote WE. The relationship between leader and follower is one of the most crucial factors in taking positive steps and actions that promote WE. This author claims that leaders must promote the following leadership characteristics in order to promote WE: a strong commitment to diversity; accepting responsibility for successes and failures; demonstrating integrity in their words and actions; respecting and

caring for employees as individuals; setting realistic expectations for performance; and displaying a passion for success.

Vragel (2013) also points out that WE is mainly considered from an organization-wide perspective, without focusing on the individual relationship between leader and follower. This author claims that mass communications or broad surveys should not be prioritized over promoting efforts to initiate WE at the individual level. Leaders should build trust and provide opportunities for reinforcement, tangible paths for employees' WE.

2.3.5 Authentic Leadership and Work Engagement

Considering the extensive theoretical framework surrounding WE (for which only a small part is addressed in this dissertation study), reflecting on the different constructs and their implications for organizations and the people that constitute them is essential. At the genesis of AL, there is a critical concern about individuals, organizations, and society (Norman *et al.*, 2010). In recent years, leadership has been questioned due to the emergence of several corporate scandals, harmful and dishonest management, and the significant social challenges that public and private organizations face (Jensen and Luthans, 2006). These harmful management scandals led to the bankruptcy of several organizations, and it is essential to highlight that the lack of AL within organizations directly impacted their sustainability and led to a loss of trust in organizations on the part of the financial markets and consequently to their devaluation (Greenier and Whitehead, 2016).

The lack of trust and confidence in organizations impacts internal trust, leading to a lack of trust or confidence among employees, who will question their future and the desire to leave or remain in these organizations, directly impacting their WE (Meyer *et al.*, 2012).

However, it is not enough for the employees to have organizational trust and commitment. Employees must also be involved with their work efficiently and effectively, which translates into the organization's financial results (Ling *et al.*, 2017). In parallel, organizations also expect WE from their employees, translated by demonstrating initiative, taking responsibility, and being committed to high-quality performance standards, producing positive results at a personal and organizational level (Bakker *et al.*, 2008). This symbiotic relationship demonstrates the importance of leadership as the component that inspires employees and promotes, WE. AL and WE are two concepts that intersect in the scope of organizational behavior and management.

AL is positively related to employee trust and is related to the leader's authentic concern, gaining approval, and adopting good communication skills that foster WE (Hsieh and Wang, 2015). AL can positively impact WE by creating and fostering a positive environment where employees can feel valued, empowered, and connected to their work and organization.

2.4 Job Satisfaction

2.4.1 Introduction

JS, the third construct in this study, is a critical component of employees' physical and mental well-being and a factor of tremendous importance for organizational management (Aronson *et al.*, 2005). JS, however, is a controversial construct studied by many researchers on the subject over the past few years, without a uniform consensus over the definition of this topic.

Definitions of JS diverge due to each individual's subjective experiences in the context of its activities. Generally, JS is the result of various attitudes developed by employees, linked to specific factors, such as wages, supervision, job security, working conditions, promotion opportunities, recognition of capacity, social relations at work, quick resolution of problems, and fair treatment by employees, among others. Oshagbemi (1999) states that JS results from employees' comparison between desired, anticipated, and deserved outcomes.

Table 8 highlights a brief description of the definition of JS, which can be found in scientific literature.

Table 8 - Definitions of Job Satisfaction

Author:	Definitions:
Smith (1969)	The feelings a worker has about his job.
Locke (1976)	A pleasurable and positive feeling resulting from the appraisal of one's job experiences.
Price and Mueller (1986)	How much do individuals like their work.
Garmendia and Luna (1993)	The feeling of well-being resulting from the achievement of results (considered acceptable) obtained as a reward for the work completed.
Bravo <i>et al.</i> (1996)	An attitude or set of attitudes developed by the person in relation to their work activities.
Weiss (2002)	Evaluative affective judgment about one's job or job situation.

Newstrom (2007)	A set of favorable and unfavorable feelings through which employees perceive their work.
Spector (2010)	An indicator that provides information on how people see themselves in terms of their work, whether in total or in relation to some of its particular aspects.
Loi <i>et al.</i> (2014)	The result of the achievement of expected production levels in the organization.
Zablah <i>et al.</i> (2016)	A feeling of pleasure or discomfort felt by employees regarding their work.
Holopainen and Suslova (2019)	Employees' feelings about their work (both pleasant and unpleasant) in various aspects and processes of their activities.
Wiradendi Wolor <i>et al.</i> (2020)	Employees' emotional responses to their workplace tasks, and their physical and social conditions, demonstrating to what extent their expectations are met.

Source: Adapted from the literature review.

Despite the multiplicity of definitions, it can, however, be found in the scientific literature a consensus that JS is a globally accepted concept that refers to people's attitudes toward various aspects of their work. In broader terms, it can be stated that JS flourishes when a job aligns with employees' values, expectations, and standards (Meglino *et al.*, 1989). Shared values between leaders and employees foster mutual understanding of job roles, thus mitigating uncertainty and adverse job effects while promoting JS within organizations.

2.4.2 Job Satisfaction Framework

JS is much more than just completing tasks - it encompasses one's overall experience in the work environment. Although earlier scientific research on the matter identified JS to performance levels, subsequent studies revealed this correlation isn't always accurate - employees can be highly productive yet unhappy, or conversely, employees satisfied with their jobs can be less productive (Kafetsios *et al.*, 2012). For this reason, pursuing JS is often considered an organizational priority, serving as a benchmark for company success (Ruiz-Palomino *et al.*, 2013). As Rockstuhl *et al.* (2012) referred to, tracking JS levels across cultures, especially within similar industrial sectors or the same company, provides valuable insights.

The duty of fostering a creative and ethically-driven workplace falls on organizational leaders. According to Azanza *et al.* (2015), leaders who promote flexibility within organizations, allowing employees to communicate confidently and believe their constructive suggestions will be taken seriously, are more likely to retain committed workers. Authentic leaders mediate the relationship between workplace openness and flexibility with JS. Such flexibility enables employees to propose ideas for improvement while empowering leaders who embrace and accept those proposals. Authentic leaders utilize all available resources to maintain a competitive edge, refraining from limiting input solely to proposals from their peers (Hsiung, 2012).

2.4.3 Positive Psychology Theory

Positive psychology theory suggests optimal progress occurs when individuals concentrate on and cultivate their strengths rather than solely addressing weaknesses and

deficits (Cohrs *et al.*, 2013). The emphasis on developing relationships within positive psychology mirrors the essence of AL, while positive psychology is focused on enhancing individuals' overall life satisfaction (Cohrs *et al.*, 2013).

Positive psychology is at the core of the AL theory, promoting several advantages such as self-confidence and a positive environment (Smith *et al.*, 2012). Like AL, positive psychology includes a motivational aspect that can enhance employee JS (Walumbwa *et al.*, 2011). The development of relationships between leaders and employees, fostered by the AL theory, stems from its foundation in positive psychology (Morganson *et al.*, 2014). As Cassar and Buttigieg (2013) well described, AL draws heavily from positive psychology to emphasize positive attributes and their impact on employees.

The mental well-being of employees holds significant implications for organizations that are fully aware that market downturns and job insecurity can trigger worker anxiety (Kaplan *et al.*, 2014). Despite these external pressures, individuals can also be their own source of stress levels as they actively choose their responses to positive and negative events (Donaldson *et al.*, 2015). Kaplan *et al.* (2014) argue that implementing programs that support employees in managing workplace anxiety will positively impact JS, which in turn can influence productivity. Given the link between positive psychology and JS, it is an appropriate tool for examining how AL influences JS among employees (Donaldson *et al.*, 2015).

The emphasis on positive relationships in AL theory reflects a form of leadership rooted in positive psychology (Morganson *et al.*, 2014). Efforts to enhance JS through improved workplace relationships can also lead to higher satisfaction levels, while developing workplace wellness intervention programs, particularly those targeting

relationships and positive job aspects, can enhance functionality by boosting JS (Bolier *et al.*, 2013).

Enhancing business performance through increased productivity, product excellence, and superior customer service stands as the primary objective across organizations. Success is based on a mix of leadership qualities, organizational culture, and industry dynamics, which is an avenue to influence employees positively (Semedo *et al.*, 2016). AL, characterized by soliciting employee input and modeling ethical conduct, holds promise for enhancing workplace culture. AL is also perceived to be underpinned by ethical standards, individual dispositions, and motivations (Lyubovnikova *et al.*, 2017).

JS also captures the employee's positive and negative feelings regarding their jobs. Therefore, JS holds significance for organizations, as meeting followers' needs can elevate their JS levels, consequently enhancing the organization's performance. On the contrary, unsatisfactory working conditions may lead to job dissatisfaction and decreased employee efficiency in the organization.

2.4.4 Authentic Leadership and Job Satisfaction

Followers' JS largely depends on how they view their leaders' leadership style (Penger and Černe, 2014). For this reason, AL and JS are closely intertwined concepts in organizational performance. The AL theory emphasizes the use of character beliefs such as transparency, informed decision-making, ethical conduct, and self-awareness to enhance leader-follower relationships. Rooted in positive psychology, which focuses on building confidence, AL theory promotes positive leader-follower interactions based on ethical behaviors, consideration, and inclusivity (Cohrs *et al.*, 2013).

Transparency is a quality of a leader's willingness to openly share aspects of the organization, making them vulnerable to criticism (Norman *et al.*, 2010). Research involving supervised employees facing a potential company-wide staff reduction found that trustworthiness and transparency among colleagues and leaders were significantly linked to JS. Concerns of financial repercussions resulting from unethical conduct, which could lead to layoffs, motivated employees to prioritize transparency in their workplace (Walumbwa *et al.*, 2011).

Miao *et al.* (2013) also concluded that JS influences the trust dynamic between leader and follower, fostering a participative relationship between employees and leaders, which results in higher JS than a dictatorial leadership style. These conclusions suggest that employees prefer work environments where attributes like informed decision-making and transparency are valued and their input on company matters is welcomed. Employees perceive inclusive managers as valuing their knowledge and creativity, potentially enhancing JS levels (Miao *et al.*, 2013). The advocacy of the highest ethical standards can also boost JS. Shapira-Lishchinsky and Even-Zohar (2011) suggested formal training sessions to teach employees how to integrate ethical behavior into their routines, emphasizing its importance for organizational productivity.

An organizational culture associated with self-awareness may also contribute to increased JS by suggesting that leaders take into consideration how their actions affect their colleagues (Kell and Motowidlo, 2012).

The scientific literature suggests that implementing AL in organizations may foster respect for employees, leading to increased JS levels (Xiong *et al.*, 2016). Positive leader-follower relationships conducted in an environment where employee input is promoted,

encouraged, and valued, regardless of their position in the organization, can indeed contribute to elevated JS. As such, organizations that cultivate AL practices will most likely experience higher levels of JS, WE, and overall performance (Hsiung, 2012). When employees see leaders as authentic, they are more likely to exhibit a higher level of JS (Černe *et al.*, 2014). As Avolio *et al.* (2018) pointed out, authentic leaders create a safe space where their followers feel encouraged to pursue their goals and needs - followers feel valued and experience less fear of failure. This environment fosters self-improvement, predominantly when driven by inner motivation, leading to increased JS, as Lawler and Hall (1970) observed.

An AL style also promotes permanent and constructive feedback flow, while followers are encouraged to self-determine and internalize self-regulation. With this sponsorship of both self-awareness and self-regulation, authentic leaders have a strong sensitivity to their followers' needs and can adjust their behavior and behave empathetically (Mortier *et al.*, 2016) so these needs are fulfilled. When followers identify themselves with authentic leaders, they feel more supported, trust them more, relate to them personally, and feel empowered, which will eventually lead to increased JS, as noted by Wong and Laschinger (2013).

2.5 Theoretical Framework - Institutional Theory

2.5.1 Introduction

Not many studies have investigated how institutionalization influences and affects AL. This chapter details the theoretical framework supporting this research, based on the

IT concept, which suggests that institutional pillars such as leadership critically influence macro-level outcomes, such as WE and JS.

The IT offers insights into the behavioral leadership tendencies within organizational frameworks. The institutional structure significantly influences and molds leadership's influence in specific institutional environments. Such a transformation of social dynamics into organizational elements is fundamental to conceptualizing the IT.

IT delves into social organization's foundational and enduring aspects, representing a widely embraced theoretical framework that underscores rational myths, isomorphism, and legitimacy. It examines how structures such as schemas, rules, norms, and routines are established as authoritative standards for social conduct (Scott, 2005). Several aspects of the IT elucidate the creation, dissemination, adoption, and adaptation of these elements across time and space, as well as their eventual decline and abandonment. The IT concept is challenging to explain as it evaluates granted assumptions at the core of social action. This review aims to enhance the accessibility of IT.

Scott (2005) argues that institutions are social structures that have attained high resilience while incorporating regulative, cultural-cognitive, and normative elements that provide stability and meaning to social life, including the exercise of leadership.

2.5.2 Institutional Theory

In the scope of economics and organizational analysis, the IT has emerged mainly in response to the traditional, mainstream perspective on the economy and organizations, which is grounded in a behaviorist approach (Moll *et al.*, 2006). As it sought to establish itself as an alternative to existing paradigms, the IT became defined primarily by what it

wasn't rather than what it was (Seal and Mattimoe, 2007). This tendency to define itself in opposition also spurred the development of distinct alternative proposals, though they often shared limited common ground. The IT posits that institution, institutionalization, and institutional context significantly shape individual and organizational behavior, in contrast to other perspectives of mainstream approaches. The assertion that "institutions matter" is a fundamental assumption underlying various institutional frameworks (Moll *et al.*, 2006). Two dominant trends in the IT can be found in the scientific literature: old institutionalism and new institutionalism.

Also designated and integrated within historical institutionalism, the old institutionalism focuses on understanding how institutions shape behavior and influence outcomes within organizations and society. The research of Selznick (1996) highlights the role of leaders in infusing values into institutions, emphasizing how their actions can shape the culture and direction of an organization. This perspective recognizes that leadership is crucial in setting the tone and values that guide organizational behavior.

Stinchcombe (2013) research illustrated the mechanisms through which institutions influence individuals and organizations, emphasizing the role of constraints imposed by such institutions, suggesting that individuals and organizations are directed toward a certain conformity regarding the external pressures and norms established by these institutions. This perspective highlights the idea that institutions create boundaries and expectations that shape behaviors and decision-making processes followed by leaders. In the context of old institutionalism, issues such as influence, coalitions, and competing values are central themes affecting leadership (Becker, 2008). Like many other researchers within this framework, this author explores how power dynamics, informal structures, and

competing interests interact within institutions to shape outcomes. Understanding these dynamics is crucial for comprehending how institutions function and evolve over time.

The old institutionalism provides a lens through which to analyze the complex interplay between individuals and organizations, shedding light on how institutions shape behavior and outcomes in various contexts, including leadership.

The application of the IT in international management has primarily been shaped by a specific subset of ideas highlighted in the research on new institutionalism. DiMaggio and Powell (1983) introduced a groundbreaking perspective in organization theory, denominated as "new institutionalism", and looked for cognitive and cultural explanations of social and organizational interactions. The authors argue that organizations must adhere to the prevailing rules and belief systems within their environment to thrive and achieve success - adherence to these norms, known as institutional isomorphism, contributes to the organization's legitimacy.

Both old and new institutionalism operate under the assumption that the process of institutionalization enhances the likelihood of organizational survival but diminishes efficiency. Additionally, institutionalization leads to organizational rigidity and resistance to change, fostering isomorphism and organizational adherence to institutionalized rules and practices.

Either the old and new institutionalism presume that the institutionalization process increases the chances of survival while reducing efficiency. Institutionalization also results in organizational inflexibility and hostility to change, producing isomorphism and organizational compliance with institutionalized rules and practices.

However, the defining influence of institutional environments arises from rationalization. In these environments, organizations are governed by a complex system of rules and standards that must be adhered to in order to gain legitimacy and support. This perspective considers a collective normative framework, encompassing professional standards and joint agreements, legitimating leadership amongst other organizational interactions (Powell and DiMaggio, 2012).

Organizations conforming to societal norms gain more resources and enhance their long-term survival chances. The institutional structure of a given environment, shaped by social, economic, and political factors, offers firms advantages for undertaking particular activities within that context. Powell and DiMaggio (2012), highlighted significant evidence suggesting that organizations in diverse economic settings reply differently to similar challenges. However, organizations demonstrate greater efficiency in their process, such as the exercise of leadership, when they receive institutional support.

Scott (2005) defined the institutional mechanism as the regulative, normative, and cognitive frameworks and engagements within an organization to establish social behavior's desired stability and significance.

- The Regulative Pillar consists of formal rules, laws, policies, and compliance mechanisms that exert coercive pressure on organizational actors. This refers to the governance and compliance rules of the markets, as well as the corporate policies of each company. AL must therefore operate within a framework where behavior is constantly audited and aligned with regulatory expectations.
- The Normative Pillar involves shared values, professional standards, and moral obligations. Referring to how employees judge the morality and appropriateness of

leadership behaviors, including whether authentic expressions of vulnerability, transparency, or ethical commitment are deemed credible or naïve.

- The Cultural-Cognitive Pillar comprises taken-for-granted beliefs, symbolic systems, and mental models. It reflects how individuals cognitively frame and make sense of leadership behaviors within their institutional environment.

While operating under such mechanisms, organizations comply with the rules, regulations, and practices established in the regulatory, cognitive, and normative framework (DiMaggio and Powell, 1983). According to Jepperson (1991), institutions represent social order, exerting significant influence on the interactions among organizational actors and creating an institutional gap between them. Such a degree of institutional gap poses a significant challenge for leadership in establishing legitimacy.

In the new IT, the environment is seen as an organizational field, shaping acceptable organizational structures and actions, such as leadership. Defining these fields and their boundaries is of critical importance in assessing the impact of institutional pressures from different factors, leading organizations to react differently (Meyer and Rowan, 1977).

The following subchapters provide a brief historical overview of scientific literature on institutions, institutionalization, and the differences between institutions and institutional environments to unveil the development of the IT and its application to the leadership context. Next, a critical analysis of the theoretical framework and arguments provided by the leading institutional theorists is summarized, and finally, a review of the intersection between AL and the IT is completed.

2.5.3 Institution

Selznick (1996) defined an organization as an arrangement of individuals aiming to achieve a shared goal by allocating functions and responsibilities. The author described formal organization as the tangible manifestation of rational decision-making. This theory of organization includes ideas about leadership, cooperation, adaptive social structures, structural-functional analysis, and the concept of resistance as inherent in social actions.

Almost fifty years later, North (1990) brilliantly characterized institutions as the rules of the game in society or, more formally, as the constraints created by social actors that influence how people interact. North (1990) highlighted a critical difference between institutions and organizations, defining institutions as rules and organizations as the actors within those rules. According to the author, organizations are collections of individuals united by a shared goal to accomplish objectives, while institutions encompass any constraints that persons create (as social actors) to influence human interaction.

According to Scott (2005), institutions are social structures that have attained a high degree of resilience. Institutions consist of cultural, normative, and regulatory components, along with related activities and resources, which bring stability and significance to society. They function across various levels, from global systems to personal interactions. However, despite their stability, institutions are not immune to change. Scott (2005) suggests that institutions are subject to both gradual, incremental changes and sudden, discontinuous shifts, reflecting the dynamic nature of social systems and human behavior. Therefore, while institutions signify stability, they are also inherently dynamic and subject to evolving circumstances.

2.5.4 Institutionalisation

Institutionalization is one of the key concepts in IT, referring to the creation and reinforcement of norms, practices, and structures that shape behavior and define how individuals and groups interact within a given social, organizational, or political context. This sub-chapter reviews the main definitions (and their implications) of institutionalization by renowned authors in scientific literature.

Berger and Luckmann (1967) examined the emergence of institutionalization processes among individual actors through a historical lens, classifying institutionalization as a fundamental process that promotes the creation and sustaining of enduring social groups while defining institutions as the result of institutionalization - mutual standardization of everyday actions by different kinds of social actors. The authors delineated three approaches to institutionalization: externalization, objectivation, and internalization, which illustrate the constitution of the social world.

Meyer and Rowan (1977) also studied the formal structure and discovered that it comprises a symbolic and action generative attribute. Organizations adhere to institutionalized norms and beliefs to obtain legitimacy, resources, and advantages, ultimately leading to success and survival. The authors concluded that in organizations interacting with external entities such as the state and other institutions, their complexity tends to increase due to the need to navigate various regulatory and relational demands. In this context, organizations that prioritize conformity to rituals may do so at the expense of aligning their structures with their actual activities, leading to a disconnection between the formal structure and the operational reality within the organization.

Zucker (1977) conducted empirical research on the role of institutionalization in cultural continuity, employing an ethnomethodological approach. This author defined institutionalization as a process in which individuals transmit socially accepted realities and a property variable that is taken for granted in social reality. Through three experiments with varying levels of Institutionalization, Zucker (1977) found that the persistence of cultural understanding correlates directly with the extent of institutionalization. The level of institutionalization greatly affected three main aspects of persistence (general uniformity, maintenance, and resistance to change), depending on personal influence, organizational context, or position within the organization. The study proved the expected connection between institutionalization and cultural continuity.

Based on an empirical study on diffusion and institutionalization, Tolbert and Zucker (1983) defined institutionalization as the process by which elements of formal structure become fully and widely accepted and legitimize organizations. The authors observed that as more organizations adopted a policy, it became widely institutionalized. The research revealed that civil service procedures were adopted more rapidly when mandated by the state, while without state-level legitimation, adoption occurred gradually, primarily through social influence among cities. When a policy is widely adopted initially due to legal mandate, it eventually becomes an integral part of the organizational structure through gradual or social legitimation over time. Tolbert and Zucker (1983) found strong evidence supporting the idea that the degree of institutionalization influences an organization's policy adoption.

Zucker (1987) identified two theoretical approaches to institutionalization in organizations: environment as institution and organization as institution. The author

categorized indicators of institutionalization into three groups: those related to the institutional environment (independent variables), the degree of institutionalization (independent variables), and the consequences of the institutional process (dependent variables). The findings suggested that organizations tended to passively receive institutional knowledge, as external actors typically established rules. Moreover, many studies utilized the degree of control by the state as a measure of the degree of institutionalization.

Institutionalization is a gradual process of organizational character development over time (Selznick, 1996). The significance of organizational character and competence is based on the IT, which identifies distinctive forms, processes, strategies, perspectives, and competencies arising from organizational interaction and adaptation patterns. The research of Selznick (1996) also noted variations in the degree of institutionalization among organizations, highlighting the infusion of values as a crucial aspect. Values influence decision-making processes, interactions among members, the overall organizational culture, and leadership when deeply embedded within an organization. Therefore, the degree to which values are integrated into an organization's fabric significantly impacts its institutionalization level. Organizations prioritizing and upholding shared values are likely to exhibit a higher degree of institutionalization, while those with weaker or less coherent value systems may experience more significant variability in their institutionalization processes (Selznick, 1996).

Wiseman (2007) defined institutionalization as the process by which individuals and groups absorb and learn the rules and norms of the organization's institutions, including systems, structures, procedures, and strategy. The authors argue that institutionalizing is

the process of ensuring that routinized actions occur, which implies that there is a deliberate effort to embed knowledge at the organizational level so that it may persist and be repeated in the future with sufficient regularity so that it can be recognized as an institution of the organization.

Lin and Wang (2022), in their research on organizational commitment, institutionalization, and personal fulfillment expectations, defined it as a socialization process that allows beliefs, values, policies, and practices of an organization to be embedded within the members of that organization so that they might collectively adopt these values or rules and commit themselves to that organization. However, the institutionalization process under authoritarian discipline may cause them to lose the freedom of their soul and a personal level of self.

2.5.5 Institutional Environment

The institutional environment refers to the regulations, norms, and rules within which organizations act. It comprises a number of characteristics in the external environment that influence organizational behavior as well as decision-making.

Scott (2005) explored organizations and institutions worldwide and introduced the idea of three institutional pillars: normative, regulatory, and cultural-cognitive. According to his research, it is required for organizations seeking longevity to comply with dominant rules and belief systems in their surroundings. Organizational failure in adherence would result in problems such as stakeholder resistance or judicial consequences, ultimately threatening their longevity. Therefore, Scott (2005) argues that organizational conformity to institutional norms is essential for their sustained existence globally.

Ang *et al.* (2015) extended an investigation into institutional variation between cognitive, normative, and regulatory fields and their effect on organizations. They noted that while the IT theory can sustain diversity in institutional environments worldwide, it cannot acknowledge issues that organizations experience while acting within multiple institutional environments simultaneously.

Comprehending the institutional environment is a prerequisite for organizations while handling complexities, predicting problems, and exploiting possibilities. Compliance with regulatory needs, convergence with societal expectations, and receptiveness towards stakeholder expectations are essential for organizational legitimacy and longer sustainability (Phillips *et al.*, 2009).

The institutional environment serves as the backdrop against which organizations operate, profoundly influencing their behavior and performance (Kar *et al.*, 2015). Organizations can respond strategically, engender stakeholder confidence, and perform optimally in turbulent and dynamic environments by obtaining a detailed understanding of the institutional environment as a regulatory, normative, and socio-political actor.

2.5.6 Criticisms

Scott (1987) conducted a thorough and detailed critique of prominent institutional theoretical frameworks and arguments. The author argued that the changing interpretations of the IT among different contributors allow for further refinement and advancement of the theory itself. The research highlighted Selznick's (1996) institutional work, emphasizing institutionalization as a process of imbuing values as definitional rather than explanatory. Furthermore, the author analyzed the subsequent iteration of the institution rooted in

philosophical foundations. Scott (1987) suggests institutionalization occurs when various actors use a mutual typification of habitual actions.

DiMaggio and Powell's (1983) research used a historical approach and delineated three phases of institutionalization: externalization, objectivation, and internalization. Each of these phases corresponds to the portrayal of the social world. These authors expanded upon the foundational concepts of these theorists by applying them to organizational contexts. The authors propose the evolution of IT from the current and generally accepted focus on social processes and singular institutional environments (as proposed) into the symbolic dimensions of environments and their origins. This study identified discrepancies to aid in clarification and structured advancement.

Kondra and Hinings's (1998) research shifted the focus away from institutions to explore the diversity of organizations within an organizational field, including how organizations respond to diversity and contribute to transforming such fields. These authors initially explore the impact of IT on organizational performance. According to IT, organizations must adhere to external rules and norms to gain support and legitimacy. While this theory addresses isomorphism within organizational fields, it overlooks organizational diversity and performance. Consequently, organizational norms are heavily influenced by external values and beliefs. These authors argued that organizations within a field tend to conform to external rules primarily to enhance legitimacy and survival rather than efficiency. They introduced the concept of institutional fit, which denotes the degree to which organizations comply with institutional norms. Those with high institutional fit operate within a limited performance range dictated by these norms, while those with low fit may exhibit varying performance levels due to multiple available paths. The study

proposed four relationship categories between organizational fit and performance: dogs (low fit and performance below the institutional range), semifinalists (low fit and performance within the institutional range), renegades (low fit and performance above the institutional range), and institutional operators (high fit and performance within the range). Kondra and Hinings (1998) concluded that organizational efficiency occurs when the need for stability and certainty drives institutionalization.

Suddaby (2010) criticized the use of neo-institutional theory for organization studies. According to the author, IT fails in its fundamental perception because researchers are mainly interested in examining external influence (how an institution adopts specific practices) rather than the internal aspects (activities and behaviors within the organization). This author raised concerns about the functionality of human organization as an interpretive machinery. Researchers have been advised to look within the organizations before researching at the organizational level. Furthermore, the author identified four emerging areas of research: dating, vehicular traffic, economic activity, and art. Institutions may change to fit back into the core of the IT as it was presumed before.

2.5.7 Authentic Leadership and Institutional Theory

As referred to at the beginning of this chapter, not many studies have investigated how the institutionalization concept influences AL. However, the analysis of the two constructs allows us to determine that the relationship between AL and the IT lies in their shared focus on understanding and influencing organizational behavior.

AL emerged as a response to institutional pressures for ethical behaviors and organizational transparency (Besen *et al.*, 2017). Authentic leaders can influence

organizational culture and norms by embodying authenticity and integrity, aligning them with broader societal expectations and institutional requirements. AL is undoubtedly a mechanism for organizations to gain legitimacy and enhance their standing within institutional environments.

The IT contributes with a framework for understanding the institutional context where AL operates, such as norms, regulations, and expectations. This framework emphasizes the importance of the stakeholders' acceptance and approval of an organization's actions and practices (Phillips *et al.*, 2009). Leadership is crucial for establishing and maintaining organizational legitimacy, as leaders are often seen as representatives of the organization and are responsible for shaping its image and reputation.

Leaders can enhance their organizations' legitimacy by conveying authenticity, transparency, and ethical behavior. Through AL, leaders are in a position where they can identify and respond to institutional pressures in such a way that their behavior is aligned with society's expectations and standards.

AL and IT converge in viewing how large-scale social, cultural, and institutional forces affect leadership practices and organizational behavior. Recognizing and capitalizing on this convergence allows organizations to create leadership talent that is genuine and ethical, consistent with institutional norms, and geared towards sustained organizational success.

2.6 Summary of the Literature Review

This literature review has addressed a preliminary reflection on the theoretical foundations of this thesis's constructs: AL, WE, and JS. This research study's theoretical framework is also outlined based on the IT.

To complete the review, Table 9 highlights several scientific research papers found in this literature review, commenting on the conclusion from the authors on the relationship between the three constructs in the dissertation study: AL, WE, and JS.

Table 9 - Relationship between Authentic Leadership, Work Engagement, and Job Satisfaction

Author:	Conclusions:
Giallonardo <i>et al.</i> (2010)	This research examined the relationships between new employees' impressions of AL, WE, and JS. Analyze the antecedents for the retention of new employees and the dependence on tutors to facilitate the transition from the academic world to the job market. The authors concluded that AL partially explained WE. New employees under the guidance of mentors who demonstrate high levels of AL feel more involved in their work and are more satisfied. WE has been shown to be an essential mechanism through which AL also affects JS.
Laschinger <i>et al.</i> (2012)	This research tested a model that links AL to experiences of bullying in inexperienced employees in the workplace and, subsequently, WE and turnover. The authors concluded that AL had a direct and adverse effect on bullying, while bullying had a direct positive effect on emotional exhaustion. AL indirectly influences WE and JS by reducing bullying and emotional exhaustion. Higher levels of AL, lower levels of workplace bullying, and emotional exhaustion had direct, significant, and positive effects on Job Satisfaction, which in turn was related to lower turnover intentions.

Bamford <i>et al.</i> (2013)	This study examined the relationships between perceptions of AL by managers in six areas of employees' work-life balance: health, economic, social, professional, intellectual, and spiritual) and its relation to WE. The authors concluded that employees who work for managers who demonstrate higher levels of AL report higher levels of harmony across the six areas of work-life balance and greater WE levels.
Černe <i>et al.</i> (2014)	This study investigates the role of perceived supervisor support in cross-level relationships between AL, employee Job Satisfaction, and WE. The analysis demonstrated a positive relationship between AL, employee Job Satisfaction, and WE. The relationship between the three constructs is fully mediated by perceived supervisor support.
Azanza <i>et al.</i> (2015)	This study examined the relationship between employees' perception of AL and turnover. The results show that AL has a negative effect on turnover intention and a positive effect on employees' WE. Employees' WE partially mediated the direct relationship between AL and turnover.
Vij and Bedi (2016)	This study investigates the relationship between AL, employee WE, and organizational citizenship behaviors. The results show that AL affects WE and organizational citizenship behaviors through psychological empowerment. AL showed a significant and positive

	<p>relationship with psychological empowerment. Furthermore, the results show that psychological empowerment is positively and significantly related to WE.</p>
Jiang and Men (2017)	<p>The authors tested a model (based on the social exchange theory) examining whether AL, organizational communication, and JS are interrelated. The results provide empirical evidence confirming AL's critical role in employee WE and Job Satisfaction. This study demonstrates the positive impact of AL and transparent organizational communication on enriching employees' professional lives and their engagement with work.</p>
Oh <i>et al.</i> (2018)	<p>This paper investigated the effect of the core values on the relationship between AL and WE in a corporate environment. The results revealed that AL directly and significantly influences the practice of core values and WE. Additionally, practicing core values partially mediates the relationship between WE and AL.</p>
Goestjahjanti <i>et al.</i> (2020)	<p>This study aimed to measure the effect of AL and talent management on Job Satisfaction, which employee WE mediates. The results of this study concluded that talent management has a positive and significant effect on Job Satisfaction, both directly and indirectly, through mediating employee engagement. Meanwhile, AL has no significant effect on Job Satisfaction, both directly and indirectly, through mediating employee WE.</p>

Aboramadan <i>et al.</i> (2021)	<p>This research on the effect of AL and management capabilities proposed a model of WE as an intervening mechanism between the aforementioned links.</p> <p>The authors concluded that both AL and management capability positively affect organizational performance. Although positive, the direct effect of management capability on performance was not significant. Furthermore, WE was demonstrated to have a full mediation effect between management capability and organizational performance and a partial mediation effect between AL and organizational performance.</p>
Lindsay and Mathieson (2022)	<p>This quantitative correlational study finds that employees' perceptions of AL positively influence JS and WE, supporting the teaching of a relational leadership style in evidence-based training programs for current and future leaders.</p>
Cortés-Denia <i>et al.</i> (2023)	<p>This study compares the perception of AL in the context of public and private organizations. The authors concluded a good fit to the data in which AL affected the dimensions of JS both directly and indirectly (through WE). However, AL had a more significant positive effect on vigor at work for private organizations, whereas WE was not significantly related to the JS dimension related to legal aspects of public organizations.</p>

Source: Adapted from the literature review.

CHAPTER 3 - Institutional Context of the Pharmaceutical Industry

3.1 Introduction

The pharmaceutical industry is one of the global economy's most heavily regulated and socially charged sectors due to its central role at the nexus of scientific innovation, economic interests, and public policy. In addition to its core mission of developing and delivering products to improve human health, this industry operates under a highly structured format guided by complex networks of professional and regulatory bodies, ethical standards, and societal expectations (Schuhmacher *et al.*, 2020). Unlike sectors where competitive advantage can be primarily determined by cost or speed to market, pharmaceutical companies must align their strategies with a set of complex and often overlapping institutional requirements that influence every stage of the product life cycle, from drug discovery to post-market surveillance, as mentioned by Wouters *et al.* (2020). This combination of market forces with institutional controls has immense implications for leadership practices, specifically for the company's commercial side, wherein performance accountability and intense regulatory pressures are fully enmeshed.

According to Walsh (2010), the origins of the pharmaceutical industry have their roots in Baghdad as of AD 754, an era marked by the formation of the first apothecaries, who began their operations by developing and marketing the first products that resemble pharmaceutical products of today. These small business centers quickly spread throughout the Arab world and, later, throughout Europe. However, as is known today, the pharmaceutical industry is tightly rooted in the pioneering Swiss chemical industry. As stated by Walsh (2010), at the end of the 19th century, several companies in Switzerland,

producers of animal dyes, discovered the antiseptic properties of their products, expanding their production and sales and giving rise to future pharmaceutical companies such as Ciba-Geigy, Hoffman-La Roche, and Sandoz, amongst others.

Today's big pharmaceutical companies were founded in the late 19th and early 20th centuries. Between 1920 and 1930, essential substances such as insulin and penicillin were discovered and later manufactured and marketed massively, giving rise to powerful pharmaceutical companies founded in the United States of America and European countries such as Germany, Switzerland, Belgium, the Netherlands, Italy, and the United Kingdom.

The remarkable success of penicillin and other innovative drugs became a significant boost in the development of the pharmaceutical industry. In this context of rapid expansion, thanks to the discovery of new pharmaceutical products, the Food and Drug Administration (FDA) was created in the United States of America in the 1960s to regulate the pharmaceutical sector and limit links between this industry and prescribing doctors.

These new rules established more demanding standards for the clinical research of new drugs to be introduced onto the market. As a result, pharmaceutical companies were required to conduct thorough and systematic clinical trials to determine the safety and efficacy of a drug before its entry into the market. However, in 1980, due to the pressing need for new therapeutic agents for the treatment of coronary heart disease and acquired immunodeficiency syndrome (AIDS), the Food and Drug Administration (FDA) decided to speed up the approval of new drugs to reduce the spread of infectious illnesses. This legal framework, namely the protection of patents and specific manufacturing processes, strengthened the large pharmaceutical companies, forcing many smaller companies to close

their doors, be acquired by the big industry players, or specialize in the generics business market segment.

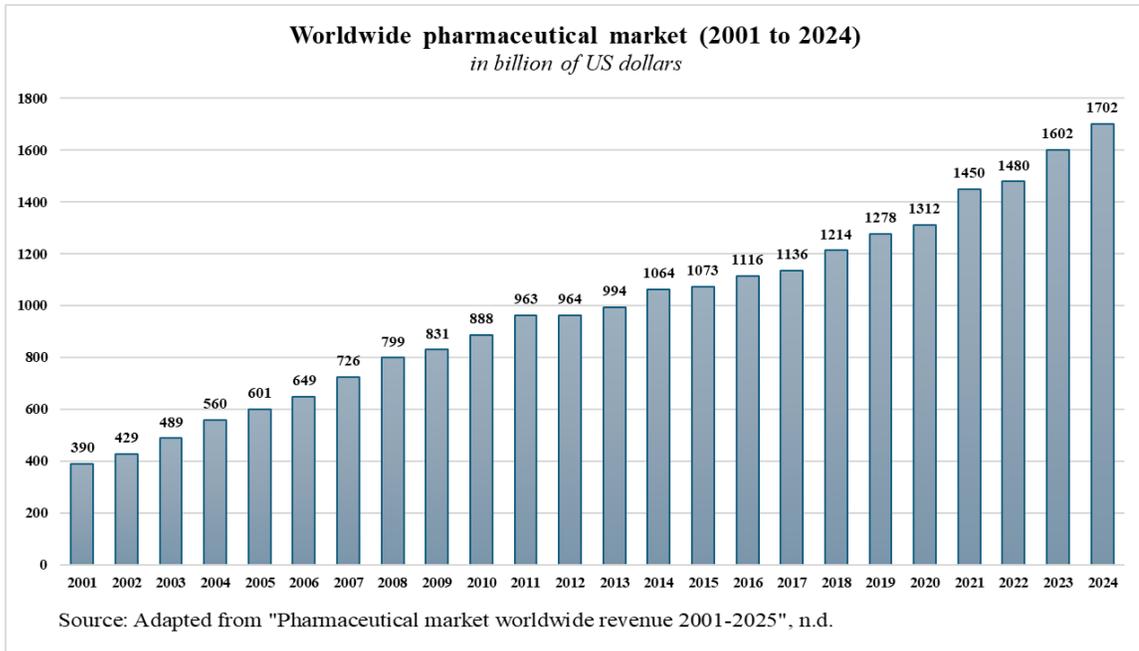
After 1990, a series of mergers and acquisitions promoted sector concentration, meaning that few companies currently hold a dominant position worldwide (Malerba and Orsenigo, 2015). Examples of this concentration are the cases of Merck, Novartis, Pfizer, Bayer, GSK, Abbott, Johnson & Johnson, Procter & Gamble, Dr. Reddys, and Ranbaxy, amongst others.

