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Employees' Perceptions of How Extrinsic Motivators Influence the Relationship Between
Authentic Leadership and Meaningful Work

by

Bandeet Poudel

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ABSTRACT

Bandeet Poudel

Employees' Perceptions of How Extrinsic Motivators Influence the Relationship Between Authentic Leadership and Meaningful Work

This study investigates how Authentic Leadership (AL) influences employees' perceptions of Meaningful Work (MW) and the extent to which Extrinsic Motivators (EM) affect this relationship within UK organisations. While AL is widely associated with fostering MW through intrinsic motivators such as value alignment and trust, the impact of these effects under varying EM, including salary, supervision, and job security, remains unexplored.

A Systematic Literature Review (SLR) revealed a strong positive relationship between AL and MW; however, it showed a fragmented understanding of how EM influence these dynamics. To address this gap, a quantitative survey was conducted across various UK business sectors. Validated tools were used to measure AL behaviours, MW perceptions, and the importance of EM. Data were analysed using correlation and moderation analysis with SPSS.

Results confirmed that AL's direct effect on MW was positive but non-significant ($B = 0.136$; $\beta = 0.155$; $p = 0.120$; $R^2 = 0.024$). However, EM emerged as a strong positive predictor ($B = 0.3868$; $p = 0.0005$) on its own. The interaction term ($AL \times EM$) and the indirect effect of AL on MW through EM were non-significant ($B = 0.0371$; $p = 0.8049$) and ($B = 0.0796$; $p = 0.0655$), respectively, indicating no evidence that EM have any effect on this relationship.

These findings suggest that EM are the main factors in shaping employees' perceptions of MW, while AL has only a weak and insignificant effect. In practical terms, this indicates that favourable EMs such as fair pay, job security, and supportive supervision may be more critical for employees in shaping their perceptions of MW, than the authenticity of leader. When employees are motivated by those EM, they are much more likely to perceive their work as meaningful. This holds true, regardless of how leaders show authenticity in their workplace.

Future research should explore in large sample and consider longitudinal designs to better capture the dynamic relationship between leadership, meaningfulness, and EM. This study contributes to literature by showing the limited impact of AL on MW and offers practical advice for organisations to focus on foundational motivators to improve perception of MW among employees.

Keywords: Authentic Leadership, Meaningful Work, Extrinsic Motivators, Self-Determination Theory, Herzberg's Two-Factor Theory.

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AUTHOR'S DECLARATION

I, Bandeet Poudel, declare that the work in this thesis is my own and comes from my own original research. This thesis has not been submitted, in whole or in part, for any degree or diploma at this or any other institution.

I have properly acknowledged and referenced all sources of information. I understand that any violation of academic integrity may lead to disciplinary action following the University's rules.

Bandeet Poudel

24 October 2025

ABBREVIATIONS

AL	Authentic Leadership
AL-B	Authentic Leadership- Balanced Processing
AL-M	Authentic Leadership- Moral Perspective
AL-S	Authentic Leadership- Self-Awareness
AL-R	Authentic Leadership- Relational Transparency
ALI	Authentic Leadership Inventory
ALQ	Authentic Leadership Questionnaire
BBC	British Broadcasting Corporation
CIPD	The Chartered Institute of Personnel and Development
CMV	Common Method Variance
CMWS	Comprehensive Meaningful Work Scale
COVID-19	Coronavirus Disease 2019
CSR	Corporate Social Responsibility
EFA	Exploratory Factor Analysis
EL	Ethical Leadership
EM	Extrinsic Motivators
FTX	Futures Exchange
Gen-Z	Generation Z
KITA	Kick in The Ass
MLQ	Multifactor Leadership Questionnaire
MSMW	Multidimensional Scale for Meaningful Work

MW	Meaningful Work
MW-GG	Meaningful Work- Greater Good Motivation
MW-PM	Meaningful Work- Positive Meaning
MW-MM	Meaningful Work- Meaning Making through Work
NASA	National Aeronautics and Space Administration
PICO	Population Intervention Comparison Outcome
PRISMA	Preferred Reporting Items for Systematic Reviews and Meta-Analyses
SDT	Self-Determination Theory
SL	Servant Leadership
SLR	Systematic Literature Review
SME	Small and Medium Enterprises
SPSS	Statistical Package for Social Sciences
TL	Transformational Leadership
TrL	Transactional Leadership
UK	United Kingdom
US	United States
WAMI	Work and Meaning Inventory
WEIMS	Work Extrinsic and Intrinsic Motivation Scale

INTRODUCTION

Background and Overview

In the workplace, employee motivation arises from both intrinsic and extrinsic sources. Intrinsic factors originate within the individual and are linked to psychological fulfilment, such as opportunities for growth and the satisfaction derived from the work itself. These factors are often associated with fostering creativity, sustained engagement, and long-term personal growth (Ryan and Deci 2000; Steger et al. 2012). Extrinsic factors, on the other hand, are associated with the external work environment and typically fall outside an individual's control. They include salary, security, organisational policies, and working conditions (Ryan and Deci 2000; Herzberg 2017). These extrinsic elements are foundational, particularly in fulfilling basic human needs.

Herzberg's Two-Factor Theory (Herzberg 2017) initially categorised external factors as "hygiene factors," meaning their absence could cause dissatisfaction even if their presence alone did not create motivation. In this study, these elements are collectively referred to as Extrinsic Motivators (EM), a broader term encompassing environmental, managerial, and policy-related factors that shape how employees experience their work (Singh 2016). Without meeting these foundational layers through EM, employees may be unwilling or unable to pursue intrinsic goals at work, such as growth, meaning, and identity (Timmreck 1977; Rosso et al. 2010). EM shapes initial behavioural responses by providing financial and psychological security, necessary for deeper motivation to emerge (Herzberg 2017; Van den Broeck et al. 2016). However, while EM can prevent dissatisfaction, they rarely produce fulfilment on their own (Timmreck 1977). Instead, they form the minimum platform upon which deeper engagement with work is built (Chuang et al 2025).

While EM are foundational for positive employee outcomes, its impact is complex and context dependent. In various industries, EM, such as company policies, rewards, working conditions, and supervision, have been found to influence motivation levels significantly, sometimes even outweighing intrinsic factors in their impact on day-to-day performance (Van & Nguyen 2020). Fair compensation, supportive supervision, and clear organisational policies can improve engagement and performance (Deci et al. 1999; Gagne and Deci 2005). However, Self-determination Theory emphasises that the effectiveness of EM depends on how they are delivered

and perceived (Ryan and Deci 2000). When extrinsic rewards or policies are perceived as controlling or are over-relied upon, they can undermine intrinsic motivation by preventing the psychological need for autonomy (Deci et al. 1999). EM is a non-contributor to MW's experience (Lips-Wiersma and Wright 2012). This dual nature suggests that EM are not merely background conditions but active drivers of employee behaviour, capable of producing both positive and negative outcomes.

In organisational contexts, EM not only serve as attractors that draw employees into a role by meeting essential expectations but also form the basis upon which leaders can build long-term engagement and help employees connect their work to a broader purpose (Pratt & Ashforth, 2003; Rosso et al. 2010). By creating the stability necessary for employees to focus on higher-order needs, EM shape the interpretive framework through which employees evaluate their work (Pratt & Ashforth 2003). Without meeting the foundational needs, even intrinsically motivating tasks may fail to feel personally significant. However, when these needs are met, employees can focus on higher-order needs, such as purpose, value alignment, and self-actualisation (Maslow 1954), all of which are preconditions for experiencing a sense of meaning at work (Pratt & Ashforth 2003). Consequently, EM can be understood as contextual conditions that influence how employees interpret and experience their work. By satisfying foundational needs and creating psychological and organisational stability, EM may either support or constrain employees' ability to experience work as meaningful and worthwhile.

The term meaning, as used in this thesis, refers to the way individuals interpret their experiences and assign significance, purpose, or value to events, roles, and actions (Rosso et al. 2010). In organisational settings, meaning functions as a broad interpretive framework through which employees understand their work experiences and their relationship with the organisation. This broader concept provides the foundation for understanding Meaningful Work (MW), which refers specifically to work experienced as significant, purposeful, and aligned with one's values (Dik et al. 2009; Steger et al. 2012).

MW has been increasingly recognised in both the academic literature and organisational practice due to concerns over declining job quality (Bailey et al. 2019). Existing literature links MW to a range of positive outcomes, including job satisfaction, organisational commitment, psychological resilience, and reduced turnover (Bailey et al.; Fairlie 2011; Yeoman 2014). Given that individuals spend a substantial portion of their lives at work (Adkins and Premeaux 2012), the

ability to derive meaning from one's role is not just a personal aspiration, but a strategic concern for organisations seeking to improve employees' experiences of work (Lysova et al. 2019).

While EM create the foundational conditions for MW, leadership plays a pivotal role in shaping its psychological experience. Leaders influence the psychological climate, model ethical standards, and connect individual contributions to broader organisational goals (Rosso et al. 2010; Shuck & Rose 2013). When leadership lacks transparency, credibility, or moral clarity, it can erode trust and undermine meaning, even in otherwise well-resourced environments. High profile corporate scandals such as Enron (BBC 2021), where leaders hid massive debts using misleading accounting methods; Luckin Coffee (Seven Pillars Institute 2021; BBC News 2020), involving hundreds of millions in fabricated sales, and the misuse of customer funds through sister company by FTX Trading Limited (SEC 2022; BBC News 2022) all resulted in massive financial and reputational losses, highlighting the need for morally transparent leaders.

In contrast, Authentic leadership (AL) has emerged as a promising leadership style that can reinforce the value of work, connect tasks to shared goals, and create climates of trust where meaning can flourish (Gardner et al. 2005). Defined by self-awareness, relational transparency, internalised moral perspective, and balanced information processing (Luthans & Avolio 2003; Walumbwa et al. 2008), AL foster trust, psychological safety, and align organisational and individual values (Gardner et al. 2005; Wong & Laschinger 2013; Ribeiro 2022; Ilies et al. 2005). Authentic leaders help employees navigate ambiguity and adversity by framing work within a moral and developmental narrative, reinforcing employees' sense of purpose (Ilies et al. 2005; Rego et al. 2016).

Building on these theoretical foundations, it is essential to examine how these dynamics play out within specific organisational contexts. The United Kingdom (UK) provides a strong empirical context for exploring how leadership and organisational conditions influence employees' perceptions of work. As of 2024, the UK hosts approximately 5.5 million private-sector businesses that employ around 27 million people (Department for Business and Trade 2024). Within this diverse organisational landscape, the CIPD Good Work Index (2025) reports that UK employees place a high value on EM such as fair pay, flexible working arrangements, and secure contracts: factors closely linked to improved performance, better mental wellbeing, and lower turnover intentions. These outcomes are also widely recognised in organisational research as key indicators of MW, with studies showing that MW is positively associated with wellbeing

and negatively associated with withdrawal intentions (Salleh et al. 2020; Fairlie 2011). The same CIPD report (Young and Tong 2025) indicates that employees who maintain positive relationships with their line managers experience higher job satisfaction, better health outcomes, and greater organisational commitment. These managerial qualities, such as trust, support, and openness, reflect core attributes of AL, suggesting that leadership behaviours may significantly shape how EM influence employees' experiences of MW across UK organisations.

Prior research has established AL as a strong predictor of MW (Sagnak & Kuruoz 2017; Chaudhary 2021). Similarly, EM are recognised for preventing dissatisfaction and disengagement (Herzberg 2017; Deci et al. 1999). However, the role of EM as either an enabler or a constraint between these factors remains underexplored. Specifically, in low-paying, understaffed, or unsupportive environments, it is unclear whether AL alone can sustain employees' perceptions of MW. Or does the absence of strong EM limit a leader's ability to foster meaning?

This study addresses this critical gap by examining how organisational leadership behaviours influence employees' experiences of MW, with a particular focus on the role of EM within UK-based businesses. While prior research has examined AL and MW independently, limited attention has been given to how organisational conditions, particularly EM, influence this relationship. By integrating Authentic Leadership Theory, Self-Determination Theory, and Herzberg's Two-Factor Theory, this study develops a practically relevant framework for understanding how leadership style and organisational environment jointly shape employees' perception of MW. In doing so, it adds to existing work on AL and offers guidance for organisations aiming to enhance MW in challenging work environments.

Problem Statement

MW has gained increasing attention as a positive driver of the employee experience, particularly amid growing concerns about retention and engagement (Hoole and Bonnema 2024). Defined as a psychological state in which individuals perceive their work as purposeful, valuable, and aligned with their personal values (Bailey et al. 2019; Steger et al. 2012), MW is linked to key outcomes such as employee retention (Fairlie 2011), job satisfaction (Ghislieri et al. 2019), engagement (Geldenhuys et al. 2014), and overall quality of employee experience (Pereira et al. 2025). Its relevance extends to occupational roles, from high-earning professionals (Mirza & Parahyanti 2025) to frontline service workers (Maziero et al. 2020), and across industries such as tourism and

hospitality (Goh and Baum et al. 2021) and education (Tummers and Knies 2013), underscoring its universality as a fundamental human need (Yeoman 2014).

Among the antecedents of MW, AL has emerged as a significant influence. Characterised by transparency, ethical behaviour, and value alignment, AL fosters trust and psychological safety, which in turn enhances employees' sense of purpose and meaning (Walumbwa et al. 2008; Gardner et al. 2005). Empirical research also associates AL with reduced turnover intention by enhancing perceived supervisor support and organisational identification (Jun et al. 2023). However, in practice, leaders operate within organisational environments shaped by EM, such as salary, job security, supervision, and organisational policies, which may be insufficient or inconsistent (Osborn et al. 2002). When these motivators are weak or absent, employees' sense of purpose and value alignment can diminish, constraining even authentic leaders' ability to foster MW (Herzberg 2017). This underscores the need to explore how employees perceive the influence of these organisational conditions on AL's effectiveness in cultivating MW.

Research Question

While AL has been widely examined as a driver of MW, most existing research focuses on its intrinsic pathways —such as psychological safety, trust, and value alignment (Bailey et al. 2019; Pereira et al. 2024) —without fully accounting for the broader organisational context. In particular, the independent and joint role of EM in shaping how employees interpret and respond to AL behaviours remains underexplored. This presents a critical gap in both theory and practice: can employees still perceive their work as meaningful when their leaders demonstrate authenticity, despite the absence of favourable EM?

The current study aims to address this gap by investigating how employees perceive the impact of EM on the relationship between AL and their perception of MW within UK-based organisations. It examines whether EM act as enabling conditions, constraints, or neutral factors in this relationship, and whether their presence or absence alters the effectiveness of AL in fostering MW.

Accordingly, the research question that this study will be addressing is: “To what extent do employees of UK-based organisations perceive the impact of EM on the relationship between AL and their experience of MW?”

Additionally, the study will explore how these perceptions align with existing literature and

related theoretical frameworks. This theoretical gap, once addressed, could have significant implications for our understanding of leadership and MW, particularly in resource-constrained organisational settings where structural conditions may limit the effectiveness of leadership behaviours.

Contemporary Workplace Trends

Recent demographic shifts, particularly the growing presence of Generation Z in the workforce, have brought renewed attention to how employee's expectation around work, leadership, and motivation are evolving. Emerging evidence suggests that younger employees place greater emphasis on authenticity in leadership, valuing transparency, open communication, and ethical behaviour as key elements in building trust and positive workplace relationships (Startups Magazine 2024). These preferences align closely with the core characteristics of AL, indicating that generational changes may shape how leadership behaviours are perceived and evaluated in contemporary organisations.

At the same time, research indicates that Gen Z places high importance on purpose-driven work, actively seeking roles that align with their values and allow them to make a positive impact, thereby emphasising the need for leadership styles that enhance employees' sense of meaning (Brower 2024). This suggests a continued relevance of intrinsic motivators in shaping employees' experience of MW. However, Krishna and Agrawal (2024) found that while millennials (people born between 1980 and 1996) tend to prioritise intrinsic rewards such as personal growth and meaning, Gen Z shows a comparatively stronger preference for extrinsic factors including job security, financial rewards, and stability.

This apparent shift challenges traditional distinctions between intrinsic and extrinsic motivation, suggesting that contemporary employees may simultaneously value both. In particular, EM are increasingly viewed not as additional benefits but as baseline expectations (Globis Training 2025). This reinforces the idea that EM play a critical role in shaping employees' work experiences, not only by preventing dissatisfaction but also by influencing how employees engage with and interpret their work environments.

From this perspective, demographic differences introduce an additional layer of complexity for organisations to balance the needs of a multigenerational workforce. Employees with different generational backgrounds may respond differently to leadership behaviours

depending on the extent to which their extrinsic expectations are met.

To address this, businesses must create environments that offers both MW and competitive work conditions, ensuring that both intrinsic and extrinsic motivators are effectively integrated into their leadership and HR strategies. It is essential to understand what business should do in order to tackle these evolving expectations. AL, with its emphasis on transparency, ethical conduct, and value alignment plays a crucial role in fostering intrinsic meaning at work. However, EM serve a different function- primarily in preventing dissatisfaction (Herzberg 1959). Therefore, organisations must pay equal attention to both dimensions. Understanding how AL, EM, and MW can work together is essential for building supportive, engaging, and purpose-driven workplaces that matches with the values of today's workforce.

Definition of Terms

In this study, the following key terms are defined as:

Authentic Leadership

AL has been widely conceptualised as a values-based and transparent leadership approach (Avolio and Gardner 2005). Building on this understanding, this study adopts the definition proposed by Walumbwa et al. (2008), who describe it as:

“a pattern of leader behaviour that draws upon and promotes both positive psychological capacities and a positive ethical climate, to foster greater self-awareness, an internalised moral perspective, balanced processing of information, and relational transparency on the part of leaders working with followers, fostering positive self-development.”

This definition is selected as it captures the multidimensional nature of AL together in a single frame.

Meaningful Work

MW is commonly associated with purpose, significance, and value alignment in the workplace (Rosse et al. 2010). Reflecting this broader understanding, this study adopts the normative definition proposed by Michaelson (2021), which conceptualise MW as:

“Purposeful activity that one has good reasons to experience as meaningful, that others have good reasons to perceive as socially worthwhile, and that is independently meaningful—i.e., the meaningfulness of which is at least partly independent of whether it

is individually experienced or socially perceived as meaningful and worthwhile.”

This definition is particularly suited to the study as it integrates both subjective experience and broader social values.

Extrinsic Motivators

EM are typically understood as external job-related factors, such as salary, supervision, and job security, that do not directly motivate but are essential to preventing dissatisfaction (Herzberg 2017). While Herzberg originally referred to these factors as hygiene factors, this study adopts a broader definition of extrinsic motivators to encompass these elements, recognising their significant role in shaping employee attitudes and workplace outcomes (Singh 2016).

Thesis Structure

This thesis is organised into four main chapters, each comprising several sub-sections:

Introduction

This section introduces the research problem the study addresses. It also provides brief definitions and explanations of the key concepts and factors involved.

Chapter 1: Authentic Leadership, Meaningful Work, and Extrinsic Motivators: A Systematic Review

A systematic review of the existing literature on AL, MW, and EM is presented. This section also outlines the research questions, methodology used in the review, and key findings from previous studies.

Chapter 2: Research Methodology for Examining the AL-MW Relationship and the Role of EM

This section details the research design, including the approach taken, the development of the questionnaire, and the strategy for collecting data via an online survey. The results of the study are analysed and discussed. This section highlights the key insights derived from the collected data.

General Discussion

This last section explores the gap between theoretical frameworks and empirical findings. It also discusses the study's limitations and offers recommendations for future research.

Chapter 1: Authentic Leadership, Meaningful Work, and Extrinsic Motivators: A Systematic Review

1.1 Introduction

This study investigates how employees perceive the impact of EM on the relationship between AL and their perception of MW within UK-based organisations. To achieve this aim, it is essential first to examine what is already known about these constructs and their interrelationships, and to identify where theoretical and empirical gaps remain. This chapter, therefore, provides a critical and systematic review of the existing literature on AL, MW, and EM to establish a foundation for the current study's conceptual framework.

The literature review is necessary for several reasons. It equips the researcher with a thorough understanding of the topic, highlights existing gaps, and establishes a solid foundation for justifying the need for research (Denney and Tewksbury 2013). This research adopts a Systematic Literature Review (SLR), which differs from traditional narrative reviews by using a structured and predefined method to answer specific research questions. While traditional review offers broader, interpretive insights into the topic and its conceptual development, SLRs focus on identifying, evaluating, and synthesising empirical evidence using transparent inclusion and exclusion criteria (Boell and Cecez-Kecmanovic 2015).

Thus, this chapter is organised into three main sections. The first section presents a conceptual overview of AL, MW, and EM, including their origins, theoretical development, and measurement tools. This is followed by a comprehensive Systematic Literature Review (SLR), designed to identify how these constructs have been examined in prior research, especially in relation to one another. It then critically evaluates existing papers on these variables, identifying patterns, limitations, and areas of divergence. The chapter concludes by clearly identifying the theoretical and empirical gaps in the existing literature.

1.2 Section 1: Conceptual Overviews

To build a clear and consistent foundation for this study, it is essential to define the key constructs that underpin the research framework. This section outlines the core concepts of AL, EM, and MW, terms that are central to understanding the proposed relationships under investigation. These

definitions are drawn from established literature and reflect both theoretical and practical perspectives. Providing conceptual clarity ensures that each construct is interpreted and measured consistently throughout the research, enabling a more coherent analysis of its interrelationships.