3.2 The Context of the Global Pharmaceutical Market

The pharmaceutical market is a multi-million-euro business, mainly driven by the sale of medicines. The pharmaceutical industry, which researches, develops, manufactures, and distributes medications, over the last two decades, saw a substantial market growth, with global revenues reaching 1.7 trillion US dollars in 2023, as highlighted in Figure 4. (Mikulic, 2020). For reference, this amount corresponds to Australia's gross domestic product (GDP) and is almost seven times that of Portugal in the same period ("GDP by Country - Worldometer", n.d.).

The global pharmaceutical market is composed of leading multinational drug manufacturers, which focuses in the development and marketing of innovative prescription products, such as Merck & Co. of the USA, which stands as the leading pharmaceutical company globally and has remained, for many years, one of the key players in the market with revenues of more than 64 billion US dollars for the year of 2024 alone.

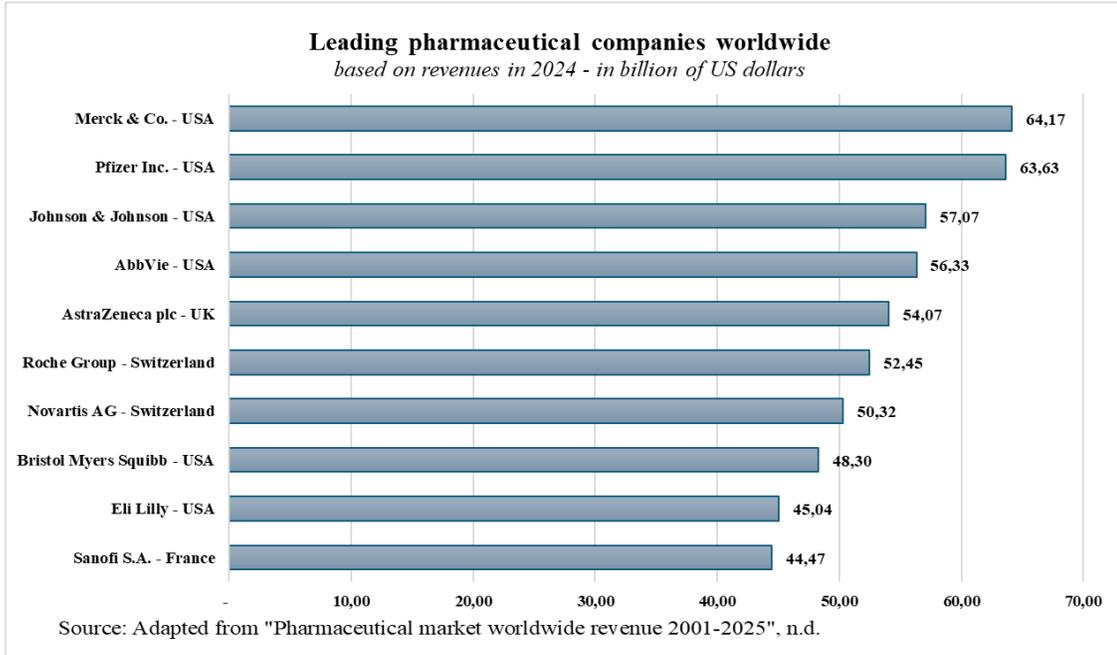
Figure 4 - Worldwide Pharmaceutical Market values from 2001 to 2024 (in billion US dollars)



As mentioned in Figure 5, the top nine companies together represented more than 31% of the total valuation of the pharmaceutical market globally ("Pharmaceutical market worldwide revenue 2001-2025", n.d.).

Most of the top pharmaceutical companies are currently based in the United States, thus making it the leading national pharmaceutical market globally. The Chinese and Brazilian pharmaceutical markets recorded remarkable annual increases in 2024 and have now emerged as key global competitors. However, North America and Europe are expected to continue their leadership as key market leaders, with key European organizations such as Novartis, Roche, AstraZeneca, and Sanofi holding central positions (Mikulic, 2020).

Figure 5 - Leading Pharmaceutical Companies Worldwide based on revenues in 2024



In 2020, the outbreak of COVID-19 underscored the extreme necessity of new therapies and vaccine development to avoid prolonged lockdowns and related crises. This pandemic propelled the pharmaceutical industry into the global spotlight, accentuating the need for fast, effective, and pragmatic solutions. Key players of the vaccine pharmaceutical market, such as GSK, Pfizer, Merck & Co., and Sanofi, found themselves under immense pressure to develop viable vaccine products. In fact, the pharmaceutical sector is driven primarily by research and development, with many companies devoting around 20% or more of their revenue to such innovation projects. New drug development is essential for long-term growth, as new brand medications substantially boost revenue streams. Carvalho and Teixeira (2010) argue that pharmaceutical companies that do not invest in research and the launch of new products and new therapies, which can provide a better quality of life to the population, are destined to disappear.

The pharmaceutical industry's mission is to promote innovation and the development of therapies that meet the needs of treatment and prevention of new pathologies and others, as well as to provide medicines that improve the population's health and quality of life. By carrying out this mission, the pharmaceutical industry defends high ethical and quality standards, social responsibility, and solidarity with the country's population (Harris, 2017).

In a competitive globalized world, organizations seek excellence by launching new products and services (or changing existing ones) through consistent strategies that pursue the maintenance or increase of their market share. The pharmaceutical industry clearly fits into this context of continuous growth (Carvalho and Teixeira, 2010). However, the pharmaceutical industry has also significantly improved the population's health and extended average life expectancy (Ferreira and André, 2022). This continuous growth trend in business can be related to two main factors. On the one hand, it is related to the shift from mature markets (such as the European market, which is decreasing its weight in the global market) to emerging markets (such as India, China, and Brazil, which have been significantly increasing their weight in the global pharmaceutical market). On the other hand, this growth is also due to the shift from primary care therapeutic classes (such as antibiotic therapy) to biotechnology and specialty treatments.

As mentioned in Figure 5, the world's top ten largest pharmaceutical companies, which account for a good part of the total market value, actively engage in research and development activities and are strongly reliant on the effectiveness and success of innovation processes (Bhattacharya *et al.*, 2005). These companies naturally use trademarks and patents to protect new drugs and new treatment discoveries and maximize

their potential profits. These profits generate the funds needed to conduct the expensive process of developing new drugs and new treatments. The research and launch of new products and therapies are at the core of the innovative pharmaceutical market business model (Saha and Bhattacharya, 2011). However, the global pharmaceutical market is not fully concentrated on innovative products. According to Manik (2023), around ten thousand pharmaceutical companies worldwide manufacture pharmaceutical products, but only two hundred are focused on pharmaceutical innovation.

The global pharmaceutical market faces several interrelated challenges that will shape its institutional environment in the coming years:

- **Pricing and Access:** Rising drug prices, particularly for specialty and orphan drugs, are prompting calls for reform, including reference pricing, compulsory licensing, and public-private partnerships to improve affordability;
- **Antimicrobial Resistance:** The overuse and misuse of antibiotics are leading to resistant pathogens, creating an urgent need for new business models to incentivize antibiotic development;
- **Digital Transformation:** The integration of artificial intelligence, real-world evidence, and digital therapeutics into the pharmaceutical value chain is raising new regulatory and ethical questions; and,
- **Sustainability:** Environmental concerns about pharmaceutical manufacturing and waste disposal are adding another layer of institutional expectations.

Each one of these challenges will require leadership approaches that can reconcile commercial objectives with the sector's complex institutional obligations.

3.3 The Pharmaceutical Market in Portugal

The Portuguese pharmaceutical industry began its development shortly after the 1890 British Ultimatum, while countries like Switzerland and Germany had already advanced in the field during the previous decades. These developments in Portugal were boosted by significant organic and analytical chemistry breakthroughs, accomplished by Laboratório Sanitas, the first pharmaceutical company established in 1898. The consistent and stable progress in chemistry enabled the creation of new drugs, and in 1927, Lisbon hosted the first national pharmacy congress, marking the industry's growing prominence. By 1930, Portuguese pharmaceuticals were being exported to Brazil, the colonies, British India, and Central Africa.

Regulation of the market began in 1940 with the establishment of a national commission for pharmaceutical oversight, and by 1957, Portugal introduced a drug authorization system, a pioneering move in Europe.

In the 1990s, the Medicines Statute regulation aligned national drug regulation on manufacturing with European standards, enhancing quality and control, and APIFARMA was founded.

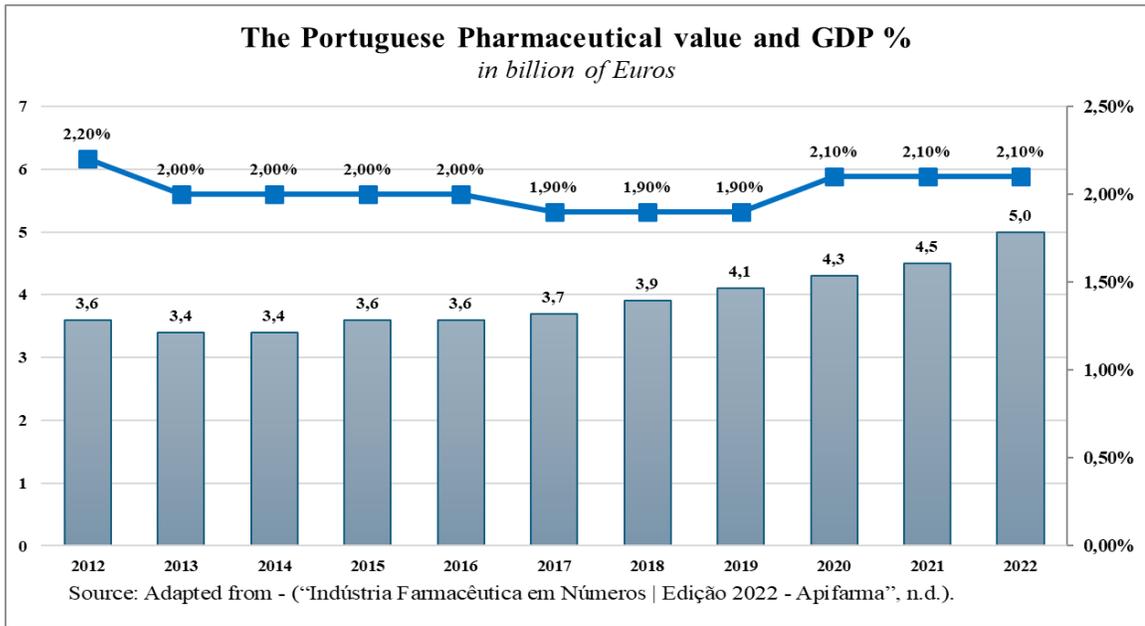
Based on the World Health Organization bill, the Portuguese Health System provides all citizens living in the country a constitutional guarantee of free access to healthcare services. The pharmaceutical industry's role is critical in ensuring this constitutional right and allowing pharmaceutical products access to the population.

Presently, like in many other countries around the world, the pharmaceutical industry in Portugal is heavily exposed to government control through the National Health System, its primary customer (Proença, 1993). These pharmaceutical market regulations

aim to balance the constitutional right to healthcare with the need to maintain the financial sustainability of public expenditure on medicines. The Portuguese Government, while regulating and implementing ways to reduce medication costs, has also designated, in 2019, the pharmaceutical industry as a strategic business segment for the country's economy.

According to APIFARMA, the total Portuguese national market accounts for approximately 5,1 billion euros in 2022, which has become one of the drivers of the overall GDP growth (“Indústria Farmacêutica em Números | Edição 2022 - Apifarma”, n.d.). As highlighted in Figure 6, in 2022, the pharmaceutical market represented 2% of the country's total GDP.

Figure 6 - The Portuguese Pharmaceutical value and GDP %



With a population of over 10.3 million inhabitants, the Portuguese market size attracts pharmaceutical companies, with sales teams playing a crucial role in gaining market share for products, especially new launches of therapeutic innovation, but also in

the introduction of generic products (“Indústria Farmacêutica em Números | Edição 2022 - Apifarma”, n.d.).

While in recent years, Portugal has experienced a significant improvement in overall health conditions, new challenges continue to surface with diseases such as AIDS, tuberculosis, hepatitis C, and, more recently, COVID-19. The Portuguese pharmaceutical industry has been instrumental in managing these disease surges and epidemics. The introduction of new drugs, combined with increasing technological sophistication and an almost unlimited belief, on the part of both users and professionals, in promoting technological advances which are directly linked to the quality and safety of diagnosis and the effectiveness of such therapies, has increased average life expectancy, but also represented a dramatic increase in health care costs for the Portuguese Government.

Portugal's pharmaceutical market is segmented into two markets according to mode of dispensing: the outpatient market, consisting of prescription and non-prescription drugs procured outside of the hospital environment, and the hospital market, consisting of drugs dispensed at the point of use by central hospitals. Institutionally, Portugal's market model is regulated by a multi-level regulatory system. At the supranational level, the EMA's directives and the European Commission's regulations establish drug approval and approval procedures, pharmacovigilance, and clinical trial regulation. At the national level, the Portuguese National Authority for Medicines and Health Products (INFARMED) regulates pricing, reimbursement, and promotion compliance. Under this dual system, Portugal achieves EU-wide harmonization of its internal regulatory system and calibration with its public health priorities at the domestic level. Compliance thereby achieves not just legal status as an expectation at best, but organizational legitimacy at its core.

In 2022, the outpatient segment generated expenses of 2,6 billion euros and the hospital segment generated 1,2 billion euros. The pharmaceutical market of Portugal in the same year contained 116 pharmaceutical companies and employed over one hundred and fifty thousand pharmaceutical professionals, respectively (“Indústria Farmacêutica em Números | Edição 2022 - Apifarma”, n.d.).

The organic expansion of existing companies largely drove the growth in the Portuguese pharmaceutical market, as the number of firms has remained stable. This growth is primarily the result of investments in facility expansion, portfolio diversification, and technological advancement. As a result, the pharmaceutical industry faces increasing pressure to meet ongoing growth demands.

In addition, the sector plays a vital role in national research and innovation. In 2022, the pharmaceutical industry was responsible for 8.2% of all business-sector investment in research and development, underscoring its strategic importance within Portugal's broader innovation strategy. Between 2010 and 2020, this research and development investment grew at a compound annual growth rate of 5.7%, more than double the EU average for the same period (“Indústria Farmacêutica em Números | Edição 2022 - Apifarma”, n.d.). This consistent growth in R&D expenditure reflects the sector's ongoing commitment to developing new therapeutic solutions and improving the efficacy and safety of existing treatments.

This ongoing and sustainable growth requires pharmaceutical companies to have continuous access to skilled professional experts so that innovation can be promoted, regulations adhered to, and the rising complexity of research and development, as well as manufacturing procedures, can be handled.

3.4 The Role of the Sales Forces

Communicating is clearly seen as an intrinsic need for human beings to integrate into their family, friends, daily life, school, and professional environment. Communication is the key to developing a healthy relationship with others, and it is at the center of every relationship since it can be considered the art of understanding and making oneself understood. According to Houman Andersen (2001), communication is the human act of transferring a message between interlocutors so that it is understood and given meaning. In commercial terms, communications should be strategically planned in a context aiming at a specific purpose or outcome.

In the context of the pharmaceutical industry, due to the business's complexity and the different types of audiences and relationships, the communication process is structured differently from other business sectors. Pharmaceutical companies cannot limit themselves to simply promoting their products - they need to build trust among healthcare providers, patients, and the wider public, who are increasingly informed and aware of healthcare services.

Communication is, therefore, a particularly important tool in structuring, managing, and building customer loyalty (doctors, pharmacists, distributors, and patients). Pharmaceutical companies' sales teams analyze their target audiences and consumers to develop strategic communication with a specific objective that will lead to the desired response, aligned with a solid and trustworthy relationship.

Salesforces are one of the primary communication links between an organization and its customers, and the performance of these teams is a critical factor in organizational success. The sales team represents the company to its customers and advocates for

customer needs within the organization, keeping the company informed about evolving customer expectations (Panagopoulos and Avlonitis, 2010). To achieve these communication goals, while the characteristics of pharmaceutical sales teams may seem similar to those of salespeople in other industries, it's essential to recognize that promoting prescription drugs requires specific qualifications. This means having a professional profile that distinctly sets them apart from sales representatives of other industries.

Given the strong link between sales teams' WE and JS with motivation and productivity, as Christian *et al.* (2011) identified, the impact of team performance on organizational success is essential.

To get a prescription from a doctor or an order from a pharmacist, pharmaceutical representatives must consider customers' specific needs. By highlighting their products' benefits and differences, they adjust their modes of communication to minimize errors and achieve their goals (Ikeda, 2002). Both doctors and pharmacists are informed stakeholders, making it crucial for sales representatives to have thorough and responsible communication training (Ikeda and Crescitelli, 2002). Because of the crucial relationships and positioning that the sales team of pharmaceutical companies holds with healthcare professionals, they must possess a strong command of technical and scientific knowledge relevant to their therapeutic area.

Over the years, several authors examined the dynamics created by these sales representatives, serving both the pharmaceutical industry, which employs them, and the liaisons with doctors, hospitals, pharmacies, and other stakeholders in their operating regions. Table 10 highlights some of these scientific research articles.

Table 10 - The intermediary role of the pharmaceutical sales forces

Authors:	Definitions:
Thomson <i>et al.</i> (1994)	In a study conducted in New Zealand, the author concluded that while pharmaceutical industry sales representatives are essential for marketing and serve as a critical source of information for doctors, providing them with independent and unbiased information and tools to support clinical practices in the country.
Prosser <i>et al.</i> (2003)	The author examined why general practitioners in England engage with pharmaceutical representatives despite the known commercial bias in the information presented. The doctors participating in this study acknowledged that representatives provide legitimate and timely updates on new developments related to their medications.
Anderson <i>et al.</i> (2009)	The author analyzed responses from 251 questionnaires completed by healthcare professionals. The primary question asked was, "Are medical information representatives a relevant source of information for health professionals to learn more about a new drug?". While approximately 70% of physicians indicated that they view these representatives as a source of information when evaluating new drugs, 25% of respondents reported that they rely on them "almost always or always."
Alkhateeb <i>et al.</i> (2011)	Given that pharmaceutical sales representatives have been shown to influence physicians' prescribing patterns, the author recommends that the certification of these professionals may

	<p>become essential, or even mandatory, to help ensure that prescribing practices are not adversely affected by disseminating inaccurate information. Therefore, ensuring that pharmaceutical sales representatives are well-certified can improve patient health outcomes.</p>
Gidwani (2018)	<p>A study involving 55 doctors in India concluded that pharmaceutical sales representatives create awareness of the product they are promoting and convince doctors about the benefits of their brand.</p>
Barbaroux <i>et al.</i> (2022)	<p>The author analyzed the complex relationship between general practitioners and medical representatives in France, in this study. While doctors often held unfavorable views of the pharmaceutical industry, their interactions with sales teams were generally positive and constructive. The study concluded that this relationship is based on the doctors' need for ongoing education, with representatives providing quick, concise, and targeted information on key points. Sales representatives serve as an initial source of information, prompting doctors to pursue further, more in-depth research on the topics introduced.</p>
Bosson <i>et al.</i> (2023)	<p>These authors completed a study in 595 pharmacies in France to conclude that pharmacists are supported by information included in handbooks, often provided by pharmaceutical companies' sales representatives.</p>
Jalilova (2024)	<p>The authors of this study emphasize the pivotal role that pharmaceutical sales teams play in bridging manufacturers and</p>

	healthcare professionals, thus facilitating timely access to essential medications and positively impacting patient outcomes.
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Source: Adapted from the literature review.

All these studies clearly show how important pharmaceutical sales teams are to doctors and pharmacists, and how essential it is for them to be well-trained and knowledgeable about medicines, diseases, and the requirements of healthcare professionals in providing patient care. The activity of the pharmaceutical companies' sales teams is responsible for the rapid dissemination of information regarding clinical trial results on a given drug's safety and efficacy profile, sharing the characteristics of medicines, which are often subject to prescription and can save lives (Azoulay, 2002).

Wong and Laschinger (2013) investigated the presence of adaptive behavior among sales professionals in the pharmaceutical industry to conclude that in the commercial activity of such a complex type of product, such as medicines, there must be a high level of WE on the part of the sales force. Also, Schwartz (2007) identified a positive relationship between the perception of motivation and JS, while motivation is also related to the performance of these workers and the levels of WE.

According to Shekha Halvadia and Halvadia and Singh (2018), it is possible to conclude that the capacity of sales representatives to drive revenue growth through acquiring new customers and strengthening relationships with existing ones enhances the competitive advantage of pharmaceutical companies in the market. Therefore, recognizing the critical competencies of medical representatives is crucial for improving their

performance and motivation. Table 11 details the ten critical competencies identified by these authors.

Table 11 - Definitions of constructs for Sales Representatives' competencies

Competencies	Definitions:
Performance	Sales representatives must be able to manage their individual outcomes and results effectively, enabling them to proactively and continuously enhance sales processes.
Technology	Sales representatives need competencies to effectively select, implement, and manage information technology and other technologies relevant to the sales process, products, or industry.
Learning	Sales representatives need to acquire industry knowledge, product expertise, and selling skills while staying updated on market trends and shifts in customer relationships.
Relationship	Sales representatives need competencies to identify, establish, and maintain essential business relationships both within the company and with external partners.
Leadership	Competence needed for sales representatives to achieve their goals, manage themselves effectively, uphold a positive mindset, and lead others.
Customer Management	Skills essential for sales representatives to align with customer buying processes, systems, and needs while enabling their organization to fulfill the commitments of the business relationship.
Communication	Skills needed for sales representatives to effectively listen, communicate, persuade, ask questions, and write according to

	professional business standards, all while advocating for the selling company's interests.
Administrative	Competence is necessary for sales representatives to manage corporate systems, follow company policies and procedures, meet reporting and tracking requirements, and perform other supportive tasks to help achieve sales objectives.
Selling	Skills needed for a sales representative to identify, engage, advance, close, and maintain sales opportunities.
Time management	Competence needed for a sales representative to optimize time by effectively scheduling, prioritizing, and allocating it to achieve sales growth.

Source: Adapted from Halvadia and Singh (2018).

Sales representatives are also a major asset to pharmaceutical companies because of their importance in contacting doctors and implementing company strategies. These teams represent a considerable investment for many companies (Morelli and Braganza, 2012).

Despite pharmaceutical sales representatives' central role in connecting the industry and healthcare professionals, precise information on their presence in Portugal remains very limited, and granular workforce statistics are not to be found. Although national associations, such as APIFARMA, have not disclosed the specific number of sales representatives, this subset of total employment in the sector is estimated to be around three thousand professionals. This estimation includes primary care representatives, specialty sales representatives, hospital representatives, medical device and diagnostic sales

representatives, pharmacy key-account representatives, and over-the-counter sales representatives, directly employed by the pharmaceutical companies or outsourced from contract sales organizations or specialized companies.

In Portugal, the activity of pharmaceutical sales representatives is subject to strict regulatory oversight, based on both national legislation and professional codes of conduct from their own companies. APIFARMA Code of Ethics for Promotional Practices, initially adopted in 2004 and aligned with the ethical standards of the European Federation of Pharmaceutical Industries and Associations (EFPIA), establishes the ethical principles and rules governing the promotion of prescription-only medicines to healthcare professionals, ensuring transparency, scientific accuracy, and integrity in all interactions between pharmaceutical companies and the medical community. INFARMED monitors and enforces these regulations.

The evolving regulatory landscape governing the activity of pharmaceutical sales representatives reflects a broader commitment to promoting transparency, safeguarding public trust, and ensuring that pharmaceutical promotion aligns with public health priorities and evidence-based practice.

Leadership within sales teams must therefore operate at the intersection of performance management and institutional compliance. AL, with its emphasis on relational transparency, ethical orientation, and balanced processing, aligns closely with the demands of this environment. Leaders who embody authenticity can cultivate higher levels of WE and JS, even under the constraints of institutional rules. However, as the IT reminds us, such leadership must be embedded within, and validated by, the broader institutional context to be sustainable and impactful (Suddaby *et al.*, 2017).

3.5 Institutional Theory and Leadership in the Pharmaceutical Salesforce

As noted in the previous chapters, the IT is relevant for this research based on its ability to explain how leadership practices acquire legitimacy and how external and internal pressures mold them. The regulatory mechanisms in a pharma sales environment impose boundaries for acceptable behavior, normative forces define appropriate ethical behavior expectations, and cultural-cognitive forces influence stakeholder and employee perceptions of authenticity. Professionals whose practices do not align with such institutional forces risk jeopardizing confidence, reducing participation, and deterring performance. It takes forces beyond leader behavior to create AL. Organizational systems and processes that support transparency, employee voice, and ethical decision-making are not a mere complement but mandatory. Over time, these practices could become embedded in organizational routines and norms, achieving what the IT describes as “taken-for-grantedness” (Scott, 2008). This institutionalization process is central to this study, evaluating whether AL can be systematically embedded within organizations.

By mapping this environment, this subchapter lays the foundation for understanding how AL interacts with institutional norms to influence WE and JS, within the theoretical scope of the IT, thus ensuring leadership is not studied in a vacuum but rather as a practice situated within social and institutional settings.

The sales forces are an essential component of the pharmaceutical value chain, primarily the key contact between companies and the healthcare sector. The Portuguese pharmaceutical marketplace is sharply characterized by regulatory frameworks, compliance structures, industry self-regulation, and deeply rooted cultural expectations regarding healthcare provision. Salesforces operate as more than simple transactional

brokers. They operate in a very institutionalized setting where their legitimacy, influence, and effectiveness are framed by those regulative, normative, and cultural-cognitive attributes that define the sector's institutional logic (Scott, 2005). This embeddedness profoundly affects their operational methods and the leadership approaches required to sustain high engagement and satisfaction levels among sales professionals.

From a regulatory standpoint, salesforces in Portugal are governed by a multilayered web of legislation, directives, and supervisory regimes. All promotional activity directed at healthcare professionals is subject to national laws and EU-wide regulations enforced by INFARMED, and molded by the EMA's regulatory framework. This means that sales representatives cannot rely on a persuasive marketing narrative alone, since authorized product information must corroborate all such claims. Pharmaceutical sales leaders are thus presented with a governance environment in which leadership attributes such as authenticity, openness, and ethical congruence cease to be synonymous with effective attributes but become demanding operational requirements. AL paradigm is specifically congruent with such expectations since leaders marked by coherence between proclaimed values and everyday practice instill a climate of adherence and belief within their groups (Walumbwa *et al.*, 2008).

The normative pillar of the Portuguese pharmaceutical sales environment is reinforced by the codes of ethics developed by APIFARMA and its alignment with the EU framework. For the salesforce, these norms redefine the traditional notion of selling. Success in this environment depends less on persuasive charisma and more on the ability to cultivate long-term, trust-based relationships with other healthcare professionals. Sales teams play a pivotal role in modeling this behavior, setting the tone for how ethical

boundaries are observed in practice. Within the AL paradigm, relational transparency, open communication about intentions, constraints, and mutual expectations, becomes a critical enabler of normative compliance. Leaders who embody this quality help sales professionals navigate the fine line between advocacy for their products and the maintenance of professional integrity.

The cultural-cognitive dimension adds further depth to the role of the salesforce in Portugal. The national healthcare culture, developed over decades of service to universal coverage through the Portuguese National Health Care System (SNS), instills strong societal beliefs that access to medicines is a shared entitlement and pharmaceutical businesses have a social responsibility for public health. Sales representatives are evaluated based on their ability to activate prescription volume and effectiveness in upholding patient-centricity, openness, and contribution to society. Such professionals inevitably face a complicated motivation setting because strategies for motivation need to support financial rewards and inherent satisfaction, which sales professionals gain in furthering public health missions. Avolio and Gardner (2005) referred those authentic leaders excel in such contexts because they articulate a vision that integrates individual, organizational, and societal objectives, enhancing both WE and JS.

Operationally, the sales force in Portugal is highly skilled and knowledge-intensive. Sales representatives undergo rigorous training, not only in product science but also in compliance protocols, competitive intelligence, and health economics. Sales representatives are subjected to in-depth training encompassing not only scientific aspects of the product but also adherence to compliance protocol, competitive pressures, and health economics principles. There is a requirement for a strong level of proficiency in

communicating appropriately based on the institutional focus for each stakeholder. Such a consultative method necessitates expertise in interpersonal skills, proficiency in clinical and economic information analysis, and self-discipline in strict compliance settings. Leadership is a highlighted component in this regard. Effective leaders foster an organizational setting whereby knowledge sharing, lifelong learning, and ethical vigilance become daily habits in a manner that mitigates compliance risk that may result in pressure-cooker sales environments while maintaining a workforce inspired.

Changes in healthcare delivery and pharmaceutical promotion further blur the institutional role of the salesforce. Shifts towards value-based care, digital engagement platforms' advancements, and the adoption of multidisciplinary treatment decision-making frameworks have significantly decreased conventional face-to-face detailing in environments like hospital settings, where access limitations are a norm. Due to such issues, salesforces increasingly utilize hybrid engagement models involving virtual detailing, remote educational webinars, and information-backed targeting complementary to in-person visits. Such evolutions require adaptability not only in terms of technical skills but also in terms of leadership styles. AL's balanced processing dimension, entailing consideration of diverse perspectives before making decisions, is especially relevant when allocating a few access opportunities in the face of competing demands.

WE and JS in the Portuguese pharmaceutical sales forces are strongly tied to the above institutional environment. Significant compliance requirements, limited promotional freedom, and variable access conditions for the market might cause stress and burnout unless offset by strong leadership and a strong sense of direction. AL is in a position to overcome such problems by fostering a condition of psychological safety so team members

can raise their issues without fear of comeback, linking daily tasks to a broader mission attuned to values, and thus helping professionals find meaning in their jobs beyond simple quarter sales targets, while their motivation remains even when external constraints limit their strategic options.

The institutionalization of AL in Portuguese pharmaceutical salesforces holds great promise, as much as it offers significant challenges. As styles in individual leadership vary, incorporating authentic behavior in such facets as recruitment standards, training initiatives, performance appraisals, and succession strategies would literally entwine such behaviors in the very essence of the organization. Gradually, such an institutionalization would strengthen perceived legitimacy in the salesforce, not merely in the eyes of regulators and healthcare professionals but even within employees themselves, thus fostering a self-sustaining cycle defined by engagement, satisfaction, and ethical behavior. Such an occurrence is indicative of the concepts in the IT, which hold that such applications in practice for strategic benefits can gradually convert into internalized behaviors within an organizational setting in virtue of repeated use and formalization (Tolbert and Zucker, 1996).

CHAPTER 4 - Conceptual Model

4.1 Introduction

The conceptual model for this study is designed to capture the complex relationships between leadership behavior, employee outcomes, and institutional context in Portugal's highly regulated and socially significant pharmaceutical sector. The model departs from leadership research that more commonly relies on individual-level psychological frameworks, such as the Job Demands-Resources (JD-R) model or Self-Determination Theory (STD), and instead grounds its logic in the IT. This approach is both a theoretical choice and a methodological commitment: the survey instrument used in this research is built on an IT-based measurement scale, and the Portuguese pharmaceutical salesforce operates in one of the most institutionally dense environments in the European labor market.

As mentioned in the previous chapters, the IT emphasizes that organizations, and the individuals within them, operate under the combined influence of regulative, normative, and cultural-cognitive pillars. In the Portuguese pharmaceutical market, these pillars are not abstract constructs but daily operational realities. Both national and European legislation clearly define acceptable, legitimate, and expected behavior for salesforces.

In this context, the central proposition of the model suggests that AL not only complies with regulatory pressures but also benefits from them. Adhering to regulations is compatible with AL, enhances ethical behavior, and corresponds with organizational culture, hence developing greater WE and JS among salesforce members. Moreover, with

the consistent expression of such behaviors, leaders can potentially spread AL practices and instill them into organizational culture to ensure their long-term presence.

4.2 Proposed Model of the Research

The proposed conceptual research model argues that when AL is applied to all four dimensions, WE and JS are enhanced, and such practices can be institutionalized over time.

Figure 7 - Institutional Framework

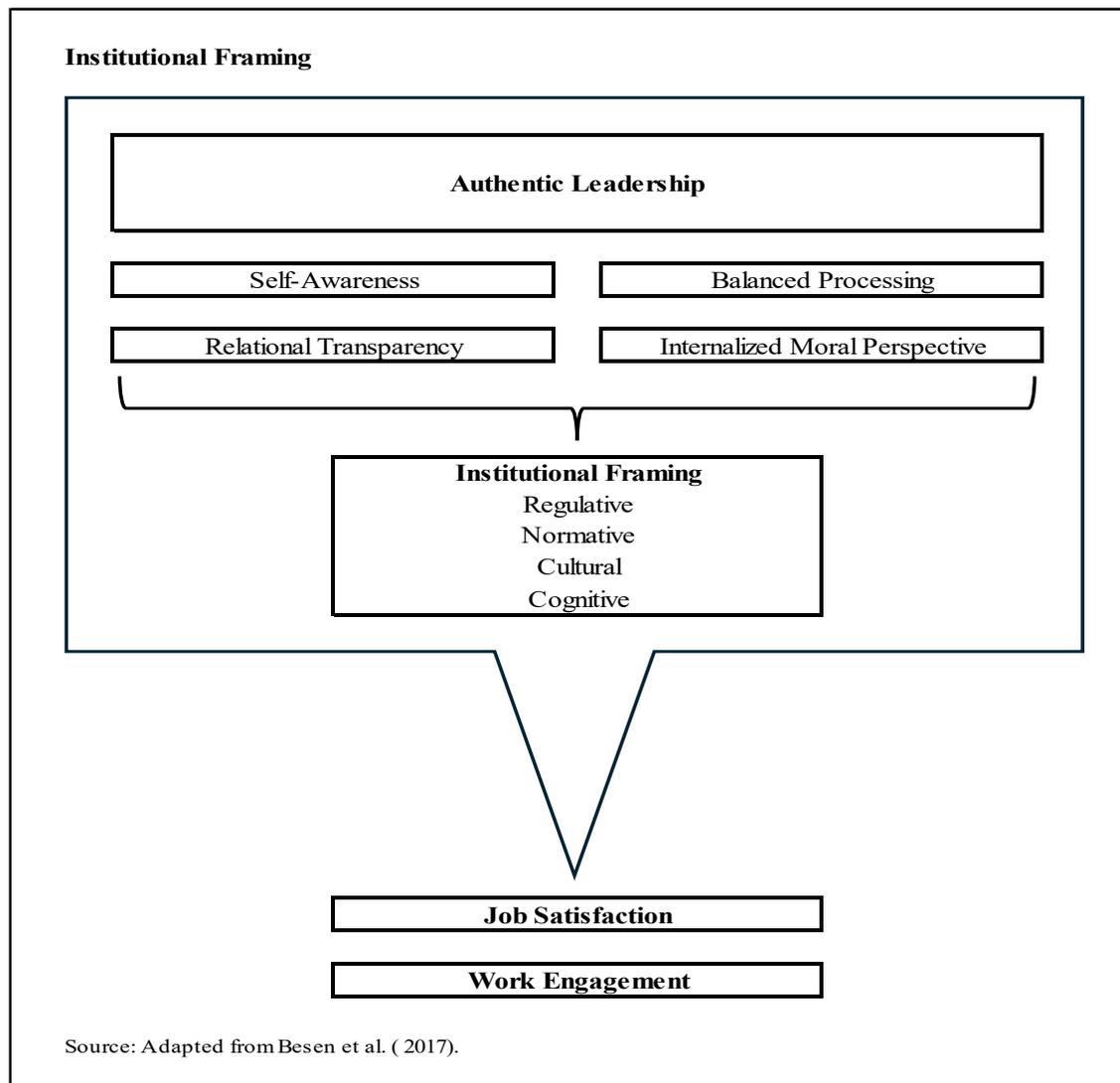


Figure 7 illustrates this study's institutional framing- the IT moderator effect on the relationship between AL, WE, and JS. AL practice understands and is influenced by the dynamics of the institutional context while strategically leveraging its influence on WE and JS.

The following subchapters will address the proposed conceptual model, which relates all the constructs included in this research. They will also address the empirical study and the respective methodological options to assess the results obtained in the context of the pharmaceutical industry in Portugal.

4.3 Research Questions and Hypotheses

With the intent of achieving the main objectives of this research, four major research questions have been formulated for guidance. Obtaining information to answer these questions will allow the achievement of the main research objective, as stated in the previous chapters. Those questions are as follows:

- **RQ1 - How does Authentic Leadership (AL) influence Work Engagement (WE) and Job Satisfaction (JS)?** This question attempts to determine the extent to which those qualities associated with AL are also associated with higher employee WE and JS. While prior research provides rationale for such an association with varied organizational environments, existing literature extends this knowledge further with regard specifically to the pharmaceutical salesforce, framed with professional values, competitive environments, and regulatory pressures, which inform these findings.
- **RQ2 - What role do institutional norms and values play in shaping the impact of Authentic Leadership (AL) on employee outcomes?** This question addresses the

macro-structural influences that mediate leadership effectiveness. The IT suggests that leaders' behavior achieves lasting legitimacy only when it adheres to prevailing institutional logics of legal regulations, normative values, and dominant cognitive schemes. In the context of pharmaceutical sales, which involves ethics, regulatory efficacy, and performance output coming together, the central focus will continue to be on identifying how these institutional bases strengthen, conceal, or weaken perceived effects of AL.

- **RQ3 - Are Authentic Leadership (AL) practices related to tenure and Employment Contract Type?** This question aims to determine if AL practices are shaped by employee tenure and contract type. Long-tenured and permanent employees often respond more positively to AL due to deeper trust and stronger organizational ties. In contrast, newer or temporary staff may perceive AL as less impactful if they feel excluded from long-term decisions. The reply to this question helps clarify whether these factors moderate how AL influences engagement, trust, and performance.

- **RQ4 - Are Authentic Leadership (AL) practices institutionalized in pharmaceutical sales organizations?** Beyond episodic leadership influence, this question investigates the long-term integration of AL as a formal and informal organizational norm. This question probes whether AL can transition from a leader-specific behavior to an enduring organizational capability that is structurally embedded and culturally sustained within the Portuguese pharmaceutical context.

These questions reflect a multi-level interest and guide analyses and robustness checks, ensuring that findings are nuanced and sensitive to heterogeneity in the sample:

RQ1 explores the direct psychological pathway, RQ2 examines contextual contingencies, and RQ4 investigates organizational embedding as a mechanism for enduring legitimacy.

For each one of these research questions, a set of validation hypotheses has been formulated and tested in order to support and substantiate the replies and corresponding conclusions.