1.2.1 Authentic Leadership

Leaders play a significant role in the business. The focus of leadership is also shifting towards sustainability strategies to keep pace with the dynamic perspective of involving employees in sustainable businesses (Ilyas et al. 2020). Different leadership theories have been developed over the years, demonstrating the importance of the study of the relationship between leaders and followers and have been proven by multiple studies (Dastane 2020).

Among these evolving paradigms, AL has gained notable traction. Unlike traditional models that often emphasise traits or styles, AL focuses on the leader's ability to remain true to their values and identity, drawing strength from personal experiences to inspire trust and credibility (Changar and Sesen 2023). Recent empirical work also shows that AL continues to generate positive organisational outcomes across diverse settings, including work engagement and trust, greater openness to change, and improvements in behavioural and performance-related indicators (Baquero 2024; Kilic and Yavuz 2021; Ahmed 2023). This shift is particularly relevant today, as public trust in leaders continues to decline, prompting a call for a more values-driven and transparent approach to leadership (Almutairi et al. 2024).

The growing academic interest in AL is evident in the increasing volume of literature indexed in Scopus. As illustrated in Fig. 1, there has been a significant increase in publications on AL, especially in the past decade, reflecting a recognition of its importance in organisational settings.

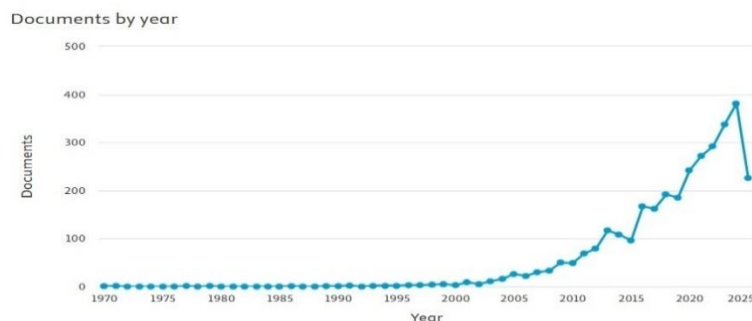


Figure 1: Literature on AL submitted in Scopus (retrieved 2nd May 2025)

1.2.1.1 *AL Development*

AL has evolved from an interplay of foundational thought, empirical development, and conceptual refinement. While its roots can be traced to Hoy and Henderson's (1983) work on the definition and measurement of leader authenticity (Gardner et al. 2011), the theory gained academic attention through the contribution of Bhindi and Duignan (1997) and Begley (2006), who reintroduced authenticity into academic discourse. Bass and Steidlmeier's (1999) distinction between AL from other forms, particularly pseudo-transformational styles, further sharpened its boundaries.

A pivotal role was played by the interdisciplinary summits hosted by the Gallup Leadership Institute in 2004 and 2006, which helped to shape a dominant social psychology-based conception of AL (Gardner et al. 2024). These summits produced several theoretical contributions, most notably Gardner et al.'s (2005) self-based model of authentic leader and follower development, which laid the groundwork for the widely used measurement tool, the Authentic Leadership Questionnaire (ALQ) (Avolio et al. 2004; Walumbwa et al. 2008). Additionally, Alvesson and Einola (2019) highlighted the importance of Trilling's (2009) book "Sincerity and Authenticity" in shaping the idea of AL.

Shamir and Eilam (2005) stressed the need for conceptual clarity to distinguish AL from other leadership styles, which share the same positive characteristics as transformational and ethical leadership. Shamir and Eilam (2005) further argued that AL must be defined by its unique characteristics to maintain theoretical and practical relevance. As such, terms like authenticity, authentic leader, and AL should be understood clearly and individually.

1.2.1.2 *Authenticity*

Early uses of authenticity in leadership research began in sociology and education, with a focus on *inauthenticity*—leaders behaving too flexibly to conform to public expectations (Gardner et al. 2005). Seeman (1966) viewed this excessive adaptability as problematic and developed a scale to measure it, though its validity was later challenged. The construct regained momentum when Hoy and Henderson (1983) updated the scale within educational leadership, defining inauthentic leaders as those who try to fit into what they believe a leader is *supposed* to be, rather than being true to their values, personality, and style. Gardner et al. (2005) further advanced this view by emphasising authenticity as the recognition, expression and enactment of one's internal thoughts,

beliefs, and values. Further, they noted that people can neither be fully authentic nor completely inauthentic; instead, they can be more or less authentic in different situations (Gardner et al. 2005).

Kernis's (2003) influential definition of authenticity as "the unobstructed operation of one's true, or core, self in one's daily enterprise" introduced four-dimensional framework of authenticity: 1) awareness- ability to understand one's own emotions, values, and traits, and to integrate that knowledge into one's actions and interactions, 2) unbiased processing- ability to evaluate one's personal strengths, weakness, and emotions with honesty and objectivity, without denial, distortion, and exaggeration 3) behaviour/action- acting in alignment with one's actual values, preferences, and needs, rather than adopting false identities to appease others or avoid negative consequences, even amid external pressures, and 4) relational orientation- ability to be genuine, in relationships by allowing each other's strengths and flaws through honesty, mutual trust and emotional intimacy.

These dimensions collectively underscore the importance of acting and behaving in line with one's core self, without obstructions, in daily activities and interactions (Jiewen et al. 2024). This construct of authenticity has since become the foundation for AL models (Gardner et al. 2024).

1.2.1.3 Authentic leader

Gardner et al. (2005) argue that the four components of authenticity, outlined by Kernis (2003) - awareness, unbiased processing, behaviour/action, and relational orientation- form the basis of an authentic individual. However, to be an authentic leader, this authenticity must be expressed via meaningful interactions with team members and followers. Shamir and Eilam (2005) reinforced this by defining authentic leaders as leaders with "a high level of self-resolution or self-concept clarity". Further, they described them as those who do not take on leadership roles to meet management's expectations- but who lead in alignment with who they are. The leadership style is not imitated but grounded in personal values and experiences.

Authentic leaders foster trust and authenticity by encouraging open dialogue, embracing diverse perspectives, and building cooperative relationships with their followers (Avolio et al., 2004). May et al. (2003) further elevated the concept by defining authentic leaders as those who rise at the pivotal moment with integrity and purpose, shaping the history of individuals or organisations. Collectively, this perspective underscores that authentic leaders are not merely true

to themselves but lead others in a way that is transparent, valuable, and transformative.

1.2.1.4 Authentic Leadership

1.2.1.4.1 Origins and Foundational Concepts

The conceptualisation of AL emerged within the broader discourse on Transformational Leadership (TL). Bass and Steidlmeier (1999), as cited in Neider and Schriesheim (2011), introduced the notion of “authentic transformational leaders”, describing them as individuals who are aware of what is right or wrong and who promote followers’ needs, maturity and growth, for the collective good of their group, organisation, or society. These leaders were positioned as moral agents who are committed to guiding their followers towards fairness and honesty (Neider and Schriesheim 2011).

Building on this foundation, George (2003) advanced the concept of AL in his work *Authentic Leadership: Rediscovering the Secrets to Creating Lasting Value*. AL was framed as a developmental process that enhances both the leader’s and follower’s self-awareness, self-regulation, and self-development. This process is shaped by an individual’s psychological capacities and is nurtured in a supportive organisational context. George (2003) emphasised the importance of leaders being true to themselves, understanding their values, and leading with authenticity and integrity. This conceptualisation laid the groundwork for AL as a foundational model for other positive leadership styles, such as charismatic, transformational, and ethical leadership (Avolio et al. 2004; Ilies et al. 2005).

These early contributions laid the ethical and developmental foundation for AL, shifting the focus from performance-driven traits to values-based influence. By positioning leaders as moral agents and emphasising personal integrity, the groundwork was set for a leadership paradigm that prioritises authenticity over charisma or authority. This ethical lens would become central to later models that further explore this leadership.

1.2.1.4.1.1 Theoretical Models and Core Components

Gardner et al. (2005) advanced the conceptualisation by proposing AL as a self-based developmental model, which integrates personal history, self-awareness, and both positive and negative life events. The model, illustrated in Figure 2, emphasises evolved self-regulation, internalised values, balanced information processing, and relational transparency as a core mechanism for fostering trust and openness in leader-follower relationships. Importantly, it also

introduces the concept of authentic followership, characterised by followers' self-awareness and self-regulation, which are viewed as both critical components and direct outcomes of AL development. The AL process is associated with positive organisational outcomes, including enhanced trust, engagement, and well-being among followers.

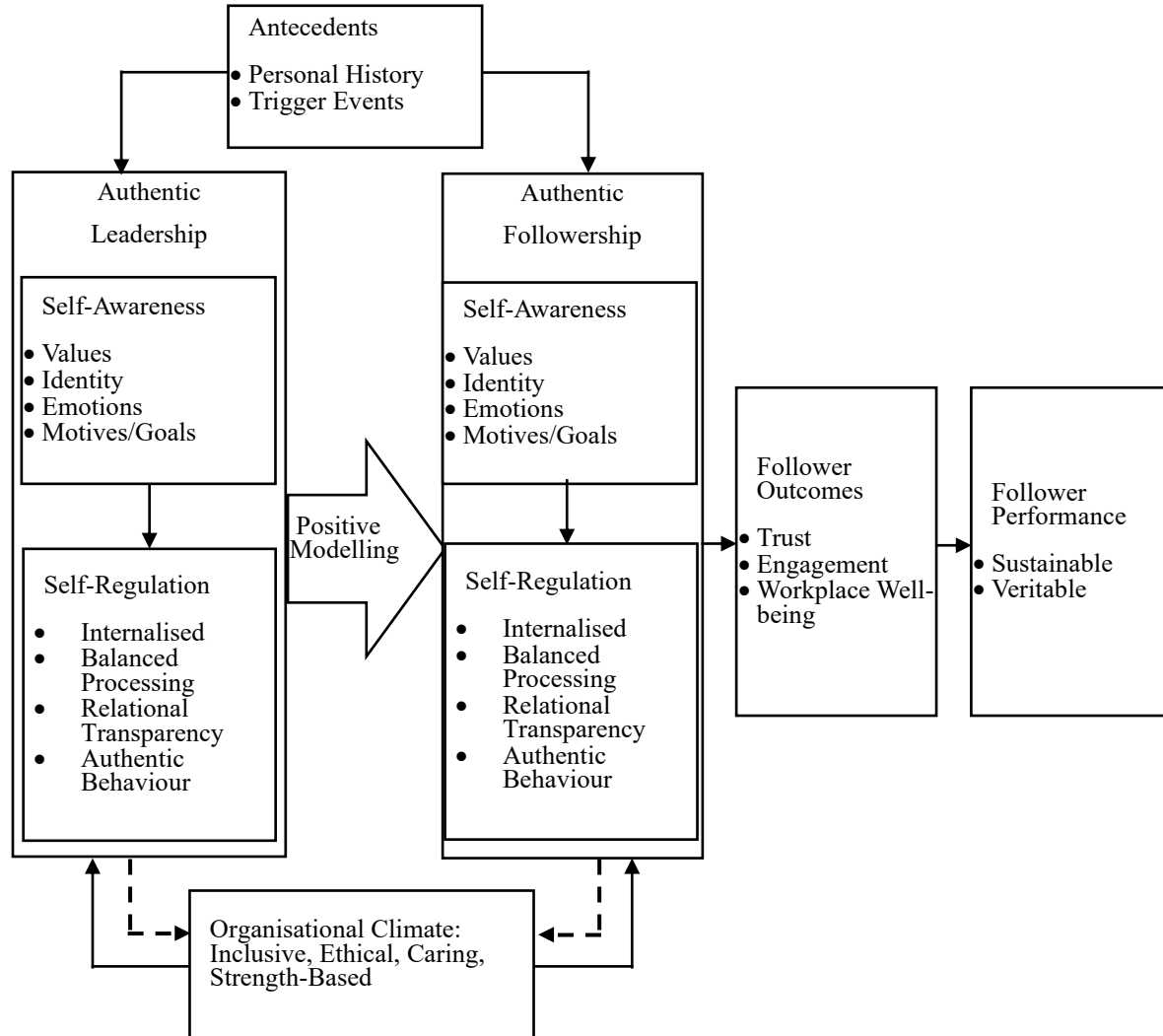


Figure 2: Self-based model for authentic leader and follower development. Adapted and redrawn from Gardner et al. (2005).

Ilies et al. (2005) supported Kernis's (2003) components of authenticity —i.e., Self-awareness, unbiased processing, authentic behaviour/acting, and authentic relational orientation—and incorporated them into their AL model. Although their model was built on existing theories, Neider and Schriesheim (2005) argued that any theoretical progress requires reliable and valid measurement tools to support further research.

The model was refined by replacing the term “unbiased processing” with “balanced

processing,” acknowledging that individuals are naturally biased, as supported by research in cognitive psychology (Avolio and Gardner 2005). They also substituted “relational orientation” with “relational transparency,” arguing that the latter better captures the principle of open, honest communication among leaders, followers, and close associates.

The evolution of AL theory through Gardner (2005), Ilies (2005), and Avolio and Gardner (2005) reflects a growing concern in understanding how personal identity shapes leadership. These models move beyond abstract ideals to offer self-regulation and transparency, which explain how authenticity is used in practice. This shift from conceptual to operational thinking enabled researchers to begin measuring AL and linking it to tangible outcomes.

1.2.1.4.1.2 Walumbwa et al.'s (2008) Four-Dimensional Model

Walumbwa et al. (2008) operationalised AL into four measurable dimensions, building on earlier conceptual work, which includes:

- a) Self-awareness, as described by earlier authors (Kernis 2003; George 2007; Gardner et al. 2005; Ilies et al. 2005; Avolio and Gardner 2005), was defined as leaders' understanding and expression of their values, strengths, and weaknesses to themselves and others. It also involved regular reflection on how their actions affected the people around them.
- b) Relational transparency meant building trust, which included freely sharing information and expression of their true thoughts and feelings, whilst being mindful of how their emotions were expressed.
- c) Internalised moral perspective was defined as a leader's decision-making based on ethical principles and values, rather than being influenced by external factors such as peers, organisations, and societal pressures.
- d) Leaders who show balanced processing, consider the existing data and request opinions from others, showing that they are willing to question their own strong beliefs before deciding.

The key assumptions made in this definition were:

- Positive psychological traits (such as honesty, loyalty, and confidence) and the ethical climate help develop AL and vice versa but were not considered integral components in their model.
- The core components are self-awareness, balanced processing, relational transparency, and

internalised moral perspective.

- AL involves authentic two-way relationships between leaders and followers. This is consistent with the self-based model of Gardner et al. (2005).
- AL is not just about leading, but also about fostering growth for both leaders and followers.

This framework marked a turning point by consolidating AL into a measurable construct with four interrelated dimensions. This model not only clarified what AL looks like but also provided a foundation for empirical testing across cultures and industries. Its influence is evident in the widespread adoption of these dimensions across academic research and leadership development programs.

1.2.1.4.2 Alternative Frameworks and Extensions

Beddoes-Jones and Swailes (2015) conceptualised AL as a process grounded in trustworthiness and ethical conduct, rather than just being true to yourself, by proposing a three-pillar framework. As illustrated in Figure 3, the model is built upon a foundation of trust between leaders and followers, which supports three core leadership characteristics: self-awareness, ethics, and self-regulation. These pillars collectively foster positive, transparent relationships, positioning authenticity as both an internal and a relational leadership quality.

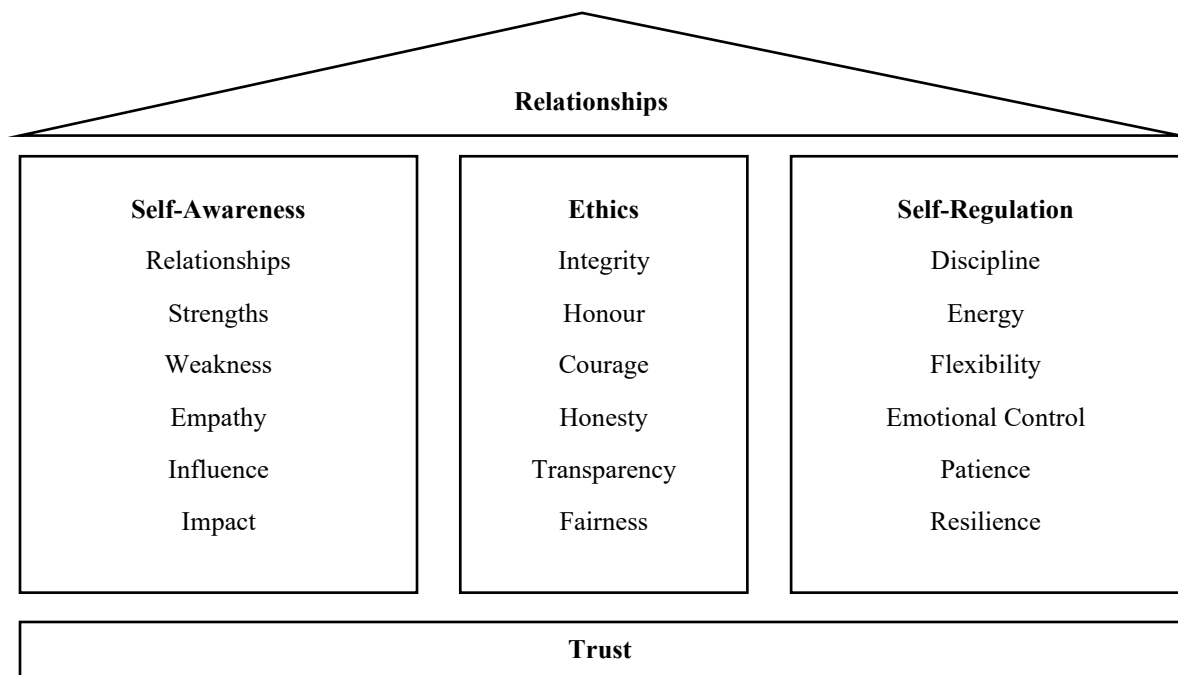


Figure 3: Three-pillar framework of AL. Adapted and redrawn from Beddoes-Jones and Swailes (2015)

The authors further suggested that if AL is the root of all positive leadership, and if self-awareness, ethics, and self-regulation are essential components of AL, then these three pillars could be the core of all leadership styles as well. They hypothesise that modern positive leadership fails when leaders fail in one of these three pillars. While this hypothesis remains untested, it aligns intuitively with numerous public examples of leadership derailment (Beddoes-Jones and Swailes 2015).

This model expanded the conversation by reframing authenticity as a relational and ethical process rather than a purely internal trait. Their emphasis on trust and ethical conduct challenges leaders to consider how authenticity is perceived by others, not just how it feels personally. This perspective opens the door to broader applications of AL across diverse leadership styles and contexts (Kleynhans et al 2021; Asghar et al. 2023).

1.2.1.4.3 Contemporary Developments and Critiques

AL theory was criticised by many authors (can be seen in the criticism section below), and as a reply to the criticisms of AL theory, Lux and Lowe (2024) introduced a new definition grounded in signalling theory, which explains how one party conveys essential information to influence others' behaviour, especially when that information is not directly observable. They define AL as a communication process through which leaders demonstrate authenticity to influence followers' perceptions and behaviours.

This revised definition retains the four core dimensions established by Walumbwa et al. (2008), emphasising that authentic leaders consistently send value-based signals to their followers that reflect a deep alignment between their actions and internal values. This approach aligns AL more closely with real-world leadership challenges, especially in complex or uncertain environments. Gardner et al. (2024) supported the argument that this view, along with the existing AL grounds, serves the best. Recent empirical work also highlights that AL is increasingly examined in relation to hybrid work, job insecurity, and employee wellbeing in post-pandemic organisational contexts (Winton et al. 2022).

1.2.1.4.4 Cultural Perspectives on AL

Yang (2024) offered a critical perspective on AL and questioned its applicability across diverse cultural contexts. The author argued that AL, as commonly defined, may not fully capture how leadership is understood and practiced in non-western settings. In particular, Yang (2024)

highlighted that Chinese leaders demonstrate both self-authenticity and relational transparency, which involves adapting behaviour to situational and social expectations. This suggests that authenticity can be expressed through responsiveness to context as well as through consistency.

Similarly, differences were observed among leaders from South Asian countries (India, Pakistan, Nepal, and Sri Lanka), who emphasised the importance of being authentic while preserving traditional cultural values. This highlights the influence of societal norms and expectations in shaping how authenticity is enacted in these contexts and implies that cultural preservation can shape the form authenticity takes.

Cross-cultural research further supports these variations. Owusu-Bempah et al. (2013), as discussed by Yang (2024), compared leadership expectations in New Zealand and Ghana, finding that followers in New Zealand associated AL with knowledge and confidence, whereas followers in Ghana placed greater emphasis on leaders acting in the collective interest. These findings indicate that expectations of authenticity differ depending on cultural priorities.

Additional studies reinforce these distinctions between Western and non-western contexts. Avolio and Gardner (2005) emphasised consistency as a key element of authenticity in Western conceptualisations, while Suh (2002) found that flexibility is more highly valued in East Asian cultures. Empirical evidence also suggests variation in perceived authenticity across regions. Robinson et al. (2013) reported higher levels of authenticity among employees in the US and UK, followed by Russian employees, while Slabu et al. (2014) similarly found higher authentic traits among US participants compared to those from Eastern contexts, including India, China, and Singapore. This cross-cultural evidence challenges AL theory and suggests the need for conceptual and empirical work that recognises culturally distinct expressions of authenticity. It also reinforces that AL is not a universal construct but one shaped by societal norms, which has implications for how AL is interpreted and measured across contexts.