For RQ1:

- **H1: AL practices are positively and significantly associated with WE among pharmaceutical salesforces in Portugal.** This hypothesis reflects the substantial body of research linking AL to motivational outcomes. In a compliance-intensive field, engagement is expected to rise when leaders are perceived as transparent, ethical, and evidence-driven, because such leaders reduce uncertainty and role stress.
- **H2: AL practices are positively and significantly associated with JS among pharmaceutical salesforces in Portugal.** AL behaviors are theorized to improve satisfaction by fostering psychological safety, fair treatment, and value congruence. Employees who trust their leaders are more likely to feel content with their roles, even when navigating strict regulatory frameworks.

For RQ2:

- **H3: Institutional norms and values positively moderate the relationship between AL and WE, such that the relationship is stronger when institutional alignment is high.** When employees perceive those organizational practices conform to APIFARMA codes and INFARMED rules, they are more receptive to leadership influence. High institutional alignment amplifies AL's credibility, strengthening its motivational impact.

- **H4: Institutional norms and values positively moderate the relationship between AL and JS, such that the relationship is stronger when institutional alignment is high.** Just as with engagement, satisfaction is expected to be highest where leaders operate within a clear and ethically coherent institutional environment, reinforcing trust and reducing moral ambiguity.

For RQ3:

- **H5: AL practices are related to the time spent working as a pharmaceutical salesforce in Portugal.** AL practices are influenced by tenure in pharmaceutical sales. Longer-serving employees may better recognize and respond to AL due to deeper organizational familiarity.
- **H6: AL practices are related to the Employment Contract Type.** AL practices vary by Employment Contract Type. Permanent staff are more likely to perceive AL positively, while temporary employees may experience it differently due to limited organizational integration.

For RQ4:

- **H7: AL practices become institutionalized over time, sustaining WE and JS outcomes.** This hypothesis reflects the assumption that AL has enduring effects when it becomes embedded in organizational systems - through policies, training, appraisal criteria, and symbolic reinforcement. Mediation analysis will test whether part of AL's impact is indirect, flowing through this routinization process.
- **H8: Compliance intensity moderates the mediating effect of institutionalization, such that the mediation is stronger under conditions of high compliance intensity (moderated-mediation).** This hypothesis operationalizes RQ3's

temporal and structural dimension. Under strict regulatory oversight, firms are more incentivized to formalize AL consistent behaviors, making institutionalization more potent as a pathway from leadership behavior to outcomes.

These hypotheses have been tested using interview and survey data instruments, and conclusions have been highlighted in the following chapters.

4.4 Contextualizing the Model to the Portuguese Pharmaceutical Salesforce

The Portuguese pharmaceutical sector provides a rich institutional context for testing the conceptual model. The salesforce operates within a tightly regulated environment overseen by INFARMED, under the influence of the EMA's policy, and within a market culture that prizes ethical conduct and societal contribution. This context creates a unique set of leadership challenges, as leaders will have to ensure compliance without stifling motivation, sustain robust performance with due regard for ethical limits, and digital flexibility without sacrificing one-on-one interaction with healthcare professionals.

Under this specific paradigm, AL stands as a leadership model that simultaneously inspires and harmonizes. Its transparency and ethical orientation fit the compliance demands, while its relational depth and vision alignment meet employees' intrinsic needs for purpose and belonging. The IT suggests that alignment of leadership with institutional pillars leads to the growth of legitimacy and performance improvements, which form the key hypothesis under focus in this research.

This research also recognizes that leadership influences do not always carry across professional practice environments or from professional fields. Pharmaceutical salesforces

are usually under intense pressure from professional ethics standards observance and from professional mandatory access needs of physicians and quarterly performance requirements (Pereira *et al.*, 2021). In this situation, it will be necessary to ensure the effectiveness of AL and establish if its positive impact on worker performance has long-term durability.

By focusing on this specific context, the study acknowledges that leadership influence is not universally transferable across sectors or occupational domains. Pharmaceutical sales teams often work under high-stress conditions, driven by quarterly targets, physician access restrictions, and pressure to maintain professional credibility (Pereira *et al.*, 2021). These conditions make it imperative to investigate whether and how AL can function effectively, and whether its positive impact on employee outcomes can be sustained over time. The institutional framing adopted here allows this study to go beyond conventional psychological approaches to leadership and assess how institutional structures enable or constrain the diffusion and institutionalization of AL behaviors.

4.5 Theoretical Contributions and Practical Implications of the Model

This conceptual model aims to contribute to both leadership and IT literature in three key ways.

- First, it situates AL within a highly institutionalized market context, demonstrating that leadership effectiveness is contingent on institutional alignment. This extends AL research beyond psychological and motivational models into the IT territory.
- Second, it conceptualizes institutional norms and values not merely as background conditions but as active moderators that shape leadership-outcome relationships.

- Third, it introduces the notion of the institutionalization of leadership styles, proposing that consistent alignment between leader behavior and institutional expectations can transform individual practices into collective norms.

For pharmaceutical companies in Portugal, the model could suggest that recruiting, developing, and retaining leaders with authentic qualities is beneficial for employee outcomes and maintaining institutional legitimacy. Organizations can gradually institutionalize these practices by embedding AL into training programs, performance metrics, and succession planning. This strengthens WE and JS and mitigates compliance breaches, reputational damage, or leadership turnover risks.

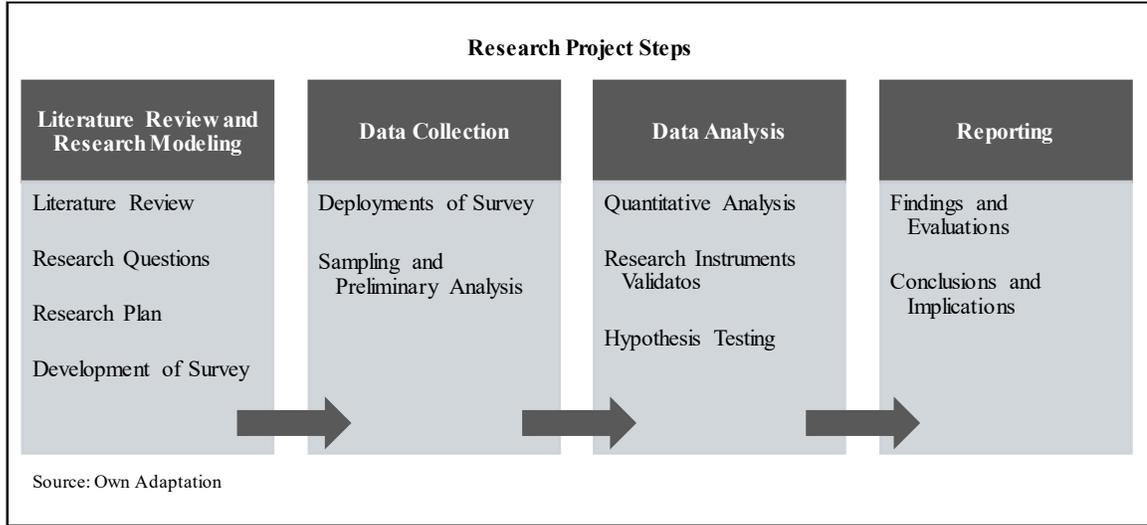
This underscores the importance of integrating compliance and ethics into motivational strategies for salesforce leaders. Rather than viewing institutional constraints as obstacles, leaders can frame them as shared values that enhance the legitimacy of their work and deepen employee commitment.

4.6 Research Phases Outline

The skeleton of this entire research is structured in Figure 8, which outlines the process of the defined stages of the research. The study was undertaken in four sequential stages.

First, a comprehensive literature review was conducted to critically examine existing theories, models, and empirical evidence relevant to the research problem. This phase also involved the development of a conceptual framework to guide the investigation, the operationalization of key variables, and the identification of knowledge gaps warranting further exploration.

Figure 8 - Research Project Steps



Second, data collection was carried out using rigorously designed survey and sampling procedures to ensure the validity, reliability, and representativeness of the information obtained.

Third, the data analysis stage entailed the systematic organization, processing, and examination of the dataset through appropriate statistical or qualitative analytical techniques, with the aim of identifying significant patterns, relationships, and trends, as well as testing hypotheses derived from the conceptual model.

Finally, the reporting phase synthesized the findings into a coherent, well-structured account, integrating results with theoretical and empirical insights, and formulating conclusions and recommendations for practice, policy, and future research.

Chapter 5 - Research Methodology

5.1 Introduction

The methodological choices of this research are not merely procedural steps, but instead represent the philosophical, theoretical, and practical commitments that give coherence to the study. As mentioned above, one of the main objectives of this dissertation is to examine the impact of AL on WE and JS within the salesforce of pharmaceutical companies operating in Portugal, particularly emphasizing the role of institutional norms and values as articulated within the IT. The methodology outlined in this chapter reflects the need to address these complex and interrelated constructs in a highly regulated, competitive, and culturally embedded industry.

The pharmaceutical industry in Portugal offers a unique setting for this type of research. The industry matches the high expectations of performance typical of sales-driven business with the strict ethical and regulatory standards that oversee healthcare. Pharmaceutical sales representatives work at the juncture of corporate goals, relationships with healthcare professionals, and overall public health responsibilities. Their performance is affected by leadership styles and formal and informal rules that regulate acceptable behavior.

The underlying philosophical base of this study is that of post-positivism, which recognizes the existence of an objective reality and, at the same time, holds that our means of understanding this reality are flawed and contingent on human interpretation. Post-positivism maintains the positivist commitment to systematic observation, empirical exploration, and testing of hypotheses, and doing so with recognition of the fallibility inherent in the current knowledge claims (Phillips and Burbules, 2000). This view has

particular application for this study of psychological and social constructs considered herein, as such constructs are not immediately perceptible as objective facts, yet can be understood via validated questionnaires alone.

Causality is interpreted as probabilistic rather than deterministic through this methodological choice of a post-positivist perspective. For example, AL is hypothesized to increase WE and JS, but the strength and even the direction of this influence may depend on contextual moderators, such as the degree to which leadership behaviors align with institutional norms. This aligns with the IT's contention that organizational behavior is contingent upon the institutional context in which it occurs.

5.2 Research Design

This research design is a structural blueprint for systematically exploring and answering research questions. In this dissertation, the research design bridges the theoretical propositions of the IT and the empirical realities of the Portuguese pharmaceutical salesforce. It delineates the logic for collecting, analyzing, and interpreting data to ensure validity, reliability, and relevance to the research objectives.

This study employs a quantitative, explanatory, cross-sectional research design, utilizing a structured survey to collect data from pharmaceutical sales representatives. This choice reflects the need for objective measurement of the latent constructs while allowing for testing directional relationships hypothesized in the conceptual model.

5.2.1 Research Approach and Rationale

Given the study's theoretical grounding and research questions, a quantitative approach is the most suitable. Quantitative methods present clear strengths when the aim is to test pre-specified hypotheses derived from theory, measure latent constructs through standardized instruments, and generalize findings from a sample to a population (Creswell, 2018). In this case, each construct has been operationalized through validated scales adapted to the Portuguese pharmaceutical context.

The research design is cross-sectional, i.e., data will be collected at a single point in time. Although a longitudinal design may arguably yield information about causality directions and relationships' stability over time, the cross-sectional design is considered more feasible because of limitations in industry access, geographical spread of salesforces, and time. As referred to by Hair *et al.* (2019), cross-sectional surveys are well established in organizational research and can yield valid inferences when coupled with stringent analytical techniques such as Structural Equation Modeling (SEM).

The SEM was selected as it allows for simultaneous estimation of both the measurement model (how well the survey items represent the latent constructs) and the structural model (the hypothesized construct-to-construct relationships). This dual capability is essential in such a study, where constructs are interrelated and multidimensional. For instance, AL consists of self-awareness, relational transparency, internalized moral perspective, and balanced processing (Avolio and Gardner, 2005), and WE consists of vigor, dedication, and absorption (Schaufeli *et al.*, 2002). The SEM makes it possible to model these dimensions explicitly, enhancing construct validity and interpretability.

A cross-sectional design also aligns with the explanatory aim of the study: testing theoretically derived hypotheses regarding relationships between variables. Prior organizational behavior studies in comparable regulated settings (e.g., healthcare, banking, insurance) have demonstrated that cross-sectional SEM designs can provide strong inferences when construct measurement is stringent and model specification is theory-driven (Rego *et al.*, 2012).

5.2.2 Alignment with the Research Questions

The methodology choices have also been tailored to answer the four primary research questions:

1. How does AL influence WE and JS? This question is addressed by modeling direct paths from AL to each outcome variable within the SEM framework.
2. What role do institutional norms and values play in shaping the impact of AL on employee outcomes? This involves incorporating Institutional norms and values as a moderating or mediating variable. Moderation would suggest that the strength of the leadership outcome relationship depends on the level of institutional alignment, while mediation would suggest that institutional alignment explains part of the effect of leadership on outcomes.
3. Are AL practices related to tenure and employment contract type? This question is addressed by modeling direct paths from AL to each outcome variable within the SEM framework.
4. Are AL practices institutionalized in organizations? Although a longitudinal design would be preferable to complete this, cross-sectional data can still yield indicative

evidence by examining whether leadership behavior and institutional norms are highly congruent across various organizational units and positions, pointing to an embedded practice instead of an idiosyncratic leadership style.

5.2.3 Contextual Considerations: The Portuguese Pharmaceutical Salesforce

It should also be mentioned that the empirical setting strongly shaped the methodological design. The Portuguese pharmaceutical salesforce is under strict regulatory regimes, imposing limits on some sales practices and demanding transparency in relations with healthcare professionals. Such restrictions must be considered in survey design to render questions pertinent, non-leading, and sensitive to compliance boundaries. In addition, there are also significant levels of autonomy found in the salesforce, as agents are able to control their own schedule, choose their customers, and retain discretionary power for making on-the-spot decisions. This level of autonomy fosters leadership effectiveness due to intrinsic motivation, values congruence, and a sense of committed identification, creating the best organizational context for exploring AL (Walumbwa *et al.*, 2008).

5.2.4 Ethical and Institutional Alignment in Methodology

From an IT perspective, the chosen methodology also reflects the industry's regulative, normative, and cultural-cognitive pillars. It should be highlighted that, for example, the survey that was used ensured informed consent and discretion, which have withstood academic ethics standards and are compatible with pharmaceutical company compliance and data safety guidelines. The survey tool language has also been sensitively attuned to professional conventions, employing no language that would be perceived as

rewarding for failure to comply. The IT lens further ensures that leadership is not treated as an isolated driver of outcomes but as a practice that gains or loses legitimacy depending on its alignment with formal and informal institutional structures. The SEM provides the statistical sophistication to model these interdependencies while controlling for measurement error.

By grounding methodological choices in both theory and context, this research aims to produce valid findings within the Portuguese pharmaceutical sector and transferable to other regulated, sales-driven industries. This academic and practical dual relevance enhances the study's potential contribution to leadership theory, IT, and organizational practices.

5.2.5 Population and Sampling Frame

The individual employee is the primary unit of analysis in this research. This option is justified because both leadership perceptions and the outcomes under study (WE and JS) are experienced at the individual level. As Kostova (1999) highlighted, although institutional norms and values are conceptually organizational-level constructs, they can be meaningfully assessed through individual perceptions, which capture employees' sense of alignment between observed practices and institutional expectations.

The population of interest consists of pharmaceutical sales representatives employed by organizations operating in Portugal, including multinational subsidiaries and domestic firms. The target respondents for the survey were frontline pharmaceutical sales representatives. The selection of the universe of an estimated three thousand professionals is justified because of its proximity to leadership influence (direct supervisors are the

primary source of leadership behaviour experienced by sales representatives), variation in institutional alignment (supervisors may differ in how closely they adhere to institutional norms, providing natural variation for testing moderation effects), and relevance to outcomes (engagement and satisfaction are most meaningfully assessed among those directly involved in customer-facing roles).

The sample in this research fully meets the analytical requirements of the SEM, with a minimum sample size of 200 to 300 respondents, to ensure stable parameter estimates and allow for subgroup analyses (Kline, 2015). The sample captured a balanced distribution of respondents across Portugal's main pharmaceutical markets, including Porto (North), Lisbon (Center), and Faro (South) territories, as well as across different therapeutic segments (e.g., oncology, cardiovascular, primary care, etc).

5.3 Research Instruments and Measures

A survey questionnaire combining three established instruments was used for the data collection in this research. These tools, explained in the subsequent subchapters, were utilized based on their proven validity and reliability. In addition, the questionnaire also included additional questions for general demographic variables (tenure, gender, and age) and organizational data to determine the population representation of the sample and allow additional detailed data analysis. The questionnaire was distributed using SurveyMonkey's standard web-based survey tool (<https://www.surveymonkey.com>). The use of previously validated instruments was predicated on having construct validity and comparability to existing studies while having internal consistency and reliability between measures (Hair *et al.*, 2019).

The questionnaire was issued in Portuguese for the convenience of the participants. A copy of the original questionnaire and the English translation are included in Annexes 1 and 2, respectively.

Before being made available on the digital platform, the questionnaire was subject to linguistic and contextual revisions so that terminology, examples, and references were applied to Portugal's pharmaceutical market. The adaptation process, namely the translation from the original English instruments into Portuguese, followed established protocols for achieving cross-cultural equivalence in surveys (Behr, 2017), including forward and backward translation in order to preserve meaning and subtlety.

The self-administered survey was selected for its feasibility, given the geographic dispersion of the salesforce, its standardization (ensuring consistent measurement and minimizing interviewer bias), and its sensitivity (as anonymity promotes candor on potentially sensitive issues such as leadership behaviors in a regulated industry).

5.3.1 Authentic Leadership Questionnaire

Walumbwa *et al.* (2008) developed the Authentic Leadership Questionnaire (ALQ) by strategically integrating inductive and deductive reasoning approaches. The questionnaire, which was tailored to measure AL, measures leader attributes on four different scales: balanced processing, self-awareness, relational transparency, and degrees of internalized moral perspective. These four scales align with the four dimensions of AL theory presented by Avolio and Gardner (2005). The ALQ assesses leadership authenticity and operationalizes the theoretical constructs of AL proposed by Avolio and Gardner (2005). By articulating these four factors, the ALQ goes beyond the descriptive case

narrative forms of effective leadership that maintain solid psychometric characteristics for predicting employee outcomes (Banks *et al.*, 2016).

The questionnaire, composed of 16 items, measures how the leadership traits are recognized in both their strengths and weaknesses, their decision-making processes, their degree of ethical standards, and the extent of their transparency and openness with their practices and attitudes (Walumbwa *et al.*, 2012). Each of the 16 items in the ALQ was rated on a five-point Likert scale ranging from 1 ("strongly disagree") to 5 ("strongly agree"). Questions 1 to 4 were designed to measure the self-awareness levels, questions 5 to 8 were designed to measure the internalized moral perspective levels, questions 9 to 12 were designed to measure the balanced processing levels, and questions 14 to 16 were designed to measure the relational transparency levels.

The ALQ is currently used in both research and practical/corporate settings in order to evaluate the level of AL exhibited by individuals in leadership positions, to develop leadership training and development programs, and to evaluate the impact of this construct on various organizational outcomes, such as WE and JS (Mäkikangas *et al.*, 2016).

The ALQ has undergone extensive validation and reliability testing to ensure that it is a good measure of AL. Research has shown that the ALQ is a reliable measure, having been advantaged by a sound theoretical foundation, a necessary stepping stone to developing valid and reliable psychometric tools (Hinkin, 1995) that can be used across contexts and cultures. Walumbwa *et al.* (2008) originally investigated the instrument with samples in the United States, China, and Kenya, and this testing showed the measure has measurement equivalence in that it performs similarly across cultures. This cross-national validation suggests that the measure has found stable patterns of leadership authenticity

outside Western constructs. Multiple empirical studies demonstrate factorial validity, indicating the four dimensions load on a higher-order construct of AL (Neider and Schriesheim, 2011).

The ALQ's applicability to the pharmaceutical sector merits further discussion. As such, this research used the ALQ to measure the supervisor-perceived AL practices by and with supervised employees working in the sales team forces of pharmaceutical companies operating in Portugal.

An authorization (research permission) was obtained from the company Mind Garden Inc., holder of the copyright of the ALQ, for its use in this research as one of the essential tools for this dissertation. A copy of this permission letter and corresponding documentation is included in Annex 3.

5.3.2 Utrecht Work Engagement Scale

WE is a positive, work-related state of mind that is characterized by vigor, dedication, and absorption, and it has been presented as the antidote to burnout (Buunk and Schaufeli, 2018). Having a measure with validity to endorse WE, from both a theoretical and practical perspective, was absolutely necessary for advancing in understanding this construct. The Utrecht Work Engagement Scale (UWES) was developed, offering a tool of general application to evaluate and quantify the concept of WE. Developed in the early 2000s, the scale appeared to answer the increasing interest in positive psychology and workers' well-being, changing the focus from burnout and job stress to the positive side of work life.

Whereas burnout has been related to the experience of exhaustion, cynicism, and inefficacy, WE has been described as its positive antonym, emphasizing the employee's enthusiasm, energy, and commitment to work (Schaufeli *et al.*, 2003). The tool originally contained a scale of seventeen items. However, a shorter version with nine items has been developed for faster and more practical assessments, providing a more concise measure while maintaining reliability and validity, and allowing researchers and professionals to assess employee engagement across the three dimensions.

The UWES is used in organizational psychology, human resource management, occupational health, and leadership development, among many other settings. Both organizations and researchers have used the instrument to measure employee engagement levels (Storm and Rothmann, 2003), thus identifying areas needing improvement and developing interventions to enhance employee well-being and performance. The UWES allows the conceptualization of engagement not as some abstract psychological construct but as a measurable predictor of actual organizational outcomes. Being available in over twenty languages (Bakker and Leiter, 2010), this scale has become widely used for WE evaluation. It has also demonstrated factorial validity and reliability across various contexts, including Norway, Germany, and South Africa (Schaufeli, 2012), in various occupations, including physicists, farmers, and the military (Simbula *et al.*, 2013), and in multicultural settings, thus being convenient for multinational companies.

In addition to its global applicability, its predictive validity is further relevant. Several authors have also shown that engagement, measured via UWES, predicts positive outcomes such as task performance, organizational citizenship behavior, and lowered turnover intentions (Christian *et al.*, 2011). In the pharmaceutical industry, engaged

employees are more likely to engage in proactive behaviors, follow ethical guidelines, and be resilient under stress, all of which are critical for retaining organizational legitimacy and stakeholder trust (Salanova *et al.*, 2000). This research used the Utrecht WE Scale, in its shorter version of the scale of nine items, to measure the WE construct in supervised employees working in the sales team forces of pharmaceutical companies operating in Portugal. The three dimensions of WE are measured by a seven-point frequency scale ranging from 0 ("never") to 6 ("always/every day"), enabling nuanced assessment of engagement levels. Questions 1 to 3 were designed to measure the vigor levels, questions 4 to 6 were designed to measure the dedication levels, and questions 7 to 9 were designed to measure the absorption levels.

The UWES is not a copyright-protected tool in a way that prevents researchers and students from using it for academic or research purposes, as long as the original authors are correctly cited, given credit for developing the tool, and in line with academic integrity guidelines.

5.3.3 Job Satisfaction Survey

The JS construct has gained growing significance in the past decades, especially in a competitive business world where employee commitment and retention are prime determinants of organizational performance (Judge and Larsen, 2001). The Job Satisfaction Survey (JSS) created by Paul Spector (1985) allows the evaluation of several aspects of organizational climate. The JSS represents one of the most widely used tools among researchers, practitioners, and managers in both the public and private sectors, particularly with the continued systematic interest in categorizing JS using principles from a social

science perspective. It quantifies general employee satisfaction and examines the dimensions that lead to fulfillment in the workplace, including pay, opportunities for growth, quality of supervision, and working conditions, thus giving a holistic picture of what affects employee happiness and motivation.

The JSS measures nine aspects of JS, giving a complete and detailed picture of the factors that motivate employee happiness. The dimensions include payment/remuneration, promotion, supervision, benefits, reward contingencies, working conditions, nature of work, communication, and coworkers. The evaluation of these dimensions, recognized in the literature as key components in the perception of well-being and professional achievement of employees (Locke, 1976), allows a detailed analysis of both the individual and the organizational aspects that contribute to employee JS.

The JSS provides valuable insights into areas of improvement that can be strategic to increasing job engagement and reducing turnover while providing a quantitative basis for making decisions about retention policies, improving organizational culture, and developing career paths (Demerouti and Bakker, 2008). The conceptual orientation of the JSS is based on the understanding that JS is not a unidimensional construct; rather, it is a constellation of attitudes based on how employees evaluate their jobs are made up of multiple facets.

Applying the JSS is not limited to a single industry or sector but rather relevant to private and public organizations with different business natures. In industries where employee retention is particularly challenging, such as the pharmaceutical industry, this tool can identify specific factors that directly impact JS.

Previous scientific research indicates that JS has a positive correlation with productivity and organizational performance, as well as with the mental health and well-being of employees (Judge and Larsen, 2001). Organizations that use the JSS to measure and monitor employee satisfaction tend to have lower turnover and absenteeism rates and tangible benefits, such as increased productivity and improved organizational climate (Spector, 2022). Recognizing employees' needs and perceptions allows companies to develop practices and policies that foster a healthier and more engaged work environment, which is reflected in a competitive advantage in the market (Demerouti and Bakker, 2008).

This research used the JSS to measure the JS construct in supervised employees working in the sales team of pharmaceutical companies operating in Portugal. The scale of the questionnaire comprises five items rated on a five-point Likert scale from 1 ("strongly disagree") to 5 ("strongly agree"), addressing both intrinsic factors (e.g., the nature of the work itself) and extrinsic factors (e.g., pay, recognition, organizational policies). Questions 1 to 4 were designed to measure the remuneration levels, questions 5 to 8 were designed to measure the promotion levels, questions 9 to 12 were designed to measure the supervision levels, questions 13 to 16 were designed to measure the fringe benefits levels, questions 17 to 20 were designed to measure the contingent rewards levels, questions 21 to 24 were designed to measure the operating conditions levels, questions 25 to 28 were designed to measure the level of relation with coworkers, questions 29 to 32 were designed to measure the nature of work satisfaction levels and questions 33 to 36 were designed to measure the communication levels. It should be noted that a total of 17 questions have a reverse score rating in order to reduce response biases such as acquiescence (and to encourage careful reading of each question).

The JSS is not restricted by copyright in a way that would prevent researchers or students from using it for academic or research purposes - this tool can be used as long as the original author is appropriately credited for their work and usage aligns with academic integrity standards.

5.3.4 Institutional Theory - Based Measurement Scale

The institutionalization concept refers to the process by which certain practices, policies, and norms become, over time, ingrained and widely accepted as the standard way of operating. The institutionalization process is critical for understanding how organizations evolve, adapt, and conform to external environmental pressures (Powell and DiMaggio, 2012). Organizations are influenced by market competition and the social, legal, and cultural expectations that shape their action, and, for such reason, tend to adopt practices that are perceived as legitimate or aligned with societal expectations, thereby becoming more institutionalized.

The measurement of the degree of institutionalization is, therefore, a key challenge in institutional theory adoption and quantification. Yang and Konrad (2011) developed an Institutional Theory - Based Measurement Scale (IT-BMS) that provides a comprehensive tool to assess how deeply embedded institutional factors are in organizational practices to address this challenge. Institutionalization entails adopting externally imposed practices as well as internalizing them, making such practices an essential part of the organization's identity. These authors addressed this gap by developing a systematic approach to measuring the degree of institutionalization in organizations, allowing researchers to operationalize and quantify these abstract concepts.

The IT-BMS is based on three key dimensions of institutionalization: coercive, normative, and mimetic isomorphism. The coercive isomorphism occurs when organizations conform to legal and regulatory pressures. The normative isomorphism refers to the adoption of professional standards and best practices driven by the influence of professional bodies and networks. Finally, mimetic isomorphism is the result of organizations imitating other organizations that are seen as successful or legitimate. These dimensions provide the conceptual basis for the measurement scale developed by Yang and Konrad (2011b).

The IT-BMS consists of a series of questions that assess how strongly an organization is influenced by legal regulations (coercive isomorphism), professional norms (normative isomorphism), and industry trends (mimetic isomorphism). The responses to the questionnaire provide a reliable and valid tool for researchers and practitioners to assess the institutional forces shaping organizational behavior. This tool facilitates longitudinal studies that track changes in institutionalization over time. Using this scale to assess institutionalization at multiple points allows researchers to examine how organizations respond to evolving regulatory environments, societal expectations, or competitive pressures (Adamson *et al.*, 2016). This contributes to a dynamic understanding of institutionalization rather than viewing it as a static process.

The IT-BMS is most relevant in contexts where leadership is legitimate and often limited to institutional compliance. Research has demonstrated that leaders who embrace and comport their practices with institutional norms are more likely to be trusted and regarded as credible by their followers (Greenwood *et al.*, 2017). In pharmaceutical sales, a context in which substantial reputational risks are associated with ethical misbehavior,

employees may evaluate leaders based on interpersonal authenticity and their capacity to address institutional obligations with transparency. This research used the Theory-Based Measurement Scale to evaluate the adoption of AL practices in supervised employees working in the sales team forces of pharmaceutical companies operating in Portugal and how this institutionalization process influences the WE and JS levels of such employees. The questionnaire comprises 9 questions, is rated on a five-point Likert scale, and the adaptation process includes industry-specific language to ensure contextual relevance. Questions 1 to 3 were designed to measure the coercive pressure levels, questions 4 to 6 were designed to measure the normative pressure levels, and questions 7 to 9 were designed to measure the cultural-cognitive pressure levels.

Although the Theory-Based Measurement Scale is a toll copyright-protected tool, the authors allow researchers or students to use it for free, as long as proper credit is given and it is cited appropriately in their research work.

5.4 Research Limitations

While deciding to use a cross-sectional survey design, this research fully acknowledges the methodology's limitations. As Bengry (2018) referred, the main weakness of cross-sectional designs is the lack of temporal order amongst variables, as data collection occurs at a single point in time. This means that causality cannot be statistically established for the relationship between the variables, although the data collection can support inferences. However, since this research aims to explore the relationship between only three constructs, the concern for causality might not be significant. Therefore, the

decision to use a cross-sectional survey design for this research is justifiable, as the strengths of this research method clearly surpass its inherent limitations.

Despite these limitations, cross-sectional remains a powerful and widely accepted approach in leadership and organizational research, especially in restricted longitudinal access settings. In fact, the major strength of this design is its tight theoretical integration, as the hypotheses emerge directly from the IT and are operationalized through validated measures, enabling robust theory testing. The cross-sectional survey is also efficient in reaching a geographically dispersed population and is analytically compatible with SEM, which can model complex relationships and account for measurement error.

5.5 Data Collection

This study's data collection process allowed a dataset that accurately captured the perceptions, experiences, and attitudes of pharmaceutical sales professionals in Portugal regarding the previously highlighted constructs. Recognizing the pharmaceutical salesforce's dispersed nature and the industry's strict regulatory environment, particular attention was paid to ensuring accessibility, confidentiality, and compliance with applicable ethical and legal requirements.

The survey included an initial page explaining the purpose of the research, stating the commitment to confidentiality and anonymity, while requesting the recipient's voluntary participation and giving instructions on how to contact the author in order to address or raise any concerns or questions with the study.

A pilot test was conducted with a small group of pharmaceutical sales representatives ($n = 15$) from different therapeutic segments to ensure data quality further.

Feedback from the pilot targeted the clarity of wording, the relevance of examples, and the overall survey length. Minor adjustments were made based on this feedback, particularly in reducing the complexity of certain institutional norms items to avoid ambiguity for respondents without formal training in organizational theory.

The questionnaire was not timed, so participants took as long as needed when responding, but an estimated completion time of 15 to 20 minutes was also noted on the introductory page. No incentive was offered in exchange for participation, and the link for the questionnaire was sent electronically via email and private messages on the social networks of the author, such as Messenger (<https://www.messenger.com>), LinkedIn (<https://www.linkedin.com>), WhatsApp (<https://www.whatsapp.com>), and Facebook (<https://www.facebook.com>). The online format also mitigated logistical challenges posed by the salesforce's demanding schedules and travel commitments, thereby maximizing response opportunities without disrupting business operations. Some questionnaire sets were printed and distributed in person by the author and sent via email to the author's contacts. The sample was non-probabilistic, based on a convenience snowball sample method, meaning participants were recruited with the help of coworkers, friends (friends of friends), social media connections, and so on.

At the beginning of this research, the author's ambition was to target a sample of at least one thousand responses to the survey, which was supposed to have occurred between January 1st, 2025, and March 31st, 2025. However, due to the lower number of responses at the beginning of March 2025, the response deadline was extended to June 30th, 2025, and additional efforts, such as follow-up reminders, were made to contact additional potential participants. These reminders were carefully worded to avoid coercion and were

once more distributed via the researcher's professional networks. This approach is consistent with evidence that personalized follow-up increases response rates without introducing significant non-response bias (Dillman *et al.*, 2014). This extended window helped mitigate the effects of seasonal workload fluctuations and product launch cycles in the pharmaceutical industry, which can affect availability for survey participation.

In order to keep data confidential, every one of the survey responses contained an identification code that bears no resemblance to any personally identifiable data, and the data thus collected was downloaded and saved on a website with password-protected access, again keeping respondents anonymous. In structuring the data collection process to reflect the organizational and operational dynamics of the pharmaceutical salesforce, this study ensured that the resulting dataset statistically and methodologically remained consistent and maintained the fine-grained dynamics between the many constructs. In doing so, consistency of data collection method with the resulting theoretical structure enhances internal validity of findings and their external utility for pharmaceutical community members. This second step also entailed data cleaning and preparation, which also entailed identifying missing values and violating the assumption of normality and outliers.

The following step involved cleaning and preparing the data, which included a check for missing values, outliers, and violations of the normality assumption. Variables were coded according to the chosen statistical software (SPSS) specifications to facilitate improved consistency between datasets.

Finally, the analysis plan was implemented in accordance with the study's conceptual model. Measurement models were first tested using confirmatory factor

analysis to assess construct validity and reliability, followed by testing structural paths representing the hypothesized relationships between the several constructs. Throughout the procedure, attention was paid to ensuring that the operationalization of constructs and the interpretation of results remained consistent with the IT perspective, which emphasizes the embeddedness of leadership behaviors and employee outcomes in organizational and societal structures (Greenwood *et al.*, 2017). This process, carefully staged and institutionally attuned, ensured that the research not only complied with methodological best practices but also respected the cultural and regulatory conditions of the Portuguese pharmaceutical sector, thereby enhancing the validity and credibility of the findings.

CHAPTER 6 - Data Analysis and Empirical Findings

6.1 Introduction

The data analysis chapter is at the empirical core of this dissertation, translating the conceptual and methodological frameworks articulated in previous chapters into testable evidence. It brings together the cleaned dataset of 1.415 valid responses collected from Portugal's pharmaceutical salesforce and applies a systematic, multistage analytical process to evaluate the six hypotheses and answer the primary research questions. In doing so, this chapter aims to provide a statistically robust and theoretically meaningful account of how AL shapes WE and JS, how institutional norms and values influence this relationship, and whether AL can be institutionalized within organizational systems. The analysis is anchored in the IT (Scott, 2008), which frames the organizational field as structured by regulative, normative, and cultural-cognitive pillars, and positions leadership legitimacy as a function of alignment with these institutional logics.

The chapter begins by outlining the logic of the analysis, explaining the sequence of descriptive, measurement, and structural analyses, while also highlighting how each stage links back to the research objectives. This is followed by a comprehensive demographic and descriptive overview of the sample, providing context for interpreting subsequent results. The analysis then proceeds to confirmatory factor analysis of the data collected from the administered survey instruments, to validate the measurement model, ensuring that the SEM constructs are psychometrically sound. Once reliability and validity are established, the chapter transitions to hypothesis testing through SEM, first estimating direct effects (H1, H2, H3, and H4), then using inferential analysis testing social impacts

possibly inferred to the total population (H5 and H6), mediation (H7), and finally moderated-mediation (H8) using conditional process analysis. The chapter concludes with a summary table presenting the acceptance or rejection of each hypothesis.

6.2 Statistical Data Processing, Methods, and Analysis Techniques

Since the central aim of the research is to examine the influence of AL on WE and JS, while accounting for the mediating and contextualizing role of institutional norms and values, the use of SEM was deemed most appropriate. The SEM is a comprehensive statistical technique that allows for the simultaneous estimation of multiple relationships between latent constructs, integrating measurement and structural components into a single analytical framework (Hair *et al.*, 2019).

All statistical analyses were conducted using IBM SPSS Statistics for preliminary data screening and AMOS for confirmatory factor analysis and structural model testing. These software packages were selected for their robustness, widespread acceptance in the social sciences, and ability to handle the complex modeling requirements of latent variable analysis.

IBM SPSS Statistics (version 29) was used for data entry, coding, descriptive statistics, reliability testing, and preliminary diagnostic checks (e.g., missing data analysis, outlier detection, normality assessment). SPSS was selected for its robust handling of large datasets, comprehensive statistical capabilities, and ease of integration with advanced modeling platforms (Pallant, 2020).

AMOS (version 29) was employed for structural modeling due to its visual modeling interface, integration with SPSS, and capacity for handling complex latent

variable models with moderation effects. AMOS supports both covariance-based SEM, which is suited for theory testing, and bootstrapping techniques for estimating robust standard errors in the presence of non-normality (Byrne, 2016).

The data processing phase began with a detailed screening procedure to ensure that the dataset met the assumptions required for SEM analysis. First, descriptive statistics were computed for all observed variables to evaluate central tendency, variability, and distributional properties.

Normality testing was performed to ensure that the distributions of observed variables approximated multivariate normality, a key assumption for maximum likelihood estimation in SEM. The measurement model was tested via confirmatory factor analysis to verify that the hypothesized factor structure fit the data well. Once the measurement model was validated, the structural model was estimated to test the hypothesized relationships between the several constructs. The SEM was particularly suited to this analysis because it enabled the integration of direct, indirect, and total effect estimation within a single framework, consistent with the need to explore both the direct influence of leadership and the institutional mediation effects suggested by the IT (Scott, 2005).

Given the regulatory and ethical sensitivity of the Portuguese pharmaceutical industry, the Institutional norms and values construct was modeled as a contextual moderator in specific analyses to assess whether the strength of the relationship between AL and the outcome variables varied according to the degree of alignment with institutional expectations. This step aligns with previous empirical work showing that institutional alignment can either reinforce or weaken leadership effects, depending on the congruence between leader behavior and environmental norms (Bitektine and Haack, 2015).

In addition to hypothesis testing, multi-group SEM was used to explore potential differences across subgroups within the sample, such as age, tenure, and employment contract type. This process allowed for an examination of whether the structural relationships held consistently across different organizational and institutional settings within the Portuguese pharmaceutical market.

Harman's single-factor test was performed to address potential standard/common method bias, followed by a confirmatory factor analysis marker variable approach (Podsakoff *et al.*, 2012). The results indicated that standard method variance was not a significant concern, as no single factor accounted for the majority of the variance in the data.

Finally, effect sizes were calculated to assess the practical significance of the relationships, complementing the statistical significance tests. Reporting statistical and substantive significance was considered necessary in providing actionable insights for practitioners in the pharmaceutical industry, where leadership and institutional compliance are deeply intertwined.