Taken together, these studies report that authenticity appears to vary with cultural norms and expectations rather than representing a universally consistent construct. It is also recommended that AL theory recognise culturally grounded expressions of authenticity and that empirical work adopt culturally sensitive measurement practices; in particular, cross-group comparisons should be supported by validation evidence rather than assumed (Yang 2024; Walumbwa et al. 2008). It is necessary because cultural variation not only alters how authenticity is enacted and perceived

but also affects the validity of measurement instruments, the comparability of empirical findings, and the design of context-appropriate leadership interventions.

1.2.1.4.5 Theoretical Controversies and Critiques of AL

AL has emerged as a contemporary organisational research approach characterised by its focus on transparency, ethical conduct, and mutual development with followers (Luthans and Avolio 2003; Walumbwa et al. 2008). It has been linked to a range of favourable organisational outcomes, including employees' experience of MW (Chaudhary 2021). However, as a relatively recent construct compared to other leadership styles, AL is still undergoing theoretical development, and its conceptual boundaries have not fully taken shape (Gardner et al. 2024). Thus, it has attracted considerable academic debate regarding its definition, distinctiveness, and practical applicability, and measurement tools (Crawford et al. 2020). The following section outlines key debates surrounding AL.

1.2.1.4.6 Scholarly Dialogue on the Validity and Application of AL

AL has sparked considerable scholarly debate, with researchers questioning its conceptual clarity, measurement validity, and practical relevance (Alvesson and Einola 2019). In response to these critiques, Gardner et al. (2021) initiated a structured academic dialogue to defend and reframe AL. Their article "Authentic Leadership Theory: The Case For and Against" presents a four-part exchange that directly engages with the criticisms posed by Alvesson and Einola (2019). This scholarly conversation explores the foundational, theoretical, and practical dimensions of AL, offering critical insights and reasoned defences that deepen understanding of the theory's strengths, limitations, and future potential. The arguments can be shown better in the table below:

Theme	Critique: Alvesson & Einola (2019)	Defence: Gardner et al. (2021)
Conceptual Value	AL offers a limited theoretical contribution and relies on vague, inspirational terms like "morality" and "authenticity," which are philosophically subjective and difficult to define or measure.	AL is a context-sensitive developmental process rooted in positive psychology, supported by empirical evidence in relational transparency and self-awareness. Authenticity is viewed as an evolving practice rather than a fixed trait.

Measurement Validity	The ALQ (Walumbwa et al. 2008) reflects follower perceptions rather than actual authenticity, risking confusion between impression management and genuine behaviour. This makes a valid measurement nearly impossible.	Measurement tools are improving through meta-analyses (Banks et al. 2016) and revised scales (Avolio et al. 2018). Methodological critique is seen as part of theory refinement, not rejection.
Foundational Clarity	AL idealises the leader's "true self" without integrating professional roles or organisational complexity. It equates authenticity, honesty, and sincerity, leading to conceptual confusion.	Authenticity is a dynamic process shaped by reflection, feedback, and relational engagement. It aligns actions with values and identity, rejecting static or idealised notions.
Structural Coherence	The four dimensions of AL (self-awareness, transparency, moral perspective, balanced processing) do not form a unified construct and overlap with antecedents, behaviours, and outcomes. AL closely resembles TL, differing mainly in moral tone.	AL is in the "assessment and augmentation" phase of Reichers & Schneider's (1990) framework. Ongoing refinement is addressing structural clarity and measurement challenges.
Practical Application	AL may encourage narcissism, emotional vulnerability, and misalignment with strategic goals. Excessive authenticity could harm relationships and career progression.	AL's moral perspective counters narcissistic tendencies. While authenticity involves personal risk, it promotes ethical leadership, well-being, and long-term career satisfaction.
Conceptual Progression	The proliferation of AL studies reflects uncritical repetition of assumptions, suggesting stagnation and a "bandwagon effect."	Gardner et al. cite over 128 studies since 2010 across disciplines, indicating steady theoretical development and positioning AL in an active refinement phase.

Privilege and Moral Superiority	AL implies a moral hierarchy, portraying psychologically fulfilled individuals as superior, raising ethical concerns about privilege and exclusion.	Drawing on Self-Determination Theory (Deci & Ryan 2000), Gardner et al. argue that authenticity is attainable in supportive environments and does not imply moral superiority.
Organisational Constraints	Complete authenticity is impractical in complex organisations and may lead to anxiety or reduced performance. Contextual constraints make consistent authenticity difficult.	Suppressing authenticity also harms well-being and performance. A balanced approach integrates self-consistency with contextual awareness.
Authenticity vs Leadership	There is a psychological tension between self-consistency (authenticity) and adaptability (leadership), making the duality difficult to sustain.	Authenticity exists on a continuum, allowing leaders to adapt behaviour while remaining aligned with core values.
Distinctiveness	AL lacks uniqueness and overlaps with Transformational and Ethical Leadership. Its popularity may reflect a conceptual fad rather than substantive progress.	Gardner et al. acknowledge overlap but argue that AL's refinement, empirical grounding, and responsiveness to critique demonstrate its emergence as a distinct and maturing theory.

Table 0: Scholarly Conversations between Alvesson and Einola (2019) and Gardner et al. (2021)

In summary, this exchange illustrates that while AL is supported by a growing number of studies and has been positioned as a theoretically strong and positive context, its critics continue to question its conceptual clarity, distinctiveness, and practical feasibility. These debates highlight that AL remains a developing construct, underscoring the need for further empirical studies that incorporate diverse antecedents, moderators, mediators, and contextual conditions to refine and strengthen the theory. They are also relevant, as they highlight the importance of examining AL within specific organisational and cultural contexts, rather than assuming uniform effects across settings.

1.2.1.4.7 Continuing Doubt

Despite Gardner et al.'s (2021) optimism, Alvesson and Einola (2019) remain sceptical. They argue that the theory's foundational components, such as self-awareness and relational transparency, are not uniquely tied to leadership, and that its measurement tools overlap with those of other leadership styles, reflecting redundancy rather than distinctiveness. Empirically, they see the volume of supportive studies as a symptom of a "bandwagon effect" rather than theoretical progress. Practically, they maintain that the feasibility of authenticity, while admirable in principle, may hinder in complex, politicised organisational settings, countering Gardner et al. (2021)'s optimism. They also question the implicit moral elevation of those deemed "authentic," warning against privileging individuals who may simply be more comfortable or entitled. Ultimately, their tone is critical but not hostile, reaffirming their view that AL lacks the clarity, distinctiveness, and practicality needed to stand as a robust theory.

1.2.1.4.7.1 *Additional Critique: Lux and Lowe (2025)*

Lux and Lowe (2024) highlighted two major criticisms of Walumbwa et al.'s (2008) definition of AL. First, they argue that it conflates the causes (antecedents) and outcomes of AL, without clearly identifying specific leader behaviours. This lack of clarity makes it difficult to determine what authentic leaders do, how to recognise them, or what their leadership produces. This weakens the concept's theoretical precision and practical relevance. Second, they note that the definition reflects a morally idealised perspective, shaped by positive psychology, that portrays authenticity as inherently good. This one-sided view overlooks the complexities of leadership and the potential for adverse outcomes.

While criticisms such as those from Alvesson and Einola (2019) and Lux and Lowe (2024) raise significant concerns about the conceptual clarity, measurement validity, and moral framing of AL, these critiques also serve as a motivator for theoretical improvement. Gardner et al. (2021) argued that AL is a developmental and context-sensitive process that evolves through reflection, feedback, and empirical testing. These criticisms further suggest that more research is needed to develop AL theory, which can be done by studying AL across different contexts, moderators, mediators, and outcomes. By doing so, AL can be sharpened into a practically relevant leadership theory.

1.2.1.4.8 Antecedents of AL

Several factors that shape AL were seen in the literature. Zhang et al. (2022) identified two key predictors: ethical climate, defined as behaviour shaped by organisational policies, procedures, and practices, and emotional intelligence, the ability to understand, manage, and use emotions effectively. Self-knowledge and self-consistency are also considered foundational antecedents of AL, as Gardner et al. (2005) argue that individuals must first understand themselves and act in alignment with their personal beliefs and values (Peus et al. 2012).

Additionally, principled moral reasoning and moral motivation have been found to positively predict AL, supporting the view that it is grounded in ethical self-concept and mature moral judgment (Olsen and Espevik 2017). Furthermore, Psychological capital (PsyCap), defined as a positive psychological state characterised by self-efficacy, optimism, hope, and resiliency, has also been identified as another significant antecedent of AL (Peterson and Youssef-Morgan 2017).

In summary, the development of AL is influenced by a range of intra-personal psychological and organisational factors. These antecedents collectively show that AL is rooted in ethical and emotional capacities and is shaped by the leader's internal self-concept and external environment.

1.2.1.4.9 Outcomes of AL

AL has been found consistently linked to a wide range of positive outcomes in the literature. The outcomes were studied either as dependent or mediating/moderating variables. Some of the positive direct outcomes of AL include trust in leadership (Clapp-Smith et al. 2009), job satisfaction (Giallonardo et al. 2010; Rahimnia and Sharifirad 2014), organisational commitment (Jensen and Luthans 2006), work engagement (Giallonardo et al. 2010), job performance (Walumbwa et al. 2008), workplace well-being (Laschinger and Fida 2014), follower work happiness (Jensen and Luthans 2006), MW (Chaudhary 2021), career satisfaction (Laschinger et al. 2016), creativity (Malik et al. 2016), and learning (Mortier et al. 2016).

Additionally, AL has shown indirect effect through various mediators and moderators such as: AL and job satisfaction through structural empowerment (Wong and Laschinger 2012), AL and turnover intention through work-related bullying and burnout (Laschinger and Fida 2014a), AL and job satisfaction through burnout (Laschinger and Fida 2015), AL and work engagement through trust in manager (wong et al. 2010), AL and job satisfaction through insecurity (Rahimnia and Sharifirad, 2014), AL and psychological well-being through work climate (Nelson et al. 2024),

AL and job satisfaction through work engagement (Giallonardo et al. 2010), AL and wellbeing through MW (Salleh et al. 2020), AL and work engagement through MW (Silva et al. 2023), AL and work meaningfulness through CSR perceptions (Chaudhary 2021), and AL and altruism through meaningfulness (Sagnak and Kuruoz 2017).

AL continues to evolve as a compelling framework that integrates ethical grounding, psychological depth, and relational transparency into leadership practice (Gardner et al 2024). The growing body of empirical research reflects sustained interest in understanding how AL influences leadership effectiveness in complex organisational settings.

In line with Gardner et al.'s (2024) perspective, there is a need to explore further how AL operates across diverse cultural backgrounds. Ongoing efforts to refine both the conceptual clarity and practical applications of AL are essential to ensure it remains a theoretically robust and practically relevant framework for guiding leadership development.

1.2.1.4.10 Measurement tools of AL

To understand and measure AL in real-life settings, researchers have developed specific tools. These tools help break down the idea of AL into clear, measurable parts. Specifically, two primary tools need to be addressed as the

1.2.1.4.10.1 *Authentic Leadership Questionnaire*

The Authentic Leadership Questionnaire (ALQ) was developed on the basis of existing theories from multiple disciplines, dissertations, and discussions among faculty members and students (Walumbwa et al. 2008). The questionnaire focuses on the four key dimensions: self-awareness, an internalised moral perspective, relational transparency, and balanced information processing.

During ALQ development, 35 items were initially created, which were narrowed to 22 based on content clarity. Following a content validity check, 16 items were retained, each correctly classified by over 80% of the reviewers (faculty members and graduate students). These final 16 items were distributed across the four core dimensions: four for self-awareness, five for relational transparency, three for balanced processing, and four for internalised moral perspective.

The sample items provided by the authors include:

Self-awareness: “Seeks feedback to improve interactions with others” and “Accurately describes how others view his or her capabilities.”

Relational transparency: “Says exactly what he or she means” and “Is willing to admit mistakes when they are made.”

Internalised moral perspective: “Demonstrates beliefs that are consistent with actions” and “Makes decisions based on his/her core beliefs.”

Balanced processing: “Solicits views that challenge his or her deeply held positions” and “Listens carefully to different points of view before coming to conclusions.”

Walumbwa et al. (2008) argued that their measurement of AL is distinct from ethical and transformational leadership, even though they share some similar characteristics. While the measurement is based on solid theoretical foundations, there is still some room for improvement. Although it was validated with a large sample including both leaders and followers, it does not account for cultural influences, which may have affected how authenticity is perceived and expressed. Additionally, the measurement fails to explore how the four dimensions relate to one another and highlights the need for further research to refine and expand AL. Another criticism is the limited access to the questionnaire. Only the 4 ALQ sample items shown in Figure 4 below are free to use for researchers.

Self-Awareness

Seeks feedback to improve interactions with others.

Relational Transparency

Says exactly what he or she means.

Internalized Moral Perspective

Demonstrates beliefs that are consistent with actions.

Balanced Processing

Solicits views that challenge his or her deeply held positions.

Figure 4: Sample ALQ items, Walumbwa et al. (2008)

However, Neider and Schriesheim (2011) implied that the content validation of ALQ relied on a small group of doctoral students and experts. Various quantitative methods were not used, which

would have helped to reduce errors in the items. They argue that a rigorous process should be used to remove unrelated items from the questionnaire before investing time, effort, and resources in it. They further highlighted that the measurement does not differentiate totally from other forms of leadership. ALQ was compared with the Multifactor Leadership Questionnaire (MLQ), which itself is not free from criticism for its response bias and high intercorrelations, raising one more question about the validation process. The results on the ALQ model are claimed to be less reliable as it used some “garbage perimeters.” Acknowledging all these limitations, the authors aimed to test their model to ensure more accurate results.

1.2.1.4.10.2 Authentic Leadership Inventory

Using the exact four dimensions and Walumbwa et al.’s (2008) theoretical foundations of AL, Neider and Schriesheim (2011) developed four items for each dimension (two per dimension were taken from the free sample) to create a new measurement tool called the Authentic Leadership Inventory (ALI). Used a quantitative content validation procedure developed by Schriesheim et al. (1993, 1999) and refined by Hinkin & Tracey (1999). Data were collected via a survey comprising 16 items from ALI and eight from ALQ. Tools such as Analysis of Variance (ANOVA) and t-tests were used to group items into dimensions, providing statistical evidence for their placement. Using a data matrix component analysis ensured that the meaning of those dimensions was clear. ALI comprises 16 items distributed across four dimensions, as summarised in Figure 5. During the exploratory factor analysis, item 1 demonstrated an inappropriate mean rating, while item 6 cross-loaded on two dimensions and were therefore removed from the final scale.

Dimensions	Number of items
Self-awareness	4
Relational Transparency	4
Internalised Moral Perspective	4
Balanced Processing	4

Figure 5: ALI Items, Neider and Schriesheim (2011)

1.2.1.4.11 AL and its connection with other leadership styles

One of the key outcomes explored in this study is MW, which has gained increasing attention in organisational research due to its impact on job satisfaction (Ghislieri et al. 2019), retention (Fairlie 2024), and engagement (Geldenhuis et al. 2014). Leadership plays a central role in shaping

employees' experience of MW, and among various leadership approaches, AL has emerged as a particularly influential framework (Ilies et al. 2005).

AL, as proposed by Avolio and Gardner (2005), is considered the root construct for all the other positive leadership styles. While AL shares similarities with other positive styles (Avolio and Gardner 2005), such as transformational leadership (Luthans and Avolio 2003; Gardner et al. 2011), ethical leadership (Demont-Biaggi 2019), servant leadership (Gardner et al. 2011; Lee et al. 2019), and transactional leadership (Walumbwa and Wernsing 2012), it maintains distinct characteristics that make it a unique framework for fostering MW.

Distinguishing between these styles is essential for both conceptual clarity and practical application in this study. Without a clear separation, the risk of construct overlap can undermine the validity of findings, as the behaviours shown by AL reflect elements of other styles as well (Avolio and Gardner 2005; Biaggi 2019). Further, each style influences MW in different ways, so making these differences clear helps keep the study focused and avoid conceptual confusion. The following table summarises the overlaps, distinctions, and specific relevance of each style to MW.

The distinction can further be shown from Table 2 below:

Leadership Style	Core Focus and Traits	Similarities with AL	Key Distinctions	Relevance with MW
Authentic Leadership (AL)	Self-awareness, relational transparency, internalised moral perspective, balanced processing (Walumbwa et al. 2008); congruence between values and actions; builds trust and psychological safety (Gardner et al. 2005; Wong & Laschinger 2012)	Shares ethical grounding and follower development focus with TL, EL, and SL.	Prioritises leader's authenticity and value-action alignment over charisma, moral enforcement, or service-first orientation.	Linked to MW via trust, value alignment, and fostering purpose (Chaudhary 2021; Rego et al. 2016).

Transformational Leadership (TL)	Inspires and empowers followers to exceed expectations; focuses on self-actualisation and long-term development; charismatic influence (Bass & Avolio 2007; Ghasabeh et al. 2015).	Both foster follower growth, align work with higher purpose, and promote engagement	TL relies more on charisma and vision; risk of ethical lapses if not grounded in authenticity (Bass 1997); follower-centric in achieving organisational goals (Stone et al. 2004).	Can inspire MW but may lack AL's built-in ethical safeguard (Avolio & Gardner 2005).
Ethical Leadership (EL)	Moral person + moral manager; promotes fairness, honesty, respect; guides ethical behaviour (Brown & Treviño 2006; Mayer et al. 2010).	Shares integrity, role modelling, and ethical decision-making traits.	EL is outward-focused on others' well-being; AL is inward-focused on self-congruence (Biaggi 2019). EL does not require self-awareness as a core trait.	Enhances MW by creating an ethical climate (Mosquera et al. 2024); may lack AL's self-awareness component.
Servant Leadership (SL)	Serves and empowers followers; altruistic calling, emotional healing, wisdom, persuasive mapping, organisational stewardship (Gregory & Stone 2002; Eva et al. 2019)	Both build trust and support follower development.	L is follower-first, prioritising others' needs before the leader's; AL focuses on authenticity while still supporting followers (Van 2011).	Promotes MW via care and empowerment (Cai et al. 2018); AL adds sustained value alignment and integrity (Kaya & Karatepe 2020).
Transactional Leadership (TrL)	Exchange-based; rewards for performance; focuses	Both can provide structure	TrL is extrinsically motivating and reward-based; AL	Limited direct effect on MW; more effective

	on short-term goals and compliance (Bass et al. 2003; Sanda & ArtHur 2018).	and clarity in leadership	focuses on intrinsic motivation and shared values.	for short-term satisfaction than long-term meaning.
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Table 1: Differentiation between AL and other leadership styles

As shown above, AL integrates elements common to several leadership theories while preserving its distinctiveness through a core focus on self-awareness, moral integrity, and value–action alignment (Walumbwa et al. 2008; Gardner et al. 2005).

In summary, while other leadership styles can also have a positive effect on MW, AL offers a unique combination of self-awareness, moral integrity, and transparent relationships with followers. These qualities make AL especially suited to building trust and aligning employees’ work with their values. This distinction is essential for the current study, as it ensures that the relationship being examined between AL and MW is based on AL’s specific qualities, not traits borrowed from other styles.

Now that the conceptual boundaries and applicability of AL have been established, attention turns to MW, the study’s second central construct. MW has become an emerging topic because of its significant influence on shaping employee experience in the workplace. To understand how AL can foster MW, it is essential to first comprehend the theoretical foundations, definitional development, and key dimensions of MW as a construct. These foundations are examined in the next section, which lays the groundwork for a more thorough analysis of the relationship between AL and MW.

1.2.2 Meaningful Work

Understanding why perceptions of MW vary across individuals and what exactly makes work meaningful has long captured the attention of scholars across different disciplines (Tan et al. 2023), which can be illustrated by the increase in literature data on Scopus, as shown in Fig. 6.

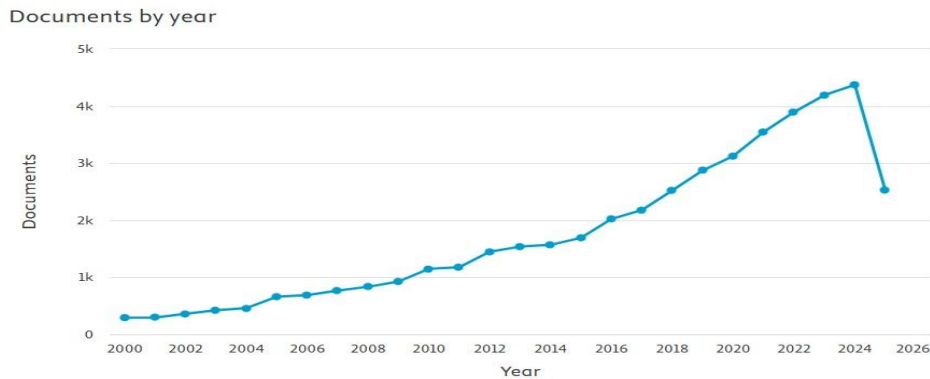


Figure 6: Literature on MW, found in Scopus (retrieved 2nd May)

Work supports an individual's independence, provides pleasure, and generates wealth, thereby enabling them to meet their material needs (Bowie 1998). As Pratt and Ashforth (2003) emphasised, work provides money, status, identity, and connection. Nevertheless, despite its closeness in daily life, many individuals find themselves in jobs they have little interest in and struggle to connect their roles to some purpose (Dik et al. 2009). The story of the janitor at NASA, who explained how he was helping put a man on the moon through his work (Carton 2018), is a perfect example of how a seemingly minor task can become meaningful when linked to a greater mission (Tan et al. 2023). MW is an intrinsic, personal feeling that connects work to values, identity, and a sense of purpose (Dik et al. 2009). Recent research shows that employees' experience of MW is increasingly shaped by evolving workplace realities, including new work arrangements, organisational uncertainty, and changing expectations about purpose and value in work (Duarte-Lores et al. 2023; Winton et al. 2022).

MW has been referred to as a work chosen freely and performed with autonomy, which should support the development of rational and moral capacities, ensure personal welfare through sufficient wages, and remain unconcerned with how individuals choose to pursue happiness (Bowie 1998). Building on this foundational view, MW is also understood as an intrinsic experience that connects work to values, identity, and a sense of purpose (Dik et al. 2009). Rather than offering a single definition, Steger et al. (2012) highlight MW as contributing to one's broader

life experience, extending beyond financial gain, status, or belonging.

Bailey et al. (2019) noted the absence of a standard definition of MW across the literature. This variability may have stemmed from the perspective offered by Dik et al. (2013), who argued that work is meaningful when the individual engages in it and personally considers it meaningful. In other words, MW depends on an individual's perception. This individualised nature is illustrated by Bunderson and Thompson (2009), who explored how a zookeeper, who, despite a low salary, found profound meaning in working with animals.

Michaelson (2021) outlined five distinct perspectives of MW. The first is a subjective view, where meaning arises solely from the worker's personal experience (Pratt and Ashforth 2003; Rosso et al. 2010). The second is the social view, which defines MW through others' perceptions of the work as socially worthwhile- based on its benefits, its role in character development, its contributions to other persons or species, or its value in the market. A blended account that combines individual experience with others' perception is the third perspective. The Fourth view is supernaturalism, which ties MW to the fulfilment of divine purpose. Drawing these together, Michaelson (2021) proposes a fifth, a normative view, as a work that is experienced as purposeful and personally significant, socially valuable, and inherently worthwhile- independent of whether others recognise it as such.

Building on this, Tan et al. (2023) identified six aspects of MW within existing literature. It is individualised (shaped by personal perceptions), not self-serving (value of work contributes to others), requires characteristic adaptation (alignment of motives and goals with higher purposes), a dynamic process of construction and reconstruction (differs upon tasks, roles, interactions, and organisational contexts), a singular psychological state (a temporary awareness when one's value align with work), and a double-edged sword (can lead to adverse outcomes in some cases like burnout, underemployment, or exploitation). MW helps individuals align their priorities, values, preferred work cultures, and personal strengths. Tyssedal (2023) argued that the term MW goes beyond simply being "good" work; it refers to work as a distinctive source of meaning that contributes to a meaningful life. Taken together, these perspectives show that MW is a multidimensional construct shaped by personal values, social connections, and organisational context, rather than a single universal definition.

In summary, MW is not defined by a single set of criteria but by an evolving discussion among scholars who view it through diverse lenses. Despite this variety, a common thing emerges:

MW fosters a sense of purpose that extends beyond the functional aspects of employment. This evolving view reflects its complex nature and underscores the difficulty of formulating a singular, universal concept.

1.2.2.1.1 Differentiation between the terms

The terms meaning and meaningfulness, though distinct, have often been used interchangeably within the literature of MW (Rosso et al. 2010). “Meaning” refers to an individual’s interpretation of the role that work plays in their life, such as viewing work as a paycheck or a calling (Pratt and Ashforth, 2003) and can be present regardless of the type or status of the work (Wrzesniewski 2003). These meanings can be positive, neutral, or negative, and may be shaped by personal perceptions or external influences such as culture and society (Wrzesniewski 2003). In contrast, “meaningfulness” refers to the degree of importance that work holds for an individual, and it always has a positive significance or value (Rosso et al. 2010). While meaning describes what work represents, meaningfulness reflects how much it matters. The literature often emphasises positivity when referring to meaning, and thus “meaningful” or “meaningfulness” would provide conceptual clarity. Therefore, the authors suggest that making this distinction is necessary and propose using the term “Meaning of work” as a broader label that encompasses both concepts when a clear separation is difficult.

Tyssedal (2023) argued that MW is understood in two ways: a) Meaning ‘at’ work, where individuals perceive meaning from their work aspects, such as relationships with colleagues, workplace culture, or the working environment; and b) meaning ‘of’ work, where the work itself is experienced as meaningful. If both the meaning of and meaning at work are included, this forms a broader definition of MW. However, considering the wide range of work-related aspects, including meaning ‘at’ work, may blur the definition of MW. Therefore, the concept of MW should be narrowed to “meaning of work,” where the work itself provides meaning to the individual, not the external factors.

A closely related concept is calling (Lysova et al. 2019), which is often discussed alongside MW. While some individuals derive meaning from salary or benefits, and others from status or challenges, those who perceive their work as inseparable from their life’s purpose, central to their identity, and intrinsically motivated tend to view it as a “calling” (Dobrow and Tosti-Kharas 2011). However, Duffy and Dik (2019) argue that calling is not merely about aligning work with personal

purpose; it also involves feeling compelled by a higher power or external forces to pursue a particular type of work, along with a desire to contribute to the greater good. The combination of these three components distinguishes calling from MW, which does not necessarily involve an external summons or prosocial motivations.

The other related terms found in the literature are “meaning in life,” which concerns what makes an individual’s existence feel purposeful, and “intrinsic motivation,” which involves doing something because of curiosity or passion (Lysiva et al. 2019). Although these concepts often overlap and are used interchangeably in the literature, clear definitions and core components are necessary to ensure conceptual clarity.

Overall, MW can be considered a dynamic and multifaceted construct that continues to evolve according to societal expectations, organisational needs, and individual growth over time. The diversity of definitions and concepts underscores its relevance to individuals and the modern workplace.

1.2.2.1.2 Conceptual boundaries of MW

Although MW is often studied alongside concepts such as job satisfaction, work engagement, and intrinsic motivation, each describes a different way people connect to their work. There can be some confusion about what is being studied if they are not clearly separated. The following table summarises the differences between these related concepts. By setting these boundaries, the study can remain centred on MW as a unique outcome, rather than a mix of other work-related attitudes or experiences.

	MW	Job Satisfaction	Work Engagement	Intrinsic Motivation
Defined by	Work experience is significant, purposeful, and aligned with one’s values (Michaelson 2019).	Positive feelings that arise from reflecting on the job or work experiences (Rothausen and Henderson 2019)	Level of energy, involvement, and focus on one’s work (Schaufeli 2012).	Doing an activity for the inherent interest, enjoyment, or personal challenge it provides. (Ryan and Deci 2000)
Main drivers	Purpose, values, and perceived	Positive work experiences,	Task challenge, autonomy,	Personal interest, curiosity, self-

	social worth (Michaelson 2019)	rewards, favourable conditions, intrinsic motivators (Herzberg 2017)	supportive environment (Geldenhuys et al. 2014)	determination (Swiateczak 2021)
Work Outcomes	Rightness and significance in work, combining personal fulfilment with contributing to something beyond oneself (Bailey et al. 2019)	Pleasure, enjoyment, and contentment in a job (Duffy et al. 2013)	High levels of vigour, dedication, and absorption in tasks (Schaufeli 2012)	Satisfaction and persistence driven by personal interest or enjoyment (Ryan and Deci 2000)
How it differs from MW	Focuses on purpose and value alignment in the work itself; it combines personal significance with social worth (Michaelson 2019).	Can be high without purpose or value alignment; based on feelings about the job rather than more profound meaning in the work (Duffy et al. 2013).	A person can be engaged without feeling that the work is meaningful; it focuses on the intensity of involvement, not its purpose (Bailey et al. 2019).	Intrinsic motivation can exist without MW. For example, enjoying a task without seeing a deeper purpose. MW requires a link to purpose and value alignment, not just enjoyment or interest (Rosso et al. 2010).

Table 2: Differences of MW with some similar key concepts.

This comparison highlights the distinction between these closely related, yet different concepts. While all four contribute positively to work experience, they differ in their core focus.

Understanding this difference strengthens the study's conceptual foundation and supports more precise analysis.

1.2.2.1.3 Ongoing discussions on MW

While MW is often portrayed as a universally positive experience, scholars have highlighted some major issues within it. Smith (1976, as referenced in Spencer 2024) argued that MW may be a necessary sacrifice for the sake of the organisation's productivity and higher consumption. Despite its popularity, there is no clear consensus on what constitutes MW, as it is often conflated with related concepts such as job satisfaction, engagement, and purpose (Bailey et al. 2019). Lepisto and Pratt (2017) emphasised that MW does not only arise from positive emotions. It can sometimes emerge from discomfort, conflict, and emotional stress (Bailey and Madden 2016).

The subjective view of MW allows any activity to be considered meaningful if the individual finds it to be, even if the work is self-serving, ethically questionable, or socially unacceptable. In contrast, the normative view filters this by defining MW as also contributing positively to society beyond mere satisfaction. This raises concerns about whether such exclusions are justified or overly justified (Michaleson 2019). Lysova et al. (2019) argue that the literature is focused heavily on positive contributors of MW, with limited attention to factors that challenge an individual's ability to experience their work as meaningful.

1.2.2.1.4 The Process of Meaning-Making at Work

MW is not only experienced from the job; the shaping of it is done actively by the individual through the very process of meaning-creation. Pratt and Ashforth (2003), as well as Rosso et al. (2010), have stated that employees will interpret their roles, relationships, and organisational settings to relate their tasks to the deepest purpose continuously. To do this, the workers will first make sense of their work cognitively, secondly, they will engage with the work emotionally, and lastly, they will align their actions with both the personal and the organisational values (Pratt and Ashforth 2003).

The meaning-making process may also involve the employees in thinking about the importance of their work to the organisation and others; of course, they could consider the whole organisation as their mission that they are executing through their specific tasks (Wrzesniewski et al. 2003). It is essential to study in the present context how meaning is constructed, as it brings out the very active role of employees in creating the meaningful experiences instead of just receiving them passively.

The figure below (Figure 7) illustrates how individuals create meaningfulness in their work and workplace through the lens of identity. It emphasises the dynamic interaction between personal identity, social identity, and the work context (Pratt and Ashforth 2003).

Two ways of creating job meaning

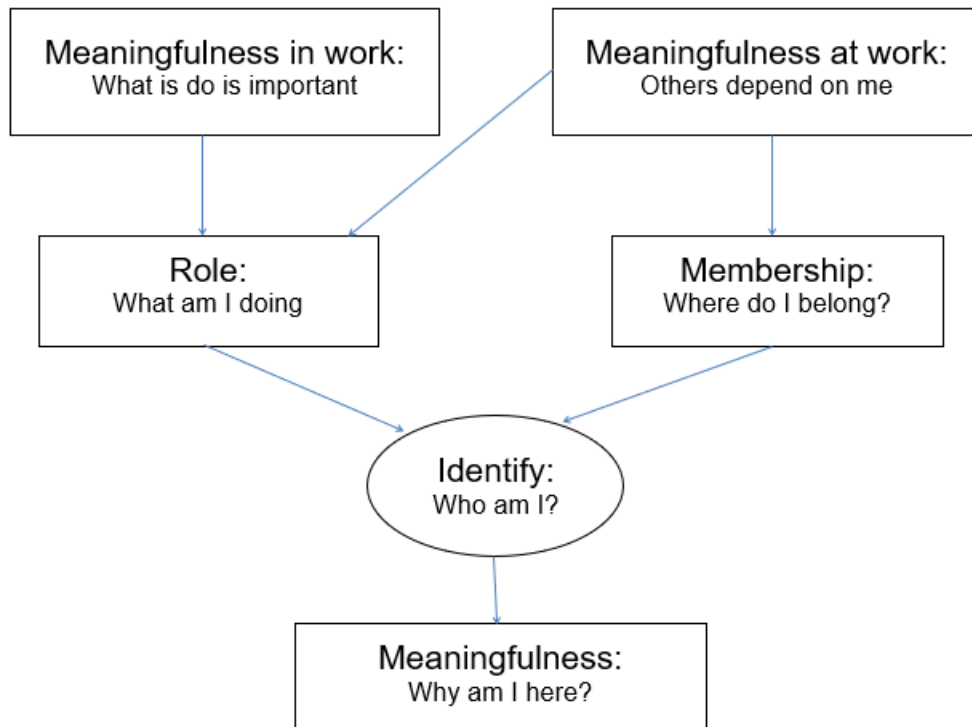


Figure 7: Conceptual adaptation of the framework for creating meaningfulness in work and at work, inspired by identity perspectives. Adapted from Britton's (2008) article *Meaningful Work as Part of the Meaningful Life* (2008), Positive Psychology News.

Pratt and Ashforth (2003) suggested that MW is not just about tasks, but about how work contributes towards a person's overall sense of belonging. They further argued that meaningfulness arises only when one's values, roles, and sense of purpose align with recognition, autonomy, and opportunities for growth (Britton 2008).

In summary, MW is a multifaceted construct with purpose, significance, and alignment between individual values and organisational goals. It emerges from the interplay between personal goals and working environments that either foster or obstruct the search for meaning. While intrinsic

factors such as autonomy and personal growth are critical components of MW, the broader environment determines whether employees can sustain this sense of meaning. This positions EM as an essential base for understanding how MW can be cultivated, thereby providing a natural transition to the next section. These insights are relevant to the present study, as they indicate that MW is influenced not only by leadership but also by contextual factors such as job quality and organisational conditions.

Now that the conceptual foundations of AL and MW are established, it becomes essential to explore the contextual factors that shape this dynamic. As organisations operate within structured environments shaped by external conditions such as salary, supervision, and workplace relations, these factors may play a role in how employees interpret and respond to leadership behaviours and derive meaning from their work. To explore this possibility, the conceptual foundations of EM are first examined in the following section.

1.2.2.1.5 Measurement tools of MW

As discussed above, the definition of MW varies among people. These variations reinforce why multiple measurement tools exist, each capturing different aspects of MW (Batuchina et al. 2025). Some of the widely used measurement tools include the following:

1.2.2.1.5.1 *Work and Meaning Inventory (WAMI)*

Steger et al. (2012) developed the Work and Meaning Inventory (WAMI) in response to the inconsistent, vague, and lacking validation tools in existing literature. Earlier tools, such as those based on Heckman and Oldham's (1976) Job Characteristics Model, did not fully capture the complexity of MW. WAMI was designed as a well-defined, validated, and reliable assessment of MW as a distinct construct, addressing gaps in previous tools. The scale was developed with the assumption that individuals who experience MW would demonstrate higher levels of intrinsic motivation, job satisfaction, and meaning in life, and lower levels of psychological distress, absenteeism, and turnover.

The WAMI consists of three subscales: Positive Meaning (PM) - perception that one's work matters and holds personal significance, Meaning making through work (MM) - understanding oneself and life through work. Moreover, Greater good motivations (GG)- belief that one's work contributes to something larger than oneself. Forty job-related items were created to assess these dimensions. Following item refinement and validation procedures, the final

instrument comprised 10 items distributed across the three subscales. Figure 8 summarises the structure of the final WAMI, including the allocation of items to each dimension.

Dimension	Items
Positive Meaning (PM)	4 (1,4,5,8)
Meaning Making Through Work (MM)	3 (2,7,9)
Greater Good Motivations (GG)	3 (3,6,10)

Figure 8: Structure of WAMI, adapted from Stager et al. (2012).

Despite its popularity and widespread use, WAMI has several limitations. First, the validation was tested using a sample of university employees in diverse roles, which may limit the generalisability of the findings to other sectors and organisational contexts. Second, the study did not include unemployed individuals, in job transitions, or newcomers; groups that may experience MW differently. Third, the recruitment process resulted in a lower response rate, raising the possibility of selection bias. The authors emphasise the need for further validation across diverse populations and contexts and recommend future research to explore how MW interacts with leadership and different organisational conditions.

1.2.2.1.5.2 Comprehensive MW Scale (CMWS)

Despite being central to emerging theories and influencing positive outcomes such as work engagement, job satisfaction, and stress reduction, Lips-Wiersma and Wright (2012) felt a need for a measurement and practical application. While May et al. (2003) had used the custom scale, drawn from Spreitzer (1995), to measure MW, Lips-Wiersma and Wright (2012) argued that these items are broad and subjective.

- The work I do on this job is essential to me.
- My job activities are personally meaningful to me.
- The work I do on this job is worthwhile.
- My job activities are significant to me.
- The work I do on this job is meaningful to me.
- I feel that the work I do on my job is valuable.

The authors contend that these items fail to capture the dynamic nature of MW, as they examine

isolated sources of meaning without distinguishing between individual experiences and organisational influences. Furthermore, the authors emphasised that these measures offer limited guidance for individuals and organisations. To address these gaps, the authors developed a multidimensional framework based on qualitative research, providing a more actionable understanding of how meaning is perceived and cultivated in the workplace.

The Comprehensive MW Scale (CMWS) was developed through a multi-phase research process grounded in two qualitative studies. The first study used in-depth psychobiography methods to explore the day-to-day experiences of MW. In contrast, the second study used research workshops with 214 participants to examine how individuals construct meaning in their lives. The framework highlighted the conflicts in the pursuit of MW, particularly between the needs of the self and the needs of others, and between reflection “being” and action “doing,” which were considered the central components of MW.

The dimensions of CMWS were initially represented by 91 items and subsequently reduced to 28 following rigorous refinement. Figure 9 These items were measured and validated using existing scales such as the Meaning in Life Questionnaire (Steger et al. 2006), Work Engagement Scale (Schaufeli et al. 2006), and Neoclassical Calling Scale (Bunderson and Thompson 2009).

CMWS is grounded in extensive qualitative research, capturing both content and process dimensions. However, despite its depth, it also has some limitations. Its development also relied heavily on specific populations, i.e. educated women, affecting generalisability across diverse groups. Despite having strong theoretical foundations, the authors had to control the effects of measurement error, suggesting the need for further refinement.

1.2.2.1.5.3 Multidimensional Scale for MW (MSMW)

Although not yet identified through literature reviews, the Multidimensional Scale for MW (Batuchina et al. 2025) represents a promising and emerging tool for measuring MW in a more context-sensitive manner, showing ongoing interest in MW.

Batuchina et al. (2025) introduced a validated comprehensive tools for measuring MW across five key dimensions: job design/environment (supporting autonomy, variety, and significance), meaningful leadership (fostering purpose and ethical alignment), organisational commitment (value-based connection between employee and organisation), work-life balance (integration between professional and personal life), and social impact (perceived contribution to

a greater good). Recognising the absence of a universally accepted definition and measurement framework, the authors developed the Multidimensional Scale for MW (MSMW) using a mixed-methods approach, incorporating studies focused on three themes: content validity, response process validity, and internal structure validity. They argue that MW is not only a subjective construct but also a measurable construct that can be evaluated for making organisational development strategies. The scale comprises 80 items designed to assess the five dimensions, which can be seen in Figure 9 below. The authors argue that it measures both individual-level experiences and organisational-level conditions, making it useful for both academic research and practical application in workplace settings. Furthermore, the authors emphasise the scale's adaptability to evolving work trends and its potential to enhance employee well-being and engagement.

Dimensions	Number of items
Job Design/Environment	Opportunities (5)
	Job Performance (8)
	Job Securities and feeling good (5)
Organisational Commitment	Feeling about the organisation (10)
	Organisation Loyalty (7)
Meaningful Leadership	Relation with own supervisor (3)
	Personal Goal Management (5)
	Teamwork (9)
	Relation with own team (4)
Work-life Balance	Work balance (5)
	Life balance (5)
	Work and Life connection (4)
Social impact	Impact of organisation (3)
	Personal social impact (7)

Despite its strengths, the study acknowledges several limitations that affect the scale's generalisability. Firstly, the scale validation was conducted within a specific geographic area

(Lithuania) and in one particular (construction) sector, which may not yield similar results across other sectors or cultures. Secondly, the study primarily focuses on the employee-organisation relationship, overlooking demographic factors such as gender, religious beliefs, and identity, which have been shown to influence the experience of MW in existing literature. Thirdly, the cross-sectional design of the study is less effective than longitudinal research for assessing how MW evolves. Recognising these limitations, the authors suggest that organisations could benefit from applying the scale experimentally, using targeted interventions to enhance MW.

However, as a relatively new construct, the MSMW requires further application and validation across diverse contexts before it can be considered a universally accepted scale. As people find their meaning through different sources, there's no single way to measure MW. Further, each scale brings something valuable, but none of the existing measurement tools can fully capture the whole picture. These instruments are only a few of many that measure the different aspects of MW, each shaped by its own theoretical lens and context.

Thus, the continuous research on MW, considering MW as an essential construct, has been linked to positive outcomes such as reduced burnout, higher motivation, and greater social contribution, as discussed earlier in this section. Concluding the theoretical aspects of the second construct of this study, understanding the third construct, EM, is equally important. The following section will discuss this area, which will lay the groundwork for our understanding of how the impact of AL on employees' perception of MW is shaped by EM.

1.2.3 Definition and Scope of Extrinsic Motivators

Both internal (intrinsic) and external (extrinsic) factors shape an individual's behaviour, motivation, and decision-making process. While intrinsic factors are rooted in personal values, beliefs, and aspirations, extrinsic motivators (EM) refer to work-related factors that originate outside the individual and influence behaviour through external rewards, conditions, or pressures. Herzberg's Two-Factor Theory (1959; 2017) originally conceptualised these elements as hygiene factors, arguing that their absence leads to dissatisfaction, whereas their presence prevents dissatisfaction but does not create motivation. These factors include salary, supervision, organisational policies, and job security.