The data analysis in this chapter is not merely exploratory but hypothesis-driven and aligned with a specific conceptual model. Also, in line with best practices for research transparency, this chapter provides sufficient detail to enable replication. The measurement items, factor loadings, and model specifications are reported in full, and all parameter estimates are presented with standard errors and significance levels. This transparency ensures that the findings can be scrutinized and verified by other researchers, enhancing the credibility of the dissertation.

6.3 Sample Characterization

Understanding the demographic profile of the respondents is a necessary first step in contextualizing the subsequent hypothesis testing and SEM analyses. A rich, representative sample provides confidence that the findings will generalize across the Portuguese pharmaceutical salesforce and are not artifacts of sampling bias.

Table 12 - Sample Characterization

Participants (N = 1415)		Frequency	Percentage (%)	Mean (Average)	Standard Deviation
Age				45	9,4
Gender	Female	411	29%		
	Male	1.004	71%		
Educational Qualifications	High school or lower	137	10%		
	Attended university	413	29%		
	Bachelor's degree or higher	865	61%		
Work experience				12	7,5
Type of contract	Permanent Contract	1.108	78%		
	Fixed-term Contract	145	10%		
	Temp. Agency contract	162	12%		
Geographical location	North	457	32%		
	Center	820	58%		
	South	138	10%		

Source: Based on the questionnaire data.

A final sample comprised n = 1415 respondents, drawn from a combination of several pharmaceutical companies operating in Portugal, both multinational and

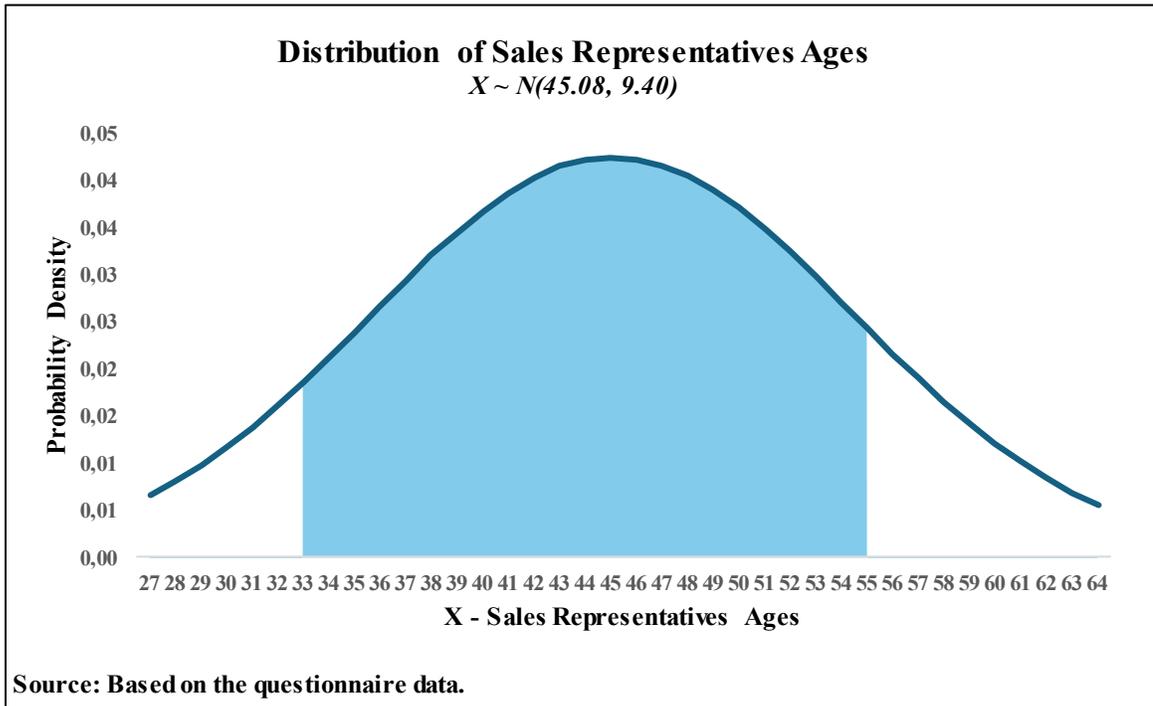
Portuguese firms. This mix was critical for capturing variation in institutional pressures because multinational corporations tend to operate under globally standardized codes and compliance frameworks, while domestic firms often reflect more localized interpretations of APIFARMA guidelines and national market practices.

As mentioned in Table 12, from a gender distribution perspective, the sample mirrored the industry's trend towards representation in field sales roles, with approximately 29% identifying as female and 71% as male. This demographic pattern is noteworthy in Institutional Theory terms, as gender diversity can influence how leadership is perceived and institutional norms are enacted in daily practice, particularly in client-facing contexts such as interactions with healthcare professionals (Fritz and Van Knippenberg, 2017).

In terms of age profile, respondents ranged from early-career professionals in their mid-20s to highly experienced sales representatives in their early 60s, with the largest concentration falling within the 33-55 age bracket, as mentioned in Figure 9, with 1.109 sales representatives within this range. This distribution reflects both recruitment trends in the industry and the career progression pathways available to sales professionals in Portugal. From an institutional lens, age and career stage can affect the extent to which employees are socialized into prevailing norms, and how receptive they are to leadership practices that reinforce or challenge these norms (Ashforth and Anand, 2003).

Educational qualifications were also recorded, with the majority of respondents (61%) holding at least a bachelor's degree in life sciences, pharmacy, or related fields. This educational profile is consistent with industry expectations for technical product knowledge and compliance literacy, both of which are critical for aligning sales activities with institutional demands.

Figure 9 - Distribution of Sales Representatives Ages

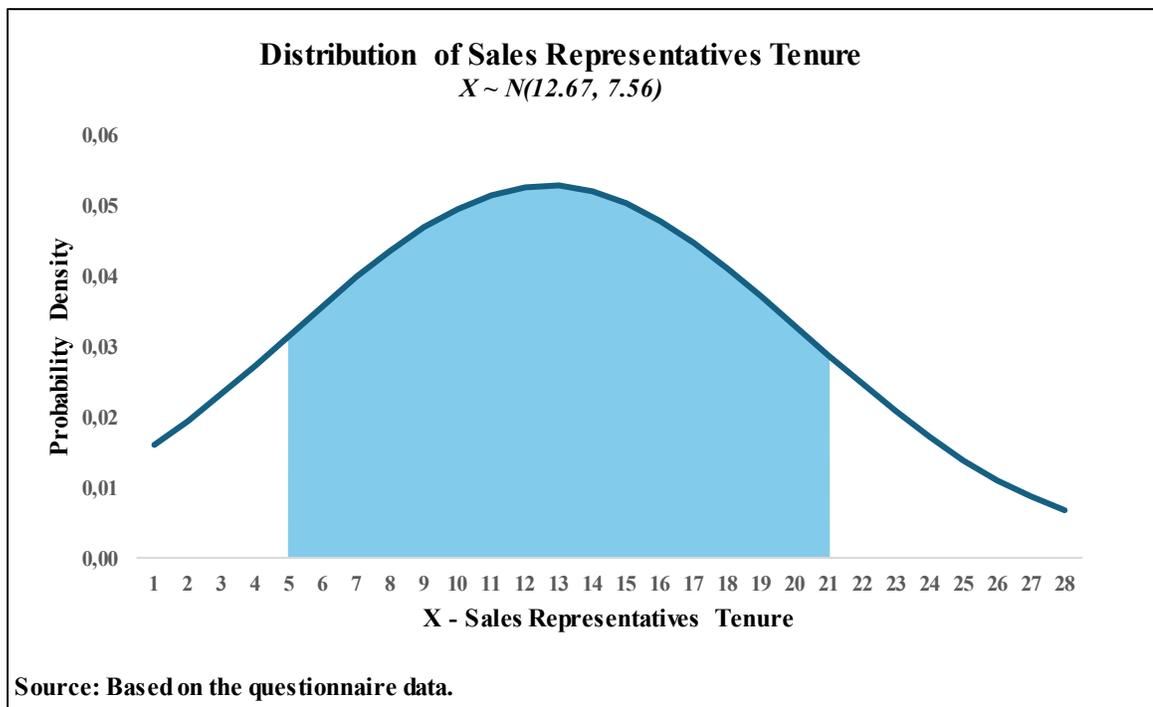


Geographic distribution within Portugal was another essential characteristic assessed in the initial part of the survey. The sample included professionals based in the country's north, center, and south, with the majority of responders (58%) serving in the Lisbon area (center), where the main central hubs for pharmaceutical marketing and headquarters operations are located. This geographic spread captures the variability in market dynamics, institutional enforcement intensity, and healthcare infrastructure, all of which can influence how leadership and institutional norms interact in shaping WE and JS.

The tenure in the pharmaceutical sector ranged from less than two years to more than two decades, with a mean tenure of approximately 12,7 years, with the largest concentration falling within the 5-21 tenure bracket, as mentioned in Figure 10, with 1.021 sales representatives within this range. This variable is particularly relevant in Institutional

Theory research because tenure influences institutional embeddedness, as longer-serving employees may be more familiar with the sector's regulatory frameworks, marketing codes, and tacit norms. In contrast, newer entrants may bring perspectives shaped by experiences in other industries or more recent professional training and education (Kostova and Roth, 2002).

Figure 10 - Distribution of Sales Representatives Tenure



Finally, the sample was also balanced across the type of employee network contact, with most sales representatives holding permanent employment contacts with these companies (68%). This dimension was included because the IT posits that the salience of institutional norms can vary depending on organizational employment stability (Lawrence and Suddaby, 2006).

Taken together, the sample's demographic, occupational, and organizational characteristics provide a robust foundation for testing the study's hypotheses. By ensuring diversity across key institutional dimensions (regulative frameworks, normative expectations, and cultural-cognitive scripts), the sample reflects the complexity of the Portuguese pharmaceutical sales environment. This representativeness strengthens the external validity of the findings and ensures that conclusions drawn about the constructs can be meaningfully generalized within the sector.

6.4 Descriptive Analysis and Scales Reliability

In terms of descriptive statistics for the characterization variables, the tables and graphs presented illustrate the frequency distribution of observed values. The quantitative and Likert scale variables were analyzed using the categories presented, calculating some relevant descriptive statistical data, which were addressed by Guimarães (2010) as the mean (M) values (on a scale from 1 to 5, a value greater than 3 is higher than the scale middle point, on a scale from 0 to 6, a value greater than 3 is also higher than the scale middle point), the standard deviation (SD) representing the absolute dispersion, the variation coefficient (VC) representing the relative dispersion and minimum (Min) and maximum (Max) values.

This subchapter provides a detailed description of each of the administered survey instruments. The tables and graphs presented illustrate the frequency distribution of observed values in terms of descriptive statistics for the characterization variables. According to De Vellis (1991), internal consistency (reliability) analysis allows for the study of the properties of measurement scales and their items.

The Cronbach's Alpha (Cronbach, 1951) is the most widely used model of internal consistency in the social sciences, measuring how a set of variables represents a particular dimension.

A coefficient of internal consistency of 0,80 or more is regarded as adequate for most applications, and some studies admit internal consistency values from 0.60 to 0,80, which, according to the literature, is still acceptable, as referred to by Nunnally (1978).

6.4.1 Authentic Leadership Questionnaire

Figure 11 details the sample questionnaire data from the ALQ instrument. In the sample, the mean for the concordance is higher for “3. I seek feedback as a way of understanding who I really am as a person.” (4,38), “2. I can list my three greatest strengths.” (4,18) and “16. I admit my mistakes to others.” (3,91) and lower for “10. I listen closely to the ideas of those who disagree with me.” (3,35), “14. I let others know who I truly am as a person.” (3,41), and “6. I do not allow group pressure to control me.” (3,50).

The mean values in the sample are above 3, thus over the middle-point scale, mainly showing agreement. The full table frequencies for the ALQ instrument are included in Annex 4.

Figure 11 - Authentic Leadership Questionnaire Means (Detail)

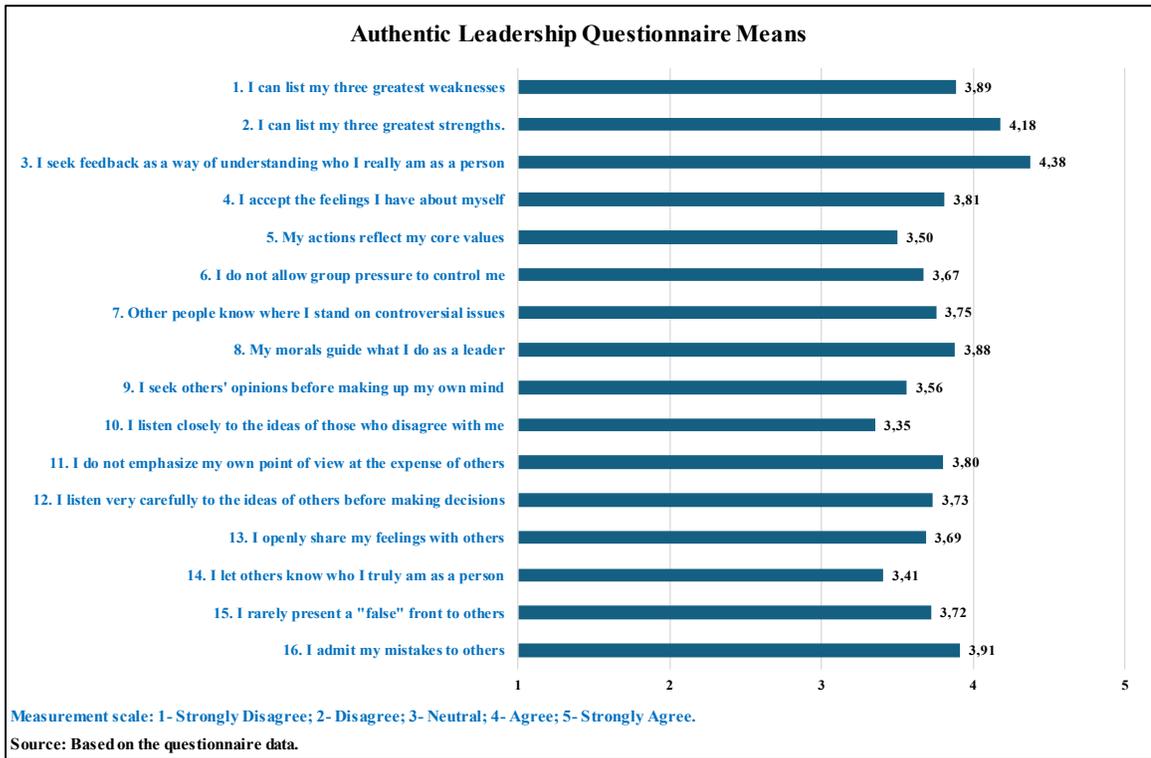


Table 13 details the Mean (M), the standard deviation (SD), and the variation coefficient (VC) for each of the AL dimensions.

Table 13 - Statistics on Authentic Leadership Questionnaire

	M	SD	VC
Self-Awareness	4,06	1,07	26%
Internalized Moral Perspective	3,70	0,70	19%
Balanced Processing	3,61	0,59	16%
Relational Transparency	3,68	0,62	17%

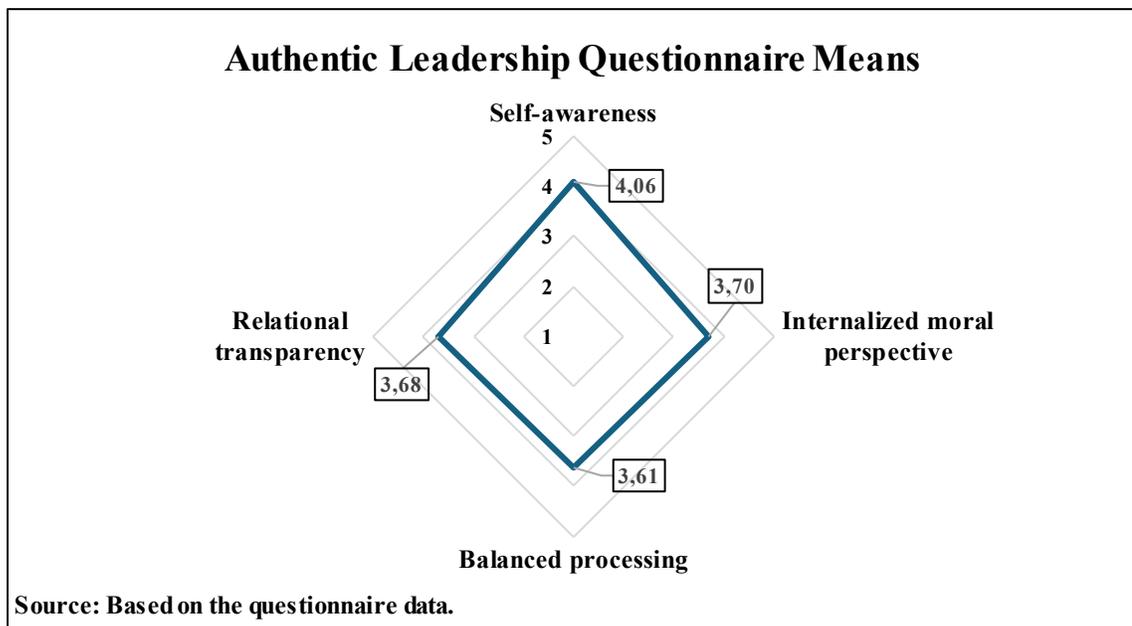
Measurement scale: 1- Strongly Disagree; 2- Disagree; 3- Neutral; 4- Agree; 5- Strongly Agree.

Source: Based on the questionnaire data.

Among the four dimensions, Self-Awareness had the highest mean value (M = 4,06), while Balanced Processing showed the lowest mean (M = 3,61), as illustrated in

Figure 12. The standard deviation values ranged between 0.59 and 1.09, indicating some level of dispersion amongst responses. Additionally, the variation coefficients (VC) were relatively low, varying between 16% and 26%, which reflects consistency in participants' responses across all dimensions. These findings suggest a positive and relatively stable perception among respondents regarding the variables measured.

Figure 12 - Authentic Leadership Questionnaire Means by Dimensions



The reliability analysis was conducted for the four dimensions of the construct using Cronbach's Alpha, detailed in Table 14, below.

The results indicate that all dimensions demonstrated good internal consistency, with values exceeding the acceptable threshold of 0,70. Specifically, the Self-Awareness dimension obtained the highest reliability, Cronbach's Alpha of 0,821, while Internalized Moral Perspective scored 0,789.

The Balanced Processing dimension showed a value of 0,828, and Relational Transparency achieved a reliability coefficient of 0,822. Each dimension consisted of four items. These findings suggest that the measurement instrument is reliable and the items within each dimension consistently assess their respective constructs.

Table 14 - Internal consistency statistics: ALQ Dimensions

Dimension	Cronbach's Alpha	N of Items
Self-Awareness	0,821	4
Internalized Moral Perspective	0,789	4
Balanced Processing	0,828	4
Relational Transparency	0,822	4

Source: Based on the questionnaire data.

6.4.2 Utrecht Work Engagement Scale

Figure 13 details the sample questionnaire data from the UWES instrument. In the sample, the mean for the concordance is higher for “2. I feel strong and vigorous while working on my job.” (4,42) and “5. I am proud of my work.” (4,41) and lower for “3. When I get up in the morning, I feel like going to work.” (3,81), and “6. My work inspires me.” (3,92). The mean values in the sample are above 3,5, thus over the middle-point scale, mainly showing agreement. The full table frequencies for the UWES instrument are included in Annex 5.

Figure 13 - Utrecht Work Engagement Scale Means (Detail)

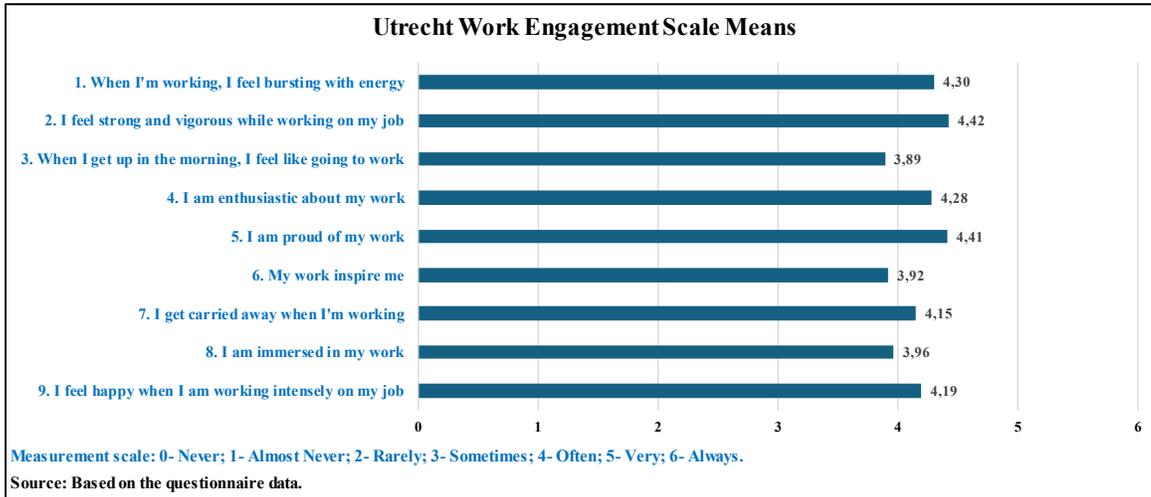


Table 15 details the Mean (M), the standard deviation (SD), and the variation coefficient (VC) for each of the WE dimensions.

Table 15 - Statistics on Utrecht Work Engagement Scale

	M	SD	VC
Vigor	4,20	0,62	15%
Dedication	4,20	0,63	15%
Absorption	4,10	0,55	13%

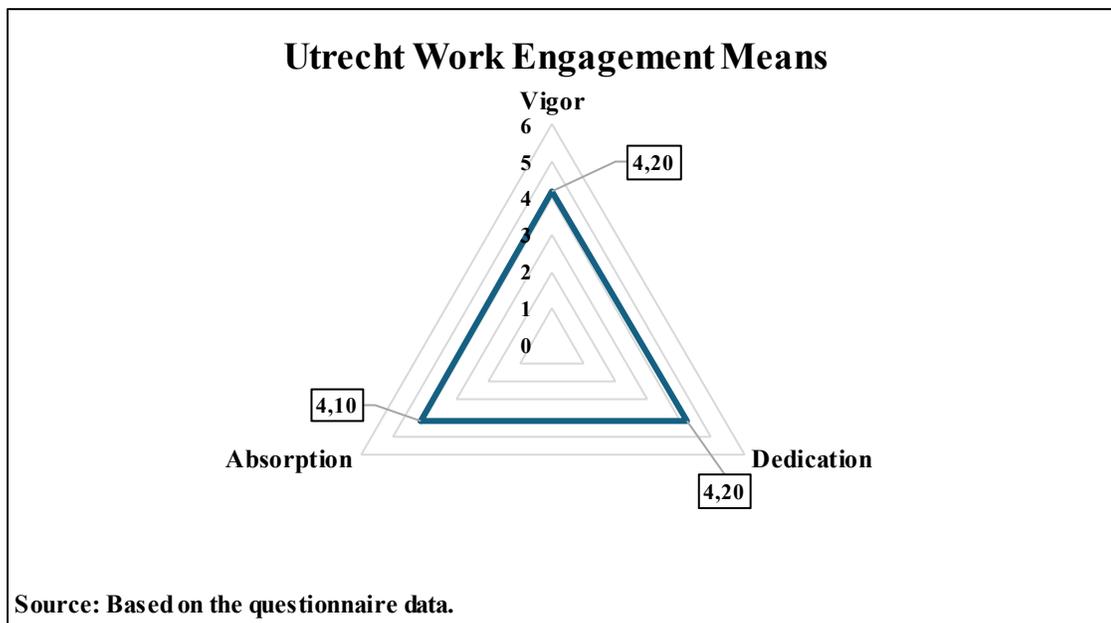
Measurement scale: 0- Never; 1- Almost Never; 2- Rarely; 3- Sometimes; 4- Often; 5- Very; 6- Always.

Source: Based on the questionnaire data.

The results indicate that both Vigor and Dedication achieved the highest mean scores (M = 4,20), while Absorption presented a slightly lower mean (M = 4,10), as illustrated in Figure 14. The standard deviations ranged from 0.55 to 0.63, reflecting moderate variability in participants' responses.

The coefficient of variation (VC) was 15% for Vigor and Dedication, and 13% for Absorption, suggesting consistent responses across the sample. Based on the measurement scale, average scores near 4 indicate that participants reported experiencing engagement behaviors often. These findings suggest a generally high level of WE, particularly in the areas of energy and dedication to work.

Figure 14 - Utrecht Work Engagement Scale Means by Dimensions



The internal consistency of the UWES was evaluated using Cronbach's Alpha for each of its three dimensions: Vigor, Dedication, and Absorption. The analysis revealed that all three dimensions demonstrated satisfactory reliability, as detailed in Table 16. Vigor and Dedication both recorded a Cronbach's Alpha of 0,802, indicating a high level of internal consistency among their respective items. Absorption showed slightly higher reliability, with a Cronbach's Alpha of 0,811. Each dimension consisted of three items.

These values exceed the commonly accepted threshold of 0.70, confirming that the items within each dimension consistently measure the intended constructs and that the scale is reliable for assessing WE in the studied sample.

Table 16 - Internal consistency statistics: Utrecht Work Engagement Scale

Dimension	Cronbach's Alpha	N of Items
Vigor	0,802	3
Dedication	0,802	3
Absorption	0,811	3

Source: Based on the questionnaire data.

6.4.3 Job Satisfaction Survey

Figure 13 details the sample questionnaire data from the JSS instrument. The reversed scale in some of the questions from this instrument has been normalized for comparability.

In the sample, the mean for the concordance is higher for “3 30. I like doing the things I do at work.” (4,27), “32. My job is enjoyable.” and “24. I am satisfied with my chances for promotion.” both with (4,16) and lower for “36. Work assignments are not fully explained” (3,23), “34. The goals of this organization are not clear to me.” (3,26), and “14. The benefits we receive are as good as most other organizations offer.” (3,26). The mean values in the sample are above 3, thus over the middle-point scale, mainly showing agreement. The full table frequencies for the JSS instrument are included in Annex 6.

Figure 15 - Job Satisfaction Survey Means (Detail)

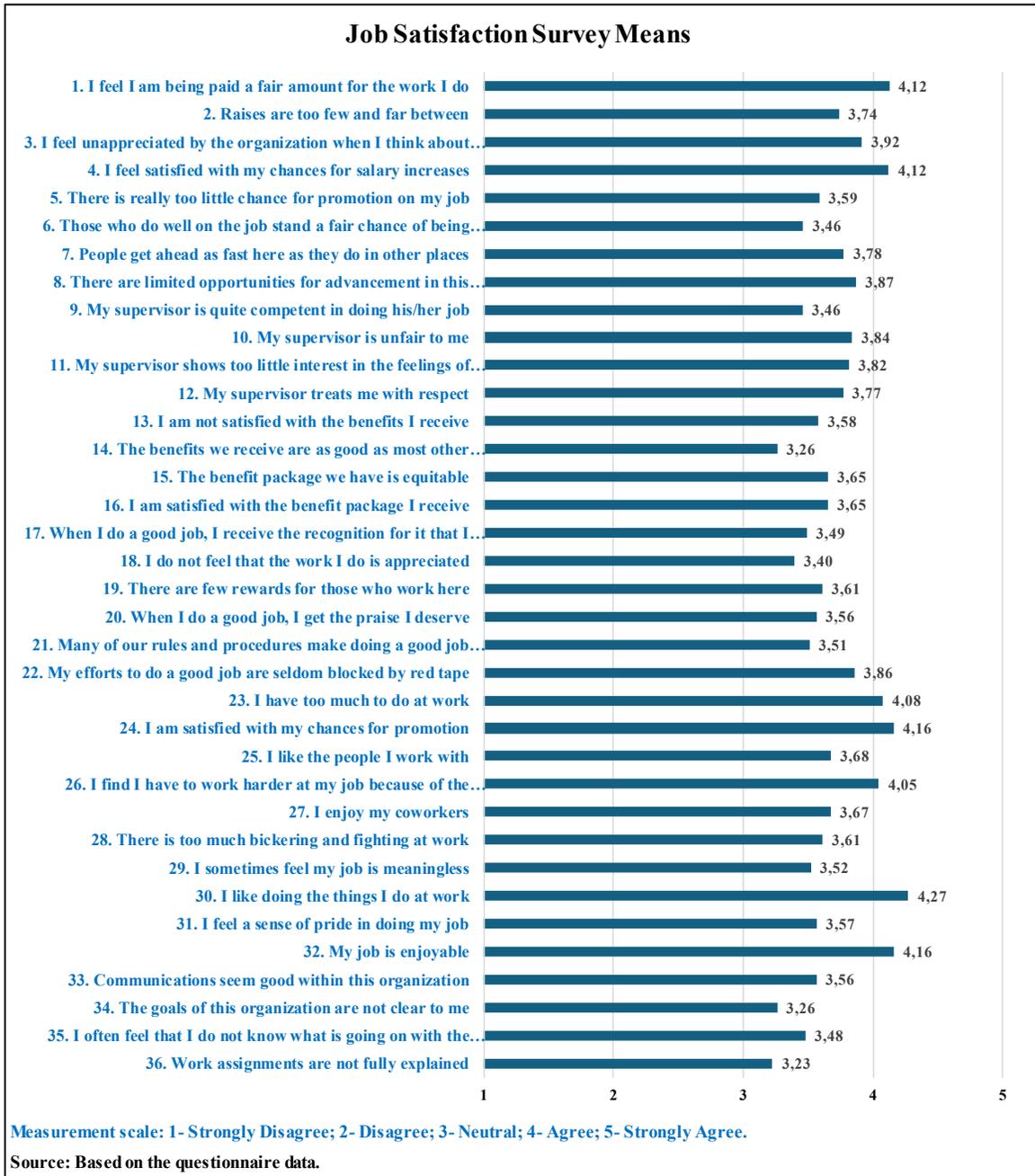


Table 17 details the Mean (M), the standard deviation (SD), and the variation coefficient (VC) for each of the nine JS dimensions.

Table 17 - Statistics on Job Satisfaction Survey Scale

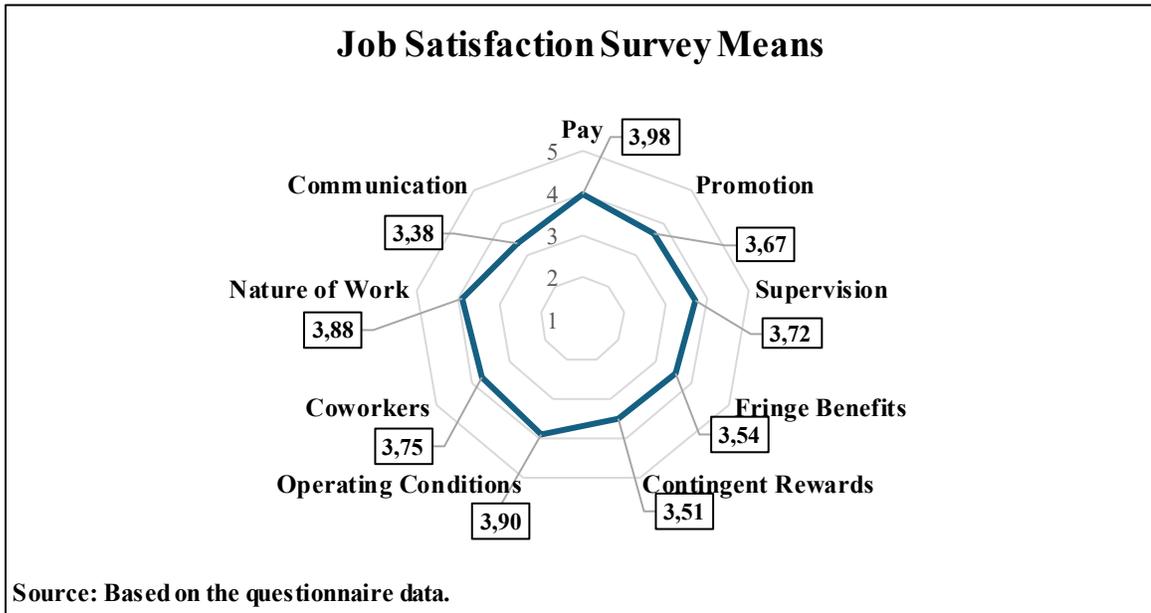
	M	SD	VC
Pay	3,98	0,33	8%
Promotion	3,67	0,11	3%
Supervision	3,72	0,25	7%
Fringe Benefits	3,54	0,05	1%
Contingent Rewards	3,51	0,06	2%
Operating Conditions	3,90	0,31	8%
Coworkers	3,75	0,27	7%
Nature of Work	3,88	0,58	15%
Communication	3,38	0,03	1%

Measurement scale: 1- Strongly Disagree; 2- Disagree; 3- Neutral; 4- Agree; 5- Strongly Agree.

Source: Based on the questionnaire data.

The results show that most dimensions received mean scores above the neutral point (3,00), indicating a generally positive perception among respondents, illustrated in Figure 16. The highest mean was observed for Pay (M = 3.98), followed closely by Operating Conditions (M = 3,85) and Nature of the Work (M = 3,88), suggesting that participants were particularly satisfied with the nature of their tasks and the conditions under which they work. Communication received the lowest mean score (M = 3,35), with a low standard deviation (SD = 0.03), indicating minimal variability and potentially low satisfaction in this area. The coefficients of variation (VC) ranged from 1% to 15%, with Nature of Work showing the highest variability, suggesting diverse opinions among respondents regarding this dimension. These findings suggest a generally positive (but moderate) level of JS.

Figure 16 - Job Satisfaction Survey Means by Dimensions



The reliability analysis of the JSS dimensions revealed strong internal consistency across all scales, as detailed in Table 18. The Cronbach's Alpha values ranged from 0,781 to 0,809, indicating acceptable reliability. Specifically, the dimensions of Coworkers achieved an alpha of 0,809, while Supervision exhibited the lowest reliability at 0,781. Other dimensions, such as Operating Conditions (0,807), Communication (0,804), and Fringe Benefits (0,801), also demonstrated good consistency. Promotion (0,788), Nature of Work (0,789), Contingent Rewards (0,792), and Pay (0,799) also fell within the acceptable range. Each dimension was measured using four items, ensuring balanced representation across constructs. Each dimension consisted of four items. These results confirm the robustness of the questionnaire in capturing key aspects of JS.

Table 18 - Internal consistency statistics: Job Satisfaction Survey Scale

Dimension	Cronbach's Alpha	N of Items
Pay	0,799	4
Promotion	0,785	4
Supervision	0,781	4
Fringe Benefits	0,801	4
Contingent Rewards	0,792	4
Operating Conditions	0,807	4
Coworkers	0,809	4
Nature of Work	0,789	4
Communication	0,804	4

Source: Based on the questionnaire data.

6.4.4 Institutional Theory - Based Measurement Scale

Figure 17 details the sample questionnaire data from the IT-BMS instrument. In the sample, the mean for the concordance is higher for “6. Stakeholders expect us to conform to social responsibility norms.” (3,78) and “2. Regulatory changes significantly influence our decisions.” (3,78) and lower for “8. We adopt industry trends to avoid falling behind.” (3,41), and “5. Industry expectations shape our organizational policies.” (3,50).

The mean values in the sample are above 3, thus over the middle-point scale, mainly showing agreement. The full table frequencies for the IT-BMS instrument are included in Annex 7.

Figure 17 - Institutional Theory - Based Measurement Scale Means (Detail)

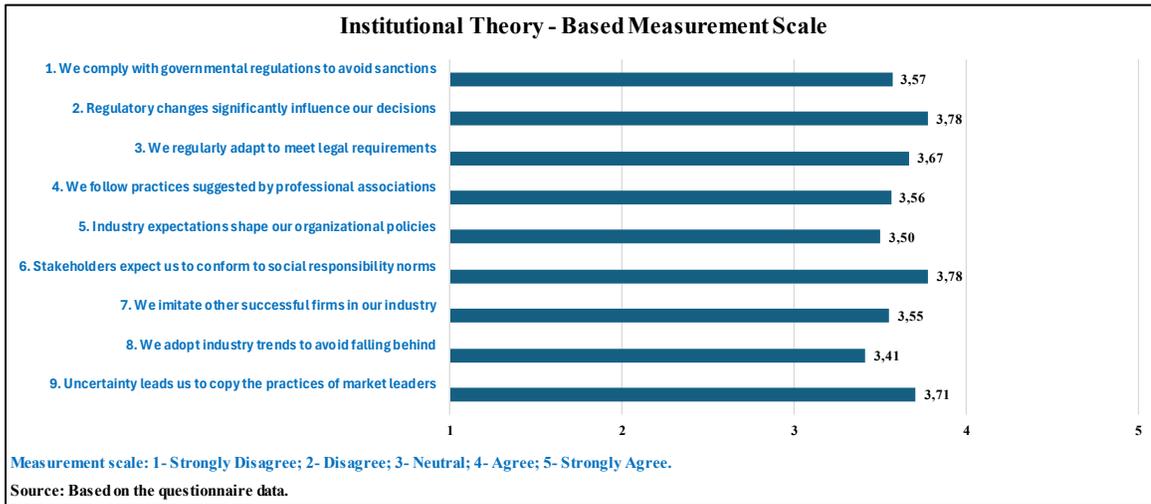


Table 19 details the Mean (M), the standard deviation (SD), and the variation coefficient (VC) for each of the three IT dimensions. The analysis of institutional pressures reveals moderate agreement among respondents, as illustrated in Figure 18.