However, contemporary organisational research conceptualises EM more broadly than Herzberg's original hygiene factors. EM are now understood as external job features that shape

employees' behavioural responses, psychological states, and perceptions of work quality (Singh 2016). Research drawing on Self-Determination Theory (SDT) shows that extrinsic conditions can influence motivation differently depending on how they are delivered and perceived (Ryan and Deci 2000). When EM are supportive, they help satisfy basic psychological needs and create the stability required for employees to focus on higher-order goals. Conversely, when EM are perceived as controlling or inconsistent, they can undermine intrinsic motivation and restrict employees' ability to engage meaningfully with their work (Deci et al. 1999).

Recent organisational studies also indicate that EM do not directly create MW but act as a necessary precondition that allow individuals to pursue purpose, value alignment, and contribution (Lips-Wiersma and Wright 2012). Similarly, Bailey et al. (2019) highlight that MW is difficult to sustain in environments characterised by low pay, job insecurity, or poor supervision, even when leadership behaviours are positive.

In this study, EM are therefore defined as external job-related conditions that prevent dissatisfaction, provide stability, and create the foundational environment necessary for employees to pursue higher-order psychological needs. The scope of EM in this thesis includes:

- **Company Policies:** These are explicitly related to organisational management and personnel policies. Policies that balance staff needs, build morale, improve quality, develop teams, and increase productivity are considered favourable, while poorly designed or unclear policies, lack of delegation, or unfair procedures can create frustration (Hipos and Benavides 2023).
- **Supervision:** It refers to the actual behaviour of managers towards employees. Good supervision encompasses fairness and a willingness to delegate responsibilities, thereby fostering increased happiness, peace, determination, confidence, self-importance, and improved performance. Unfair treatment, lack of support, or incompetence in supervision can lower morale (Nickerson 2025)
- **Relationship with Supervisor:** Limited to personal and working relationships between the worker and their superiors, including job-related interactions and social discussions. Positive relationships create trust and respect, while negative ones can cause stress, reduced trust, and hamper performance (Alshmemri et al. 2017).
- **Work Conditions:** It is the physical environment of work, including available facilities,

space, and tools. Comfort, cleanliness, and safety indicate good working conditions, whereas poorly equipped workplaces can reduce productivity (Hipos and Benavides 2023).

- Salary: It is an economic benefit from work. Increasing and deserved salary is considered a positive factor leading to satisfaction, while low or unfair pay can drive turnover and dissatisfaction (Hipos and Benavides 2023).
- Relationship with Peers: Harmonious, informational, and inspirational social interactions between colleagues make work easier and more pleasant. In contrast, conflict, exclusion, or lack of cooperation among peers can create tension within the organisation (Hipos and Benavides 2023).
- Relationship with Subordinates: The quality of interpersonal relationships between managers and their teams. Fair, transparent communication and mutual respect create a positive environment, while dictatorial or dismissive behaviours can lead to dissatisfaction (Nickerson 2025)
- Personal Life: Encompasses how job demands intersect with an individual's home life and personal responsibilities. Work-life balance can reduce stress, while excessive pressures may create dissatisfaction (Nickerson 2025)
- Status: It reflects the perceived level of importance of employees within the organisation. Being overlooked or undervalued may reduce motivation, while clear recognition of role and contribution can boost self-esteem (Nickerson 2025)
- Security: It is a feeling of safety in the workplace and confidence in continued employment. Job security improves satisfaction and commitment, while fear of job loss, instability, or working conditions can cause anxiety and dissatisfaction (Hipos and Benavides 2023).

Factors such as salary, job security, company policies, supervision, and work conditions are linked to organisational structures. At the same time, personal life, status, and relationships with supervisors, peers, and subordinates reflect the interpersonal dimension of the work environment.

In summary, EM encompass a wide range of organisational and interpersonal factors that shape employees' experience. While they may not directly generate a sense of purpose on their own, their presence or absence significantly shapes whether employees can engage with meaningfulness in their roles. From the perspective of conservation of resources theory, EM can be understood as

resources whose absence creates strain and limits employees' ability to pursue higher-order goals (Hobfoll et al 2017; Merino et al 2021). Similarly, relating to Maslow's Hierarchy theory (Maslow 1943), EM represent the foundational, physiological, and safety needs upon which higher needs, such as purpose and self-actualisation, are built. Collectively, these theories underscore the importance of supportive extrinsic conditions in fostering employees' meaningfulness.

1.2.3.1.1 Discussions on EM

While EM have traditionally been applied to studies of job satisfaction and motivation, its relevance has extended to other sectors such as knowledge sharing (Hendrix 1999), consumer satisfaction (Maddox 1981), and digital services (Zhang and Dran 2000). Recent studies show that expectations around EM differ widely across organisational and cultural contexts contexts (Rachmadini and Riyanto 2020). For many modern employees, work-life balance has become a central component of overall quality of life (Hakim 2024). In the contexts where salary and job security function as essential needs, employees often experience heightened concern about job loss (Dash and Islam 2024; Amzat et al. 2017).

Salary remains a fundamental requirement for maintaining a decent standard of living, and unclear company policies are frequently associated with dissatisfaction, reinforcing employees' desire for transparency and stability (Wijanarko et al. 2024). At the same time, positive interpersonal relationships with colleagues and supervisors remain highly valued, as collaboration, inclusivity, and diversity in work continue to be widely discussed priorities (Humantelligence 2024). These trends are particularly noticeable among younger employees, including Generation Z (born after 1995), who are more likely to disengage from toxic or overly hierarchical environments (Rachmadini and Riyanto 2020).

However, emerging evidence suggests that younger workers may place relatively less emphasis on traditional work-condition factors, such as, workload, career advancement, salary, and even remote working, as compared with previous generations (Meechan and Wonglorsaichon 2024). The evolving priorities of today's workforce reflect a broader shift in how EM are being prioritised in contemporary work environments.

Overall, EM are increasingly recognised as essential components of a fulfilling work life. These variations in how EM are valued across cultures and generations underscore the importance of examining their role within specific organisational contexts.

1.2.3.1.2 Importance of the study on EM

As outlined above, employees do not prioritise EM in the same way. Studies shows that employees' preferences for specific EM vary according to their personal needs, organisational environments, career stages, and their expectations (Herzberg 1966; Deci et al. 1999). For some employees, financial rewards, job security, and clear organisational policies form the foundation of their work experience (Hackman and Oldham 1976). For others, interpersonal relationships, are more influential (Kahn 1990). Conversely, Aguinis et al. (2013) emphasise that financial incentives are effective in some situations but may also produce unintended consequences if not designed carefully. Such differences indicate that the issue of EM needs to be treated in a culturally and generationally aware manner.

This relevance becomes more apparent within the UK's organisational landscape, where 5.5 million private sector businesses were operating as of early 2024 (Hutton and Murray 2024). Of these, 5.45 million are small enterprises, 37,800 are medium-sized, and 8,250 are large organisations. This variation in organisational size provides a basis to explore how EM may be experiences across different settings. In small enterprises, for example, limited facilities for employees can influence employee perceptions of fairness, while larger organisations are able to deliver more favourable EM, but employees might have less human interaction.

1.2.4 Linking AL, MW, and EM

Existing literatures suggest a consistent association between AL and MW, with leadership behaviours influencing how employees interpret the significance and purpose of their work (Gardner et al. 2005; Ilies et al. 2005; Chaudhary 2021). AL has been shown to foster trust, value congruence, and psychological safety, which are closely linked to employees' experience of MW (Avolio & Gardner 2005; Rego et al. 2016). Through these mechanisms, employees are more likely to perceive their roles as aligned with their personal values and broader organisational goals. Recent studies continue to emphasise that AL fosters employees' perceptions of MW by enhancing value alignment, psychological safety, trust-based leader-follower relationships, and empowerment (Silva et al. 2023; Winton et al. 2022). Contemporary work also frames MW as a multidimensional experience shaped by leadership behaviours and broader organisational and contextual conditions (Vitasari 2023).

At the same time, employees' work experiences are shaped by extrinsic conditions embedded within the organisational environment. EM have been identified as key factors influencing employee attitudes and behaviours that do not directly create positive work experiences but are essential in preventing dissatisfaction (Herzberg 2017; Singh 2016; Alshmemri et al. 2017). Empirical evidence indicates that EM influence reported job satisfaction and have practical implications for retention and organisational outcomes (Hudays et al. 2024). Inadequate EM can result in negative work attitudes, which may affect how employees engage with their roles and interpret their work experiences (Singh 2016).

Studies on motivation indicate that leadership behaviours and organisational conditions interact in shaping employees' internal work experiences. Leadership has been linked to the development of internal motivation and value alignment (Ryan & Deci 2000; Gagné & Deci 2005), whereas EM influence the broader conditions within which these processes occur. When EM are perceived as supportive, employees are more likely to maintain positive attitudes and engagement. In contrast, when such conditions are lacking or perceived as unfair, employees may experience frustration or disengagement, which can alter how leadership behaviours are interpreted (Deci et al. 1999). Empirical work reports that authentic leaders can mitigate the adverse effects of poor organisational conditions on employee attitudes (Singh et al. 2024).

Within this understanding, EM are not positioned as direct sources of MW but as contextual factors that shape employees' work environments and responses. Research indicates that favourable EM can coexist with positive leadership influences, contributing to more stable and supportive work experiences (Tang et al. 2012). Conversely, unfavourable conditions, such as inadequate rewards or poor supervision, may be associated with negative employee perceptions, regardless of leadership behaviours (Bektas 2017; Hudays et al. 2024). Taken together, the evidence suggests an interdependent relationship in which AL shapes employees' meaning-making while EM determine the conditions that sustain or undermine that meaning.

Overall, the literature reflects that AL, EM, and MW are interconnected through a set of relational and contextual mechanisms. While AL is associated with shaping how employees perceive and interpret their work, EM influence the conditions under which these perceptions are formed and sustained. This interconnectedness highlights the need to consider both leadership behaviours and organisational conditions when examining employees' experiences of MW.

1.2.5 Importance of further studies

The discussions above have outlined the conceptual boundaries of AL, MW, and EM, and highlighted potential interconnections. However, most existing studies have examined these constructs separately or examined them only in pairs, which limits the understanding of how they interact within organisational settings. This fragmentation hinders a comprehensive understanding of their combined dynamics within the workplace setting, leaving uncertainty about the extent of existing knowledge and remaining gaps. To address this limitation, a more rigorous and transparent method of literature review is required to clarify how leadership and organisational conditions influence employees' perceptions of MW.

1.3 Section 2: Systematic Literature Review

1.3.1 Introduction

A Systematic Literature Review (SLR) was conducted to identify specific research gaps and patterns in the empirical evidence. Unlike traditional literature reviews, which are often selective and interpretive, SLRs follow a rigorous methodological framework to gather, screen, and analyse academic sources based on predefined inclusion and exclusion criteria (Tranfield et al. 2013). This method enhances the credibility and reliability of the review process, providing a solid foundation for the development of the research questions and conceptual framework. The SLR complements earlier conceptual discussions by providing a replicable synthesis of studies examining the interrelations between AL, MW, and EM, thereby establishing a solid foundation for developing the research questions and conceptual framework in this study.

1.3.1.1.1 Aims of SLR

This SLR aims to cover all the relevant literature on the subject. There are three objectives of this SLR:

1. To identify existing studies on AL, MW, and EM, and analyse the definitions adopted, methodologies used, and theories applied across the literature.
2. To explore the interrelationship between these constructs and prepare a conceptual framework around them for this study.

1.3.1.1.2 Formulation of Question

To accomplish the aim of this SLR, the research question is formulated using a PICO framework, encompassing Population, Intervention, Comparison, and Outcomes. This framework followed the approach outlined by Eriksen and Frandsen (2018) and can be illustrated in the table (4) below:

PICO Component	Concepts	Description
Population	Employees	Employees of organisations; working adults
Intervention(s)	Exposure 1: Practice of AL behaviours	AL behaviours in the workplace: Do these behaviours encourage employees to find meaning in their work?
	Exposure 2: Presence absence of positive EM	Presence versus absence of positive EM: How do EMs influence the effectiveness of AL on employees' perception of MW?
Comparison	Types of extrinsic motivators	Which EM type most amplifies the impact of AL on MW?
Outcome	Employees' perception of MW	Employees perceived MW; secondary outcomes: gaps in the literature and consequences of presence or absence of EM on MW.

Table 3: PICO Framework used to guide search and screening

By defining the PICO, this framework clarifies the scope and focus of the SLR. It specifically examines how AL behaviours influence MW, how different types of EM may improve or weaken this effect, and highlights existing gaps in the literature. This structured approach makes sure the review directly addresses the research questions and identifies areas for future study.

1.3.2 Methods

1.3.2.1 Search strings

While reviews of Gardner et al. (2011), Ahmed (2024), Hoang et al. (2024), Zhang (2022), and Alilyyani et al. (2018) has included the term authentic leadership, authentic leader, and leader authenticity, the term that is used frequently in place of authentic leaders; genuine leadership has also been included in the search.

Likewise, Tan et al. (2023) used MW, worthwhile work, impactful work, relevant work, and purposeful work, which were also similar to Bailey et al. (2019)'s SLR, and Van Bentum et al. (2021) used the terms meaningful activity and meaningful occupation. Taking reference from these studies, all the mentioned terms were used as the search string for MW to nest as many studies as possible in terms of MW.

Further, the terms used by Herzberg (2003) for defining EM (extrinsic motivators, hygiene factors, KITA factors, and dissatisfaction-avoidance factors), and the extrinsic factors that have been mentioned, are used as search strings. This can be seen in Annexe A.

1.3.2.2 Initial search process:

This subsection is organised in four parts: (a) databases and other sources searched, (b) search strategy and strings used, (c) screening and selection steps and (d) rationale for the choices made.

Sources: Searches were run in three bibliographic databases selected for wide coverage of the topic: Scopus, Web of Science and EBSCOhost. These platforms were chosen to maximise retrieval of literature related to leadership, organisational behaviour and applied management. Previous systematic reviews in this domain have used similar platforms (see Hoang et al., 2024; Ahmed et al., 2020), which supports their suitability for comprehensive coverage.

Inclusion/Exclusion criteria: A predefined inclusion and exclusion criterion was set before searching for the journals. This included: a) availability in the English language; b) use of any combination of the above-mentioned search strings by using Boolean (And/Or). Theses or dissertations were not set as limitations to capture early/unpublished work that informs about the constructs. Availability of papers other than the English language was excluded (Hoang et al. 2024; Alilyyani et al. 2018), considering the researcher's limitation in understanding different languages.

Search strategies: Strings were adapted to title/abstract/keywords where possible. The full strings can be seen in (Appendix A). The search terms were kept broad to maximise the paper findings.

Screening: The review searched the literature from January 2003 onwards. This cut-off was selected because George's (2003) conceptualisation of AL and the research of Luthans and Avolio (2003) brought a drastic increase in the interest, as mentioned earlier in the study. Using 2003, therefore, focuses on the latest AL literature rather than earlier unclear terms. Various Studies, such as Gardner et al. (2024), Alilyyani (2018), Valle et al. (2021), and Polat et al. (2024), have used the same or beyond that cut-off date. The searches reported in PRISMA flow (Figure 11) cover all records available in the three databases up to the date the searches were run.

1.3.2.3 Search Outcome and Exclusion Criteria

As shown in the PRISMA chart (Fig. 11), a total of 4187 articles were found after using the combination of keywords, of which 1727 were from SCOPUS, 847 from Web of Science, and 1613 from EBSCOhost. Duplicate records (2131) were deleted after dumping all the records in EndNote, a referencing software.

One thousand seven hundred ninety-six records were excluded after screening the titles and abstracts, as they did not study either AL, MW, or EM, leaving 260 up to this stage.

In this step, a thorough review of the primary texts was conducted to see if they meet the requirements of our study. The articles were filtered based on the three criteria: a) access to full text, b) investigate AL, MW, and at least one of the EM as the variables, and c) peer-reviewed. Peer-reviewed journals were only selected in this process to avoid any unproven assumptions about the concepts.

Four papers (Barden and Distrito 2005; Hussain 2016; Han et al. 2018; Byrne 2006) could not be retrieved in full, as they were either not freely available or not accessible, leaving 258 papers eligible for the final process of screening. Twenty-four of them were books and conference papers and were excluded as well. Two hundred twenty-one papers did not study at least two of the variables and were excluded as well.

Thirteen papers were included in the review to understand their relationship with each other further, assuming they would provide a theoretical base for the framework of this research.

1.3.2.4 SLR Design

This SLR was designed and implemented in accordance with PRISMA guidelines and checklists of Page et al. (2020). The PRISMA framework used can be shown in the figure below:

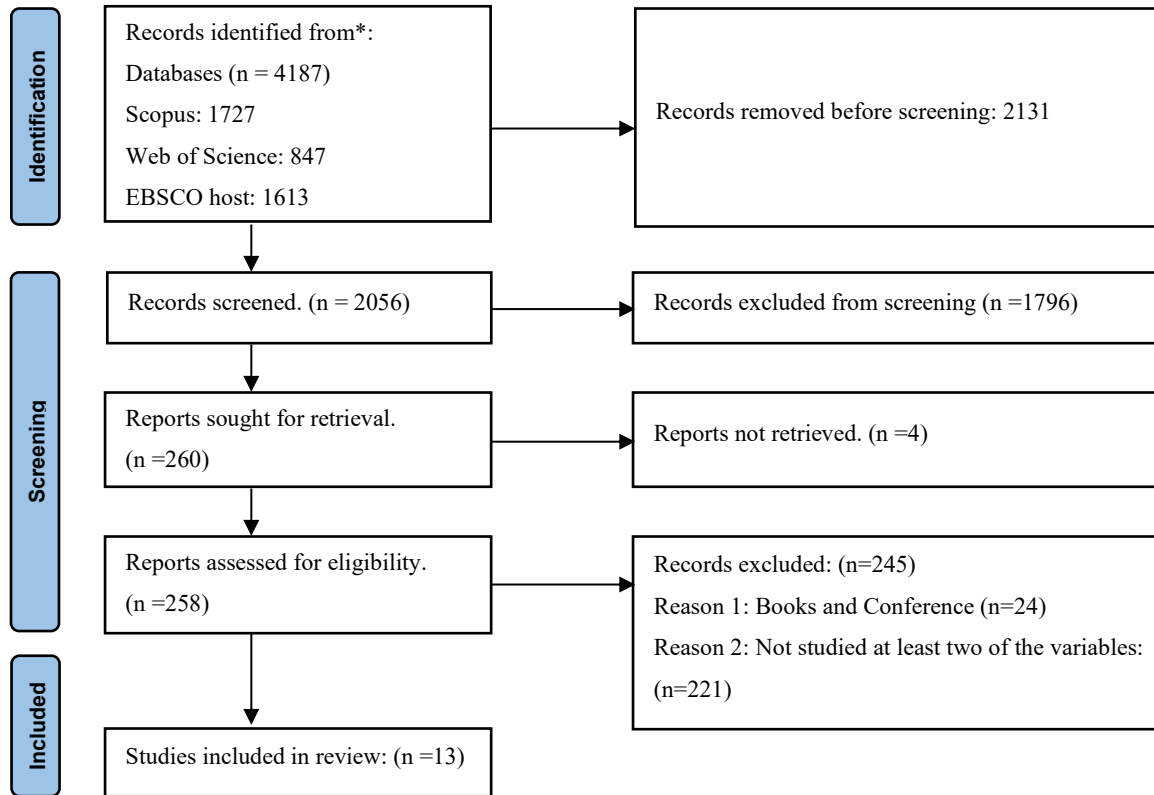


Figure 10: PRISMA Chart for selection of studies as per Page et al. (2020)

In accordance with PRISMA 2020 (Page et al. 2020), this review retains the distinction between “records” and “reports”. PRISMA defines a “record” as the title and/or abstract of a study indexed in a database, and a “report” as the full document that provides detailed information about a study. This terminology follows the official PRISMA 2020 guidance and has been used consistently in this review

1.3.3 Findings and Analysis of the Papers

First, basic information from each article, such as author name(s), journal name, article title, year of publication, and methodology, was coded using Excel software. All the articles were found to be using quantitative methods, so the information, like theoretical framework, hypothesis, sample type and size, data collection methods, data analysis techniques, as well as variables such as antecedents, mediators, moderators, and outcomes of AL and MW, were recorded in a Word file.

Journal	Quarter	Number of articles
SA Journal of Industrial Psychology	Q3	1
Jurnal Pengurusan	Q4	1
Leadership in Health Services	Q2	1
Journal of Nursing Management	Q1	2
Journal of Work and Organisational Psychology	Q1	1
Universal Journal of Educational Research*	Q2	1
Management Decision	Q1	1
European Business Review	Q1	1
Current Psychology	Q1	1
Leadership & Organisation Development Journal	Q1	1
Asian Academy of Management Journal	Q3	1
Journal of Leadership & Organisational Studies	Q1	1
Ratings from Scimago Journal and Country Rank (2025)		
*Ratings from FactorSphere (2025)		

Table 4: Ranking of journals and number of articles published.

Second, each of the included papers was analysed thoroughly. The papers were divided into four themes. 1) Papers that have studied AL and MW, 2) Papers that have studied EM and MW, 3) Papers that have studied AL and EM, and 4) Papers that have studied AL, EM, and MW.

Despite the abundance of studies, two papers were found to have included all three variables and demonstrated a relationship. Four papers examined the relationship between AL and MW, six papers investigated the relationship between AL and EM, and one paper explored the relationship between EM and MW.