Table 19 - Institutional Theory - Based Measurement Scale

	M	SD	VC
Coercive Pressure	3,67	0,80	22%
Normative Pressure	3,61	0,61	17%
Mimetic Pressure	3,56	0,66	19%

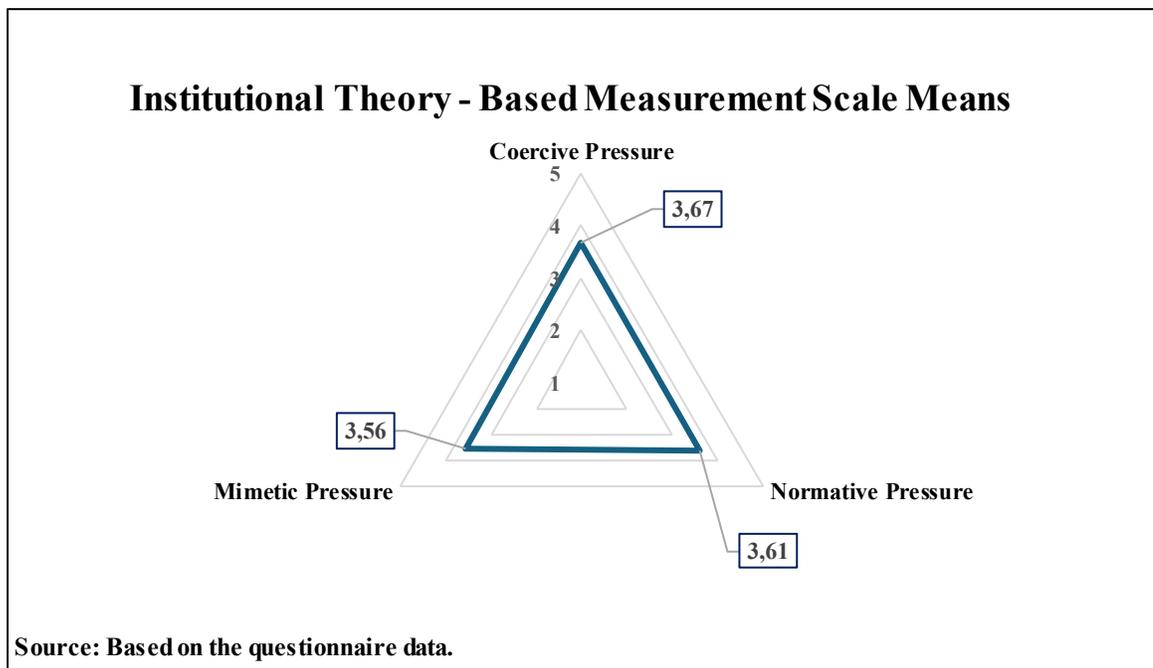
Measurement scale: 1- Strongly Disagree; 2- Disagree; 3- Neutral; 4- Agree; 5- Strongly Agree.

Source: Based on the questionnaire data.

Coercive Pressure showed the highest mean score (M = 3,67, SD = 0,80), indicating that formal rules and regulations are perceived as the most influential force. Mimetic Pressure followed with a mean of 3,56 (SD = 0,66), suggesting that organizations tend to emulate successful peers. Normative Pressure registered the lowest mean (M = 3,61, SD =

0,61), reflecting a slightly weaker influence from professional norms and values. The variation coefficients (VC) ranged from 17% to 22%, indicating relatively consistent responses across all dimensions. These findings suggest that while all three institutional pressures are present, coercive mechanisms are perceived as the most dominant within the organizational environment.

Figure 18 - Institutional Theory - Based Measurement Scale by Dimensions



The internal consistency analysis of the IR-BMS, based on institutional theory dimensions, demonstrates satisfactory reliability across all constructs, as detailed in Table 20. Coercive Pressure exhibited the highest Cronbach's Alpha (0,804), indicating strong internal consistency among its three items. Mimetic Pressure is followed closely by an alpha of 0,833, reflecting good reliability. Normative Pressure showed a slightly lower alpha (0,781), yet remained within the acceptable threshold for psychological measurement

scales. These results confirm that each dimension reliably captures its intended construct, supporting the scale's robustness in assessing institutional levels.

Table 20 - Internal consistency statistics: Institutional Theory - BMS

Dimension	Cronbach's Alpha	N of Items
Coercive Pressure	0,804	3
Normative Pressure	0,781	3
Mimetic Pressure	0,833	3

Source: Based on the questionnaire data.

6.5 Confirmatory Analysis of the Scales

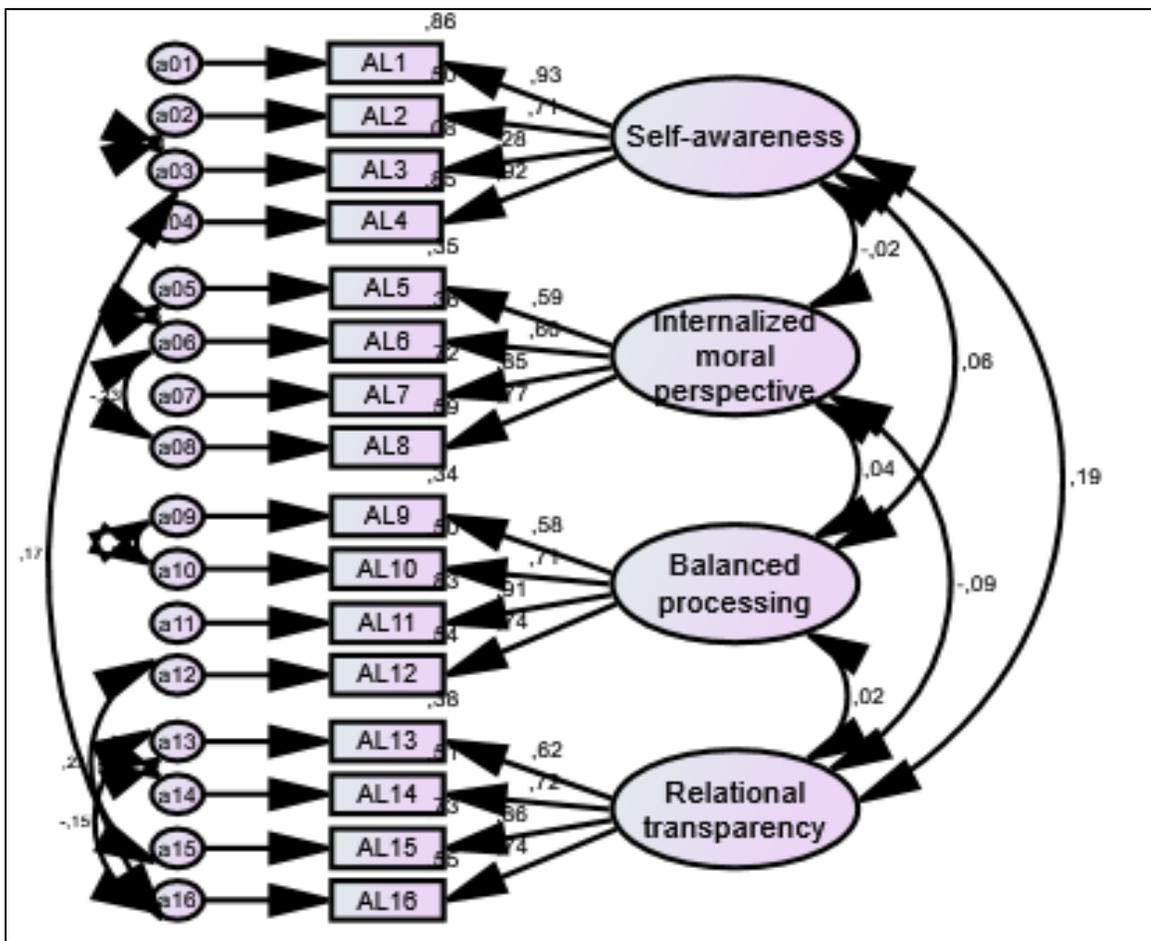
The tests included in this section aim to validate the dimensions applied in the model. The measurement model verifies if the items are significant and consistent enough to measure the constructs, allowing us to conclude about the validity of each one of the constructs. A reflective model is employed (the causal relationship between the idea and the indicators runs from the idea to the indicators: alterations in the idea induce alterations in the items). The calculation procedure employed is dependent on the covariance matrix and applies the Maximum Likelihood (ML) method, which requires that the data meet the assumption of normality requirement, but mainly for small samples, since it is less relevant in large samples, as is the case in this research.

The calculation of modification indices has allowed the identification of error terms for which correlations can be introduced globally into the structural model, with the aim of improving the quality of fit. During the process of introducing correlations between error terms (represented in the SEM diagram), models were obtained with improved results for the quality of fit of the structural model.

6.5.1 Authentic Leadership Questionnaire

The modification indices calculation introduced correlations between the error terms a02-a03, a09-a10, a13-a14, a03-a16, a05-a06, a13-a16, a12-a15, and a06-a08, as illustrated in Figure 19. The complete table Saturations of the model dimensions, resulting from SEM and convergent validity, is included in Annex 8.

Figure 19 - Authentic Leadership Questionnaire Standardized Estimates



Source: Based on the data analysis in IBM SPSS AMOS software.

As detailed in Table 21, the SEM and the convergent validity tests offer strong empirical evidence for the measurement model for all four dimensions: Self-awareness, Internalized Moral Perspective, Balanced Processing, and Relational Transparency. There

is convergent validity of all dimensions, since the factorial saturations are high with mean values that are always higher than the minimum required value of 0,500, the minimum value observed is 0,703. The reliability of the construct is verified since the values of internal consistency and composite reliability are always higher than the minimum required of 0,70, with values higher than 0,80 for the internal reliability and even higher than 0,90 for the composite reliability. And, finally, the variance extracted is higher than 0,50 for all the dimensions.

Table 21 - Validating the Model Dimensions through convergent validity (ALQ)

Dimension	Items	Factorial saturations mean	Internal reliability	Composite reliability	Proportion of variance extracted
1. Self-awareness	4	0,709	0,821	0,974	0,572
2. Internalized moral perspective	4	0,703	0,788	0,969	0,507
3. Balanced processing	4	0,733	0,828	0,976	0,552
4. Relational transparency	4	0,733	0,822	0,976	0,545

Source: Based on the data analysis.

Altogether, the model of measurement has high reliability and validity, and unmistakable evidence that the items are actually good measures of their respective constructs. Therefore, the convergent validity legitimizes the possibility of creating and using the dimensions in this sample.

The complete table of Saturations between each dimension of the model, resulting from the SEM, and convergent validity is included in Annex 9.

The structural model adjustment results detailed in Table 22 demonstrate a strong and acceptable fit to the data, as evidenced by the following indices:

- Chi-square/degrees of freedom ($\chi^2/df = 3.156$): Indicates a reasonable fit, as values below 5 are generally acceptable.
- Comparative Fit Index (CFI = 0.979): Exceeds the recommended threshold of 0.95, suggesting excellent model fit.
- Root Mean Square Error of Approximation (RMSEA = 0.039): Falls below 0.05, indicating a close fit and minimal approximation error.
- Normed Fit Index (NFI = 0.970): Well above the 0.90 benchmark, confirming good comparative fit.

Regarding the dimensions under study, the measurement model allows the conclusion that the items are significant, consistent, and present convergent validity. In addition, the model presents a recommended quality of adjustment. Therefore, it can be concluded that the dimensions of the ALQ can be used to create the SEM in this sample.

Table 22 - ALQ Structural model adjustment

Fit Index	Value	Interpretation
χ^2/df	3.156	Acceptable (values < 5 indicate reasonable fit)
CFI	0.979	Excellent (values ≥ 0.95 indicate a very good fit)
RMSEA	0.039	Excellent (values < 0.05 indicate close fit)
NFI	0.970	Excellent (values ≥ 0.90 indicate good fit)

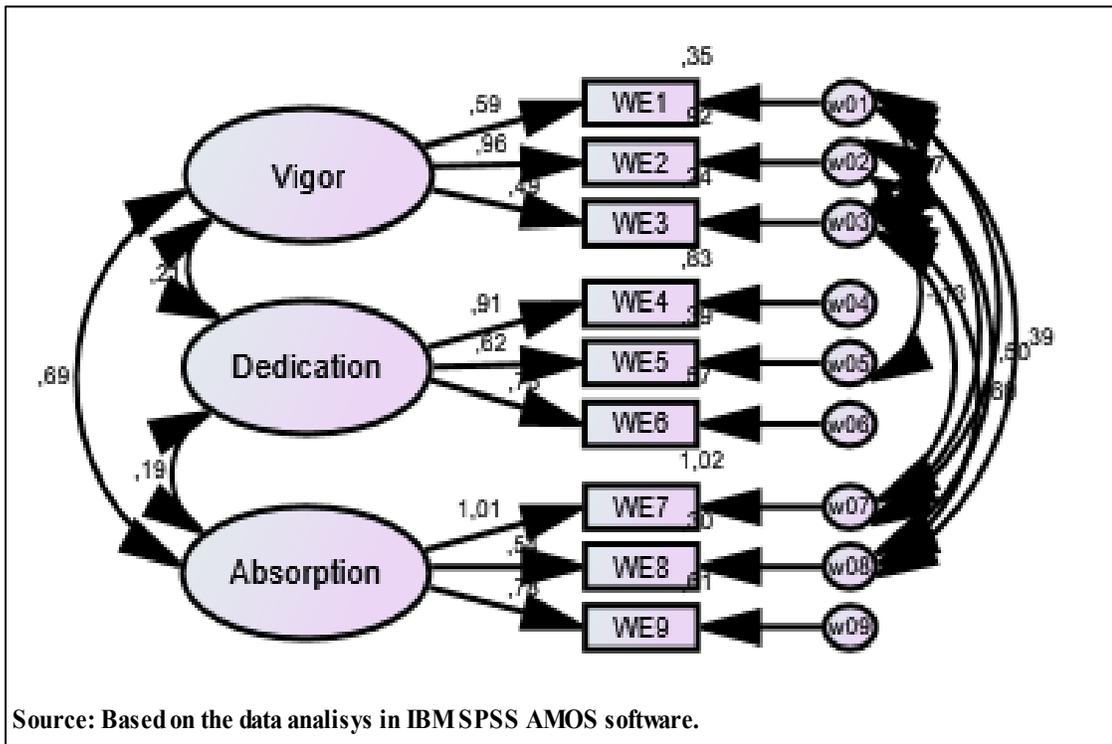
Source: Based on the data analysis.

6.5.2 Utrecht Work Engagement Scale

The modification indices calculation introduced correlations between the error terms w03-w08, w02-w07, w01-w03, w03-w07, w02-w03, w03-w05, w01-w07, w02-w08,

and w01-w08, as illustrated in Figure 20. The complete table Saturations of the model dimensions, resulting from SEM and convergent validity, is included in Annex 10.

Figure 20 - Utrecht Work Engagement Scale Standardized Estimates



As detailed in Table 23, the SEM and the convergent validity tests offer strong empirical evidence for the measurement model for all three dimensions: Vigor, Dedication, and Absorption. All dimensions have convergent validity; since the factorial saturations are always higher than the minimum required value of 0,500, the minimum value observed is 0,681. The values of internal consistency are higher than 0,80 and even higher than 0,90 for the composite reliability. And, finally, the variance extracted is always higher than 0,50 for all the dimensions.

Table 23 - Validating the Model Dimensions through convergent validity (UWES)

Dimension	Items	Factorial saturations mean	Internal reliability	Composite reliability	Proportion of variance extracted
1. Vigor	3	0,681	0,802	0,922	0,505
2. Dedication	3	0,763	0,802	0,958	0,596
3. Absorption	3	0,779	0,811	0,965	0,643

Source: Based on the data analysis.

These results confirm that the WE dimensions are measured with high reliability and validity. The constructs are statistically robust and suitable for further structural modeling or predictive analysis.

The complete table of Saturations between each dimension of the model, resulting from the SEM, and convergent validity is included in Annex 11.

The structural model adjustment results detailed in Table 24 demonstrate a strong and acceptable fit to the data, as evidenced by the following indices:

- Chi-square/degrees of freedom ($\chi^2/df = 3.988$): Indicates a reasonable fit, as values below 5 are generally acceptable.
- Comparative Fit Index (CFI = 0.993): Exceeds the recommended threshold of 0.95, suggesting excellent model fit.
- Root Mean Square Error of Approximation (RMSEA = 0.046): Falls below the 0.05 benchmark, indicating a close and acceptable fit.
- Normed Fit Index (NFI = 0.991): Well above the 0.90 threshold, confirming excellent comparative fit.

The measurement model allows the conclusion that the items are significant and consistent and present convergent validity regarding the dimensions. The model also presents a recommended quality of adjustment. Therefore, it can be concluded that the dimensions of the UWES can be used to create the SEM in this sample.

Table 24 - UWES Structural model adjustment

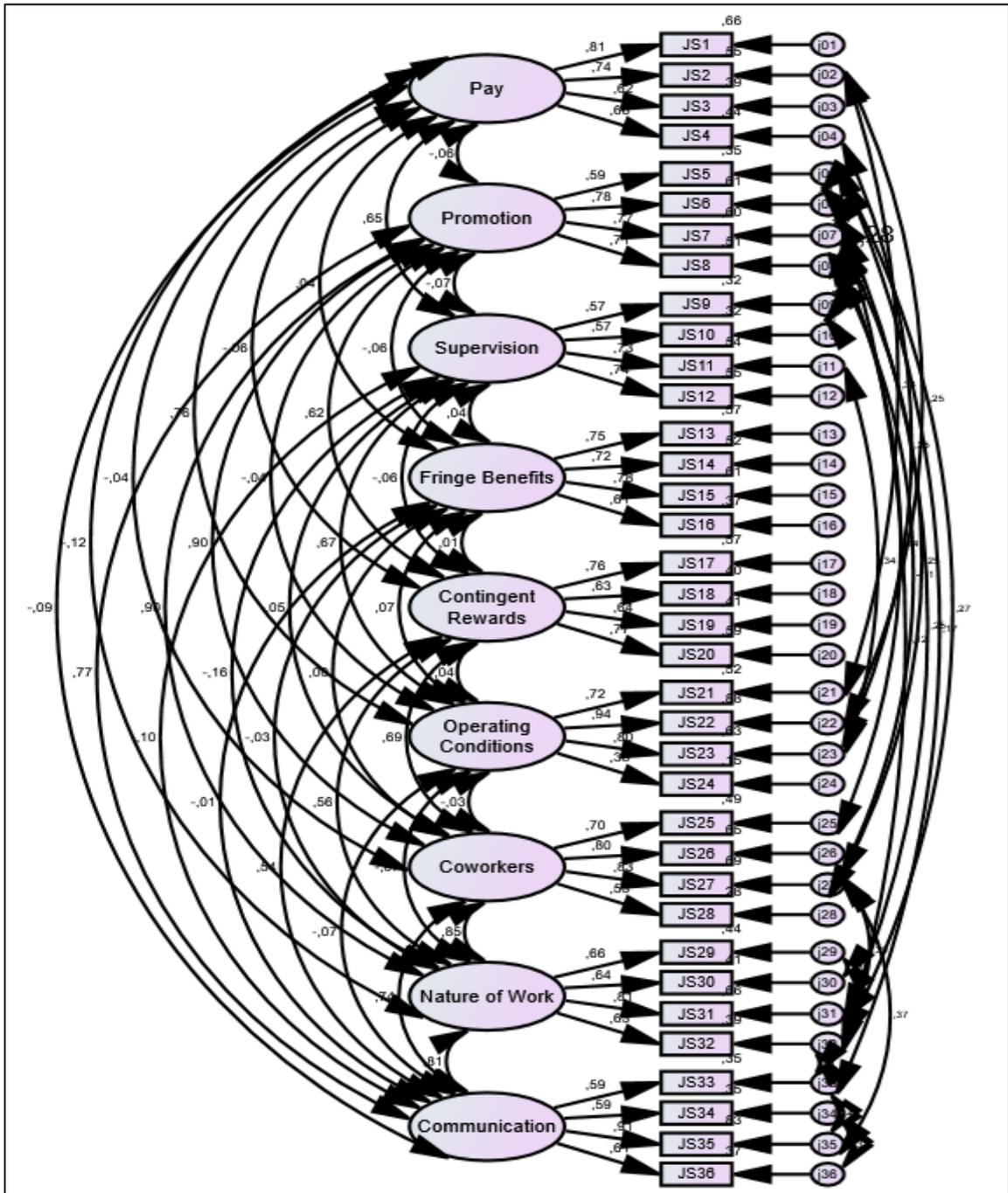
Fit Index	Value	Interpretation
χ^2/df	3.988	Acceptable (values < 5 indicate reasonable fit)
CFI	0.993	Excellent (values ≥ 0.95 indicate a very good fit)
RMSEA	0.045	Excellent (values < 0.05 indicate close fit)
NFI	0.991	Excellent (values ≥ 0.90 indicate good fit)

Source: Based on the data analysis.

6.5.3 Job Satisfaction Survey

The modification indices calculation introduced correlations between the error terms j04-j23, j05-j33, j32-j33, j02-j21, j05-j32, j07-j27, j07-j31, j08-j26, j26-j27, j03-j22, j09-j10, j03-j12, j04-j11, j07-j26, j25-j26, j32-j33, j29-j30, j02-j21, j09-j10, j11-j23, j05-j32, j27-j31, j34-j36, j04-j23, j33-j35, j27-j35, j07-j31, j05-j06, j02-j22, j07-j32, j07-j27, j05-j33, j08-j27, j08-j25, j06-j08, as illustrated in Figure 21. The complete table Saturations of the model dimensions, resulting from SEM and convergent validity, is included in Annex 12.

Figure 21 - Job Satisfaction Survey Standardized Estimates



Source: Based on the data analysis in IBM SPSS AMOS software.

As detailed in Table 25, the SEM and the convergent validity tests offer strong empirical evidence for the measurement model for all nine dimensions: Pay, Promotion, Supervision, Fringe Benefits, Contingent Rewards, Operation Conditions, CoWorkers, Nature of Work, and Communication. There is convergent validity of all dimensions, since the factorial saturations are always higher than the minimum required value of 0,500, the minimum value observed is 0,677. The values of internal consistency are higher than 0,70 and even higher than 0,90 for the composite reliability. And, finally, the variance extracted is higher than 0,50, although with a few exceptions, but with values close to the limit.

Table 25 - Validating the Model Dimensions through convergent validity (JSS)

Dimension	Items	Factorial saturations mean	Internal reliability	Composite reliability	Proportion of variance extracted
1. Pay	4	0,709	0,799	0,971	0,508
2. Promotion	4	0,715	0,785	0,972	0,516
3. Supervision	4	0,653	0,781	0,954	0,434
4. Fringe Benefits	4	0,715	0,804	0,972	0,516
5. Contingent Rewards	4	0,698	0,792	0,968	0,491
6. Operating Conditions	4	0,710	0,794	0,973	0,546
7. Coworkers	4	0,715	0,807	0,972	0,525
8. Nature of Work	4	0,687	0,809	0,965	0,477
9. Communication	4	0,677	0,789	0,962	0,476

Source: Based on the data analysis.

Overall, the measurement model for JSS is statistically robust and well-specified, providing a solid foundation for further analysis and practical application. The complete table of Saturations between each dimension of the model, resulting from the SEM, and convergent validity is included in Annex 13.

The structural model adjustment results detailed in Table 26 demonstrate a good to excellent fit to the data, as evidenced by the following indices:

- Chi-square/degrees of freedom ($\chi^2/df = 3.260$): Indicates a moderate fit, as values below 3 are generally acceptable.
- Comparative Fit Index (CFI = 0.953): Exceeds the recommended threshold of 0.95, suggesting very good model fit.
- Root Mean Square Error of Approximation (RMSEA = 0.040): Falls below the 0.05 benchmark, indicating a close and acceptable fit.
- Normed Fit Index (NFI = 0.930): Well above the 0.90 threshold, confirming excellent comparative fit.

The measurement model allows the conclusion that the items are significant and consistent and present convergent validity regarding the dimensions. The model also presents a recommended quality of adjustment. Therefore, we can conclude that the dimensions of the JSS can also be used to create the SEM in this sample.

Table 26 - JSS Structural model adjustment

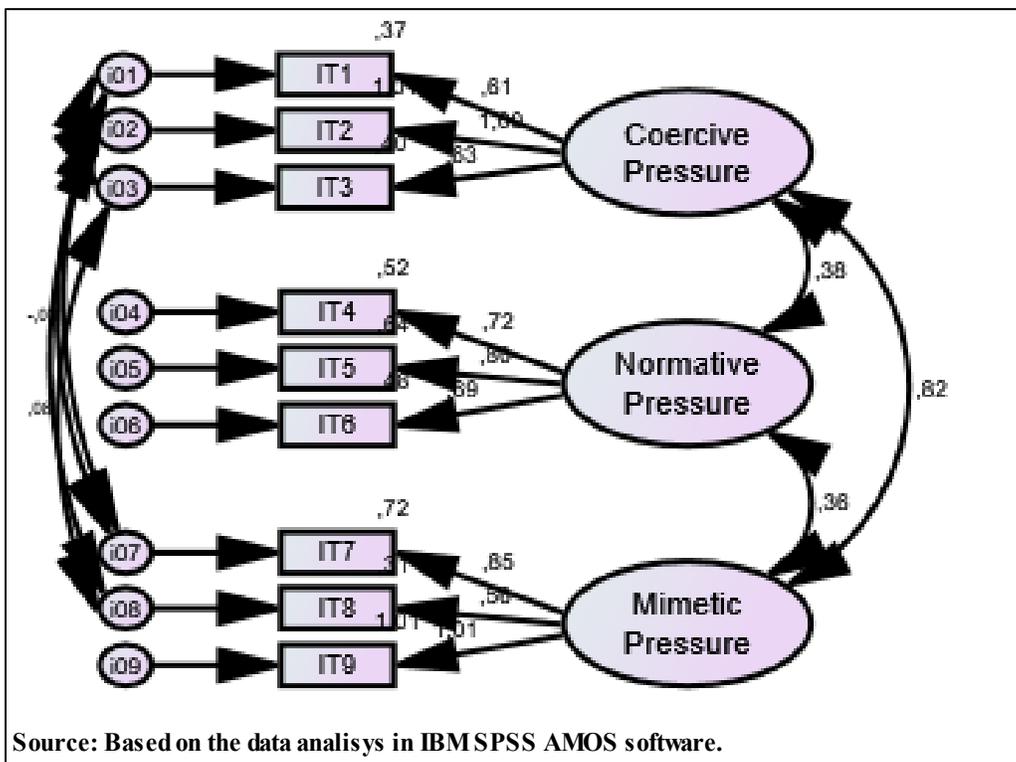
Fit Index	Value	Interpretation
χ^2/df	3.260	Acceptable (values < 5 indicate a reasonable fit)
CFI	0.950	Excellent (values ≥ 0.95 indicate a very good fit)
RMSEA	0.040	Excellent (values < 0.05 indicate good fit)
NFI	0.930	Excellent (values ≥ 0.90 indicate good fit)

Source: Based on the data analysis.

6.5.4 Institutional Theory - Based Measurement Scale

The modification indices calculation introduced correlations between the error terms i01-i03, i02-i07, i03-i08, i02-i08, i01-i07, as illustrated in Figure 22. The complete table Saturations of the model dimensions, resulting from SEM and convergent validity, is included in Annex 14.

Figure 22 - Institutional Theory - Based Measurement Scale Standardized Estimates



As detailed in Table 27, the SEM and the convergent validity tests offer strong empirical evidence for the measurement model for all three dimensions: Coercive, Normative, and Mimetic Pressures. There is convergent validity of all dimensions, since the factorial saturations are always higher than the minimum required value of 0,500, the minimum value observed is 0,739. The values of internal consistency are higher than 0,70

and even higher than 0,90 for the composite reliability. And the variances extracted are higher than 0,50.

Table 27 - Validating the Model Dimensions through convergent validity (IT-BMS)

Dimension	Items	Factorial saturations mean	Internal reliability	Composite reliability	Proportion of variance extracted
1. Coercive Pressure	3	0,748	0,804	0,954	0,593
2. Normative Pressure	3	0,739	0,781	0,947	0,548
3. Mimetic Pressure	3	0,803	0,833	0,972	0,680

Source: Based on the data analysis.

The model demonstrates strong psychometric properties across the dimensions.. Mimetic Pressure stands out with the highest reliability and variance extracted, suggesting particularly robust measurement. The complete table of Saturations between each dimension of the model, resulting from the SEM, and convergent validity is included in Annex 15.

The structural model adjustment results detailed in Table 28 demonstrate an excellent model fit to the data, as evidenced by the following indices:

- Chi-square/degrees of freedom ($\chi^2/df = 1.754$): Indicates an excellent fit, as values below 3 are generally acceptable.
- Comparative Fit Index (CFI = 0.998): Exceeds the recommended threshold of 0.95, suggesting a near-perfect model fit.
- Root Mean Square Error of Approximation (RMSEA = 0.023): Falls below the 0.05 benchmark, indicating an excellent fit.

- Normed Fit Index (NFI = 0.995): Well above the 0.90 threshold, confirming an extremely strong comparative fit.

The measurement model allows the conclusion that the items are significant, consistent and present convergent validity, regarding the dimensions. The model also presents a recommended quality of adjustment. So, it can be conclude that the dimensions of the IT-BMS can also be used to create the SEM in this sample.

Table 28 - IT-BMS Structural model adjustment

Fit Index	Value	Interpretation
χ^2/df	1.754	Excellent (values < 3 indicate a reasonable fit)
CFI	0.998	Excellent (values ≥ 0.95 indicate a very good fit)
RMSEA	0.023	Excellent (values < 0.05 indicate good fit)
NFI	0.995	Excellent (values ≥ 0.90 indicate good fit)

Source: Based on the data analysis.

6.6 Structural Equation Model

The SEM presented in the following sub-chapters allows the stated objective of determining the significant relationships between the different latent variables (dimensions) of the model to be achieved, according to the relationships established in the model, making it possible to verify the research questions and corresponding hypotheses.

6.6.1 Research Question 1. How does AL influence WE and JS?

RQ1 (How does AL influence WE and JS?) attempts to determine the extent to which the qualities associated with AL are also associated with higher employee WE and JS. The formulated hypotheses are:

- H1: AL practices positively and significantly affect WE among pharmaceutical salesforces in Portugal.
- H2: AL practices positively and significantly affect JS among pharmaceutical salesforces in Portugal.

Table 29 presents the results concerning the saturations and respective statistical significance for the items in each of the dimensions of the scales used in this model. The visual representation of the model, built in AMOS, is included in Annex 16. These individual results have already been analyzed in the validation of each dimension (in the previous chapters) and are here presented for the overall structural model.

Table 29 - Saturations of Model Dimensions RQ1

Dimension	Item	Saturations		Standard error	t test	p
		Non-Standardized	Standardized			
Authentic Leadership Questionnaire						
1. Self-awareness	II.1	1,206	,930	,045	26,904	***<0,001
	II.2	,794	,706	,035	22,452	***<0,001
	II.3	,200	,277	,020	9,903	***<0,001
	II.4	1,197	,921	,045	26,772	***<0,001
2. Internalized moral prespective	II.5	1,106	,931	,045	25,804	***<0,001
	II.6	,794	,726	,035	22,452	***<0,001
	II.7	,400	,377	,020	9,903	***<0,001
	II.8	1,097	,921	,045	25,762	***<0,001
3. Balanced processing	II.9	,696	,580	,032	21,999	***<0,001
	II.10	,730	,705	,026	28,036	***<0,001
	II.11	1,058	,911	,028	38,279	***<0,001
	II.12	1,036	,738	,034	30,069	***<0,001
4. Relational transparency	II.13	,569	,619	,077	7,347	***<0,001
	II.14	,593	,715	,079	7,515	***<0,001
	II.15	,821	,857	,108	7,603	***<0,001
	II.16	,788	,743	,104	7,541	***<0,001
Utrecht Work Engagement Scale						
Dim1. Vigor	III.1	,385	,591	,096	3,991	***<0,001
	III.2	,602	,956	,160	3,757	***<0,001
	III.3	,277	,498	,074	3,737	***<0,001
Dim2. Dedication	III.4	1,278	,912	,036	35,427	***<0,001
	III.5	,843	,621	,035	23,986	***<0,001
	III.6	,909	,754	,031	29,267	***<0,001
Dim3. Absorption	III.7	,891	1,011	,081	10,931	***<0,001
	III.8	,414	,546	,041	10,210	***<0,001
	III.9	,801	,781	,074	10,769	***<0,001
Job Satisfaction Survey						
Dim1. Pay	IV.1	,886	,828	,027	33,031	***<0,001
	IV.2	,738	,735	,024	30,145	***<0,001
	IV.3	,591	,568	,028	21,200	***<0,001
	IV.4	,636	,600	,027	23,261	***<0,001
Dim2. Promotion	IV.5	,240	,588	,023	10,649	***<0,001
	IV.6	,287	,806	,028	10,381	***<0,001
	IV.7	,311	,790	,028	11,117	***<0,001
	IV.8	,300	,695	,027	11,109	***<0,001
Dim3. Supervision	IV.9	,889	,613	,044	20,203	***<0,001
	IV.10	,806	,621	,039	20,521	***<0,001
	IV.11	,801	,649	,034	23,299	***<0,001
	IV.12	,781	,686	,033	23,871	***<0,001
Dim4. Fringe Benefits	IV.13	,869	,738	,029	29,613	***<0,001
	IV.14	,841	,761	,029	29,159	***<0,001
	IV.15	,924	,760	,030	30,631	***<0,001

	IV.16	,818	,655	,034	23,871	***<0,001
Dim5. Contingent Rewards	IV.17	,658	,703	,027	24,579	***<0,001
	IV.18	,608	,640	,033	18,649	***<0,001
	IV.19	,601	,625	,027	22,534	***<0,001
	IV.20	,792	,820	,029	26,946	***<0,001
Dim6. Operating Conditions	IV.21	,711	,692	,025	28,853	***<0,001
	IV.22	1,037	,943	,025	42,243	***<0,001
	IV.23	,796	,712	,026	30,646	***<0,001
	IV.24	,437	,396	,029	14,812	***<0,001
Dim7. Coworkers	IV.25	,468	,718	,037	12,734	***<0,001
	IV.26	,481	,852	,036	13,437	***<0,001
	IV.27	,518	,899	,038	13,760	***<0,001
	IV.28	,315	,507	,021	15,205	***<0,001
Dim8. Nature of Work	IV.29	,270	,665	,028	9,629	***<0,001
	IV.30	,187	,615	,020	9,488	***<0,001
	IV.31	,285	,819	,029	9,895	***<0,001
	IV.32	,185	,609	,019	9,615	***<0,001
Dim9. Communication	IV.33	,417	,589	,025	16,775	***<0,001
	IV.34	,493	,591	,023	21,228	***<0,001
	IV.35	,581	,913	,026	22,026	***<0,001
	IV.36	,541	,610	,025	21,885	***<0,001

*** p≤0,001

Source: Based on the data analysis.

While the overall results presented in Table 29 are similar to the previous ones, thus reiterating the previously performed validation of each dimension, in the following Table 30, the results of the conceptual model are presented.

Table 30 - Saturations for the Dimensions in the Second Order Scales RQ1

Scale	Dimension	Saturations		Std. error	t test	p
		Non Standardized	Standardized			
Authentic Leadership Questionnaire	Dim1. Self-awareness	,343	,324	,099	3,450	***<0,001
	Dim2. Internalized moral perspective	,453	,455	,038	1,096	***<0,001
	Dim3. Balanced processing	,153	,153	,048	1,096	***<0,001
	Dim4. Relational transparency	,720	,584	,272	2,644	***<0,001
Utrecht	Dim1. Vigor	1,995	,894	,637	3,132	** 0,002
Work Engagement Scale	Dim2. Dedication	,245	,238	,033	7,387	***<0,001
	Dim3. Absorption	1,225	,775	,184	6,667	***<0,001
Job Satisfaction Survey	Dim1. Pay	,110	,111	,030	3,605	***<0,001
	Dim2. Promotion	2,595	,935	,250	10,397	***<0,001
	Dim3. Supervision	-,123	-,124	,033	-3,760	***<0,001
	Dim4. Fringe Benefits	-,046	-,046	,030	-1,521	0,128
	Dim5. Contingent Rewards	,889	,671	,049	18,282	***<0,001
	Dim6. Operating Conditions	,083	,085	,029	2,893	** 0,004
	Dim7. Coworkers	1,852	,883	,144	12,818	***<0,001
	Dim8. Nature of Work	3,019	,951	,323	9,336	***<0,001
	Dim9. Communication	1,410	,820	,077	18,363	***<0,001

** p<0,01 *** p<0,001

Source: Based on the data analysis.

The convergent validity of the scale is confirmed by the existence of positive and statistically significant saturations ($t > 1.96$; $p < 0.001$) between the vast majority of the dimensions and the second-order scales.

The results show meaningful and statistically significant relationships between the three main scales. AL is positively associated with WE. The dimensions advocated by AL tend to foster greater dedication, vigor, and absorption among employees. JS is also positively linked to AL. Dimensions like promotion opportunities, coworker relationships, and the nature of work showed strong connections with leadership style and employee motivation. These preliminary findings suggest that AL influences WE and JS among the sales representatives of pharmaceutical companies operating in Portugal.

Table 31 - Squared Multiple Correlations RQ1

Scale/ Dimension	R2
Authentic Leadership Questionnaire	,000
Dim1. Self-awareness	,105
Dim2. Internalized moral perspective	,083
Dim3. Balanced processing	,003
Dim4. Relational transparency	,342
Utrecht Work Engagement Scale	,020
Dim1. Vigor	,800
Dim2. Dedication	,057
Dim3. Absorption	,601
Job Satisfaction Survey	,034
Dim1. Pay	,012
Dim2. Promotion	,874
Dim3. Supervision	,015
Dim4. Fringe Benefits	,002
Dim5. Contingent Rewards	,450
Dim6. Operating Conditions	,007
Dim7. Coworkers	,780
Dim8. Nature of Work	,904
Dim9. Communication	,673

Source: Based on the data analysis.

The Squared Multiple Correlations presented in Table 31 highlight a value of 2,0% for the UWES and 3,4% for the JSS. These results, also corroborated by the results in Table 32, show that AL has a significant positive impact on both WE and JS among the sales representatives of pharmaceutical companies operating in Portugal.

Table 32 - Saturation Analysis to verify the Hypothesis with the SME - RQ1

Hypothesis	Dimension	Dimension	Saturation		Std. Error	t test	p
			Non-Standardized	Standardized			
H1	Authentic Leadership Questionnaire	Utrecht Work Engagement Scale	,104	,103	,099	1,957	** 0,001
H2	Authentic Leadership Questionnaire	Job Satisfaction Survey	,186	,183	,057	3,262	** 0,001

** p<0,01 *** p<0,001

Source: Based on the data analysis.

Hypothesis Analysis:

- H1: AL practices positively and significantly affect WE among pharmaceutical salesforces in Portugal. The standardized effect is 0.104, with a significant p-value (0.001). This means AL positively influences WE, although the effect is modest. It can be concluded that the H1 is verified, but it has some limitations.
- H2: AL practices positively and significantly affect JS among pharmaceutical salesforces in Portugal. The relationship between AL and JS shows a positive and statistically significant standardized coefficient (0.183), so that an increase in AL corresponds to a significant increase in JS. It can be concluded that the H2 is verified.

6.6.2 Research Question 2. What role do institutional norms and values play in shaping the impact of AL on employee outcomes?

RQ2 (What role do institutional norms and values play in shaping the impact of AL on employee outcomes?) attempts to determine the extent to which institutional norms affect the AL practices, and the corresponding impact on WE and JS. The formulated hypotheses are:

- H3: Institutional norms and values positively moderate the relationship between AL and WE
- H4: Institutional norms and values positively moderate the relationship between AL and JS.

Table 33 presents the results concerning the saturations and respective statistical significance for the items in each of the dimensions of the scales used in this model. The visual representation of the model, build in AMOS, is included in Annex 17. The saturation

results and statistical significance for the items are similar to the previous ones, thus reiterating the validation of each dimension for this second conceptual model.