During this process, it was discovered that numerous studies were focused on the relationship between AL and MW, and most of them found it to be positive. However, this study also aims to explore the role of EM (or hygiene factors) recognised by Herzberg (2017), in their relationship. Additionally, various EMs not included in Herzberg's framework were identified, such as job security (Bannay and Hadi 2021), job insecurity (Kleynhans et al. 2021), family support, mentoring support (Sarkar 2019), safety climate (Mrayyan et al. 2022; Dirik and Intepeler 2017), fairness (Bamford et al. 2013), stress at work (Sainz et al. 2020), and different financial and non-financial rewards (Salleh et al. 2020). However, these factors are closely related to EM or an outcome of EM (ex, work stress is an outcome of unfavourable EM).

The journal articles included in this SLR along with their aims can be seen in Table 6. The other components of those studies and the relevance of those papers in our research are shown in Appendix I.

The following section presents the findings derived from the SLR. It synthesises how existing empirical studies have explored the relationship among the constructs and highlights the key gaps that remain unexplored. While studying this interrelationship, this section also examines how the selected studies have defined, conceptualised, and measured each construct. This critical review enables the research to identify and adopt the most relevant definitions, theoretical perspectives, and measurement approaches, thereby preparing the conceptual framework in the following chapter.

1.3.3.1 Relationship Studied in paper

The table below presents the aim of the literature, found while performing the SLR.

Authors/Journal	Research Aim
Sarkar (2019)	Explores how work and non-work domain factors such as MW, mentoring support, family support, and challenging life events relate to AL.
Salleh et al. (2020)	Investigates the role of AL style in influencing employee wellbeing through financial and non-financial rewards and MW.
Winton et al. (2022)	Extends the leader-engagement connection by examining the role of AL in fostering meaningfulness and employee engagement.
Chaudhary (2022)	Examines self-efficacy as both a mediator and a moderator of the relationship between authentic leadership and work meaningfulness.
Chaudhary (2021)	Proposes that AL enhances perceptions of Corporate Social Responsibility (CSR), which, in turn, results in increases meaningfulness at work.
Sagnak and Kuruoz (2017)	Investigates the mediating effects of meaningfulness on the relationship between AL and altruistic behaviour.
Kleynhans et al. (2021)	Investigates the impact of AL on follower trust in the leader, while considering the possible indirect influence of perceived instability in the form of job insecurity.
Mrayyan et al. (2021)	Compares nurses' perception of AL and safety climate across different hospital types and work areas.
Dirik and Intepeler (2017)	Analyses nurses' perceptions of AL and safety climate and examines the contribution of AL to the safety climate.

Bannay and Hadi (2021)	Explores co-relation between leadership and perceived job security are correlated with nurses' psychological well-being.
Bamford et al. (2013)	Examines the link between nurses' perceptions of AL, overall person–job fit across six areas of work life areas, and work engagement.
Sainz et al. (2020)	Investigates the relationship between AL and Stress at work through the mediation role of organisational dehumanisation.
Busse et al. (2018)	Identifies the key factors that significantly contribute to MW.

Table 5: Journal article and their research aim that are included in SLR

These findings demonstrate the wide range of mediators and outcomes, associated with AL, such as employee well-being, engagement, trust, and perceptions of CSR. By highlighting the multifaceted impact of AL, these studies collectively underscore its significance in workplace for fostering meaningfulness. Notably, several studies also emphasise the role of EM, such as job security, and safety climate, as foundational conditions for perceiving MW.

On the surface, these finding reinforces the importance of cultivating AL behaviours to support employee meaningfulness, while considering the role of EM. The breakdown of these studies, exploring the interrelationship between these constructs is presented in the next section.

1.3.3.2 Authentic Leadership

Among the 13 papers selected for the review, 12 papers have studied AL and its relationship with either MW, EM, or both. The sub-sections below will explain what was extracted from the studies related to AL.

1.3.3.2.1 Definition of AL

One of the objectives of this SLR was to find a definition of AL which is common in most of the journals. Across the selected literature, two core definitions of AL dominated the conceptual framing.

The first, proposed by Luthans and Avolio (2003), defines AL as a process rooted in psychological capacities and organisational contexts, resulting in enhanced self-awareness and self-regulated positive behaviours that facilitate collective development. This definition was mentioned in seven studies, including works by Kleynhans et al. (2021) and Bamford et al. (2012).

The second and more operationalised definition, advanced by Walumbwa et al. (2008), characterises AL as a behavioural pattern that promotes four core dimensions: self-awareness,

internalised moral perspective, balanced processing, and relational transparency. This definition appeared in five, such as Sagnak and Kuruo (2017) and Chaudhary (2020; 2022).

Except for these, other definitions mentioned include Avolio et al.'s (1991) (as cited in one paper of Bannay and Hadi (2021)) as well. However, the convergence around the definitions of Luthans and Avolio (2003) and Walumbwa et al. (2012) highlights a consistent understanding of AL's foundational traits, while variations in emphasis reflect different priorities in psychological versus behavioural leadership outcomes.

The studies reviewed show that researchers generally agree on how AL is defined. Most of them relied on two main definitions, one by Luthans and Avolio (2003), which highlights the personal growth and self-awareness of leaders, and another by Walumbwa et al. (2008), which focuses on key behaviours: being self-aware, acting with strong values, being open and honest, and making fair decisions.

1.3.3.2.2 Measurement tool of AL

In terms of measurement, the Authentic Leadership Questionnaire (ALQ) developed by Walumbwa et al. (2008) emerged as the predominant tool, used in seven studies across sectors such as healthcare, education, and manufacturing. The ALQ's structured focus on four dimensions of AL provided a dependable and widely accepted framework for capturing leadership authenticity.

Meanwhile, five studies adopted the Authentic Leadership Inventory (ALI) created by Neider and Schriesheim (2011), offering a slightly different emphasis with revised item structure and scale composition. The use of both tools reflects a methodological consistency while allowing for comparative exploration across populations and research settings.

To measure AL, ALQ stood out as the most commonly used tool. Another tool, ALI, which was developed to improve on some of the issues of ALQ using more rigorous testing methods, is widely accepted as well, suggesting that the use of any of the processes can provide the required solution.

1.3.3.3 Meaningful Work

Similarly, out of the 13 papers, 7 included MW in their study and examined their relationship with other constructs. The sub-sections below will explain what was extracted from the studies related to AL.

1.3.3.3.1 Definition of MW

The review of selected studies revealed a range of perspectives on how MW is understood. These perspectives reflect different theoretical backgrounds and highlight the diversity in how researchers conceptualise MW.

Kahn's (1990) view, which appeared in two papers (including Chaudhary 2021; 2022), presents MW as a psychological state influenced by job characteristics, particularly in relation to engagement and psychological empowerment. May et al. (2003), as referenced in one study (Sagnak and Kuruoz 2017), defined meaningfulness as the value of a work goal or purpose, judged against an individual's own ideals or standards.

Cameron's (2012) perspective, cited by Winton et al. (2022), suggests that meaningfulness comes from finding purpose in the context where work is performed, not just in the work itself. Sarkar (2019) described MW as work that aligns with one's personal values and purpose. Steger et al. (2012), cited in Salleh et al. (2020), defined MW as work that is both positive and significant in nature. Finally, Busse et al. (2018) drew on Victor's (1963) existential concept of the "Will to meaning", highlighting the deeper human drive to find purpose through work.

In conclusion, the variety of perspectives identified in the reviewed studies highlights how MW is understood in different ways depending on the theoretical lens applied. While some authors focus on psychological states shaped by job design or personal values, others draw from existential or contextual interpretations. This diversity adds richness to the field but also shows that there is still no single, agreed-upon definition of MW.

1.3.3.3.2 Measurement tools of MW

Measurement tools varied as well, each reflecting different conceptual findings. The Work and Meaning Inventory (WAMI) developed by Steger et al. (2012) was used in two studies (Winton et al. 2022; Salleh et al. 2020). This tool is designed to assess how individuals experience meaning in work (Steger et al. 2012).

The Six-item Psychological Meaningfulness Scale by May et al. (2004) appeared in three studies: Sagnak and Kuruoz (2017), Chaudhary (2021; 2022) and has been used when the research is focusing on psychological empowerment and engagement.

Other measures, including the Life Attitude Profile-Revised (Reker 1992), were included in one study (Busse et al. 2018). Similarly, Sarkar (2019) used four items from the Meaning at Work Scale by Ashmos and Duchon (2000) while focusing on non-work or personal life domains, such

as family background and personal values.

This variation highlights differing operational approaches to MW depending upon the context and the focus of the study. This suggests that researchers are still exploring the most effective ways to capture the experience of MW.

1.3.3.4 EM used and their respective measurement tools.

EM was operationalised through a diverse set of constructs, including job security, mentoring support, fairness, and reward structures. Job Security was measured using scales like Baillien & De Witte (2009), while Job Insecurity relied on De Witte's (2000) JIS scale. Family and Mentoring Support were assessed via instruments such as the Multidimensional Scale of Perceived Social Support (Zimet et al. 1988) and Dreher and Ash (1990). Safety climate appeared prominently in healthcare-focused studies, measured by the Safety Climate Survey (Sexton et al. 2003), and stress at work was captured using the Effort-Reward Imbalance Scale (Siegrist et al. 2004). Additional constructs like fairness, workload, and community were included via the Areas of Work life Scale (Leiter & Maslach 2017), while financial and non-financial rewards were analysed descriptively. This variability in EM measurement reflects its multidimensional nature and the absence of a unified scale, underscoring the complexity of studying extrinsic drivers across sectors.

1.3.3.5 Interactions between AL, MW, and EM across the included studies

The 13 included studies were grouped in different sections to critically examine the interaction between AL, MW, and EM.

1.3.3.5.1 Relationship between AL and MW

AL emerged as a foundational construct in shaping employees' perception of MW. AL emphasises self-awareness, transparency, moral perspective, and balanced processing- that resonates with the intrinsic psychological needs of employees seeking meaning in their roles. The studies included in this SLR offer an important empirical insight into how AL enhances employees' perceptions of MW, with different population samples across various sectors and countries, expanding the researcher's understanding of this relationship.

A significant positive relationship was found between AL and MW with a regression coefficient (β) = 0.38 and p-value (p) < 0.01 in the study of Chaudhary (2021), who also concluded that AL's influence on MW is more substantial for employees with low efficacy. Similarly, the other research of Chaudhary (2021) demonstrated the indirect relationship of AL with MW, through employees' perception of corporate social responsibility (β =0.38 and p <0.01), with the

moderating effect of employees' attributions of extrinsic motives. The positive relationship between follower-rated AL and self-rated AL with MW ($t=1.88$, $p<0.10$) was found in the Study of Sarkar (2019).

Furthermore, MW has been studied not only as an outcome but also as a psychological mediator through which AL influences broader organisational outcomes. Sagnak and Kuruoz (2017) found positive correlations with MW (correlation coefficient (r) = 0.45, $p < 0.01$; $\beta = 0.45$), suggesting that MW, driven by AL's influence, leads to increased altruistic behaviour. This perspective sheds light on the functional relevance of MW, which can work both as a feeling and a driver of other workplace behaviours.

Winton et al. (2022) initially reported a non-significant relationship between AL and MW with $p < .055$ and $\beta = 0.70$; however, a subsequent study showed a moderate correlation ($r = 0.29$, $p<0.01$) between AL and positive meaning, a component of MW. The study concluded that a transformational relationship may be more effective than AL in enhancing MW.

The findings, overall, suggest that AL is not just desirable but an essential instrument in fostering a sense of purpose and meaning among employees. Nevertheless, as highlighted by Winton et al. (2022), AL's impact may not be universally significant, indicating the importance of understanding individual differences and situational awareness. Therefore, more research on the relationship with MW in different organisational settings and cultures is still required to know when and how AL best promote MW.

Hence, the evidence from these studies demonstrates a consistent and positive association between AL and MW, except for some contextual variability. As an outcome itself and by mediating the effects through different intrinsic outcomes of an individual, such as ethical climate or CSR, AL can make work meaningful for employees.

1.3.3.5.2 Relationship between AL and EM

While AL is predominantly associated with fostering intrinsic motivation, a growing body of research examines the role of EM in the context of AL. The empirical evidence drawn from the studies shows that the EM are not limited to Herzberg's (2017) hygiene factors; instead, the study explores many more factors within an organisation.

Kleynhans et al. (2021) found that AL and job insecurity, which is an absence of job security, were inversely related ($r=-0.036$, $p<0.05$), suggesting that AL foster the positive

outcomes (feeling of trust in followers in this case) even under job uncertainty. This highlights the capacity of AL to buffer the negative psychological impact of diminished EM. Similarly, Bannay and Hadi (2021) found that perceived job security partially mediates the relationship between AL and psychological well-being ($\beta = 0.690$, $p < .001$), echoing the role of AL in stabilising extrinsic conditions.

A strong positive correlation between AL and perceptions of safety climate (a working condition) was demonstrated in the study of Mrayyan et al. (2021) and Dirik and Intepeler (2017), with the values of $r = 0.609$ – 0.654 and $r = 0.47$, respectively. The findings from these studies show that authenticity nullifies employees' negative experience of unfavourable EM in healthcare sectors. The survey of Bamford et al. (2013) broadened this lens by examining six areas of work life, many of which (rewards, workload, fairness, control) are extrinsically grounded. AL was found to have a positive relationship between these factors, implying that AL enhances engagement via optimal EM. Further, Sainz et al. (2020) investigated AL's impact on workplace stress, which is a negative outcome often triggered by poor EM and found a positive relationship ($\beta = 0.13$), implying that AL can mitigate work stress.

Sarkar (2019) introduced another dimension by exploring mentoring support, family support, and challenging life events as other EM. While mentoring support did not show a significant association with AL, the other two positively influenced AL ($\beta = 0.15$ – 0.20), hinting that personal life influences how AL enact decisions in an organisation. Salleh et al. (2020) provided further insight into the reward structure, demonstrating that non-financial rewards fully mediate the relationship between AL and employee well-being. This establishes that AL enhances the value of EM by incorporating intrinsic feelings.

The collective findings show that AL has an essential relationship with EM, which needs to be further studied. The presence or absence of EM can enhance or decrease the role of AL in an organisation's outcomes.

1.3.3.5.3 Relationship between EM and MW

While MW is an intrinsic feeling of an individual and has proved to be the source of various intrinsic motivators, not many studies have studied its relationship with EM. During the SLR, the relationship between MW and EM was explored through two distinctive studies, which collectively revealed that EM contributes positively to MW, but only when they come together with other variables like leadership. Busse et al. (2018), analysing responses from multinational

companies across Germany, the USA, China, India, and Korea, found that extrinsic rewards significantly contributed towards MW. However, they were not the top predictors of MW at work. The key highlights a key insight: employees can adapt to challenging conditions without any leadership support, but the presence of a supportive leader notably enhances their ability to find meaning and fulfilment.

Salleh et al.'s (2020) deepens this understanding by differentiating between financial and non-financial extrinsic rewards. The findings revealed that non-financial rewards, such as work-life balance, career development, and a healthy workplace, have a stronger relationship with MW ($\gamma = 0.27$, $p < 0.001$) than financial rewards ($\gamma = 0.09$, $p = 0.02$). This illustrates how different EM fosters MW in unusual ways.

Although there was insufficient data to investigate the relationship between these factors, possibly due to MW's strong connection with an individual's intrinsic value, these findings indicate that the organisation should prioritise non-financial rewards alongside traditional financial reward-centric models.

1.3.3.5.4 Theoretical and Empirical Connection between AL, MW, and EM

While multiple studies have explored the individual relationships between AL and MW, AL and EM, or MW and EM, very few have investigated the interdependent dynamics of all three constructs within a single integrative framework. Notably, only Sarkar (2019) and Salleh et al. (2020) included AL, MW, and EM within their study scope, yet neither aligned with the configuration proposed in this systematic review. Sarkar (2019) examined AL through contextual antecedents like mentoring, family support, and life events, with MW positioned as one among several outcomes; however, EM in this case was treated as a boundary condition influencing leadership development rather than interacting with MW. Similarly, Salleh et al. (2020) assessed MW and Employee Wellbeing (EW) in relation to financial and non-financial EM and AL style. Still, they focused primarily on mediation effects rather than the structural interplay of all three variables.

Despite the presence of these constructs, neither study conceptualised how AL might jointly influence MW through the contextual presence or quality of EM. This gap highlights the relevance of the current framework, which seeks to elucidate how AL promotes MW under diverse EM conditions. Given that existing literature does not clearly establish whether EM mediates or

moderates this relationship, the framework seeks to separate these pathways and examine their influence across diverse organisational contexts.

1.3.3.6 Theories used for shaping the constructs.

A review of the theoretical models used in the studies selected indicates that Authentic Leadership Theory (Avolio et al., 2004) was the most frequent, being the foundation for four articles concerning leadership identity and behaviour. Others were fewer in number but offered meaningful insight into specific leadership and MW dimensions. Social Identity Theory (Tajfel 1949) was used in one piece of research (Chaudhary 2021) to explore the relationship between leaders and group membership, whereas Self-Determination Theory (Deci & Ryan 2000) was used in Sarkar's (2019) investigation of motivation in leadership contexts. Conservation of Resources Theory (Hobfoll 1989) was used in one piece of research (Salleh et al. 2020) to explore both leadership and meaningfulness, highlighting the conservation of resources as a key element within organisational dynamics.

Additional frameworks included Social Exchange Theory (Blau 1964), used by Kleynhans et al. (2021) to explore relational aspects of leadership, and Leader-Member Exchange Theory (Lyu et al. 2019), which informed Bannay and Hadi's (2021) study on leader-follower relationships. For the domain of MW, Attribution Theory (Kelley 1973) and Self-Concept Theory of Motivation (Shamir 1991) were utilised in a single study each to guide how the individual felt and accounted for meaning within their work. The Work-Family Enrichment Theory, as quoted by Sarkar (2019), brought a support aspect from the family to the discussion.

Interestingly, four studies did not report a guiding theoretical framework at all explicitly, and it can be presumed that they had an exploratory or empirical design. Overall, these various theoretical approaches illustrate a multidisciplinary effort to make sense of the mechanisms of AL and MW. But the limited integration of these models across studies suggests that future studies have the potential to develop more unifying and systematic theoretical models.

While no specific theory was found to study EM as a whole, in this study, Herzberg's (1959) theory is considered a base theory and defined in this section as such. These varied theoretical lenses demonstrate a multidisciplinary effort to explain the mechanisms behind AL's influence, MW formation, and EM integration, though gaps remain in integrating these models holistically.

1.3.3.7 Discussion

The findings of the SLR provide significant insights into the relationships between AL, MW, and EM. The synthesis of findings across various industries highlights consistent themes, such as AL's role in fostering intrinsic motivation and the practical effects of EM. Additionally, the analysis acknowledges gaps, such as the sectoral limitation of existing research and the lack of exploration into demographic and cultural factors, offering valuable directions for future inquiry.

AL and MW have been studied in different countries, sectors, and departments throughout the decades. This also shows the importance of AL, MW, and EM in various business contexts. Although numerous studies have been conducted on these topics, it remains unclear whether AL can sustain MW in the absence of favourable EM. Although some studies draw samples from non-Western settings (e.g., India, Malaysia), few explore how EM may vary by cultural expectations or economic environment. This raises questions about the generalisability of existing models and measurements.

In conclusion, the findings reinforce that while intrinsic motivators primarily drive MW, extrinsic factors play a significant role in shaping an employee's overall experience, especially in terms of job satisfaction and organisational commitment. The gap in research concerning AL's role in fostering MW through the lens of EM remains underexplored, providing a potential avenue for further study. The finding of Winton et al. (2022) further highlights that the effect of AL may vary across settings and cultures.

1.3.3.7.1 Answering the PICO Framework

This SLR was based on the PICO framework, that was designed earlier and the SLR question was designed around it. After the completion of SLR, the result can be shown in the table (Table 7) below:

PICO	Concepts	Findings from SLR	Status/Gaps
Population	Employees	Employees from diverse sectors, region, and organisations were included.	Addressed in full.
Intervention 1	Practice of AL behaviours in the workplace	AL has a positive and significant role in encouraging employees to perceive MW.	Addressed. One paper (Winton et al. 2022) showed the relationship can vary in some contexts.
Intervention 2	Presence or Absence of positive EM	Favourable job security, safety climate, rewards, mentoring, and family support were seen to be positively related to MW.	Partially addressed. The mediating or moderating role of EM in the relationship remains unexplored.
Comparison	Types of EM	Different EMs were identified, but they were not compared to determine which amplifies AL's effect on MW	Not addressed. Impact of EM in comparison with each other remains unexplored.
Outcome	Employees' perception of MW	AL consistently improves how employees perceive MW by promoting AL's four dimensions. No study directly tested moderation or mediation between EM and AL-MW relationship. As the EM was seen as a predictor of MW and has also been seen to have positive relationship with AL, they might have some direct or indirect effect on AL-MW relationship.	Partially addressed. How the presence or absence of EM weakens, strengthens, or make a pathway for AL in MW, was not answered.

Table 6: Summary of findings with relation to PICO framework

These findings suggest that the literature has not yet provided a clear answer on whether EM acts as a mediator or moderator in the AL-MW relationship. Some studies have looked at the impact of certain EM, such as job security or rewards, on how employees perceive MW. While the findings from the studies show that EM can influence MW, they do not completely answer the SLR question. Thus, the effect of EMs alone on MW was informative, but not fully relevant to this review. This uncertainty highlights a theoretical blind spot and underscores the need for empirical investigation into the conditions under which AL fosters MW.

1.3.3.8 Bias and Limitations

1.3.3.8.1 Possible Bias

One key aspect of ensuring transparency in an SLR is stating the values, beliefs, and assumptions that shape the research focus (Tranfield et al. 2013). This research hypothesises that the characteristics of AL can significantly enhance employees' perception of MW, and EM has some effects on this relationship. That said, no assumptions have been made about the extent of these effects during the SLR process, and a conscious effort has been made to include all relevant studies, regardless of their findings.

SLRs are designed to gather and integrate insights from a wide range of primary sources, which helps to reduce bias compared to relying on a single study (Gough et al. 2012). To further reduce the publication bias, Meade (1997) recommends considering studies from any publication. In addition, Tranfield et al. (2013) advise against using journal rankings as a filter for inclusion/exclusion. While journal ratings are listed in the results for the sake of transparency, they were not used to determine which studies were included or excluded.

1.3.3.8.2 Limitations

This SLR has a few notable limitations. First, it only includes published studies. Although some relevant research papers were identified through references, they were excluded because the journals in which they were published were not indexed or ranked. Using non-indexed journals may make it hard to find information, due to inconsistent practices, limited metadata, and a lack of improvement methods (Allen and Weber 2015). While focusing on peer-reviewed work helps maintain quality standards, including thesis/dissertations or unpublished work can help the current understanding of the context, which would help to reduce potential bias (Nightingale 2009).

Secondly, the review and selection of studies were conducted by a single researcher. Haddaway et al. (2015) highlight that involving an independent reviewer can help reduce personal bias in study selection, and any disagreements should ideally be resolved by a third party.

Though longitudinal studies are valuable as they reveal how effects build up over time (Farzanfar et al. 2017), most of the research examined only a single point in time. Haddaway et al. (2015) further highlight that employees can quickly adapt to specific motivational strategies, which may cause their effects to fade. This suggests that single-time-point studies can be beneficial for investigating MW and motivation.

Lastly, the review only considered studies written in English, which limited the scope and may have excluded relevant research published in other languages.

1.3.3.9 Conclusion of SLR

In summary, the SLR provided a clear overview of how previous studies have defined, described, and measured the ideas of AL, MW, and EM. It also showed how these ideas relate to each other and identified common theories used to explain their connection. While these studies offer valuable insights, they also show significant gaps and limited integration across the different concepts. To tackle this issue, the following section presents the main theories that together form the basis of this study. It clarifies the reasoning behind understanding AL, MW, and EM in relation to each other.

1.4 Section 3: Theoretical Foundations of the Study

The following section outlines the main theories behind this research. Based on the findings of the SLR, three primary frameworks appeared relevant for explaining the relationship between AL, EM, and MW: Authentic Leadership Theory (ALT), Self-Determination Theory (SDT), and Herzberg's Two-Factor Theory. Each theory offers unique but complementary views that together support the study's conceptual framework.

1.4.1 Authentic Leadership Theory

Although ALT was conceptually defined earlier (see section 1.2.1.4), it also serves as a key theoretical foundation for this study. Initially developed in response to organisational ethical failures (Luthans & Avolio 2003), ALT emphasises the importance of leaders acting consistently with their core values and beliefs to foster trust, transparency, and openness with followers (Avolio

et al. 2004). It shares conceptual roots with transformational leadership theory but distinguishes itself by focusing on internal self-regulation and authenticity rather than charisma or vision (Neider & Schriesheim 2011).

Gardner et al. (2005) extended this model through a self-based framework that posits AL as a relational and developmental process. In this view, the AL's key components drive behaviours that positively shape follower growth and identity. This model provides a strong foundation for understanding how leadership influences psychological outcomes such as job satisfaction, organisational commitment, and extra effort. (Wong et al. 2020).

ALT has also been shown to support integrity, ethical behaviour, psychological well-being, and organisational commitment (Khan et al. 2017). Leaders who act authentically draw on life experiences to model high moral standards, fostering trust and a sense of shared purpose among employees (Wong & Laschinger 2012). Walumbwa et al. (2008) argue that AL is developable and trainable, making it practical and applicable across organisational contexts. More recent work has returned to the deeper, personal dimension of authenticity in leadership, emphasising internal consistency and moral clarity (Nikolic & Kvasic 2020).

Overall, ALT provides a valuable lens through which to explore how leaders shape employees' experiences of meaning and purpose at work. As Nikolic et al. (2020) highlight, authentic leaders influence followers through positive emotions and shared ethical standards, encouraging identification, engagement, and improved work attitudes.

1.4.2 Self-Determination Theory

SDT is a human motivation theory which suggests employees' performance and their well-being can be the outcome of both intrinsic and extrinsic motivations (Deci et al. 2017). This theory has been closely studied with all of the constructs with this study. Miniotaite and Buciuene (2013) argued that both SDT and AL emphasises the characteristic for personal growth and self-actualisation. They both thrive to fulfil the basic psychological needs of a human.

People become intrinsically motivated when they perform the work with interest, and the work gives them satisfaction in return. Likewise, extrinsic motivation encompasses all the rewards that are expected to be obtained after performing work (Gagne and Deci 2005).

The theory posits that three fundamental psychological needs, namely autonomy, competence, and relatedness, are vital aspects of an individual in predicting motivation (Autin et al. 2022). It assumes that people are motivated based on these needs (Rigby and Ryan 2018). The

satisfaction of all these needs is necessary for the personal development of an individual (Ntoumanis et al. 2009).

Autonomy involves the degree to which an individual's inner experiences are governed by their own values (Ryan and Deci, 2002). It enables an individual to control their inner self and act on their own (Allan et al. 2016). Even in a controlled work environment with limited freedom, they can still experience autonomy if they understand and accentuate the reasons behind their work (Rigby and Ryan 2018). *Relatedness* refers to the two-way connection between self and other people from the community (Reeve and Halusic 2009). It reflects how deeply individuals feel cared for and connected to others, which leads to a sense of belonging and emotional security (Allan et al. 2016). Similarly, *Competence* emphasises that people not only want to feel capable and equipped to manage the current tasks but also seek opportunities to gain experience and advance towards their own career goals (Rigby and Ryan 2018). Only with the fulfilment of these needs can an individual be motivated entirely and can act independently, which leads to the need for external motivation (Fateh et al. 2021).

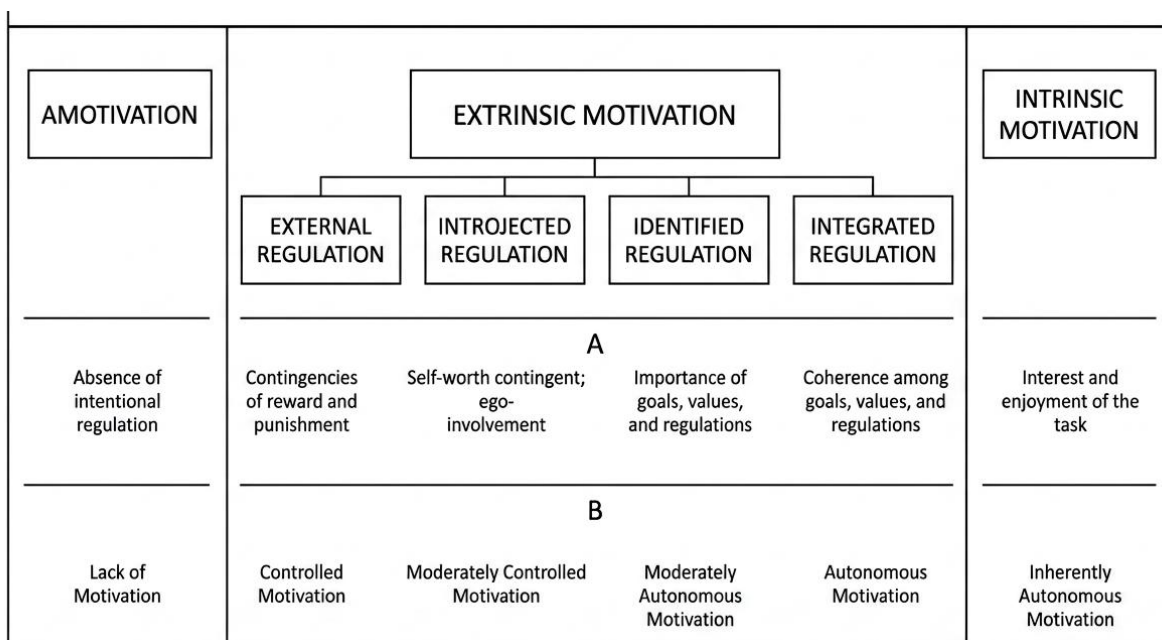


Figure 11: Self-determination continuum (Gagne and Deci 2005)

The figure above, by Gagne and Deci (2005), shows how SDT categorises different types of motivation along a continuum, ranging from amotivation (lack of motivation) to intrinsic motivation. Amotivation is a condition characterised by a lack of either intrinsic or extrinsic

motivation, resulting in a complete absence of intention or reason to work, and a total lack of self-determination. Extrinsic motivation lies between intrinsic motivation and amotivation, showing the range of self-determination among employees. An individual is extrinsically motivated if they work to earn rewards, avoid punishment, or boost self-worth, and value the behaviour for its importance, aligning with their own values and identity. Intrinsic motivation arises when an individual works because of interest or enjoyment.

The author further explains that these motivations lie on a continuum from controlled to autonomous motivation, and they follow a “quasi-simplex pattern,” which means motivations closer together on the continuum are more closely related than those further apart. This structure allows researchers to assess how self-determined a person’s motivation is.

According to SDT, three basic needs must be satisfied for self-determined motivation (Baard et al. 2004). When social environments (e.g., workplaces, families) support these needs, individuals are more likely to internalise external regulations, experience autonomous forms of motivation, and sustain motivation over time through self-determined regulations (Rigby and Ryan 2018; Baard et al. 2004). In contrast, controlling or need-thwarting environments can undermine those things and might increase adverse outcomes like burnout, anxiety, or depression (Liu et al. 2023).

SDT explains how motivation ranges from a lack of motivation to intrinsic motivation (Gagne and Deci 2005). It identifies three basic psychological needs: autonomy, competence, and relatedness. These needs must be met for individuals to feel self-determined, intrinsically motivated (Ryan and Deci 2000). When employees meet these needs in social settings like the office, they are more likely to adopt external goals and find more meaning in their work (Baard et al. 2004). SDT offers a way to understand how AL and EM affect MW, in this study. Authentic leaders create environments that support autonomy through transparency and moral integrity. This approach meets the psychological needs and boosts intrinsic motivation (Ilies et al. 2005). Likewise, when extrinsic factors such as fairness, recognition, and rewards match employees’ values, they strengthen internal motivation instead of reducing it (Deci et al. 2017). Therefore, SDT helps show how AL can directly promote MW and support EM conditions that foster employees’ autonomy and sense of purpose.

1.4.3 Herzberg's Two-Factor theory

Job satisfaction and dissatisfaction have long been studied together (Gardner 1977). However, Herzberg (2017) noted that these two states are not direct opposites, as they arise from different factors (Hur 2018). To identify these causes, Herzberg and colleagues interviewed engineers and accountants, asking them to share moments when they felt particularly positive or negative about their job (Stello 2011). Their findings revealed that job satisfaction comes from the fulfilment of individuals' own unique needs, while job dissatisfaction results from the absence of necessary conditions in the work environment (Herzberg 1971).

The factors that contributed to job satisfaction were termed “motivators,” whereas those associated with dissatisfaction were called “hygiene factors” (Hur 2018). These findings laid the foundation for the development of the “dual-factor” theory of motivation (House et al. 1967), also known as hygiene-motivator theory or two-factor theory of motivation. Influenced by Maslow's hierarchy of needs (Alshmemri et al. 2017), the theory argues that lower-level needs, such as safety and security, only prevent dissatisfaction but do not inspire satisfaction. To truly satisfy the employees, organisations must also address higher-level needs such as self-actualisation, self-efficacy, and recognition (Tan 2013).

Motivator factors or job content factors (Ghazi et al. 2013) are those elements that are intrinsic to the job and provide MW experiences (Tan 2013). Their presence contributes directly to satisfaction and motivation (Hyun and Oh 2011). Hygiene factors, on the other hand, are extrinsic to the job. These factors have been considered as a basic condition that organisations must fulfil to help individuals achieve the higher-order needs such as self-actualisation (Dartey-Baah and Amoaka 2011). Without them, the employees may become demotivated, but their presence does not increase satisfaction (Hyun and Oh 2011). The figure below (Figure 12) illustrates the distinction as follows:

- The opposite of job satisfaction is no job satisfaction, not job dissatisfaction.
- The opposite of job dissatisfaction is no job dissatisfaction, not job satisfaction.

Motivator factors	Hygiene factors
Presence: Job Satisfaction	Presence = Prevent dissatisfaction (but no satisfaction)
Absence: No satisfaction (but not dissatisfaction)	Absence= Job dissatisfaction

Figure 12: Herzberg et al.'s (1959) summary of the factor theory.

The motivators and hygiene factors described in the theory are also represented in the figure below (Figure 13).

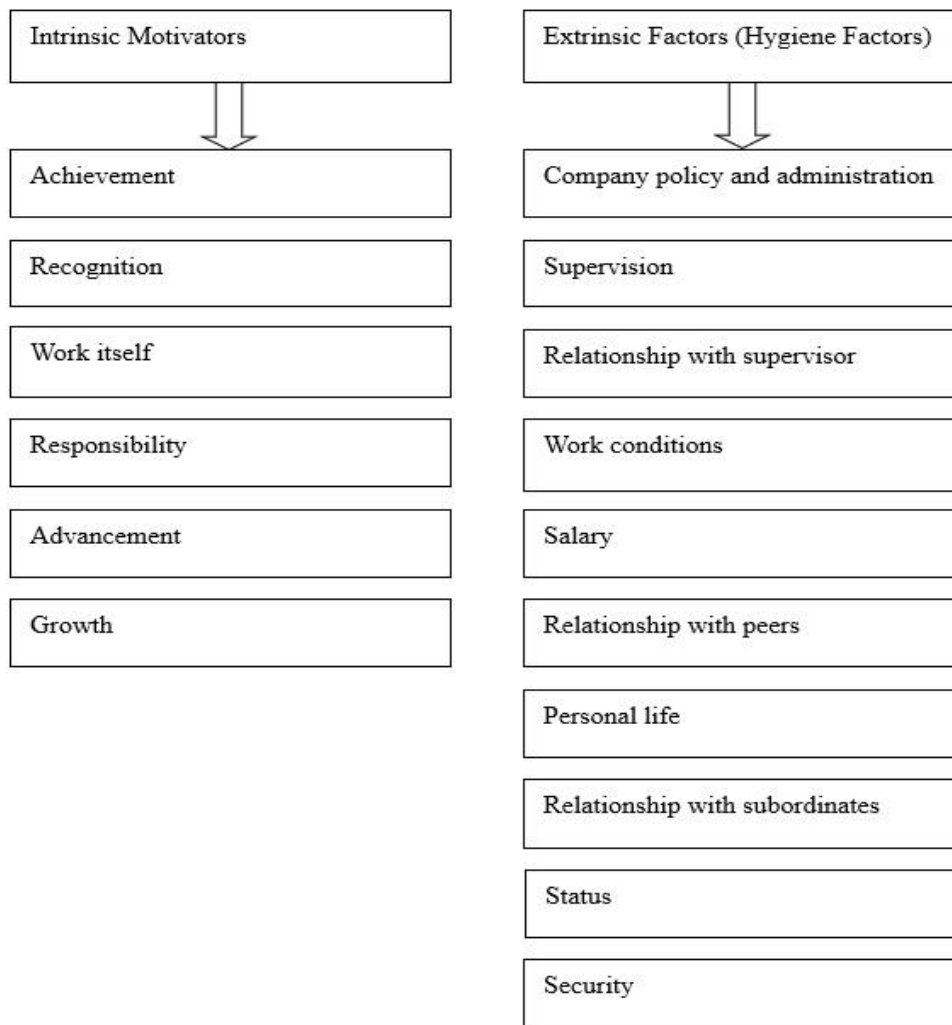


Figure 13: Factors affecting Job Satisfaction (Herzberg 1959)

1.4.3.1 Criticisms of the theory

Though this theory has been widely accepted and influential in organisational psychology and human resources (Peramatzis and Galanakis 2022), the two-factor theory is not free from criticism. It relies on the “critical incident method,” which could be biased, as people often credit themselves for satisfaction and put the blame on external factors for dissatisfaction (Vroom 1964). In addition, the original study included participants from only one industry and did not fully address control variables, which could have potentially influenced the relationship (House and Wigdor 1967). The clear separation between motivators and hygiene factors has not been achieved, as factors such as salary have been found to be a source of both satisfaction and dissatisfaction. (Gardner 1977) further raises concerns about the methods used to measure these factors, noting that results vary when alternative methods are applied. He also argues that evidence supporting the theory is inconsistent and needs more study to explore all other potential factors. Another limitation is that overall job satisfaction was not measured, making it unclear whether any factor truly causes satisfaction or dissatisfaction (Ser and Webber 2024).

Despite these criticisms, the theory has remained strong for more than half a century and continues to provide an essential framework for studying workplace dynamics (Ser and Webber 2024). However, changes in generations and employee values require more research and adjustments to the factors that influence satisfaction or dissatisfaction (Ser and Webber 2024).

1.4.3.2 Conclusion

While motivators are necessary to increase satisfaction, organisations often prioritise hygiene factors such as salary and policies (Stello 2011). These factors may reduce dissatisfaction but ultimately fail to enhance satisfaction. Herzberg (1959) suggests treating these hygiene factors as a baseline condition that must always be maintained to prevent employees’ frustration and turnover. However, because such factors alone do not lead to job satisfaction, the role of leadership in an organisation becomes crucial. Effective leadership can function as a buffer in enhancing overall satisfaction through communication, support, and recognition (Mitsakis and Galanakis 2022).

To better understand how leadership behaviours and work conditions shape employees’ experiences of MW, this study draws on three well-established theoretical frameworks: Authentic

Leadership Theory (ALT), Self Determination Theory (SDT), and Herzberg's Two-Factor Theory. These theories offer complementary perspectives. ALT explains how leaders who are self-aware, transparent, and guided by their values can foster trust and credibility among followers (Gardner et al. 2005). SDT highlights the role of intrinsic psychological needs such as autonomy, competence, and relatedness in driving motivation and well-being. Herzberg's (2017) model distinguishes between motivators, which enhance job satisfaction, and hygiene factors, which prevent dissatisfaction. Together, these frameworks provide a strong foundation for exploring the complex relationship between AL, EM, and MW in organisational settings.

SDT, as mentioned above, explains that people have a natural drive toward personal growth and optimal functioning and psychological well-being, which is facilitated when their basic psychological needs, i.e. autonomy, competence, and relatedness, are satisfied (Deci and Ryan 2000; 2013). AL contributes to this process by creating a psychologically safe and supportive environment that nurtures these needs (Schoofs et al. 2024)

Authentic leaders promote autonomy by encouraging openness, integrity, and self-expression. They support competence by providing honest and constructive feedback that fosters self-efficacy and personal development (Gardner et al. 2005). In addition, by cultivating transparent, value-based, and trusting relationships, they strengthen relatedness among team members (Leroy et al. 2012). When practised consistently, AL fosters a work climate that supports intrinsic motivation across individuals and teams.

SDT further suggests that when these three psychological needs are met, employees are more likely to experience autonomous motivation, which is internally regulated and aligned with personal values (Deci et al. 2017). This form of motivation has been positively associated with job engagement, psychological well-being, and the experience of MW (Autin et al. 2022). SDT has been a key theory for MW (Autin et al. 2022; Wandycz-Mejias et al. 2024). In fact, MW is considered an outcome of SDT (Allan et al. 2016). This is further confirmed by the study of Martela et al. (2021), which examined the positive relationship between fundamental needs and MW. Individuals actively seeking MW are more likely to perceive their work as meaningful when their need for autonomy, competence, and relatedness is fulfilled (Autin and Allan, 2020). In contrast to motivation based on external rewards, autonomous motivation leads to deeper engagement and a stronger sense of purpose (Van den Broeck et al. 2016).

Thus, SDT provides a robust theoretical foundation for understanding the AL–MW relationship. By fulfilling employees’ psychological needs, AL fosters the internalisation of work values and purpose, ultimately enhancing the perception of work as meaningful. The need satisfaction and autonomous motivation mechanisms within SDT offer a clear explanatory pathway connecting AL to MW. However, this pathway may not function equally in all work environments. External job conditions, such as compensation, policies, or supervision, may either enable or undermine the influence of leadership on motivation and MW. This raises the question: to what extent can AL compensate when EM are lacking?

1.4.4 EM in the relationship between AL and MW through the lens of SDT and Herzberg’s two-factor theory

This study proposes an integrative theoretical model that combines Self-Determination Theory (Deci and Ryan 2000) and Herzberg’s Two-Factor Theory (1959) to examine how AL fosters MW and how this relationship may be shaped by EM. AL is theorised to enhance MW by fulfilling employees’ basic psychological needs, i.e. autonomy, relatedness, and competence, thereby fostering intrinsic motivation (Allan et al. 2016). However, as Herzberg’s model suggests, the presence or absence of EM (e.g., pay, job security, supervision) can influence employee satisfaction. In unfavourable environments where EM are lacking, the role of AL may become more salient in preserving MW. Conversely, in environments rich in EM, the influence of AL on MW may be less critical. Thus, EM is conceptualised not as a direct cause of MW, but as a contextual factor that shapes the strength of the relationship between AL and MW.