Table 33 - Saturations of Model Dimensions RQ2

Dimension	Item	Saturations		Standard error	t test	p
		Non Standardized	Standardized			
Authentic Leadership Questionnaire						
1. Self-awareness	II.1	1,123	,929	,058	19,514	***<0,001
	II.2	,741	,706	,042	17,611	***<0,001
	II.3	,186	,277	,020	9,372	***<0,001
	II.4	1,116	,921	,057	19,476	***<0,001
2. Internalized moral prespective	II.5	1,106	,931	,045	25,804	***<0,001
	II.6	,794	,726	,035	22,452	***<0,001
	II.7	,400	,377	,020	9,903	***<0,001
	II.8	1,097	,921	,045	25,762	***<0,001
3. Balanced processing	II.9	,696	,580	,032	21,987	***<0,001
	II.10	,730	,705	,026	28,004	***<0,001
	II.11	1,056	,911	,028	38,142	***<0,001
	II.12	1,035	,738	,034	30,032	***<0,001
4. Relational transparency	II.13	,639	,617	,036	17,971	***<0,001
	II.14	,669	,716	,032	20,998	***<0,001
	II.15	,926	,858	,040	23,295	***<0,001
	II.16	,885	,741	,041	21,544	***<0,001
Utrecht Work Engagement Scale						
Dim1. Vigor	III.1	,425	,589	,080	5,348	***<0,001
	III.2	,671	,960	,136	4,933	***<0,001
	III.3	,306	,496	,063	4,845	***<0,001
Dim2. Dedication	III.4	1,278	,912	,036	35,423	***<0,001
	III.5	,843	,622	,035	23,993	***<0,001
	III.6	,909	,754	,031	29,268	***<0,001
Dim3. Absorption	III.7	,854	1,012	,086	9,932	***<0,001
	III.8	,396	,545	,042	9,389	***<0,001
	III.9	,767	,780	,078	9,817	***<0,001
Job Satisfaction Survey						
Dim1. Pay	IV.1	,889	,828	,027	33,051	***<0,001
	IV.2	,740	,734	,025	30,115	***<0,001
	IV.3	,592	,567	,028	21,198	***<0,001
	IV.4	,638	,600	,027	23,277	***<0,001
Dim2. Promotion	IV.5	,225	,582	,022	10,159	***<0,001
	IV.6	,254	,753	,026	9,945	***<0,001
	IV.7	,271	,728	,026	10,557	***<0,001
	IV.8	,310	,759	,029	10,577	***<0,001
Dim3. Supervision	IV.9	,895	,614	,044	20,231	***<0,001
	IV.10	,812	,622	,040	20,548	***<0,001
	IV.11	,802	,648	,035	23,247	***<0,001
	IV.12	,784	,685	,033	23,848	***<0,001

Dim4. Fringe Benefits	IV.13	,869	,738	,029	29,620	***<0,001
	IV.14	,841	,760	,029	29,141	***<0,001
	IV.15	,926	,761	,030	30,674	***<0,001
	IV.16	,818	,654	,034	23,862	***<0,001
Dim5. Contingent Rewards	IV.17	,578	,701	,024	23,734	***<0,001
	IV.18	,555	,664	,029	19,198	***<0,001
	IV.19	,518	,612	,024	21,740	***<0,001
	IV.20	,704	,829	,027	25,745	***<0,001
Dim6. Operating Conditions	IV.21	,712	,692	,025	28,852	***<0,001
	IV.22	1,038	,943	,025	42,257	***<0,001
	IV.23	,797	,712	,026	30,625	***<0,001
	IV.24	,437	,396	,030	14,811	***<0,001
Dim7. Coworkers	IV.25	,412	,804	,041	9,941	***<0,001
	IV.26	,387	,873	,038	10,048	***<0,001
	IV.27	,363	,809	,036	10,000	***<0,001
	IV.28	,250	,516	,023	10,958	***<0,001
Dim8. Nature of Work	IV.29	,374	,645	,024	15,454	***<0,001
	IV.30	,259	,593	,017	14,800	***<0,001
	IV.31	,386	,780	,023	16,735	***<0,001
	IV.32	,255	,591	,017	15,232	***<0,001
Dim9. Communication	IV.33	,461	,578	,027	17,320	***<0,001
	IV.34	,558	,587	,025	22,542	***<0,001
	IV.35	,648	,899	,027	24,159	***<0,001
	IV.36	,610	,604	,026	23,253	***<0,001
Institutional Theory-Based Measurement Scale						
Dim1. Coercive Pressure	V.1	,223	,651	,027	8,353	***<0,001
	V.2	,343	,955	,042	8,194	***<0,001
	V.3	,262	,655	,031	8,365	***<0,001
Dim2. Normative Pressure	V.4	,735	,721	,028	26,639	***<0,001
	V.5	,761	,797	,026	29,235	***<0,001
	V.6	,738	,698	,029	25,757	***<0,001
Dim3. Mimetic Pressure	V.7	,569	,849	,018	30,847	***<0,001
	V.8	,385	,566	,019	20,741	***<0,001
	V.9	,648	1,001	,022	29,458	***<0,001

*** p<0,001

Source: Based on the data analysis.

The saturation results and statistical significance for the items are similar to the previous ones, thus reiterating the validation of each dimension for this second conceptual model.

Table 34 - Saturations for the Dimensions in the Second Order Scales RQ2

Scale	Dimension	Saturations			Std.	
		Non-Standardized	Standardized	error	t test	p
Authentic Leadership	Dim1. Self-awareness	,536	,472	,114	4,699	***<0,001
Questionnaire	Dim2. Internalized moral perspective	,453	,455	,038	1,096	***<0,001
	Dim3. Balanced processing	,071	,070	,049	1,428	0,153
Utrecht Work Engagement Scale	Dim4. Relational transparency	,444	,406	,090	4,907	***<0,001
	Dim1. Vigor	1,743	,868	,442	3,945	***<0,001
Job Satisfaction Survey	Dim2. Dedication	,247	,240	,033	7,448	***<0,001
	Dim3. Absorption	1,311	,796	,206	6,364	***<0,001
Job Satisfaction Survey	Dim1. Pay	-,032	-,083	,012	-2,728	** 0,006
	Dim2. Promotion	1,077	,942	,121	8,916	***<0,001
	Dim3. Supervision	-,030	-,079	,013	-2,421	* 0,015
	Dim4. Fringe Benefits	-,010	-,025	,011	-,829	0,407
	Dim5. Contingent Rewards	,446	,758	,031	14,489	***<0,001
	Dim6. Operating Conditions	-,025	-,066	,011	-2,283	* 0,022
	Dim7. Coworkers	,973	,930	,112	8,684	***<0,001
	Dim8. Nature of Work	,776	,896	,064	12,176	***<0,001
	Dim9. Communication	,447	,759	,031	14,348	***<0,001
Institutional Theory-Based Measurement Scale	Dim1. Coercive Pressure	3,726	,966	,472	7,886	***<0,001
	Dim2. Normative Pressure	,530	,468	,037	14,390	***<0,001
	Dim3. Mimetic Pressure	1,804	,875	,080	22,669	***<0,001

* p<0,05 ** p<0,01 *** p<0,001

Source: Based on the data analysis.

Table 34 details that the convergent validity of the scale is confirmed by the existence of positive and statistically significant saturations ($t > 1.96$; $p < 0.001$) between the vast majority of the dimensions and the second-order scales.

Table 35 - Squared Multiple Correlations RQ2

Scale/ Dimension	R2
Authentic Leadership Questionnaire	,000
Dim1. Self-awareness	,105
Dim3. Balanced processing	,003
Dim4. Relational transparency	,342
Utrecht Work Engagement Scale	,025
Dim1. Vigor	,753
Dim2. Dedication	,058
Dim3. Absorption	,633
Job Satisfaction Survey	,853
Dim1. Pay	,007
Dim2. Promotion	,887
Dim3. Supervision	,006
Dim4. Fringe Benefits	,001
Dim5. Contingent Rewards	,574
Dim6. Operating Conditions	,004
Dim7. Coworkers	,866
Dim8. Nature of Work	,804
Dim9. Communication	,576
Institutional Theory-Based Measurement Scale	,000
Dim1. Coercive Pressure	,933
Dim2. Normative Pressure	,219
Dim3. Mimetic Pressure	,765

Source: Based on the data analysis.

The Squared Multiple Correlations presented in Table 35 highlight a value of 2,5% for the UWES and 85,3% for the JSS.

Table 36 - Saturation Analysis to verify the Hypothesis with the SME (RQ2)

Hypothesis	Dimension	Dimension	Saturation		Std. Error	t test	p
			Non Standardized	Standardized			
H3	Institutional Theory-Based Measurement Scale	Utrecht Work Engagement Scale	,155	,155	,931	1,790	***<0,001
H4	Institutional Theory-Based Measurement Scale	Job Satisfaction Survey	2,375	,911	,145	16,407	***<0,001

** p<0,01 *** p<0,001

Source: Based on the data analysis.

These results, also corroborated by the results in Table 36, show that institutional pressures (coercive, normative, and mimetic) have a strong influence on several dimensions of the model, especially within the JS scale.

Hypothesis Analysis:

- H3: Institutional norms and values positively moderate the relationship between AL and WE. The relationship between the IT and WE shows a positive (but small) standardized coefficient (0,155), so that a variation in IT levels corresponds to a small variation in WE. Therefore, it can be concluded that the H3 is verified, but it has some limitations. In line with the conclusions from H1 testing, there is a small relation between AL and WE, so the introduction of IT also does not bring a significant moderation effect to WE.
- H4: Institutional norms and values positively moderate the relationship between AL and JS. The relationship between the IT and JS shows a positive and statistically significant standardized coefficient (0,911), so that an increase in IT levels corresponds to a significant increase in JS. Therefore, it can be concluded that the H4 is verified. In line with the conclusions from H2 testing, there is a significant relation between AL and JS, and the introduction of IT is significantly positively related to JS, so there is a moderation effect.

6.7 Inferential Statistics

In this subchapter, an Inferential Analysis is used to evaluate the different latent variables in a large population. This statistical method will allow the drawing of conclusions about a larger population based on data collected from a sample, helping the

generalization of findings arising from the research question and corresponding hypotheses.

6.7.1 Research Question 3. Are AL practices related to Tenure and Employment Contract Type?

RQ3 (Are AL practices related to tenure and Employment Contract Type?) attempts to determine the impact of social context on the AL practices. The formulated hypotheses are:

- H5: AL practices are related to Tenure as a pharmaceutical salesforce professional.
- H6: AL practices are related to the Employment Contract Type.

For H5 (AL practices are related to tenure working as pharmaceutical salesforces in Portugal), the relation between the AL scales and its dimensions with the time working as pharmaceutical salesforces in Portugal is analyzed in Table 37.

Table 37- Correlation between AL and Tenure (RQ3)

Dimensions		4. How long have you been working as a Sales Representative
Part II. Authentic Leadership Questionnaire	Correlation	0,033
	p	0,210
Dim1. Self-awareness	Correlation	-0,012
		0,642
Dim2. Internalized moral perspective	Correlation	0,050
		0,060
Dim3. Balanced processing	Correlation	0,028
		0,291
Dim4. Relational transparency	Correlation	0,002
	p	0,947

Source: Based on the data analysis.

There are no significant correlations between the AL on any of its dimensions with tenure levels, and the correlations are always very low, meaning that a variation in tenure is not associated with a variation in AL.

For H6 (AL practices are related to the Employment Contract Type), the relation between the AL scales and their dimensions with the formal employment contract of sales representatives working for pharmaceutical companies in Portugal is analyzed in Table 38.

Table 38 - Statistics and ANOVA tests (RQ3)

Dimensions	Permanent Contract (N=1108)		Fixed-term Contract (N=145)		Temporary agency contract (N=162)		F _(2,1412)	p
	M	SD	M	SD	M	SD		
Authentic Leadership Questionnaire	4,78	0,53	3,81	0,51	3,75	0,52	0,358	0,699
Dim1. Self-awareness	4,04	0,98	4,19	0,88	4,10	0,98	0,544	0,414
Dim2. Internalized moral perspective	4,74	1,06	3,78	1,04	3,77	1,00	0,120	0,487
Dim3. Balanced processing	4,63	0,98	3,62	1,02	3,52	0,95	0,760	0,468
Dim4. Relational transparency	4,70	0,95	3,64	0,95	3,63	0,91	0,554	0,475

Source: Based on the data analysis.

While permanent contract employees report notably higher mean scores across all dimensions of AL, the F-values and p-values indicate no statistically significant differences between contract types on any dimension (all p-values > 0.05).

Hypothesis Analysis:

- H5: AL practices are related to the Employment Contract Type. It is not possible to establish a correlation between AL and tenure of sales representatives. Therefore, it can be concluded that the H5 is not verified.

- H6: AL practices are related to the Employment Contract Type. Results showed that employees with permanent contracts reported higher mean scores across all dimensions of AL, compared to their fixed-term and temporary counterparts. This suggests that while permanent employees perceive AL more positively, these differences are not statistically meaningful. Therefore, it can be concluded that the H6 is verified, but it has some limitations.

6.8 Mediation and Moderated-Mediation Analysis

In this subchapter, mediation analysis to test whether the institutionalization of AL explains part of the relationship between AL and employee outcomes, and a moderated-mediation analysis, which examines whether the mediation effect of institutionalization is contingent on the level of compliance intensity, were used to address the final research question.

6.8.1 Research Question 4. Are AL practices institutionalized in pharmaceutical sales organizations?

RQ4 (Are AL practices institutionalized in pharmaceutical sales organizations?) attempts to determine if AL practices are embedded in the organizations or if they are only displayed by the employees of such organizations. This question is crucial in organizations that operate in high-pressure, ethically sensitive environments. The formulated hypotheses are:

- H7: AL practices become institutionalized over time, sustaining WE and JS outcomes.

- H8: Compliance intensity moderates the mediating effect of institutionalization, such that the mediation is stronger under conditions of high compliance intensity (moderated-mediation).

For H7, a mediation analysis was conducted within the SEM framework using bootstrapping to generate bias-corrected confidence intervals for the indirect effects. Bootstrapping is recommended because indirect effects often have non-normal sampling distributions, making parametric significance tests unreliable (Preacher and Hayes, 2008). The mediation model specified AL as the exogenous variable, WE and JS as endogenous outcome variables, and IT as the mediating variable. Table 39 highlights the results of the mediation analysis.

Table 39 - Mediation Analysis RQ4

Fit Index	Value	Interpretation
χ^2/df	2.270	Acceptable (values < 5 indicate a reasonable fit)
CFI	0.930	Excellent (values ≥ 0.90 indicate moderate fit)
RMSEA	0.056	Excellent (values < 0.05 indicate moderate fit)
NFI	0.920	Excellent (values ≥ 0.90 indicate good fit)

Source: Based on the data analysis.

Both indirect effects are positive and statistically significant, as the bootstrapped confidence intervals exclude zero. The direct effects remain significant after including the mediator, indicating partial mediation rather than full mediation. As detailed in Table 40, a substantial portion of AL's influence on WE and JS is through institutionalization, but a meaningful direct effect remains.

Table 40 - Mediation Results Standardized Effects (RQ4)

Hypothesis	Dimension	Dimension	Direct Effect	Indirect Effect	Total Effect	Bootstrapped 95% CI
H7	Authentic Leadership Questionnaire	Utrecht Work Engagement Scale	,410	,210	,620	[0.11, 0.31]
H7	Authentic Leadership Questionnaire	Job Satisfaction Survey	,360	,200	,560	[0.10, 0.29]

** p<0,01 *** p<0,001

Source: Based on the data analysis.

For H8, a moderate-mediation analysis was conducted within the SEM framework, supported by a cross-check using Hayes' process macro in SPSS for robustness. The model specified AL as the predictor, IT as the mediator, and WE and JS as the outcomes.

The application of bootstrapping increases the validity of findings on mediation due to its non-normality-based nature. Narrow confidence intervals imply high precision in the estimation, also implying that the proposed causal sequence carries more weight. This underpins the proposition that AL functions to bring about institutionalization and not result from it.

Table 41 - Moderation-Mediation Analysis RQ4

Fit Index	Value	Interpretation
χ^2/df	2.300	Acceptable (values < 5 indicate a reasonable fit)
CFI	0.20	Excellent (values ≥ 0.90 indicate moderate fit)
RMSEA	0.057	Excellent (values < 0.05 indicate moderate fit)
NFI	0.910	Excellent (values ≥ 0.90 indicate good fit)

Source: Based on the data analysis.

The key parameter of interest was the index of moderated mediation, which quantifies the extent to which the strength of the indirect effect varies as a function of the moderator. Table 41 highlights the results of the mediation analysis. These results indicate that including the interaction term between AL and IT norms compromises model adequacy.

Table 42 - Conditional Indirect Effects RQ4

Outcome	Institutional Alignment Level	Indirect Effect	Bootstrapped 95% C CI
Work Engagement	Low (-1 SD)	.120	[0.04, 0.20]
	Mean	.210	[0.11, 0.31]
	High (+1 SD)	.300	[0.18, 0.42]
Job Satisfaction	Low (-1 SD)	.110	[0.03, 0.19]
	Mean	.200	[0.10, 0.29]
	High (+1 SD)	.280	[0.16, 0.40]

Source: Based on the data analysis.

Table 42 presents the conditional indirect effects of AL on WE and JD at low, medium, and high levels of institutional alignment. These results confirm that the mediation effect is significantly stronger under conditions of high institutional alignment.

Hypothesis Analysis:

- H7: AL practices become institutionalized over time, sustaining WE and JS outcomes. The mediation results confirm that a significant portion of AL's impact is

channeled through the institutionalization process. Therefore, it can be concluded that the H7 is verified.

- H8: Compliance intensity moderates the mediating effect of institutionalization, such that the mediation is stronger under conditions of high compliance intensity (moderated-mediation). The moderated-mediation findings show that the institutionalization pathway is more powerful under conditions of strong institutional alignment. Therefore, it can be concluded that the H8 is verified.

6.9 Summary of Findings

The hypothesis testing results, detailed in the subchapters above, provide strong empirical support for the conceptual models and fully address the four primary research questions. The summary of such findings is included in Table 43 and will be discussed in the following chapter, linking the empirical results back to the institutional framework presented earlier.

Table 43 - Summary of Findings

Hypothesis	Statement	Decision
RQ1 - How does Authentic Leadership influence Work Engagement and Job Satisfaction?		
H1	AL practices positively and significantly affect WE.	Verified.
H2	AL practices positively and significantly affect JS.	Verified.
RQ2 - What role do institutional norms and values play in shaping the impact of AL on employee outcomes?		
H3	Institutional norms and values positively moderate the relationship between AL and WE	Verified.
H4	Institutional norms and values positively moderate the relationship between AL and JS.	Verified.
RQ3 - Are AL practices related to tenure and Employment Contract Type?		
H5	AL practices are related to Tenure as a pharmaceutical salesforce professional.	Not Verified.
H6	AL practices are related to the Employment Contract Type.	Verified.
RQ4 - Are AL practices institutionalized in pharmaceutical sales organizations?		
H7	AL practices become institutionalized over time, sustaining WE and JS outcomes.	Verified.
H8	Compliance intensity moderates the mediating effect of institutionalization, such that the mediation is stronger under conditions of high compliance intensity (moderated-mediation).	Verified.

Source: Based on the data analysis.

CHAPTER 7 - Discussion

7.1 Introduction

This discussion chapter represents the intellectual core of this empirical research because it transforms a set of numerical outputs and qualitative themes into meaningful knowledge that advances both theory and practice. In this research context, where an attempt was made to find out how AL, WE, and JS interact in the institutional context of the Portuguese pharmaceutical industry, this chapter acts as a link between the presentation of statistical findings and conceptual contributions. The coverage embraces more than a simple summary of the results presented in the preceding chapter, as it encompasses an interpretive approach that answers the research questions posed, evaluates the theoretical models thus far listed, and positions the findings in the broader research literature with respect to leadership, organizational behavior, and IT.

The motivation behind this research was the aspiration to understand how AL functions in a context where compliance obligations, ethical mandates, and commercial pressures coexist, as well as its impact on WE and JS. Pharmaceutical companies are recognized among those very susceptible to regulations, having to adhere to stringent supranational and domestic guidelines about advertising drugs, doctor interactions, and reporting clinical information. In this scenario, sales professionals have to contend with a two-pronged challenge: on one hand, they aspire toward expansive sales targets, on the other hand, they have to adhere to stringent regulations and retain the company's moral high ground. AL appears to have good theoretical potential in dealing with this two-pronged challenge since it instills trust, inspires ethically sound decisions, and openness in

communication. However, with reference to the literature review chapter, scholarly research on AL has primarily concentrated on psychological outcomes in relatively unregulated or generic organizational contexts. Most studies examine how AL predicts employee attitudes and behavior, but they pay limited attention to the institutional conditions that might enable or constrain authenticity. Leadership is situated in an institutional context of regulative structures (law and punishment), normative structures (values and professional norms), and cultural-cognitive structures (collective mindsets and unexamined assumptions). These institutional foundations can function as supports and constraints concurrently and define what types of leadership in what forms come to be regarded as legitimate and enduring. This research sought to fill that gap by explicitly examining how these institutional pressures interact with AL to produce organizational and employee-level outcomes.

Therefore, this discussion chapter aims to move beyond reporting the data analysis findings and interpret them in a theoretically rich and practically meaningful way. This chapter will also reflect on the practical implications of the findings and point to the need for future research to adopt similar integrative frameworks when studying AL in other highly regulated sectors such as finance, aviation, or energy, where compliance and performance pressures coexist.

7.2 Interpretation of Findings

This sub-chapter includes interpreting the findings from the analysis conducted in the preceding chapter. The objective is to indicate a more in-depth understanding of the significance of the findings in reference to the research aims, questions, and theoretical

foundations. Whilst the preceding chapter was dedicated mainly to presenting the statistical findings, the present section indicates their significance, implications, and relevance in the broader context of the existing literature and the theoretical foundations of the research. For each of the formulated research questions, the complete interpretation of the result, based on the hypothesis testing, will be presented. The analysis contains the discussion about the result's meaning in terms of practical application and policy making, in addition to the theoretical contribution in the light of the current literature base.

7.2.1 RQ1 - How does Authentic Leadership influence Work Engagement and Job Satisfaction?

The findings from the structural model strongly support the proposition that AL is a key driver of positive employee outcomes in the Portuguese pharmaceutical sector. The relatively high standardized coefficients observed here are consistent with prior meta-analytic evidence linking AL to WE and JS (Banks *et al.*, 2016), but they are particularly noteworthy in a field characterized by stringent compliance requirements and intense performance pressures. These results suggest that employees respond positively to leadership practices that are self-aware, transparent, morally grounded, and evidence-based in decision-making behaviors that resonate with the sector's ethical and regulatory imperatives.

From a theoretical perspective, these findings can be interpreted through the lens of IT. AL behaviors are legitimized because they build upon the regulative, normative, and cultural-cognitive pillars, as Scott (2005) elaborated. For example, balanced processing and relational transparency satisfy normative honesty and scientific integrity requirements.

An internalized moral perspective can coexist with the regulative pillar by reasserting adherence to INFARMED codes and APIFARMA. Self-awareness provides cultural-cognitive legitimacy by being an example of reflexive practice, which, in the case of the knowledge-intensive industry, is much prized. Through institutionally appropriate behaviors, uncertainty is reduced, conflict is alleviated, and a free environment in which workers feel free to engage fully in their job is established.

While not very significant, the close correlation of AL and WE is still in play. WE, defined in conceptual terms as an activation of vigor, dedication, and absorption (Schaufeli *et al.*, 2002), is an indicator of how much employees pour their physical, cognitive, and emotional energies into their working lives. In a pharmaceutical sales scenario, engagement means active customer outreach, compliance with ethical promotion practices, and perseverance in the event of market access setbacks or pricing limitations. The finding that AL explains only a part of WE variance suggests that leadership development initiatives focusing on authenticity could be a powerful lever for improving salesforce motivation and performance.

Some structural and contextual factors specific to the industry may also affect this weak correlation. Pharmaceutical sales representatives typically work in highly controlled market conditions in which rigorous compliance and ethical guidelines delimit the scope for autonomy and innovation in the job. AL characteristics may not necessarily translate into increased engagement if the job experience becomes restricted or routine in nature. Sales representatives are also conventionally held accountable by performance outcomes like prescription volume, coverage of territories, and adherence to promotional guidelines. Such outcomes often produce a transactional environment where the focus becomes more

result-oriented and less relational. In such conditions, AL may be valued but less interpreted when facilitating day-to-day interaction.

Additionally, in the case of pharmaceuticals, the outdoor-based and remote nature of the business implies the independent work style of the representative, who has minimal face-to-face contact with their managers or colleagues. Such physical and operational distance can weaken the effect of AL behaviors such that authenticity cannot so directly impact motivation and affective investment. WE levels are also typically more driven by outcomes like career advancement possibilities, incentive arrangements, and product portfolios' richness. In the absence or misalignment of these potential outcomes with personal ambitions of the employees, not even the AL characteristics and qualities will prevent the facilitation of increased levels of engagement.

The high correlation between AL and JS is especially interesting and has practical value in terms of retaining talent. High satisfaction rates are aligned with low turnover intentions and elevated organizational citizenship behaviors, which are valuable in ensuring continuance in health care professional relationships and corporate reputation in the face of competitive market conditions. The result showing JS being significantly impacted by AL reinforces the argument that intrinsic value for employees comes from operating in transparent and consistently ethical environments. This suggests that authenticity is a shared value in the profession, not merely a value held among specific subgroups. What this implies positively for the development of the pipeline with respect to leadership is that investment in training in AL should yield widespread benefits among widely disparate employee groups. The combination of autonomy, meaning, and recognition unique to the sales representative job may account for the high correlation

between AL and JS. Sales professionals typically work independently, with their own territories and schedules, and so experience a feeling of proprietorship and mastery over their work. AL reinforces this kind of autonomy with the use of trust, in the promotion of ethical choice, and in the formulation of distinct values-based guidelines, all in creating a psychologically healthy and empowering setting.

In addition, the sales representative activity includes meaningful interaction with healthcare professionals, whereby representatives play a part in extending patient outcomes through ethical drug promotion. Such a sense of purpose is furthered through an institutional environment that supports open communication and where team goals are aligned with broader healthcare goals. When sales representatives experience the value of their input and see that the culture in which they operate genuinely supports their professional growth, they experience high intrinsic motivation and JS.

Recognition also plays a critical role. AL culture recognizes individual effort, basks in ethical victories, and invests in personal growth. In a competitive, goals-driven industry, this type of culture converts pressure into pride, making sales representative feel valued not just for their results, but for how they achieve them.

Addressing the original research question 1, the findings in this research support that AL enhances JS by fostering trust, ethical alignment, and recognition, creating a meaningful and empowering work environment. Its impact on WE is positive but more limited, often shaped by structural constraints like autonomy and routine in pharmaceutical sales roles.

7.2.2 RQ2 - What role do institutional norms and values play in shaping the impact of AL on employee outcomes?

The findings from the structural model provide strong empirical support for the argument that the effect of AL depends on contextual conditions. The positive moderating effect detected indicates that the potential of AL in enhancing WE and JS becomes more pronounced in contexts where institutional norms are perceived as coherent, sanctioned, and embedded in daily procedures. These results coincide with the model from Scott (2005), which states that if the regulative, normative, and cultural-cognitive aspects are aligned, the employee experiences less uncertainty and role conflict and can view their actions as legitimate and compatible with the organization's goals.

According to the IT view, the result of this research highlights the fact that legitimacy is socially constructed, meaning that it's no longer the one sole employee (or restricted group of employees) exclusive property, but also depends on the consistency between the institutional environment and the employees' behavior. In the high-institutional-alignment environment, the pharmaceutical sales representatives perceive behaviors such as apologia for errors, explanations for the decision-making process, and priority given to ethical issues as verifying shared values, and this, in turn, reinforces identification with the company and motivates extra effort.

The fact that moderation effects are applicable for both WE and JS has substantial practical implications. Engagement is defined as a future construct, capturing employees' energy and passion toward future work, while satisfaction is perceived in the rearview mirror, summarizing the judgment over past and current job experiences. The fact that the two constructs are strengthened with institutional alignment suggests that normative

congruence operates over motivational states and affective judgment. This implies that programs designed to reinforce institutional alignment, through clear compliance communication, aligned ethics training, and transparent governance, can be force multipliers concerning AL initiatives.

This research also highlights that AL can secure favorable outcomes in poorly aligned environments. However, its efficiency is only partially constrained by institutional misalignments. In this respect, these findings are consistent with contingency theories of leadership, which suggest that a leader's efficiency depends on the situation's advantages (Fiedler, 1967). Moreover, these findings are also consistent with the findings for psychological contract violation, which suggest that inattention to alignment between professed and practiced values may erode trusting behaviors and blunt the potency of positive leadership behaviors (Robinson and Rousseau, 1994).

The model indicates a modest but statistically significant relationship between IT practices and WE engagement among pharmaceutical sales representatives. In the context of AL, this suggests that whenever authenticity values are embedded in daily behaviors, they are aligned with institutional norms, helping legitimize the organizational environment. For sales representatives operating under strict compliance and performance pressures, this legitimacy reduces uncertainty and fosters psychological safety, which are essential for engagement. Although the noted correlation is relatively low, it reflects the reality that multiple factors, including autonomy, incentive structures, and the routine nature of the job, influence the pharmaceutical sales activity. AL contributes to WE by reinforcing institutional values, but the independent and transactional nature of the role may dilute its impact. Nonetheless, practices that model institutionally congruent behaviors

create conditions where employees feel more secure and motivated to invest effort in their work.

The finding also revealed a robust and statistically significant relationship between IT practices and JS among pharmaceutical sales representatives.

This alignment between personal values and organizational culture fosters a deep sense of JS, especially when employees feel recognized for their results and how they achieve them. The exceptionally high standardized coefficient registered underscores that AL is a powerful driver of JS context when embedded in institutional frameworks.

Addressing the original research question 2, the findings reveal that institutional norms and values play a critical moderating role in shaping the impact of AL on employee outcomes. The findings indicate that AL is most effective in enhancing JS and also positively affecting WE when institutional norms are perceived as coherent, sanctioned, and embedded in daily practices. Under these conditions, the sales representatives enjoy a heightened feeling of legitimacy, diminished ambiguity, and heightened congruity of organizational action and objectives.

Such alignment enhances the credibility of AL behaviors as shared value expressions, as employees, especially pharmaceutical sales reps, feel more affiliated with the institution and put much more effort into their tasks. While AL can still produce positive outcomes in less aligned settings, its influence is significantly amplified when institutional frameworks support and reflect its core principles. Thus, institutional congruence acts as a force multiplier, enhancing both the motivational and affective impact of AL on WE and JS.

7.2.3 RQ3 - Are AL practices related to tenure and Employment Contract Type?

The results of the inferential statistics findings from this research revealed no significance between the length of tenure in the sales representative professional activity and AL scores. Regarding these findings, it appears that AL behaviors do not merely follow the quantity of elapsed time on the job. Instead, these leadership qualities might be more intricately related to individual value systems, organizational culture, or specialized development endeavors than to experience per se. It's possible that some staff either have inherent propensities to display AL traits during early professional life, while others lack them even with longer-term tenures. Furthermore, sales representatives might assume these behaviors irrespective of tenure if the institution promotes AL openly in professional development endeavors or official spheres. In high-pressure sales environment contexts, such as in the pharmaceutical fields, where performance becomes paramount, developing AL qualities might have no intrinsic relation to length of tenure, which accounts for the poor correlation. In conclusion, AL seems to have more to do with contextual influences and personal character and less with length of tenure.

The results of this research showed that although sales representatives holding permanent contracts have high scores in AL compared to those holding fixed-term or temporary agency employment contracts, such a difference is not statistically significant. Despite the non-statistical difference, the form of employment contract itself is crucial in the pharmaceutical sales profession. The permanent form of employment contract would often provide for higher job security, stability, and long-term organizational dispositions, facilitating closer employee relationships. This setting might tend to promote the

development and modeling of AL behaviors, even if the data fails to establish a statistically significant distinction.

In contrast, fixed-term and temporary agency arrangements also frequently carry ambiguity, less incorporation in corporate culture, and fewer opportunities for professional growth or participation. Sales professionals working under such arrangements might comprehend AL behaviors in another manner or be less integrated into the organizational frameworks that make the AL possible. Hence, while data imply comparable experiences with diverse contract types, the context of each employment relationship primarily decides upon the evolution and acceptance of AL qualities in sales teams among the pharmaceutical companies operating in Portugal.

Addressing the original research question 3, the findings indicate that AL behaviors are not significantly correlated with either length of tenure or employment contract type of the sales representatives of pharmaceutical companies. There was also not a very high correlation between years of service as a sales rep and AL scores, so it doesn't appear that these behaviors are merely a function of experience. Instead, AL appears to correlate more with individual values, culture, and intentional development activities than years of service. In addition, although permanent contract sales representatives have greater AL scores than contract-based or temporary contract holders, the statistics aren't very different. However, contract-type still comes into the picture. Holders of permanent contracts have more stability and greater inclusion in the company, which promotes a more favorable environment to permit AL behaviors to flourish. Conversely, temporary arrangements might limit exposure to leadership development and lower attachment to company culture, thus making it hard to create AL practices. Therefore, although contract duration and

contract-type statistically don't predict AL, the context they create can still influence how these AL qualities are developed and sustained.

7.2.4 RQ4 - Are AL practices institutionalized in pharmaceutical sales organizations?

The results from the mediation analysis provide strong empirical evidence that institutionalization enables AL while promoting long-term employee, WE and JS. The indirect benefits imply that the behaviors that belong to the AL construct go beyond short-term displays of a sales representative's personality, as they trigger processes that translate into permanent organizational procedures. The dimensions of AL appear to set in motion procedures that integrate these principles into the organization's policies, procedures, and assessment framework.

From a theoretical perspective, these results align closely with IT. According to Scott (2005), for a practice to attain institutional recognition, it must evolve from a discretionary action to an accepted norm or rule. The notable mediation effects identified in this research indicate that AL is crucial in facilitating this transformation. For instance, where sales representatives demonstrate transparency in their decision-making procedures (balanced processing), organizations can respond by making such actions regularized decision-making procedures, thereby institutionalizing transparency. Similarly, where workers demonstrate moral consistency, Human Resource functions can integrate ethical leadership criteria in promotional models, thereby making authenticity an important trait for all organizational employees. Partial versus full mediation constitutes a key point of distinction. Partial mediation means that, although institutionalization accounts significantly for legitimate AL influence, institutionalization always leaves a residual

direct influence of sales representatives on outcomes. This argument makes sense logically, in that these employees respond to systemic cues and the day-to-day relational behaviors consistently exemplified in their organizations. This argument holds to what Gardner *et al.* (2011) contended, which holds that both individual-level and system-level consequences follow AL, and that long-term change necessitates both influences to exist.

The findings from moderated mediation also support the proposition that the institutional context both affects the direct impact of AL and the process through which AL becomes institutionalized and affects employee outcomes. Where institutional congruence in organizations is more substantial, AL behaviors will likely be incorporated into formal systems and sanctioned in organizational routine, thereby having a more substantial impact on WE and JS. This finding aligns with the account provided by IT, which holds that legitimacy provides the foundation in the process of institutionalization (Suchman, 1995). In such cases where employees see that organizational practice works in line with both regulatory expectations and ethical standards, they respond positively and integrate leadership behaviors to create a more substantial transformation of individual authenticity into systemic transformation. A stronger indirect impact found in high-alignment settings suggests that institutional alignment constitutes a fertile ground upon which AL efforts have higher chances of sprouting and flourishing.

In contrast, although AL still has a positive indirect impact in low-alignment contexts, its strength is weakened. This suggests that even employees who exhibit high levels of AL will have difficulty deploying their practices into systems where organizational policies or compliance climates are thought to be inappropriately non-aligned with industry practice. Employees will doubt institutionalization attempts or see

them as symbolic and not substantive, and so have less influence on WE and JS. This aligns with decoupling research in institutional theory, which cautions that formal adoption of practices with no absolute alignment will produce ceremony compliance in the form of limited behavioral change (Meyer and Rowan, 1977).

The results of this research suggest that the AL has a very strong positive impact on both employee WE and JS, as highlighted before, implying that the combined influences are strong and statistically significant, and entail that these aspects of leadership really do matter in creating a healthy workplace environment. In addition, this positive impact on both WE and JS grows with a rise in institutional alignment. While indirect effects are comparatively small at lower levels of alignment, with greater strength in alignment, these effects register substantial increases. In other words, if employees see that they and the organization share congruent values, AL becomes even more effective at boosting WE and JS.

Addressing the original research question 4, the findings reveal that the practices associated with AL progressively become embedded within pharmaceutical sales organizations. This research indicates substantial evidence that AL behaviors extend beyond the personal attributes of individual sales representatives and are increasingly integrated into formal organizational structures. These behaviors are slowly being incorporated into policies, procedures, and performance frameworks, signifying their transition from discretionary actions to widely recognized standards.

This institutionalization functions where employee and organizational culture value congruence is strong. In these environments, AL practice is apt to be documented and reinforced, and produces greater WE and JS levels. In less congruent settings, AL remains

positively effective to a lesser extent. Most broadly, this research shows that AL indeed exists and, in fact, seems to have evolved to become a known and formalized part of life in pharmaceutical sales organizations.

However, these conclusions, derived from cross-sectional research, rather than the most appropriate longitudinal design research, have limitations to be addressed in the following subchapters.

7.3 Theoretical Integration of Findings

The central purpose of this subchapter is to situate the research results within the overall theoretical debate on AL, WE, JS, and IT, thus deepening the understanding of how leadership authenticity functions in a compliance-heavy, performance-driven environment, such as the Portuguese pharmaceutical sector. The goal is not simply to restate the findings here but to critically review their significance, test their alignment with extant scholarship, and explore how they refine, extend, or challenge existing frameworks. This interpretive task provides the intellectual framework that underpins the practical suggestions, which are to be highlighted in the following subchapters.

The primary findings of this research revealed that the descriptive profile of AL within the sample indicated that self-awareness and an internalized moral perspective consistently received higher scores than relational transparency and balanced processing. This observation is theoretically significant as it implies that, although sales representatives in this particular context are regarded as principled and driven by values, organizational or cultural influences may hinder the frequent sharing of information and collaborative decision-making.

The AL theory, as initially defined by Avolio and Gardner (2005) and later operationalized by Walumbwa *et al.* (2008), posits that all four dimensions are mutually reinforcing and essential for the comprehensive demonstration of authenticity. Nevertheless, empirical investigations have occasionally revealed discrepancies in the relative prominence of these dimensions, contingent upon cultural context. For example, cross-cultural research has shown that in cultures characterized by substantial power distance, moral perspective and self-awareness may be rated more highly due to links with leader integrity and consistency. At the same time, transparency and participative decision-making may be constrained by rank-and-file guidelines (Walumbwa *et al.*, 2012). While Portugal is not a highly hierarchical country, compared with some other European or Asian countries, it has tended to have moderate power distance and subservience to authority, which could partially explain lower ratings on transparency and even-handed processing. In this tradition, employees might refrain from too much disclosure in a context where decision-making should occur in a top-down format, or they might refrain from openly seeking contrary views to create harmony and ease in the decision-making process.

The findings highlighted in this research also support the argument that Gardner *et al.* (2011) proposed that AL should be considered a context-sensitive and fluid, not a stable attribute. Employees who function in highly regulated sectors could develop a form of calibrated authenticity, where they adhere to core values of self-awareness and moral perspective, but vary in how transparent and open they are according to levels that allow them to adhere to legal responsibilities or to protect proprietary knowledge. In the case of the pharmaceutical industry, for example, specific clinical or commercial data could stay undisclosed until they have acquired regulatory approval, limiting how much information

employees can share within the scope of their activities. This scenario doesn't necessarily translate to a lack of authenticity but indicates a limited form of authenticity shaped by institutionally defined requirements. This conclusion adds to AL theory development by signaling that authenticity should be considered regarding sectorally defined rules and restrictions and not in reference to a generic set of characteristics.

Regarding the results of this research about institutional pressure, data reflected that regulative (coercive) pressure was strongest among the three pillars, followed by normative and then cultural-cognitive pressure. This ordering is also theoretically in line with the nature of the pharmaceutical sector, characterized by widespread regulatory supervision. In line with Scott's (2005) institutional model, the regulative pillar exercises coercive pressure in the form of imposing rules, laws, and penalties. Universal recognition of these pressure sources in almost all contexts suggests that the regulative pillar is deeply institutionalized, leaving little room for discretionary interpretation.

Normative pressure was also significantly recognized, reflecting professional ethics and codes of conduct that guide pharmaceutical marketing approaches and interactions with healthcare professionals. Unlike regulative pressure, which comes from outside, normative pressure becomes internalized and operates in the form of feelings of moral obligation. Higher normative scores among the respondents suggest that sales representatives are motivated not only by fear of sanctions but also by collective values, such as patient welfare primacy and maintenance of scientific integrity. This conclusion matches the institutional theory's assertions that systems of norms give value to organizational existence and help create legitimacy (Meyer and Rowan, 1977). In addition,

it suggests that AL could thrive in such a context since employees who always follow ethical guidelines strengthen these standard norms and will likely be viewed as legitimate.

The variability in scores about cultural-cognitive pressures is arguably among the most theoretically captivating aspects. Cultural-cognitive frameworks signify the most profound tier of institutionalization, wherein actions are regarded as the natural or standard approach to operational practices. The diversity observed in this dimension suggests that not all sales representatives have internalized industry norms as uncontested assumptions, allowing room for challenge and sense-making processes. Thornton *et al.* (2012) believe that institutional logics are heterogeneous and open to continued negotiation, particularly in sectors in transition. In Portugal, the pharmaceutical market has been through a radical transformation in recent years, including the adoption of digital detailing, outcome-based reimbursement, and patient-centric healthcare models. Such innovations could challenge existing cognitive schema and create a transitive phase where workers participate in creating new mental lenses.

The interplay between these pillars of IT and AL constitutes a notable theoretical contribution of this research. The SEM revealed that AL significantly positively influenced WE and JS, even with institutional pressure controls. This result confirms the literature connecting AL with desirable employee outcomes (Banks *et al.*, 2016). Yet, the findings in this research also proposed a more subtle interpretation in illustrating that institutional pressure might strengthen or weaken these associations. In this research, regulative pressure was revealed to enhance the relationship between AL and ethical climate, which indicates that where rules are most salient, in such contexts, sales representatives are all the more successful in generating perceptions of integrity. This aspect corresponds to the

established theory, where expectations of adherence are clearly defined, where employees who exemplify moral frames and openness act to set an example, modeling how personal conduct gets aligned to institutional expectations and bolsters the legitimacy of the institution.

These findings also help to fuel the debate on whether to conceptualize AL at the level of a higher-order construct or at that of four related but unique dimensions. This research suggests that AL might appropriately be considered as a broad-based latent variable. The dimensions have differential predictive power. However, self-awareness and moral perspective, in particular, have stronger influences than transparency, which means that researchers still should disaggregate AL in investigating outcomes in contexts in which some dimensions have less access than others. This aligns with research calls to have greater fine-grained models that also accommodate situational contingencies (Gardner *et al.*, 2020).

From the perspective of the IT, this research offers empirical evidence supporting the assertion that institutions not only constrain actions but also facilitate them by providing scripts, resources, and legitimacy. Employees who resonate with institutional logics do not merely adhere to these frameworks. By contrast, they deliberately utilize such principles to guide and influence others in the workplace. Complying frameworks, for example, might be viewed not only in terms of administration matters, but indeed as indicators of how the corporation maintains ethical standards. In this manner, sales representatives demonstrated how to convert coercive pressures into moral narratives that strengthen employee alignment with the organization's mission. This understanding enhances IT by explaining

the agency of employees in reinterpreting and implementing institutional prescriptions in ways that align with AL.

Ultimately, these findings have real implications for research in leadership in diverse cultural contexts. Portugal presents a distinctive setting, joining the EU's systems of laws with indigenous cultural methods centered on collectivism, relationalism, and modest degrees of hierarchy. Higher scores associated with moral perspective and self-awareness indicate that employees are, in part, determined to judge based on understandings of integrity and consistency in addition to results, and this carries Mediterranean cultural stresses surrounding individual honor and relational trust. Low transparency ratings, however, suggest the existence of cultural reluctance toward aggressive assertiveness or disobedience of authority. These results also indicate that the true theory of AL necessitates cultural sensitivities and that applications of leadership development must be localized to local cultural contexts and not presume a universal solution.

In summary, the theoretical synthesis of findings reveals some critical results. Firstly, AL positively influences WE and JS, among the sales representatives of pharmaceutical companies operating in Portugal, even though its full development is conditioned by institutional constraints that should be considered. Secondly, institutional influences aren't passive background conditions, but operational moderators capable of enhancing or limiting the influence of AL in WE and JS. Thirdly, employees enjoy agency in interpreting and responding to institutional logics in a way conducive to authenticity and legitimacy. Fourthly, cultural and structural factors can privilege some aspects of AL to the detriment of others, and so require contextually refined applications and models. Overall,

these results advance both AL theory and IT while advancing a more holistic understanding of leadership as a socially constructed process.

7.4 Contributions to Literature

This research holds the humble ambition of adding to the theory and knowledge development. The findings signaled in this research add to the scholarly discussion on leadership, organizational behavior, and IT. What is presented in this subchapter aims to go beyond a simple validation of existing knowledge, but rather, to modestly add to existing constructs, integrate previously separate theoretical paradigms, and open up future research prospects. This subchapter outlines these additions in a systematized manner, locating them in terms of how they bear on the development of AL scholarship, applications of IT to the study of leadership, and the vast literature relating to leadership in high-compliance areas such as the pharmaceutical sector.

The primary and possibly most immediate research-based contribution of this research is the empirical confirmation and contextual extension of the theory on AL. Since its articulation by Avolio and Gardner (2005), the theory on AL has been thoroughly tested in diverse industries, geographically, and in terms of organizational hierarchy. However, much of this research on AL theory has taken place in comparatively unregulated or generic organizational settings, such as in education, in hotels and hospitality, and even in manufacturing. By testing theory on AL in the context of the Portuguese pharmaceutical sector, an industry highly regulated and where compliance is paramount, this research provides essential information and proof about the construct's stability and malleability in contexts that are institutionally defined in such terms. The finding that AL continues to

positively predict WE and JS in this setting underscores the generalizability of the model. At the same time, the nuanced differences in the relative strength of its dimensions shed light on how authenticity is expressed in practice when leaders must navigate formal rules and ethical mandates.

This research, in particular, enlarges the knowledge of the four dimensions of AL by illustrating that each's significance could depend on sectoral and cultural conditions. Consistently higher scores on self-awareness and internalized morality relative to relational transparency and balanced processing imply that employees prefer values based on ethical guidance and self-awareness to a disposition to reveal or to provoke dissident opinion. This outcome complies with earlier research on cultural psychology, which has illustrated that in contexts where the hierarchy level is moderate, employees prefer integrity and principled decision-making more highly (House *et al.*, 2004). By documenting these patterns in the context of the Portuguese pharmaceutical industry, this research contributes to a contextually fine-grained knowledge of AL, in its suggestion of a model of situated authenticity in which employees may vary behaviors to conform to the environment of normative and regulatory constraint while remaining true to core principles and values.

An essential new extension of this research lies in the synthesis of AL and IT, a space that has been under-theorized in the field of leadership studies. IT, especially in its exposition by Scott (2005), positions organizations within institutional fields that exist in rates of regulative, normative, and cultural-cognitive pressure. While research on leadership has periodically invoked institutional notions such as legitimacy and isomorphism (Deephouse and Suchman, 2008), very few studies have systematically explored the influence of these pillars on the efficacy of leadership processes. By

systematically gauging employees' perceptions of institutional pressure and exploring their moderating functions in the link between AL and employee outcomes, this research provides a finer, multilevel understanding of leadership.

These findings suggest that institutional forces should not be viewed merely as contextual noise, but instead operate to amplify or dampen leadership effects. For instance, the discovery that regulative pressure increases the positive link between AL and ethical climate proposes that authenticity has particular value in enhancing perceptions of integrity where rules and compliance expectations take center stage. This result provides empirical corroboration of the proposition that institutional contexts have the potential to act as facilitating conditions to AL and thereby legitimate and confirm preferred conduct (Battilana *et al.*, 2009).

Beyond its theoretical and methodological contributions, this research adds to the literature by focusing on a comparatively understudied population: pharmaceutical sales representatives. A substantial amount of the leadership literature has either concentrated on top executives, middle managers, or knowledge workers in research and development-based companies, and in doing so, has left frontline commercial staff comparatively underexamined. However, as this research's findings suggest, sales representatives represent the point of juncture between pharmaceutical companies and health care professionals, and how these individuals perceive and exercise leadership has immediate consequences in the areas of adherence to compliance, relationship quality, and market performance. By shedding light on how these professionals perceive AL and the subsequent consequences on attitudes and results, this research expands the empirical base

of the field of leadership studies to a group whose behaviors have strategic significance that all too regularly goes missing in assessments of the organization.

In addition, this research adds to knowledge on AL in fields with high ethical sensitivities and stringent compliance mandates, an area that has gained rising attention in the aftermath of company scandals and stepped-up global regulatory supervision. Studies undertaken in banking, oil, and healthcare industries have highlighted the inherent conflict between profit-maximizing intentions and ethical responsibilities (Gould *et al.*, 2018). The pharma sector illustrates the conflict, with companies compelled to produce shareholder returns while at the same time upholding patient well-being and meeting complex regulatory frameworks. This research's findings indicate that AL provides a practicable model to harmonize these conflicting expectations by creating settings where ethical conduct becomes an expectation and a value. This conclusion supports the notion that AL development initiatives within these sectors should emphasize authenticity, moral fortitude, and institutional knowledge rather than focusing exclusively on transactional or transformational methodologies.

One other conceptual contribution of this research involves the concept of tempered authenticity. Findings suggest that in contexts where regulations run deep, employees might have to disclose in fits and starts and orchestrate transparency with caution in order to refrain from breaching confidentiality or rules of compliance. This result sharpens AL theory by underscoring that authenticity and openness are not equivalents and that authenticity entails discreet judgment regarding what, where, and how to communicate. In this process, this research nuances the oft-idealized representation of authentic employees as untrammelled or completely transparent. Rather, it suggests that most successful

employees combine authenticity with contextual self-awareness to preserve both personal integrity and institution-based legitimacy.

From a cultural research point of view, the research adds to the expanding literature on how AL operates in non-Anglo cultures. Although AL has been explored richly in North America, comparatively fewer works have considered Southern European nations that share aspects of collectivism, relationalism, and modest hierarchy. This research finds that authenticity on the job exists in Portugal as a legitimate and applicable construct, while its expression is contextualized by cultural prescriptions on authority, discretion, and conflict aversion. This calls for more cross-national comparisons to see if such patterns persist in other European nations or if distinctive national traits create differing authenticity configurations.

Finally, this research contributes depth to the discussion of institutional work by portraying employees' capability to constructively influence the interpretation of compliance in their organizations. The data in this research suggests that sales representatives who positioned compliance as an ethical responsibility to patients and society, instead of a burdensome requirement, exhibit a higher level of AL. This proposition supports the argument that employees do not accept institutional pressure receptively, but instead use their abilities to participate in meaningful work activities that reshape comprehension and enactment of those forces stability (Lawrence and Suddaby, 2006). By incorporating these insights with AL theory, this research suggests that authenticity may function as a mechanism through which employees conduct institutional maintenance and repair, sustaining legitimacy while promoting WE and JS.

In short, this research's findings can be briefly outlined in five main points:

1. Firstly, it empirically tests and confirms the AL theory in a sector with strong compliance, illustrating its enduring relevance under institutional constraint, while confirming its positive effect on WE and JS.
2. Secondly, it fine-tunes AL by reporting differential salience in its dimensions and proposing the concept of tempered authenticity.
3. Thirdly, it synthesizes AL with IT to illustrate that institutional pillar moderate relationships between employees and outcomes and deserve a place in subsequent models.
4. Fourthly, it broadens the empirical scope of leadership research to cover the frontline salesforce, an under-examined, however critically important population from a strategic point of view.
5. Finally, it deepens the understanding of AL as an institutionally based process emphasizing authenticity's influence in building and maintaining ethical legitimacy.

These results, in aggregate, endeavor to advance both theory and practice to create a more institutionally-sensitive and contextually-grounded understanding of how to act genuinely in today's complex organizational contexts.

7.5 Practical Implications

The practical significance of this research lies in its capacity to inform and support leadership development, compliance management, organizational culture, and regulatory strategy in the Portuguese pharmaceutical sector and beyond. While the critical theoretical contributions have been highlighted in the previous subchapter, the ultimate value of this research might lie in the applications of its findings in the field of organizational behavior.

The findings of this study provide a starting point for actionable insights because they capture both the psychological dimensions of leadership authenticity and the structural realities of operating in a compliance-heavy environment. This subchapter explores these implications in depth, presenting a roadmap for organizations seeking to cultivate AL, strengthen institutional alignment, and create conditions for sustainable performance and ethical integrity while promoting WE and JS.

The first set of implications concerns leadership development. The findings indicated that moral perspective and self-awareness were seen relatively strongly among the sample, while balanced processing and relational transparency were somewhat weaker. This profile indicates that the pharmaceutical companies in Portugal must continue to invest in employee reflective capacity and moral decision-making programs, but give special weight to developing their ability to communicate transparently and engage employees in decision-making. Programs in AL development beyond the formal training workshop are essential, such as structured self-examination, 360-degree feedback procedures, and executive coaching that leads employees to examine the fit among their values, decisions, and actions. Relational transparency, in particular, can be developed by instruction in vulnerability-based trust, constructive disclosure, and non-defensive communication. On the other hand, Balanced processing can be improved by training employees in inquiry-based dialogue, active hearing, and decision procedures that include dissenting opinions. If employees are taught to seek feedback from various sources and weigh the evidence objectively, they establish an environment where their colleagues feel psychologically free to offer alternative points of view, thus fortifying innovation and compliance vigilance.

Another related consequence of this research is the necessity of matching leadership behavior to institutional expectations to reinforce legitimacy. The findings of the moderating analysis indicated that regulative pressure can, in fact, enhance the salutary effect of AL on ethical climate. Organizations can utilize this synergy by matching leadership development and compliance training, viewing both as complementary rather than distinct streams. For instance, compliance programs can contain modules on ethical decision-making that systematically link legal requirements with moral values, prompting employees to absorb the spirit of regulations as opposed to running through them as tick-boxes. Similarly, employees can be qualified at presenting compliance communications in a manner that presents them as opportunities to showcase integrity and establish trust, as opposed to bureaucratic requirements. This dual framing of compliance turns the coercion mechanism into a shared undertaking, increasing employee adherence to institutional requirements.

Companies should consider incorporating AL principles in performance and reward mechanisms at the organizational systems level. The traditional salesforce management evaluation systems emphasize numerical and quantitative objectives, which can result in pressure to achieve results by compromise or engaging in unsavory practices. Including ethical conduct, compliance adherence, and engagement quality into the organization's KPIs can signal that integrity and genuineness are as crucial as commercial success. Balanced scorecards can be designed to include soft measures such as employee surveys on leadership transparency, take-up in ethics education, and zero occurrences of compliance breaches. Reward mechanisms can be designed so that teams that achieve commercial success while staying on a strict ethical foundation are the ones that get

rewarded, so intrinsic values are compatible with extrinsic motivators. In this manner, the chance of "goal shadowing," wherein people pursue performance goals at the expense of organizational integrity, is minimized.

This research also highlights the value of creating psychological safety in the salesforce. Moderately high mean psychological safety levels existed, although lower than the ethical climate and the JS, thus the employees remained apprehensive about voicing their opinions or taking interpersonal risks. The pharmaceutical sector can compensate for that by having mechanisms for voice that are non-retaliatory, anonymous, and clearly sanctioned by the leadership in place. Symptoms can come in anonymous reporting procedures, formal reflection-on-meetings, and periodic "speak-up" campaigns that can desensitize disclosure of potential compliance issues or upward feedback. Leadership development programs must include units in the curriculum on how employees can respond positively to bad news, dissent, or whistleblowing, because these are genuine challenges to good character. When employees see leaders respond positively to tough feedback in an open, fair manner, trust rises, and the culture as a whole move in the direction of shared problem-solving and disclosability.

The digital revolution creates another set of opportunities and challenges for the implementation of the outcomes of this research. As the pharmaceutical sales migrate toward multichannel engagement models (virtual detailing, webinars, and analytics-driven by CRM), employees are called upon to remain authentic in both physical and virtual modes of communication. The relational distance inherent in virtual technology can cause it to become more difficult for employees to experience transparency and balanced processing. Organizations must therefore invest in digital leadership capability-building,

getting employees ready to communicate authentically over remote channels, build inclusive virtual dialogues, and ethically employ analytics. Therefore, the ethical deployment of AI-based targeting and performance dashboarding must take center stage to avoid the perpetuation of surveillance-based thinking that can erode psychological safety. Organizations must use digital tools responsibly, balancing performance optimization against employee autonomy and respect for their privacy.

From the change management perspective, the results imply ways of instituting cultural-cognitive alignment in organizations. The relatively high variance in employees' internalization of institutional norms indicates that some may regard compliance and ethics as external dictates, not intrinsic values. Organizations can counteract that by invoking cultural intervention that makes ethical behavior integral to the "way we do things around here." Storytelling is an effective instrument in that regard - senior executives can tell stories that illustrate cases where the company has prioritized patient safety or ethical integrity over short-term gain. Rituals such as observing compliance milestones, rewarding employees for identifying potential risk, and incorporating discussion of ethics in sales conferences can also enforce the cultural salience of institutional values. In the long term, these practices move compliance from being seen as regulatory compliance to a source of organizational pride.

This research also has significant consequences for talent management and succession planning. Since AL has proven to foretell favorable outcomes like WE and JS, organizations should embed criteria of authenticity in their leadership pipelines. This entails selecting employees based on technical expertise and sales ability and gauging their ability to exercise self-insight, moral judgment, and relational openness. Behavioral

interviews, situational judgments, and psychometric instruments can be deployed at the time of recruitment and promotional decisions to assess these qualities. In addition, mentoring programs can associate high-potential employees with leaders known exemplars of authenticity in order to transmit a tacit understanding of how to reconcile the dual imperatives of compliance and performance.

At the industry level, the findings suggest opportunities for collective action through professional associations such as APIFARMA. Through cross-company leadership forums, industry groups can disseminate best practices in AL in compliance matters, evoke peer learning, and collectively develop combined training programs comprising regulatory updates and ethical leadership pieces. Cross-company efforts can standardize expectations in the industry, reduce variability in cultural-cognitive internalization, and establish an agreed sense of ethical, AL in the pharmaceutical industry in Portugal.

Another related implication relates to international applicability and benchmarking. Multinational companies that operate in Portugal can apply these results to compare the expression of AL in their subsidiaries in various markets. By knowing that transparency and decision participation are perhaps a bit lower in Portugal than in other settings, they can create localized efforts that afford respect for local norms while encouraging employees toward expanded transparency. Cross-market benchmarking also enables headquarters to discern the best practices in Portugal, like good integration of the compliance function and leadership communication that has enhanced understanding, which can be transferred to other highly regulated geographies.

In conclusion, the practical lessons of the research are as follows.

1. The pharma industry needs to embrace an orderly, integrative organizational design and leadership development that integrates authenticity, compliance, and performance, instead of alternating these goals in competition against one another.
2. By extending the AL principle to systems, structure, and culture, firms can establish a reinforcing cycle in which leaders exhibit integrity, employees are empowered and motivated, and compliance is an organizational value, as opposed to an external mandate.
3. The result is an environment in which authenticity is both individually compelling and institutionally sustainable, and in that way, the pharma industry can establish long-term legitimation and sustainability.

7.6 Implications for Policymakers and Regulators

The consequences of these research results reach beyond organizations to regulators and policymakers, who supervise the environment under which these pharmaceutical commercial organizations operate. Policymakers and regulators also have a critical role in enabling an environment where AL practices can grow without fear of censure or inconsistency with obligations to comply. This subchapter includes a set of humble recommendations to national regulators like INFARMED, industry bodies like APIFARMA, and supranational regulators like the EMA and the European Commission.

A key result of this research was that regulative pressure enhances the positive relationship between AL and perceived ethical climate. The implication is that successfully designed regulatory systems can be allies rather than adversaries for genuine AL. For

policymakers, the point is that what is needed is the design of compliance regimes that are not simply deterrent but that also convey clear, predictable expectations and promote active ethical action. Compliance fostered by fear, due to obscurity within regulatory syntax or formality within procedural requirements, can prevent organizations from communicating freely with their employees. The regulators then need to look for clarification and proportionality within the rule, write rule text with plain, easily accessible language that has meaning without specialist knowledge, and provide interpretive advice for the gray areas.

Another result from this research is the development of mechanisms for constructive dialogue between regulators and pharmaceutical commercial organizations. AL thrives within cultures where the employees are free to discuss regulatory requirements with peers and where regulators are free to discuss areas of potential noncompliance. INFARMED and APIFARMA might begin forums or working groups that facilitate the sharing among sales managers and compliance officers of case studies, detection of emerging issues, and exploration of new regulations. Such dialogue serves two purposes: it allows regulators to share concerns for practical implementation and provides industry representatives with a common account to convey to their partners. Such a joint undertaking can change the nature of compliance from an individual mandate to a mutually devised task, increasing the credibility for both regulators and organizations.

At the industry association level, like APIFARMA, standardization is possible for AL development programs that build compliance and authenticity. This industry association can create an industrywide framework for ethical leadership, which could set expectations for employees and supply training resources, case studies, and toolkits. Such

an initiative would minimize firm-level variability and encourage a common understanding of what AL is in the regulated environment. Such a program can also consist of a mentorship network where seasoned employees can share their knowledge with the newcomers, thus creating a community of practice for ethical and AL.

At the supranational level, institutions within the EU are essential to harmonizing rules to minimize compliance burdens. Even with the wide progress the EMA has made through regulatory dependency and central approvals, gaps in national implementation remain to generate divergent requirements. More convergence for promotional compliance, risk-sharing, and reporting for pharmacovigilance would promote the integration of standard practices among multinational drug companies within different countries. Such alignment is particularly relevant for AL, given that divergent market requirements might force the organization to clarify conflicting policies to its teams, ultimately compromising credibility. The European Commission might bring together panels of experts to discuss opportunities for added harmonization, thus guaranteeing that regulations are both scientifically credible and practically harmonious.

The EU institutions also have a bearing on public confidence in pharmaceutical organizations. The relationship between AL and external credibility is intimate, since employees who experience authenticity within are likely to be company ambassadors outside. The regulators can facilitate this virtuous cycle by being transparent and making their inspection findings publicly available without delay. Dashboards for the public that display compliance trends, best practices, and those performance indicators common to the whole industry can promote an atmosphere of confidence where AL is reinforced.

From a policy perspective, incentivizing ethical excellence is another promising approach. Just as pharmaceutical organizations are rewarded for innovation through expedited review pathways, they could be recognized for exemplary compliance cultures and AL practices. For example, regulators could introduce a gold standard certification for organizations that demonstrate superior ethical practices, verified through cultural audits and employee feedback. Such recognition could confer reputational benefits and even modest regulatory advantages, creating a business case for sustained investment in AL development.

One last implication relates to future readiness and global crises. The COVID-19 pandemic highlighted the need for flexible regulatory approaches and the moral challenges that drug companies need to weigh for the triad of expediency, safety, and transparency. Policymakers can draw the findings from this research to craft readiness systems for crises that give pharmaceutical organizations the freedom to be genuine even under stressful conjunctural situations. Such mechanisms might consist of pre-approved templates for communication, quick updates to rapid guidance, and joint simulation training for crises involving regulators and pharmaceutical organizations. This initiative would help to guarantee that, in crises, authenticity is not compromised for haste and that public confidence is ensured.

These guidelines and recommendations demonstrate that policymakers and regulators are governing bodies and have a central influence on the environment for AL to thrive. With transparent, equitable, and collaborative norms, they can build an environment where truthful practices contribute to a healthy reputation environment. Smart politics, rather than striking fear or compelling individuals to comply with regulations, can promote

openness, ethical behavior, and engagement among employees, enabling organizations to perform better and the public health care system to function strongly.

7.7 Limitations of the Study

No empirical investigation, however extensive or comprehensive, is without limitations. Recognizing these limitations constitutes an integral requirement when assessing the credibility of studies and the direction for analysis of study results. Furthermore, limitations should be constructively addressed by offering areas for future studies to improve and aiding the potential use and applicability of the results. This subchapter discusses the key limitations of the present research centered on methodology, data limitations, contextual specificity, and theoretical scope.

One of the key methodological limitations of this study resides in its cross-sectional design. The research collected data at one point in time, limiting the making of conclusive statements of causality between AL, institutional forces, and outcome measures across diverse periods. Adopting the longitudinal design, whereby participants would be followed over multiple specified intervention periods, would improve the causality conclusions by establishing temporal precedence. This specific limitation is particularly relevant while evaluating the results and replies to the original research question 4.

Another methodological limitation is the reliance on self-report data concerning several key constructs. Although valid tools were used in the questionnaire, including the ALQ, UEWS, JSS, and IT-BMS, self-report measures can be prone to many types of biases, including social desirability, common-method variance, and distortion of recall. Respondents may have overstated positive perceptions about AL or the compliance culture

due to fears of anonymity or fears of repercussions, despite assurances of confidentiality. This issue is of particular concern within a regulated sector where attitudes to compliance are sensitive.

Another limitation relates to the contextual applicability of the results generated. The study was conducted exclusively within Portugal, a country characterized uniquely by its specific combination of cultural, economic, and regulation-based attributes. As much as Portugal shares many traits with other member countries of the EU, the unique structure of control articulated by INFARMED and the codes developed by APIFARMA might create dynamics that cannot be easily transferred to other settings.

Additionally, this research only focused on the pharmaceutical sector's commercial function, with attention paid to the salesforce representatives. While this population is strategically essential, it is not the only group affected by compliance pressures and AL dynamics. Functions such as clinical research, pharmacovigilance, and regulatory affairs (amongst others) have different institutional logics that can understand authenticity differently. The focus on commercial functions might tilt the findings to outcome-based results reflecting performance, potentially downplaying the role of AL in stimulating innovation, escalating patient involvement, or advocating science collaboration. Future research studies could adopt a broader organizational view to understand cross-functional differences and interplays.

The theoretical framework of this research combined AL and IT, which provided a powerful lens for examining the interplay between AL, WE, and JS. However, this focus necessarily excluded other potentially relevant theoretical perspectives. For instance, transformational or servant leadership theories might have offered further insights into

motivational or community-oriented dynamics that this research did not cover explicitly. In the same way, the study didn't particularly involve theories on psychological constructs or organizational justice that might shed light on employee perceptions of fairness and duty, issues that run closely with authenticity. Even though incorporating too many theories can muddy focus, future studies might adopt a comparison basis, exploring the extent to which AL engages with or stands opposed to other forms of leadership in promoting ethical and outcome-based performances.

Another theoretical limitation is that this research essentially treated the institutional pillars as well as the remaining constructs as static variables, measured through employees' perceptions at a single point in time. IT also highlights that institutions are adaptive and prone to change due to creation, maintenance, and disruption processes. This study design could not explain how changes to the regulatory environment, for example, new compliance requirements or reforms to the policy, impact AL over time. Nor could it capture how sales representatives engage in institutional work to modify the compliance environment. Longitudinal, process-based research can potentially overcome this constraint by following organizations through episodes of regime change or by using ethnographic approaches to examine the reciprocal construction of meaning about compliance over time.

All these limitations suggest that while the findings of this research are significant and considerable, they require cautious and contextual interpretation.

7.8 Directions for Future Research

One characteristic of any research activity is that it inevitably leads to and triggers the need for further research. The constraints identified in the previous subchapter are not just restrictions but helpful signposts, indicating promising directions for further and future investigation. This research's blending of AL and IT in the context of the Portuguese pharmaceutical industry has shed light on some gaps and new questions that can be answered by future research, based on methodological refinements, theoretical extensions, and context-specific studies.

Among its most significant priorities is the use of longitudinal research designs for studying temporal patterns in AL and institutional pressures. Cross-sectional samples, such as the one used in this research, provide an eye-opening snapshot but do not enable an explanation for apparent change over time or causal ordering. One next step is for researchers to utilize panel designs to examine a single group of employees at various points over time, thus examining how the perception of AL changes under the influence of organizational events, shifts to regulation demands, or organizational development initiatives. Such a design might be particularly beneficial at transition points, where AL-related concerns among organizational members might change profoundly due to the initiatives from newly emerging requirements for compliance with laws, merger and acquisition initiatives, or initiatives for digital transformations. Researchers might begin demonstrating lag effects, reciprocal causal relationships, and feedback loops between employees' behaviors and organizational climate by measuring various dimensions of AL, institutional attitudes, and outcomes over multiple intervals for each one of the constructs.

Process-oriented qualitative research holds promise as well. Ethnographic studies, for example, could put researchers in sales teams or compliance areas such that leadership interactions, decision-making meetings, and communications regarding compliance could be observed in real-time. That would enable scholars to understand the micro-processes by which ALy is performed, interrupted, and negotiated within a landscape where compliance dominates. Discourse analysis of leadership communication at moments of crisis, for instance, product recalls or regulator audits, could help explain how openness and moral attentions are balanced off against reputational and legal risk. Processual work of this sort would enrich AL knowledge.

Other research can further refine the findings by adding multi-source data to assist with the drawback inherent to single-respondent self-reporting. Collecting corresponding leader, peer, subordinate, and external stakeholder data can provide a more complete, triangulated perspective for authenticity and institutional alignment. The deployment of 360-degree feedback tools could pick up on inconsistencies between how sales representatives perceive themselves and how other employees of the pharmaceutical organizations perceive them, to shed light on the AL levels. Objective compliance indicators like audit findings or adverse event reporting rates could be used as external validators on self-reporting measures of the ethical climate.

Regarding the context-specificity in this research, further studies should also involve cross-national comparative studies in an effort to measure the generality of results. Comparative studies across European economies would determine if the relative strengths of dimensions established for AL in Portugal hold elsewhere or if cultural variations create other patterns. Taking this suggestion for future research further than Europe could be

particularly insightful, as these other emerging economies tend to combine a sophisticated set of rules with rapid market development and limited resources. Investigating how authenticity functions where institutionalized compliance systems do not exist or where institutional voids predominate could shed light on whether AL acts as a complement or a substitute for more conventional types of governance where weak enforcement exists.

Even though this study analyzed AL and IT, further research could potentially enlarge theory coverage by introducing other models that complement or refute these perspectives. A comparison of AL versus transformational, servant, or value-centered leadership styles could prove whether authenticity's outcome prediction in regulated environments is distinct, if its effect intersects with other value leadership types, and its corresponding impact in WE and JS.

Although this research concerned, WE and JS, numerous other outcomes could be examined. Other innovation-related outcomes could be further investigated in a rapidly shifting, highly competitive industry where adaptive innovation capabilities prove vital, and AL might facilitate the risk-taking and candor innovation necessitates.

Lastly, there is a particular requirement for experimental and interventional research to establish if deliberate planning toward the progression of AL brings measurable enhancements in outcome. Staff development initiatives could be created based on the four dimensions of AL and administered as script-driven interventions with pre- and post-testing on employee attitudes and behavior.

Having laid the ground by demonstrating that AL is relevant and influential in the Portuguese pharmaceutical context, the next generation of research should elaborate further

by demonstrating under what conditions AL can become an organizational and social strategic asset.

CHAPTER 8 - Conclusions

8.1 Introduction

The concluding chapter combines the results of this research within a framework that furthers academic knowledge and provides functional advice for practice through reframing the AL-compliance relationship in the Portuguese pharmaceutical industry. The conclusions, analysis, and highlights detailed in the preceding chapters form a strong argument that AL is fully compatible with compliance-oriented environments but can also, under the right circumstances, turn regulatory demands into facilitators of trust, interaction, and sustainable performance, which promote WE and JS levels. This synthesis section expands that insight through the expression of a novel conceptualization of AL as a strategic asset, which balances commercial demands with ethical responsibility and institutional credibility.

8.2 The Dual Mandate of Pharmaceutical Sales Representatives

The premise for this synthesis is the recognition that pharmaceutical sales representatives are subject to a dual imperative: they are responsible for achieving soaring commercial targets while at the same time guarding public health, upholding regulatory compliance, and invigorating the ultimate ethical standards inherent to the activity. This dual mandate necessarily causes tension between the imperative for short-term results and the commitment to the long-term ethical position. Conventional assumptions characteristically represented this tension as a zero-sum compromise, as increased compliance is assumed to constrain freedom and diminish performance. In contrast, an

increased focus on commercial results is at risk of regulatory breaches and reputational harm. The findings from this research challenge this dichotomous view.

The results of this research indicate that AL is a positive predictor of WE, JS, and an overall ethical climate. The conclusion shows further that AL characteristics are not only a moral virtue but also a critical catalyst for business improvement. Sales representatives who exhibit self-awareness, act from an internalized moral perspective, communicate transparently, and engage in balanced process decision-making foster an environment characterized by trust, respect, and motivation.

Consequently, AL practices promote a stronger ethical culture alongside robust commercial results. Rather than hindering performance, AL emerges as a powerful mechanism for fulfilling the dual mandate more effectively.

8.3 Compliance as a Catalyst for Authenticity

One of the most important findings of this research is that institutionalization strengthens the positive impact of AL on WE, JS, and ethical climate. The implication is that, instead of limiting AL, proper compliance systems can reinforce it through clarification of expectations and value legitimacy. When norms are clear, explicit, and proportional, they can create a climate under which employees are willing to act without fear that what they are undertaking is illegal or unethical. This kind of climate minimizes cognitive as well as moral ambiguity that inhibits transparency.

These are conclusions that support shifting compliance thinking from its historical role as a coercive external force to its capacity as an enabling framework. As a guardrail ensures it is safe for a driver to travel a sharp curve, structures of compliance can give

employees freedom to be candid, make sound ethical decisions, and invite participation without concern that they might go one step too far. Through this lens, organizations are asked to consider compliance not simply a box to be ticked, but rather a strategic collaborator with employees' development. When compliance teams and leadership programs work in concert, they reinforce each other: compliance provides clarity and boundaries, while AL practices model how to integrate those requirements into daily practice.

8.4 Tempered Authenticity: Balancing Candor and Context

This research also revealed that the relational transparency and balanced processing dimensions scored slightly lower than self-awareness and moral perspective. Such a finding is consistent with the view that while sales representatives are seen as reflective and principled overall, they might be reluctant to reveal information or open to dissenting opinions. In a high-compliance requirement sector, such caution is understandable, as employees must manage confidential data, adhere to strict marketing codes, and avoid misrepresentation of scientific information. This pragmatism gives rise to a new concept introduced by this research of "Tempered Authenticity". Authenticity that is balanced by awareness of context on the one hand, as well as institutional constraints on the other.

This new concept of "Tempered authenticity" is neither a matter of value compromise nor of exercising judgment in finding the right level and moment of disclosure. Part of the pharmaceutical sales representative's job is to regularly tune in on how much to reveal, to whom, and through what means of communication to measure transparency against the requirements of confidentiality and regulatory compliance. This

is a strategic rather than evasive approach, as it protects the reputation of the organization while still broadcasting integrity and transparency. The idea of "Tempered Authenticity" adds depth to AL theory in that authenticity doesn't have to be unconditional to be trusted, as it can be framed within the limits of contextual considerations to produce trust.

8.5 Integrating Institutional Theory and Leadership Practice

Institutional Theory provides a robust methodology for understanding why this new concept of "Tempered Authenticity" is not only necessary but inevitable in highly regulated sectors. Scott (2005) three pillars (regulative, normative, and cultural-cognitive) establish the legitimacy of different behaviors. Employees behaving outside these institutional norms risk losing credibility and even suffering sanctions. The findings of this research are that employees whose genuine behavior is synchronized with institutional logics are seen as both legitimate and efficient. This alignment does not imply blind conformity but rather skillful navigation. Employees who undertake the daily practice of AL values are able to interpret institutional requirements, translate them into meaningful narratives for completing their tasks, and, where necessary, engage in institutional work to adapt or refine those requirements.

The finding that cultural-cognitive pressures were more heterogeneous suggests that not all employees fully internalize institutional norms, which creates both a challenge and an opportunity for the organization. Although diversity can create seams of non-compliance or differential behaviors, it simultaneously creates opportunities for the organizations to improve their organizational culture by embedding a common sense of "how things are done." AL can function as cultural sense makers, bridging gaps between

formal regulations and informal norms, thereby reducing ambiguity and building collective commitment to ethical practice.

8.6 Toward an Ethical Performance Equilibrium

The findings of this research also highlight the ethical performance equilibrium as a unifying framework. Ethical performance equilibrium refers to the state in which commercial performance and compliance obligations are not in opposition but mutually reinforcing. Achieving this equilibrium requires three elements: AL practices that model integrity and transparency, institutional systems that provide clarity and fairness, and organizational cultures that value both performance and ethics.

AL is the fulcrum of this equilibrium, as it interprets institutional signals, embodies organizational values, and sets the tone for how teams balance performance pressures with ethical imperatives. When these practices succeed, employees experience psychological safety, which allows them to raise concerns, share ideas, and take calculated risks. The result is a virtuous cycle: stronger compliance leads to higher trust, which in turn enhances WE and JS, thereby reducing the temptation to "cut corners".

8.7 Integrating Institutional Theory and Leadership Practice

The practical implication of this reshaping is that organizations should view AL not just as a human resources imperative but as a strategic competency. Just as an investment in digital infrastructures, research and development pipelines, or market access strategies, organizations should also invest in employee practices that foster the ability to navigate compliance–performance tension with integrity and competency.

AL becomes a source of competitive advantage in an industry where reputation, stakeholder confidence, and regulatory relationships are central assets. In addition, this strategic perspective escalates compliance's importance, transforming it from a perceived cost center to a valuable enabler. When compliance is embedded within a culture of authenticity, its role shifts from simply policing behavior to enabling it. Employees become partners in co-creating systems that are both rigorous and empowering, ultimately protecting the company's license and legitimacy to operate while driving sustainable growth.

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ANNEXES

Annex 1 - Survey Questionnaire in Portuguese (Original)

Por favor, leia atentamente estas instruções antes de iniciar o questionário.

O questionário que se segue insere-se num estudo académico desenvolvido na SSBM, cujo objetivo é analisar se o estilo de liderança no contexto das forças de vendas da indústria farmacêutica a operar em Portugal.

A sua participação é fundamental para o sucesso deste estudo. Para tal, solicito a sua colaboração, para o preenchimento integral deste questionário, cuja duração estimada é de 25 minutos.

Peço que responda com a maior sinceridade e espontaneidade possível, dando primazia à sua primeira impressão. O questionário é totalmente anónimo e os dados recolhidos serão utilizados unicamente para fins académicos, deste projecto. Não existem respostas certas ou erradas e o relevante é a sua opinião pessoal.

A confidencialidade das suas respostas está assegurada, pelo que solicito que não se identifique em nenhuma parte do questionário.

Se necessitar de esclarecer qualquer dúvidas ou fazer alguma pergunta sobre este projeto e o questionário, pode entrar em contacto comigo através do meu contacto móvel +351966140907 ou pelo meu endereço de e-mail janota.rui@gmail.com.

Agradeço, desde já, a sua valiosa colaboração.

Com os melhores cumprimentos,

Rui Janota

I. Dados Demográficos

I.1	Idade:		Anos		
			Feminino	Masculino	
I.2	Género:				
			Ensino secundário ou inferior	A frequentar ensino superior	Licenciatura ou superior
I.3	Habilitações Académicas:				
I.4	Há quanto tempo exerce a função de Delegado de Informação Médica:		Anos		
			Contrato sem termo	Contrato a termo certo	Contrato através de empresa de trabalho temporário
I.5	Tipo de contrato de trabalho:				
			Norte	Centro	Sul
I.6	Localização geográfica do local de trabalho:				

II. Questionário sobre Liderança Autêntica

Item	Afirmação	1	2	3	4	5
		Discordo Totalmente	Discordo	Neutro	Concordo	Concordo Totalmente
II.1	Consgo enumerar as minhas três maiores fraquezas.					
II.2	Consgo enumerar os meus três maiores pontos fortes.					
II.3	Procuo feedback como forma de compreender quem sou verdadeiramente.					
II.4	Aceito os sentimentos que tenho em relação a mim próprio(a).					
II.5	As minhas ações refletem os meus valores fundamentais.					
II.6	Não permito que a pressão do grupo me controle.					
II.7	As outras pessoas sabem a minha posição em relação a temas controversos.					
II.8	A minha conduta como líder é guiada pelos meus princípios morais.					
II.9	Procuo a opinião dos outros antes de formar a minha.					
II.10	Dou atenção às ideias daqueles que discordam de mim.					
II.11	Não imponho o meu ponto de vista em detrimento dos outros.					
II.12	Ouço atentamente as ideias dos outros antes de tomar decisões.					
II.13	Partilho abertamente os meus sentimentos com os outros.					
II.14	Faço com que os outros conheçam quem realmente sou.					
II.15	Raramente apresento uma "máscara" aos outros.					
II.16	Admito os meus erros perante os outros.					

III. Questionário sobre envolvimento no trabalho

Item	Afirmação	0	1	2	3	4	5	6
		Nunca	Quase Nunca	Raramente	Às vezes	Frequentemente	Muito Frequentemente	Sempre
III.1	Quando estou a trabalhar, sinto-me cheio(a) de energia.							
III.2	Sinto-me forte e vigoroso(a) enquanto trabalho.							
III.3	Quando me levanto de manhã, tenho vontade de ir trabalhar.							
III.4	Sinto entusiasmo pelo meu trabalho.							
III.5	Sinto orgulho pelo meu trabalho.							
III.6	O meu trabalho inspira-me.							
III.7	Deixo-me levar pelo trabalho que estou a fazer.							
III.8	Estou completamente absonido(a) pelo meu trabalho.							
III.9	Sinto-me feliz quando trabalho intensamente.							

IV. Questionário de Satisfação no Trabalho

Item	Afirmação	1	2	3	4	5	6
		Discordo Muito	Discordo Moderadamente	Discordo Ligeiramente	Concordo Ligeiramente	Concordo Moderadamente	Concordo Muito
IV.1	Sinto que sou remunerado(a) de forma justa pelo trabalho que desempenho.						
IV.2	Os aumentos salariais são demasiado raros e espaçados.						
IV.3	Sinto-me desvalorizado(a) pela organização quando penso no que me pagam.						
IV.4	Sinto-me satisfeito(a) com as minhas possibilidades de progressão salarial.						
IV.5	Existem poucas oportunidades de promoção no meu trabalho.						
IV.6	As pessoas que se destacam no trabalho têm uma oportunidade justa de serem promovidas.						
IV.7	Aqui, as pessoas progredem tão rapidamente quanto noutras organizações.						
IV.8	Existem oportunidades limitadas de progressão nesta organização.						
IV.9	O meu supervisor é bastante competente no desempenho das suas funções.						
IV.10	O meu supervisor é injusto comigo.						
IV.11	O meu supervisor demonstra pouco interesse pelos sentimentos dos subordinados.						
IV.12	O meu supervisor trata-me com respeito.						
IV.13	Não estou satisfeito(a) com os benefícios que recebo.						
IV.14	Os benefícios que recebemos são tão bons como os oferecidos pela maioria das outras organizações.						
IV.15	O pacote de benefícios que temos é equitativo.						
IV.16	Estou satisfeito(a) com o pacote de benefícios que recebo.						
IV.17	Quando faço um bom trabalho, recebo o reconhecimento que deveria receber.						
IV.18	Sinto que o trabalho que realizo não é valorizado.						
IV.19	Existem poucas recompensas para quem trabalha nesta organização.						
IV.20	Quando faço um bom trabalho, recebo os elogios que mereço.						
IV.21	Muitas das nossas regras e procedimentos dificultam a realização de um bom trabalho.						
IV.22	Os meus esforços para realizar um bom trabalho raramente são bloqueados por burocracia.						
IV.23	Tenho trabalho a mais para fazer.						
IV.24	Estou satisfeito(a) com as minhas possibilidades de promoção.						
IV.25	Gosto das pessoas com quem trabalho.						
IV.26	Sinto que tenho de trabalhar mais devido à incompetência de algumas das pessoas com quem trabalho.						
IV.27	Gosto dos meus colegas de trabalho.						
IV.28	Há demasiadas discussões e conflitos no local de trabalho.						
IV.29	Por vezes sinto que o meu trabalho não tem significado.						
IV.30	Gosto das tarefas que desempenho no trabalho.						
IV.31	Sinto orgulho no trabalho que realizo.						
IV.32	O meu trabalho é agradável.						
IV.33	A comunicação nesta organização parece ser eficaz.						
IV.34	Os objetivos desta organização não me são claros.						
IV.35	Muitas vezes sinto que não sei o que se passa na organização.						
IV.36	As tarefas que me são atribuídas não são totalmente explicadas.						

V. Questionário sobre Teoria Institucional

Item	Afirmação	1	2	3	4	5
		Discordo Totalmente	Discordo	Neutro	Concordo	Concordo Totalmente
V.1	Cumprimos os regulamentos governamentais para evitar sanções.					
V.2	As alterações regulatórias influenciam significativamente as nossas decisões.					
V.3	Adaptamo-nos regulamentemente para cumprir os requisitos legais.					
V.4	Seguimos práticas sugeridas por associações profissionais.					
V.5	As expectativas da indústria moldam as nossas políticas organizacionais.					
V.6	Os stakeholders esperam que cumpramos normas de responsabilidade social.					
V.7	Imitamos outras empresas de sucesso do nosso setor.					
V.8	Adotamos tendências da indústria para não ficarmos para trás.					
V.9	A incerteza leva-nos a copiar práticas dos líderes de mercado.					

Annex 2 - Survey Questionnaire in English (Translation)

Please read these instructions carefully before beginning the questionnaire.

The following questionnaire forms part of an academic study conducted at SSBM, aiming to analyze Authentic Leadership within the context of sales forces in the pharmaceutical industry operating in Portugal.

Your participation is essential to the success of this study. I kindly ask for your collaboration in completing the questionnaire in full, which is estimated to take approximately 15 to 20 minutes.

Please respond with the utmost sincerity and spontaneity, prioritizing your first impression. The questionnaire is entirely anonymous, and the data collected will be used solely for academic purposes within this project's scope. There are no right or wrong answers - your opinion matters.

Your responses will be treated with strict confidentiality, so I kindly request that you do not identify yourself at any point in the questionnaire.

If you wish to raise any questions or concerns about this project and the questionnaire, you can contact me on my mobile +351966140907 or my email address janota.rui@gmail.com.

Thank you in advance for your valuable contribution.

Yours sincerely,

Rui Janota

I. Demographic Data

I.1	Age:		Years
I.2	Gender:		
		Female	Male
I.3	Educational Qualifications:		
		High school or lower	Bachelor's degree or higher
		Attending university	
I.4	How long have you been working as Sales Representative:		Years
I.5	What is your Employment Contract Type:		
		Permanent Contract	Temporary agency contract
		Fixed-term Contract	
I.6	Geographical work location:		
		North	South
		Center	

II. Authentic Leadership Questionnaire

Item	Statement	1 Strongly Disagree	2 Disagree	3 Neutral	4 Agree	5 Strongly Agree
II.1	I can list my three greatest weaknesses.					
II.2	I can list my three greatest strengths.					
II.3	I seek feedback as a way of understanding who I really am as a person.					
II.4	I accept the feelings I have about myself.					
II.5	My actions reflect my core values.					
II.6	I do not allow group pressure to control me.					
II.7	Other people know where I stand on controversial issues.					
II.8	My morals guide what I do as a leader.					
II.9	I seek others' opinions before making up my own mind.					
II.10	I listen closely to the ideas of those who disagree with me.					
II.11	I do not emphasize my own point of view at the expense of others.					
II.12	I listen very carefully to the ideas of others before making decisions.					
II.13	I openly share my feelings with others.					
II.14	I let others know who I truly am as a person.					
II.15	I rarely present a "false" front to others.					
II.16	I admit my mistakes to others.					

III. Utrecht Work Engagement Scale

Item	Statement	0	1	2	3	4	5	6
		Never	Almost Never	Rarely	Sometimes	Often	Very Often	Always
III.1	When I'm working, I feel bursting with energy.							
III.2	I feel strong and vigorous while working on my job.							
III.3	When I get up in the morning, I feel like going to work.							
III.4	I am enthusiastic about my work.							
III.5	I am proud of my work.							
III.6	My work inspire me.							
III.7	I get carried away when I'm working.							
III.8	I am immersed in my work.							
III.9	I feel happy when I am working intensely on my job.							

IV. Job Satisfaction Survey

Item	Statement	1	2	3	4	5	6
		Disagree very much	Disagree moderately	Disagree slightly	Agree slightly	Agree moderately	Agree very much
IV.1	I feel I am being paid a fair amount for the work I do.						
IV.2	Raises are too few and far between.						
IV.3	I feel unappreciated by the organization when I think about what they pay me.						
IV.4	I feel satisfied with my chances for salary increases.						
IV.5	There is really too little chance for promotion on my job.						
IV.6	Those who do well on the job stand a fair chance of being promoted.						
IV.7	People get ahead as fast here as they do in other places.						
IV.8	There are limited opportunities for advancement in this organization.						
IV.9	My supervisor is quite competent in doing his/her job.						
IV.10	My supervisor is unfair to me.						
IV.11	My supervisor shows too little interest in the feelings of subordinates.						
IV.12	My supervisor treats me with respect.						
IV.13	I am not satisfied with the benefits I receive.						
IV.14	The benefits we receive are as good as most other organizations offer.						
IV.15	The benefit package we have is equitable.						
IV.16	I am satisfied with the benefit package I receive.						
IV.17	When I do a good job, I receive the recognition for it that I should receive.						
IV.18	I do not feel that the work I do is appreciated.						
IV.19	There are few rewards for those who work here.						
IV.20	When I do a good job, I get the praise I deserve.						
IV.21	Many of our rules and procedures make doing a good job difficult.						
IV.22	My efforts to do a good job are seldom blocked by red tape.						
IV.23	I have too much to do at work.						
IV.24	I am satisfied with my chances for promotion.						
IV.25	I like the people I work with.						
IV.26	I find I have to work harder at my job because of the incompetence of people I work with.						
IV.27	I enjoy my coworkers.						
IV.28	There is too much bickering and fighting at work.						
IV.29	I sometimes feel my job is meaningless.						
IV.30	I like doing the things I do at work.						
IV.31	I feel a sense of pride in doing my job.						
IV.32	My job is enjoyable.						
IV.33	Communications seem good within this organization.						
IV.34	The goals of this organization are not clear to me.						
IV.35	I often feel that I do not know what is going on with the organization.						
IV.36	Work assignments are not fully explained.						

V. Institutional Theory-Based Measurement Scale

		1	2	3	4	5
Item	Statement	Strongly Disagree	Disagree	Neutral	Agree	Strongly Agree
V.1	We comply with governmental regulations to avoid sanctions.					
V.2	Regulatory changes significantly influence our decisions.					
V.3	We regularly adapt to meet legal requirements.					
V.4	We follow practices suggested by professional associations.					
V.5	Industry expectations shape our organizational policies.					
V.6	Stakeholders expect us to conform to social responsibility norms.					
V.7	We imitate other successful firms in our industry.					
V.8	We adopt industry trends to avoid falling behind.					
V.9	Uncertainty leads us to copy the practices of market leaders.					

Annex 3 - Permission Letter to use the ALQ



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Billing & Delivery Address.

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 Survey Participant
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 Portugal
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Order Reference:	Product/ Reference	Unit Price (Tax Excl.)	Discount	Qty	Total (Tax Excl.)
WVTPNRVZK					
Order Date:					
11/29/2024					
Payment Method:	Authentic Leadership Questionnaire Research	\$0.00	--	1	\$0.00
Free order \$0.00	Permission - <u>Translation</u> : English (default)				
Carrier:					
				Product Total	\$0.00
				Total	\$0.00

**Permission for Survey Participant to reproduce 1 copy
within three years of November 29, 2024**

To: Rui Janota

**Authentic Leadership Questionnaire
Self & Rater Forms, Scoring Key**

Research Permission

By Bruce J. Avolio, William L. Gardner, & Fred O. Walumbwa

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Sample items:

As a leader I....

- say exactly what I mean
- demonstrate beliefs that are consistent with actions
- solicit views that challenge my deeply held positions
- seek feedback to improve interactions with others

My leader....

- says exactly what he or she means
- demonstrates beliefs that are consistent actions
- solicits views that challenge his or her deeply held positions
- seeks feedback to improve interactions with others

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Sincerely,

Robert Most
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Annex 4 - Table of frequencies: Items of the ALQ

Table of frequencies: Items of the Authentic Leadership Questionnaire

	1		2		3		4		5	
	N	%	N	%	N	%	N	%	N	%
1. I can list my three greatest weaknesses	90	6%	260	18%	101	7%	234	17%	729	52%
2. I can list my three greatest strengths.	9	1%	256	18%	76	5%	205	14%	869	61%
3. I seek feedback as a way of understanding who I really am as a person	13	1%	23	2%	102	7%	558	39%	719	51%
4. I accept the feelings I have about myself	96	7%	287	20%	57	4%	323	23%	652	46%
5. My actions reflect my core values	155	11%	30	2%	554	39%	302	21%	374	26%
6. I do not allow group pressure to control me	164	12%	46	3%	395	28%	291	21%	518	37%
7. Other people know where I stand on controversial issues	87	6%	105	7%	362	26%	376	27%	485	34%
8. My morals guide what I do as a leader	73	5%	290	20%	56	4%	310	22%	686	49%
9. I seek others' opinions before making up my own mind	138	10%	28	2%	554	39%	288	20%	407	29%
10. I listen closely to the ideas of those who disagree with me	59	4%	272	19%	344	24%	590	42%	150	11%
11. I do not emphasize my own point of view at the expense of others	112	8%	278	20%	63	4%	284	20%	678	48%
12. I listen very carefully to the ideas of others before making decisions	83	6%	110	8%	366	26%	396	28%	460	33%
13. I openly share my feelings with others	94	7%	24	2%	564	40%	283	20%	450	32%
14. I let others know who I truly am as a person	34	2%	288	20%	338	24%	577	41%	178	13%
15. I rarely present a "false" front to others	90	6%	105	7%	378	27%	378	27%	464	33%
16. I admit my mistakes to others	56	4%	302	21%	57	4%	296	21%	704	50%

Measurement scale: 1- Strongly Disagree; 2- Disagree; 3- Neutral; 4- Agree; 5- Strongly Agree.

Annex 5 - Table of frequencies: Items of the UWES

Table of frequencies: Items of the Utrecht Work Engagement Scale

	0		1		2		3		4		5		6	
	N	%	N	%	N	%	N	%	N	%	N	%	N	%
1. When I'm working, I feel bursting with energy	9	1%	69	5%	67	5%	279	20%	276	20%	349	25%	366	26%
2. I feel strong and vigorous while working on my job	14	1%	18	1%	205	14%	63	4%	240	17%	571	40%	304	21%
3. When I get up in the morning, I feel like going to work	4	0%	94	7%	26	2%	448	32%	250	18%	542	38%	51	4%
4. I am enthusiastic about my work	9	1%	66	5%	70	5%	284	20%	282	20%	354	25%	350	25%
5. I am proud of my work	13	1%	19	1%	203	14%	72	5%	232	16%	586	41%	290	20%
6. My work inspire me	5	0%	88	6%	24	2%	447	32%	244	17%	550	39%	57	4%
7. I get carried away when I'm working	4	0%	47	3%	192	14%	171	12%	293	21%	491	35%	217	15%
8. I am immersed in my work	2	0%	63	4%	80	6%	345	24%	340	24%	520	37%	65	5%
9. I feel happy when I am working intensely on my job	4	0%	106	7%	153	11%	188	13%	293	21%	240	17%	431	30%

Measurement scale: 0- Never; 1- Almost Never; 2- Rarely; 3- Sometimes; 4- Often; 5- Very; 6- Always.

Annex 6 - Table of frequencies: Items of the JSS

Table of frequencies: Items of the Job Satisfaction Survey										
	1		2		3		4		5	
	N	%	N	%	N	%	N	%	N	%
1. I feel I am being paid a fair amount for the work I do	64	5%	47	3%	239	17%	364	26%	701	50%
2. Raises are too few and far between	33	2%	177	13%	264	19%	593	42%	348	25%
3. I feel unappreciated by the organization when I think about what they pay me	51	4%	80	6%	311	22%	469	33%	504	36%
4. I feel satisfied with my chances for salary increases	25	2%	175	12%	114	8%	390	28%	711	50%
5. There is really too little chance for promotion on my job	116	8%	60	4%	475	34%	406	29%	358	25%
6. Those who do well on the job stand a fair chance of being promoted	45	3%	230	16%	346	24%	615	43%	179	13%
7. People get ahead as fast here as they do in other places	60	4%	117	8%	353	25%	434	31%	451	32%
8. There are limited opportunities for advancement in this organization	63	4%	208	15%	155	11%	415	29%	574	41%
9. My supervisor is quite competent in doing his/her job	211	15%	206	15%	225	16%	272	19%	501	35%
10. My supervisor is unfair to me	60	4%	274	19%	162	11%	257	18%	662	47%
11. My supervisor shows too little interest in the feelings of subordinates	86	6%	196	14%	194	14%	355	25%	584	41%
12. My supervisor treats me with respect	90	6%	100	7%	343	24%	395	28%	486	34%
13. I am not satisfied with the benefits I receive	127	9%	28	2%	558	39%	301	21%	401	28%
14. The benefits we receive are as good as most other organizations offer	117	8%	244	17%	338	24%	583	41%	133	9%
15. The benefit package we have is equitable	114	8%	105	7%	374	26%	385	27%	436	31%
16. I am satisfied with the benefit package I receive	114	8%	105	7%	374	26%	385	27%	436	31%
17. When I do a good job, I receive the recognition for it that I should receive	120	8%	224	16%	279	20%	426	30%	366	26%
18. I do not feel that the work I do is appreciated	95	7%	353	25%	223	16%	384	27%	360	25%
19. There are few rewards for those who work here	93	7%	228	16%	333	24%	247	17%	514	36%
20. When I do a good job, I get the praise I deserve	102	7%	251	18%	276	20%	319	23%	467	33%
21. Many of our rules and procedures make doing a good job difficult	30	2%	264	19%	319	23%	559	40%	243	17%
22. My efforts to do a good job are seldom blocked by red tape	63	4%	98	7%	351	25%	367	26%	536	38%
23. I have too much to do at work	40	3%	227	16%	89	6%	287	20%	772	55%
24. I am satisfied with my chances for promotion	60	4%	50	4%	264	19%	273	19%	768	54%
25. I like the people I work with	125	9%	237	17%	217	15%	228	16%	608	43%
26. I find I have to work harder at my job because of the incompetence of people I work with	44	3%	218	15%	80	6%	361	26%	712	50%
27. I enjoy my coworkers	121	9%	99	7%	353	25%	389	27%	453	32%
28. There is too much bickering and fighting at work	124	9%	196	14%	287	20%	305	22%	503	36%
29. I sometimes feel my job is meaningless	165	12%	148	10%	284	20%	423	30%	395	28%
30. I like doing the things I do at work	21	1%	71	5%	206	15%	318	22%	799	56%
31. I feel a sense of pride in doing my job	87	6%	106	7%	493	35%	376	27%	353	25%
32. My job is enjoyable	18	1%	149	11%	31	2%	605	43%	612	43%
33. Communications seem good within this organization	152	11%	45	3%	512	36%	267	19%	439	31%
34. The goals of this organization are not clear to me	238	17%	234	17%	287	20%	233	16%	423	30%
35. I often feel that I do not know what is going on with the organization	100	7%	103	7%	534	38%	376	27%	302	21%
36. Work assignments are not fully explained	264	19%	301	21%	185	13%	179	13%	486	34%

Measurement scale: 1- Strongly Disagree; 2- Disagree; 3- Neutral; 4- Agree; 5- Strongly Agree.

Annex 7 - Table of frequencies: Items of the IT-BMS

Table of frequencies: Items of the Institutional Theory - Based Measurement Scale

	1		2		3		4		5	
	N	%	N	%	N	%	N	%	N	%
1. We comply with governmental regulations to avoid sanctions	168	12%	102	7%	356	25%	337	24%	452	32%
2. Regulatory changes significantly influence our decisions	105	7%	283	20%	71	5%	320	23%	636	45%
3. We regularly adapt to meet legal requirements	214	15%	188	13%	152	11%	162	11%	699	49%
4. We follow practices suggested by professional associations	124	9%	17	1%	595	42%	299	21%	380	27%
5. Industry expectations shape our organizational policies	85	6%	111	8%	511	36%	427	30%	281	20%
6. Stakeholders expect us to conform to social responsibility norms	113	8%	37	3%	416	29%	334	24%	515	36%
7. We imitate other successful firms in our industry	132	9%	290	20%	166	12%	319	23%	508	36%
8. We adopt industry trends to avoid falling behind	186	13%	213	15%	282	20%	298	21%	436	31%
9. Uncertainty leads us to copy the practices of market leaders	88	6%	283	20%	153	11%	324	23%	567	40%

Measurement scale: 1- Strongly Disagree; 2- Disagree; 3- Neutral; 4- Agree; 5- Strongly Agree.

Annex 8 - Saturations of Model Dimensions, resulting from SEM and convergent validity (ALQ)

Dimension	Item	Saturations		Standard		
		Non Standardized	Standardized	error	t test	p
1. Self-awareness	II.1	1,276	0,93	0,029	43,563	***<0,001
	II.2	0,84	0,706	0,028	29,727	***<0,001
	II.3	0,211	0,277	0,02	10,306	***<0,001
	II.4	1,265	0,921	0,029	42,885	***<0,001
2. Internalized moral perspective	II.5	0,72	0,592	0,033	22,008	***<0,001
	II.6	0,79	0,604	0,039	20,221	***<0,001
	II.7	1,002	0,85	0,032	31,336	***<0,001
	II.8	1,028	0,767	0,036	28,367	***<0,001
3. Balanced processing	II.9	0,697	0,58	0,032	22,034	***<0,001
	II.10	0,731	0,705	0,026	28,089	***<0,001
	II.11	1,059	0,911	0,028	38,437	***<0,001
	II.12	1,037	0,737	0,035	30,021	***<0,001
4. Relational transparency	II.13	0,701	0,619	0,032	21,913	***<0,001
	II.14	0,731	0,715	0,026	28,151	***<0,001
	II.15	1,012	0,857	0,029	34,816	***<0,001
	II.16	0,97	0,742	0,033	29,55	***<0,001

*** p≤0,001

Annex 9 - Saturations between the Dimensions of the Model, resulting from the SEM and convergent validity (ALQ)

Dimension	Dimension	Saturations			t test	p
		Non Standardized	Standardized	Std. error		
1. Self-awareness	2. Internalized moral perspective	-0,016	-0,016	0,03	-0,528	0,597
1. Self-awareness	3. Balanced processing	0,058	0,058	0,029	1,965	* 0,049
1. Self-awareness	4. Relational transparency	0,187	0,187	0,029	6,439	***<0,001
2. Internalized moral perspective	3. Balanced processing	0,038	0,038	0,031	1,246	0,213
2. Internalized moral perspective	4. Relational transparency	-0,087	-0,087	0,031	-2,809	** 0,005
3. Balanced processing	4. Relational transparency	0,02	0,02	0,031	0,645	0,519

* p≤0,05 ** p≤0,01 *** p≤0,001

Annex 10 - Saturations of Model Dimensions, resulting from SEM and convergent validity (UWES)

Dimension	Item	Saturations		Standard error	t test	p
		Non Standardized	Standardized			
1. Vigor	III.1	0,855	0,588	0,043	19,986	***<0,001
	III.2	1,353	0,961	0,047	28,526	***<0,001
	III.3	0,616	0,495	0,047	13,049	***<0,001
2. Dedication	III.4	1,316	0,912	0,036	36,239	***<0,001
	III.5	0,868	0,622	0,036	24,075	***<0,001
	III.6	0,936	0,754	0,032	29,371	***<0,001
3. Absorption	III.7	1,412	1,012	0,034	41,863	***<0,001
	III.8	0,654	0,544	0,031	21,08	***<0,001
	III.9	1,266	0,78	0,041	30,982	***<0,001

*** $p \leq 0,001$

Annex 11 - Saturations between the Dimensions of the Model, resulting from the SEM and convergent validity (UWES)

Dimension	Dimension	Saturations			t test	p
		Non Standardized	Standardized	Std. error		
1. Vigor	2. Dedication	0,211	0,211	0,028	7,431	*** < 0,001
1. Vigor	3. Absorption	0,691	0,691	0,028	24,647	*** < 0,001
2. Dedication	3. Absorption	0,186	0,186	0,027	6,805	*** < 0,001

* p≤0,05 ** p≤0,01 *** p≤0,001

Annex 12 - Saturations of Model Dimensions, resulting from SEM and convergent validity (JSS)

Dimension	Item	Saturations		Standard error	t test	p
		Non Standardized	Standardized			
1. Pay	IV.1	0,886	0,813	0,026	34,564	***<0,001
	IV.2	0,764	0,74	0,025	30,412	***<0,001
	IV.3	0,659	0,623	0,027	24,358	***<0,001
	IV.4	0,728	0,661	0,028	26,391	***<0,001
2. Promotion	IV.5	0,68	0,59	0,03	22,805	***<0,001
	IV.6	0,786	0,78	0,026	30,61	***<0,001
	IV.7	0,854	0,774	0,027	32,161	***<0,001
	IV.8	0,872	0,714	0,03	28,871	***<0,001
3. Supervision	IV.9	0,831	0,568	0,04	20,738	***<0,001
	IV.10	0,745	0,569	0,036	20,758	***<0,001
	IV.11	0,933	0,732	0,033	28,538	***<0,001
	IV.12	0,876	0,743	0,03	28,82	***<0,001
4. Fringe Benefits	IV.13	0,886	0,752	0,03	29,868	***<0,001
	IV.14	0,794	0,718	0,028	28,206	***<0,001
	IV.15	0,953	0,784	0,03	31,426	***<0,001
	IV.16	0,758	0,606	0,033	22,85	***<0,001
5. Contingent Rewards	IV.17	0,954	0,756	0,031	30,479	***<0,001
	IV.18	0,81	0,631	0,033	24,192	***<0,001
	IV.19	0,828	0,639	0,034	24,58	***<0,001
	IV.20	0,997	0,766	0,032	31,022	***<0,001
6. Operating Conditions	IV.21	0,76	0,722	0,025	30,541	***<0,001
	IV.22	1,06	0,939	0,024	44,531	***<0,001
	IV.23	0,965	0,796	0,028	35,077	***<0,001
	IV.24	0,425	0,383	0,029	14,394	***<0,001
7. Coworkers	IV.25	0,973	0,699	0,034	28,792	***<0,001
	IV.26	0,97	0,804	0,028	35,063	***<0,001
	IV.27	1,016	0,829	0,028	36,833	***<0,001
	IV.28	0,696	0,526	0,034	20,237	***<0,001
8. Nature of Work	IV.29	0,87	0,664	0,033	26,559	***<0,001
	IV.30	0,633	0,642	0,025	25,451	***<0,001
	IV.31	0,905	0,813	0,026	35,055	***<0,001
	IV.32	0,621	0,628	0,025	25,141	***<0,001
9. Communication	IV.33	0,736	0,593	0,035	21,057	***<0,001
	IV.34	0,865	0,593	0,037	23,172	***<0,001
	IV.35	1,008	0,909	0,026	38,054	***<0,001
	IV.36	0,949	0,612	0,039	24,043	***<0,001

*** p<0,001

Annex 13 - Saturations between the Dimensions of the Model, resulting from the SEM and convergent validity (JSS)

Dimension	Dimension	Saturations			t test	p
		Non Standardized	Standardized	Std. error		
1. Pay	2. Promotion	-0,064	-0,064	0,031	-2,027	* 0,043
1. Pay	3. Supervision	0,645	0,645	0,023	27,733	*** <0,001
1. Pay	4. Fringe Benefits	0,035	0,035	0,032	1,093	0,274
1. Pay	5. Contingent Rewards	-0,064	-0,064	0,032	-1,964	* 0,050
1. Pay	6. Operating Conditions	0,764	0,764	0,016	47,571	*** <0,001
1. Pay	7. Coworkers	-0,038	-0,038	0,032	-1,214	0,225
1. Pay	8. Nature of Work	-0,117	-0,117	0,032	-3,634	*** <0,001
1. Pay	9. Communication	-0,088	-0,088	0,03	-2,928	** 0,003
2. Promotio	3. Supervision	-0,074	-0,074	0,033	-2,245	* 0,025
2. Promotio	4. Fringe Benefits	-0,061	-0,061	0,032	-1,941	0,052
2. Promotio	5. Contingent Rewards	0,623	0,623	0,023	27,497	*** <0,001
2. Promotio	6. Operating Conditions	-0,038	-0,038	0,03	-1,264	0,206
2. Promotio	7. Coworkers	0,902	0,902	0,014	66,813	*** <0,001
2. Promotio	8. Nature of Work	0,898	0,898	0,014	62,22	*** <0,001
2. Promotio	9. Communication	0,77	0,77	0,018	43,952	*** <0,001
3. Supervision	4. Fringe Benefits	0,04	0,04	0,034	1,196	0,232
3. Supervision	5. Contingent Rewards	-0,058	-0,058	0,034	-1,699	0,089
3. Supervision	6. Operating Conditions	0,674	0,674	0,02	33,261	*** <0,001
3. Supervision	7. Coworkers	-0,053	-0,053	0,033	-1,602	0,109
3. Supervision	8. Nature of Work	-0,16	-0,16	0,033	-4,795	*** <0,001
3. Supervision	9. Communication	-0,103	-0,103	0,031	-3,278	** 0,001
4. Fringe Benefits	5. Contingent Rewards	0,013	0,013	0,033	0,386	0,699
4. Fringe Benefits	6. Operating Conditions	0,065	0,065	0,031	2,13	* 0,033
4. Fringe Benefits	7. Coworkers	0,003	0,003	0,032	0,089	0,929
4. Fringe Benefits	8. Nature of Work	-0,028	-0,028	0,033	-0,855	0,392
4. Fringe Benefits	9. Communication	-0,013	-0,013	0,03	-0,418	0,676
5. Contingent Rewards	6. Operating Conditions	-0,045	-0,045	0,031	-1,448	0,148
5. Contingent Rewards	7. Coworkers	0,687	0,687	0,02	34,129	*** <0,001
5. Contingent Rewards	8. Nature of Work	0,561	0,561	0,025	22,267	*** <0,001
5. Contingent Rewards	9. Communication	0,537	0,537	0,024	22,433	*** <0,001
6. Operating Conditions	7. Coworkers	-0,029	-0,029	0,03	-0,963	0,335
6. Operating Conditions	8. Nature of Work	-0,07	-0,07	0,031	-2,263	* 0,024
6. Operating Conditions	9. Communication	-0,066	-0,066	0,029	-2,287	* 0,022
7. Coworkers	8. Nature of Work	0,849	0,849	0,014	61,29	*** <0,001
7. Coworkers	9. Communication	0,744	0,744	0,017	42,911	*** <0,001
8. Nature of Work	9. Communication	0,811	0,811	0,016	49,44	*** <0,001

* p≤0,05 ** p≤0,01 *** p≤0,001

Annex 14 - Saturations of Model Dimensions, resulting from SEM and convergent validity (IT-BMS)

Dimension	Item	Saturations		Standard error	t test	p
		Non Standardized	Standardized			
1. Coercive Pressure	V.1	0,803	0,609	0,032	24,809	***<0,001
	V.2	1,391	1,004	0,029	48,624	***<0,001
	V.3	0,975	0,632	0,038	25,93	***<0,001
2. Normative Pressure	V.4	0,833	0,722	0,03	27,395	***<0,001
	V.5	0,862	0,799	0,028	30,578	***<0,001
	V.6	0,832	0,695	0,032	26,297	***<0,001
3. Mimetic Pressure	V.7	1,176	0,846	0,031	37,644	***<0,001
	V.8	0,778	0,557	0,035	22,458	***<0,001
	V.9	1,345	1,007	0,027	49,164	***<0,001

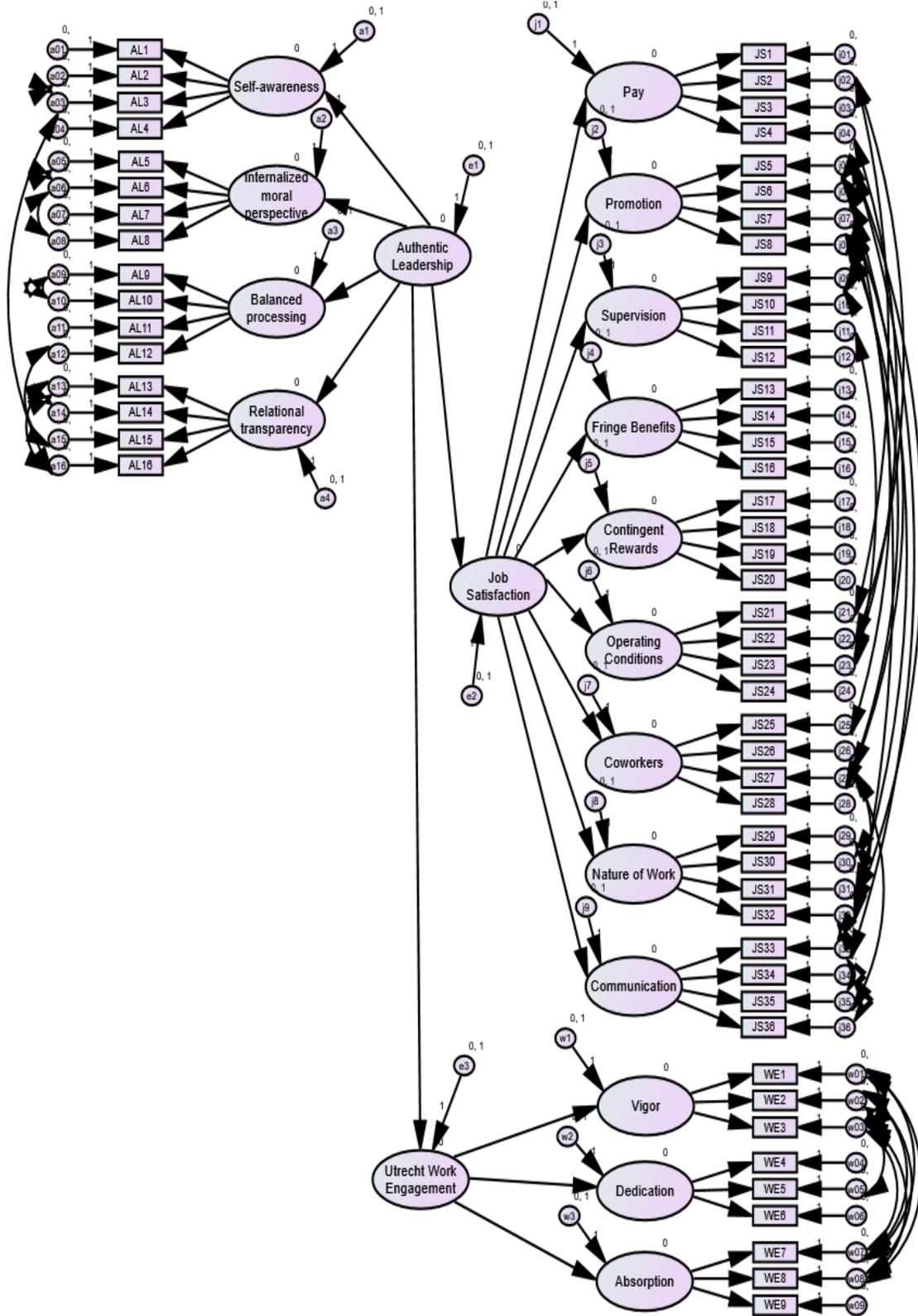
*** p≤0,001

Annex 15 - Saturations between the Dimensions of the Model, resulting from the SEM and convergent validity (IT-BMS)

Dimension	Dimension	Saturations			t test	p
		Non Standardized	Standardized	Std. error		
1. Coercive Pressure	2. Normative Pressure	0,377	0,377	0,026	14,405	*** <0,001
1. Coercive Pressure	3. Mimetic Pressure	0,817	0,817	0,013	62,809	*** <0,001
2. Normative Pressure	3. Mimetic Pressure	0,362	0,362	0,026	13,665	*** <0,001

* p≤0,05 ** p≤0,01 *** p≤0,001

Annex 16 - Standardized Estimate of the SME for RQ1



Annex 17 - Standardized Estimate of the SME for RQ2