While AL contributes to MW through intrinsic pathways such as psychological need satisfaction and autonomous motivation (Deci and Ryan 2000; Autin et al. 2022), the broader organisational context, particularly external job-related factors, plays a critical role in shaping this relationship. EM, including pay, job security, supervision, and organisational policies, define the structural environment in which leadership is enacted (Herzberg 2017; Alshmemri et al. 2017).

According to Herzberg’s Two-Factor Theory (1959), these EM are categorised as hygiene factors, which do not directly motivate employees but are essential to prevent dissatisfaction. Herzberg et al. (1959) argued that when these factors are absent or perceived as unfair, employees may disengage or experience job dissatisfaction, which could dilute or even neutralise the positive impact of leadership behaviours on employee outcomes such as MW. Conversely, when hygiene factors are adequately addressed, they create a baseline of satisfaction, allowing motivational

factors, such as AL, to exert a greater influence.

This view is further supported by SDT, which conceptualises EM as contextual variables that can either help or thwart the satisfaction of basic psychological needs: autonomy, competence, and relatedness (Deci and Ryan 2000; Gagne and Deci 2005; Van den Broeck et al. 2016). When EMs are perceived as fair and supportive (e.g., job security, respectful supervision), they help create a psychologically safe environment where employees are more likely to experience need satisfaction. However, in the absence of these factors, employees may struggle to feel autonomous or valued, which in turn hinders the internalisation of work-related values (Deci et al. 2017) and the emergence of MW (Autin and Allan 2020).

Given these theoretical perspectives, EM may influence the AL-MW relationship either by moderating this strength or mediating its pathway. In contexts where EM are lacking or negative, AL may become more critical in compensating for environmental deficiencies and sustaining employees' perception of MW. Alternatively, EM may act as an intermediary mechanism through which AL affects MW. This suggests a compensatory effect in which AL and EM interact to influence MW, aligning with contingency theories of leadership effectiveness (Fiedler 1967; Yukl 2012) and recent empirical findings that highlight the joint influence of leadership and context on employee motivation (Leroy et al. 2012; Tang et al. 2012; Bektas 2017).

1.5 Conclusion of the chapter

The current understanding of AL as a positive leadership style, alongside the concepts of MW and EM, was discussed in this chapter. It presented the key theories and definitions underpinning each construct, establishing the conceptual foundations upon which this study is based. Additionally, it outlined existing knowledge on the relationship among these variables.

The SLR revealed growing challenges at both personal and organisational levels, driven by rapid shifts in employee attitudes, particularly around job retention and declining motivation. The studies reviewed consistently showed that AL practices tend to sustain higher levels of motivation. Tackling issues related to MW and insufficient EM can lead to better organisational outcomes, including improved productivity, reduced staff turnover, and enhanced service quality across sectors such as customer service, healthcare, and social care.

Despite well-established individual relationships among these variables, the analysis highlighted that AL has consistently been associated with MY by enhancing intrinsic factors like

trust and psychological safety. However, the evidence regarding the role of EM remains conceptually fragmented and empirically underexplored. Although EM are acknowledged as a critical contextual factor for preventing dissatisfaction, its potential influence on the AL-MW relationship has not been thoroughly tested. These findings emphasise a significant gap in the literature and highlight the need for empirical investigation considering both leadership behaviours and organisational context simultaneously.

Building on this foundation, the next chapter outlines the methodological framework used to investigate this relationship in practice, specifically in the context of UK businesses. Chapter 2 describes the framework, hypothesis, research design, and data collection procedures, and explains strategies used to examine the proposed relationships.

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Chapter 2: Research Methodology for Examining the AL-MW Relationship and the Role of EM

2.1 Introduction

The previous chapter established the theoretical foundation surrounding current understanding of Authentic Leadership (AL), Meaningful Work (MW), and Extrinsic Motivators (EM) within the literatures. Building on these insights, this chapter shifts focus to practical research. Although the impact of AL and EM was widely examined, a critical gap remains regarding the understanding of how EM interacts within this relationship. This chapter aims to address that gap by presenting an empirical study designed to uncover the role of EM in shaping employees' perceptions of MW, especially in the context of UK-based organisations. Through this, it seeks to offer practical insights into how organisations can foster employees' perceptions of MW that supports both employees and organisation.

This chapter outlines the methodological choices made to investigate the relationship between AL, EM, and MW among UK employees. It begins with the aims and objectives of this chapter, along with the hypothesis formulation. It is then followed by conceptual framework design, explanation of the research philosophy, research approach, strategy, and method. The research method includes detailed discussions on the context of the study, population, sampling strategy, questionnaire design, pilot testing, data analysis methods, and ethical considerations. The methodological design is aligned with the research objectives and is intended to ensure reliability, validity, and moral integrity.

2.2 Aims, objectives, and hypotheses.

This section aims to collect, analyse, and interpret the data. The main objective is to test the following questions:

H1: AL is positively associated with MW.

H2: EM mediates the relationship between AL and MW.

H3: EM moderates the relationship between AL and MW such that the relationship is *stronger when EM are low and weaker when they are high*.

(i.e., $AL*EM \downarrow \geq AL*EM \uparrow$).

In summary, the first hypothesis (H1) proposes that AL positively influences employees' perception of MW.

The second hypothesis (H2) explores whether EM serve as a mediator in the AL-MW relationship. From this perspective, AL may indirectly influence MW by shaping employees' perceptions of their extrinsic environment.

The third hypothesis (H3) suggests that this relationship is moderated by EM, proposing that the strength of the AL-MW relationship varies depending on the level of EM. Specifically, it indicates that AL has a more substantial impact on MW when EM are low, and a weaker effect when EM are high. This reflects a compensatory logic: in environments where EM are poor, AL becomes more critical in sustaining employees' sense of meaningfulness. Conversely, when EM are favourable, it may independently support MW, reducing the marginal benefit of AL. This hypothesis is grounded in contingency theories of leadership, which emphasise the importance of contextual factors in determining leadership effectiveness.

Together, this hypothesis aims to separate the complex interplay between leadership behaviours and organisational context, addressing a key gap in the literature regarding the boundary conditions under which AL fosters MW. By testing both mediation and moderation pathways, this study offers a nuanced understanding of how EM shape the experience of MW in contemporary organisational settings.

2.3 Overview of the framework

The central focus of this research is to examine how AL influences employees' perception of MW, and whether the presence or absence of EM shapes this relationship.

As shown in the Figures below, the model proposes that AL positively influences MW, consistent with prior findings that authentic leaders foster trust, self-expression, and purpose in the workplace. However, this study introduces EM as a contextual factor that can alter the strength of the AL-MW relationship.

Specifically, the model suggests:

In the presence of strong and favourable EM, the influence of AL on MW may be less pronounced, as external conditions already support employee satisfaction and perception of meaningfulness.

Conversely, in contexts where EM are weak or lacking, the role of AL becomes more critical, as leaders may need to compensate for unfavourable work conditions by creating trust, purpose, and value alignment through their behaviour.

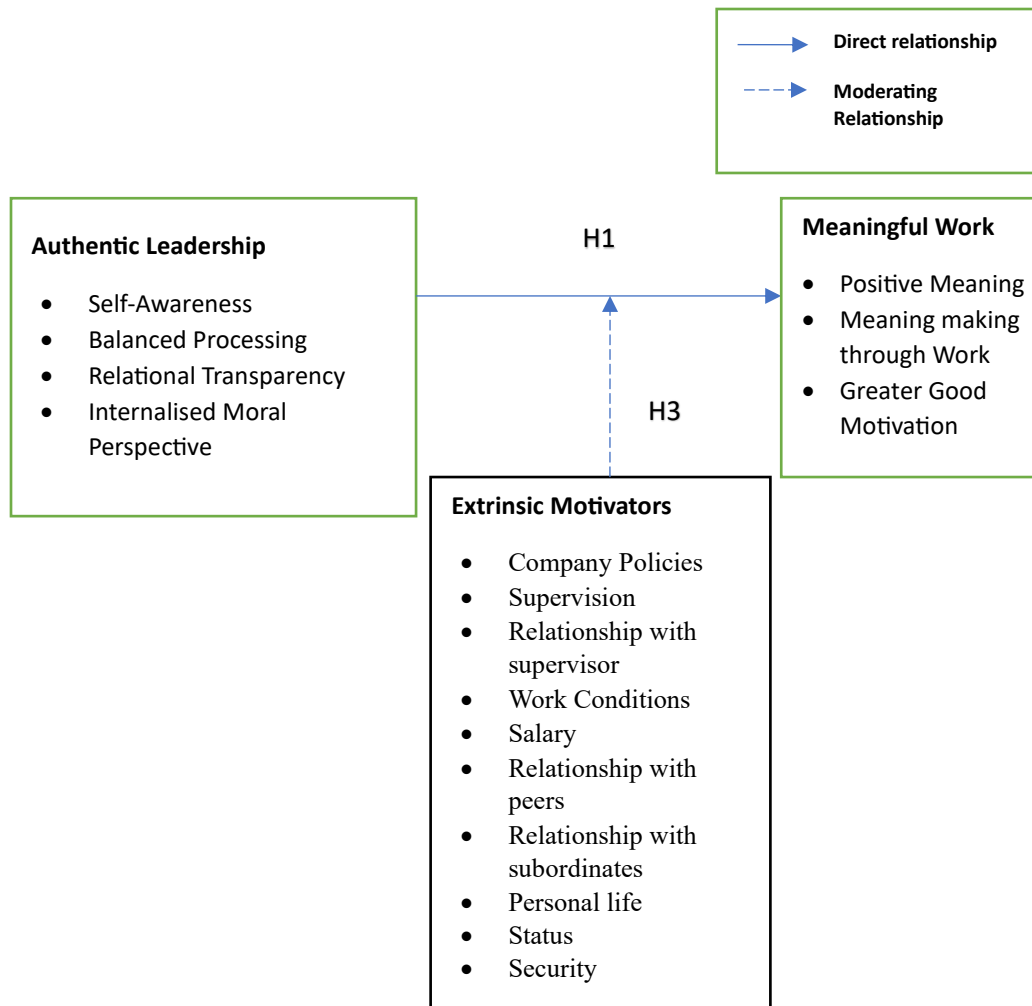


Figure 14: Moderation framework for the study.

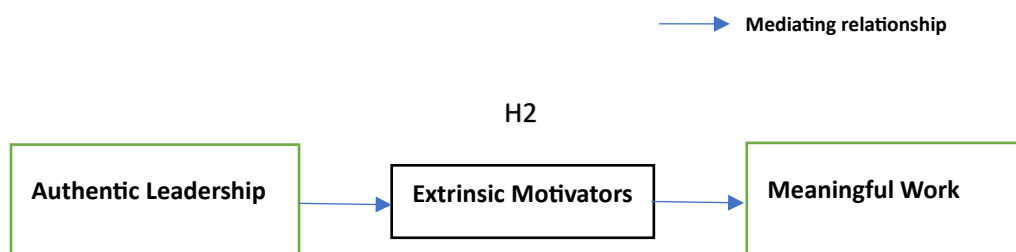


Figure 15: Mediation framework of the study

This chapter has developed a conceptual framework to explore these dynamics. Drawing from SDT, the framework positions AL as a driver of MW through its capacity to fulfil employees' basic psychological needs. In contrast, based on Herzberg's Two-Factor Theory, EM are conceptualised not as direct predictors of MW, but as contextual factors that shape the environment in which leadership behaviours are interpreted and experienced.

The integration of these two theoretical perspectives allows for a more nuanced understanding of how leadership and workplace conditions interact to influence employees' sense of meaning. While prior research has explored the individual effects of AL or EM on various outcomes, few studies have investigated how these forces work together, particularly in relation to MW. By addressing this gap, the proposed framework offers both theoretical and practical contributions, especially in understanding how to sustain meaningfulness in environments with varying levels of external support.

Three hypotheses were proposed to test the main, mediating, and moderating effects in this model. The following chapter outlines the research methodology adopted to empirically examine these hypotheses, including research design, data collection, and analysis procedures.

2.4 Research Philosophy

Research Philosophy is the way an individual thinks about how knowledge is created and understood, which comprises the assumptions about the research (Saunders et al., 2019). Saunders et al. (2019) discussed five major research philosophies, each of which influences the conduct and interpretation of the study. Those philosophies, as per their work, can be shown below:

Positivism emphasises that reality is objective and can be measured through observation and reason. Researchers who follow this philosophy aim to stay neutral and detached. The often-used method is quantitative, such as surveys and experiments, to test their hypothesis.

Interpretivism views reality as something created by society and shaped by individual experiences. Researchers focus on understanding people's meanings and experiences in their specific contexts. This approach relies typically on qualitative methods such as interviews and observations. The researcher plays an active role in the study, interpreting the complex behaviours and interactions of individuals.

Critical realism holds that there is reality independent of our thoughts. However, our understanding of this reality is shaped by social and cultural contexts. It supports both qualitative and quantitative methods and focuses on explaining the underlying mechanisms behind observed phenomena.

Postmodernism questions traditional ideas of truth and objectivity. It sees knowledge as fragmented and shaped by power, language, and culture. Researchers who adopt this philosophy often challenge dominant stories. They spotlight what is missing or ignored and use creative or critical methods to look at different perspectives and voices.

Pragmatism focuses on what works best to solve a research problem. It does not stick to a single philosophical view. Instead, it chooses methods (qualitative, quantitative, or mixed) based on the research question.

This study is grounded in a positivist research philosophy (Saunders 2009; Park et al. 2020). The positivist stance is appropriate for this research because it seeks to identify and test relationships among predefined variables: AL, EM, and MW, using quantitative data.

Positivism supports the concept of verifying established theories such as SDT (Ryan and Deci 2000) and Herzberg's Two-Factor Theory (1959) (Park et al. 2020), enabling the formulation of hypotheses and the use of statistical tools to test them. By applying a positivist lens, the study aims to produce generalisable findings that can contribute to the broader understanding of leadership and motivation in organisational contexts.

2.5 Context of the study

Employees from the UK-based businesses were chosen for this study. The UK is a rich and diverse setting for exploring how leadership behaviours and work conditions shape employees' perception of MW. The UK context is particularly relevant, as the workforce in the UK is one of the most diverse in Europe. The 2021 census show that people from various ethnic backgrounds, national origins, religions, and age groups work in all sectors of employment in England and Wales (Office for National Statistics 2023).

For example: People from different countries (such as Pakistan, Bangladesh, India, and China) are among the highest employed workforce in the UK. Adults who identified as “No religion” had the highest employment percentage and also had higher number of adults aged 16-29. Adults, who identified as being gay had the highest percentage of employment among LGBTQ community. Further, though there well less percentage but 27.3% of the employed people are disabled adults.

These data show how diverse is the workforce in the UK and in the context in this study, this brings a valuable insight on how the results from people with different background would bring. Different perceptions of leader's authenticity, meaningfulness, and EM priority help to get a diverse knowledge in the literature

The study's timing also aligns with ongoing generational shifts in work environments,

where employees' expectations regarding leadership, job security, and meaningfulness have become more pronounced (Krishna and Agrawal 2024). In this setting, it is critical to explore whether AL can consistently foster MW, and how this relationship might be shaped by differing levels of EM, such as pay, supervision, and organisational policies.

2.6 Research Approach

This study uses a deductive, theory-driven research approach to test hypotheses about the relationships among AL, MW, and EM. This approach is grounded in established theoretical frameworks: Authentic Leadership Theory (Walumbwa et al. 2008), SDT (Ryan and Deci 2000), and Herzberg's Two-factor theory (Herzberg 2017), and is designed to validate these relationships within the context of UK organisations.

The SLR conducted in Chapter 1 confirms that the concepts of AL and MW are well conceptualised and measured in the existing literature using validated instruments such as ALI (Neider and Schriesheim 2011) for AL and WAMI (Steger 2012) for MW. The SLR did not identify a universally accepted measurement scale for EM. However, EM is conceptually grounded in Herzberg's Two-Factor Theory (Herzberg 2017), and thus, a custom EM scale, which was developed in prior research (Ozsoy 2019), has been used. Therefore, the study's contribution lies in empirically testing the relationships among AL, MW, and EM using validated and custom instruments, rather than depending on or extending the theoretical constructs themselves.

The hypotheses are based on the existing theories and findings from SLR. Since this study aims to confirm known relationships in a UK organisational context, it starts with a theory and uses data to test whether those ideas hold. This method ensures the study stays focused and grounded in prior research.

In summary, the deductive and quantitative approach supports the study's aim and objectives. It enables thorough testing of theoretically grounded hypotheses and clarifies the role of EM in shaping the AL-MW relationship, especially within UK organisations.

2.7 Research Strategy

Several practical and theoretical factors influenced the method choice in this study. Rather than an isolated decision, it was shaped by the research goals and the analysis needed for the study. The

factors are explained below:

a) Testing relationships between variables

The study investigates how AL and EM influence MW, including potential mediation and moderation effects. Quantitative methods are ideal for testing such hypotheses using statistical models like regression and conditional process analysis (Creswell 2014).

b) Use of validated instruments

The study uses well-established and validated scales for measuring dependent and independent variables, i.e. ALI (Neider and Schriesheim 2011) for assessing employees' perception of their leader's behaviours and WAMI (Steger et al. 2012) for measuring their perception of MW. A custom EM scale based on Herzberg's hygiene factors (Herzberg 2017; Ozsoy 2019; Hur 2018) is used, as no universally standardised measurement tool was identified in the literature. All instruments are designed for quantitative survey-based data collection and analysis.

c) Generalisability across sectors

The study targets employees from various UK business sectors. A survey allows a researcher to collect data from a large, varied sample, increasing the generalisability of the findings (Bell and Bryman 2022).

d) Statistical analysis of mediation and moderation

The second and third hypotheses of this study test whether EM mediates or moderates the relationship between AL and MW. This requires mediation and moderation analysis, which is best conducted using quantitative techniques, such as multiple regression, in the PROCESS Macro for SPSS (Hayes 2018).

e) Alignment with existing literature

The SLR conducted for this study revealed that most prior research on the AL-MW relationship has employed quantitative methods (Sagnak and Kuruo 2017; Chaudhary 2021; Chaudhary 2022; Winton et al. 2022). This supports methodological consistency and allows cross-referencing of findings.

These key factors demonstrate that a quantitative design aligns with the study's goals. It ensures methodological rigour, supports hypothesis testing, and follows standard practices in the literature. This improves the reliability and relevance of the SLR findings.

2.8 Sampling strategy

2.8.1 Target population and inclusion criteria

Participants were individuals currently working in various sectors across the UK. No specific industry has been chosen for this study, as all of the core constructs —AL, MW, and EM—are related to employees rather than any particular business sector. Further, the existing literature has been conducted across different sectors, such as manufacturing (Kleynhans et al. 2021), schools (Sagnak and Kuruo 2017), IT companies (Chaudhary 2021), and Hospitals (Dirik and Intepeler 2017). In most sectors, these constructs have made meaningful contributions.

Recruitment was conducted through multiple online platforms, including WhatsApp, LinkedIn, email, and Facebook Messenger. The study specifically targeted working adults aged 18 and above, as they are the relevant population for investigating workplace leadership and motivation dynamics.

Participation was entirely voluntary, and no financial or any other incentives were offered. A non-probability convenience sampling strategy was employed to recruit participants currently working in the UK. This approach involved sharing the survey through the researcher's personal and professional networks, including WhatsApp groups, LinkedIn, email, and Messenger. The method was chosen due to its efficiency and accessibility, allowing access to a wide range of participants across various sectors and roles.

Where appropriate, respondents were also encouraged to share the survey within their networks, introducing a snowball element to extend reach. While this approach limits generalisability due to potential sampling bias, it was considered suitable for exploratory research seeking to test theoretical relationships across a diverse working population. Inclusion criteria for participants include a) an age of at least 18 years, and b) currently working in the UK. The participants were excluded if they did not provide a) consent for data collection, and b) complete data.

2.9 Research Design

This survey employed a quantitative design to collect numerical data from employees across various UK businesses. The survey was developed using Qualtrics, a versatile platform that enables researchers to design surveys, distribute them efficiently, and collect responses (Weber

2021). It is also recognised as a robust and secure online survey platform for gathering anonymous information (Research Data Oxford 2025).

The survey began with a participant information sheet (See Appendix I) which outlined the purpose of the study, the voluntary nature of participation, ethical considerations and how data would be used and stored. Participants were informed that their responses would remain completely anonymous and that they could withdraw from the survey at any time before submitting their responses. However, due to the anonymous nature of the data collection, once responses were submitted, it was not possible to identify or delete the particular reactions of the respondents.

The survey consisted of two main sections: 1) demographic questions and 2) validated scales for measuring three main variables, which will be defined in the brief in the questionnaire design section (see 2.5.6 below). Data collected from the survey will be analysed using SPSS software. All data collected will be securely stored in compliance with data protection rules and will be used solely for academic research purposes by the researcher.

2.10 Questionnaire Design

The questionnaire was divided into two sections. Firstly, it included demographic questions to see if the participants represented the targeted population (Salkind 2010). The demographic sections included factors such as age, gender, and employment duration. They were asked to determine the different views of different demographics. This data will serve as control variables to examine their impact on the dependent variable (Salkind 2010).

Secondly, a validated questionnaire was used for each of the variables, i.e. AL, MW, and EM. (See Measures, 2.10.2, Section 2 Those questionnaires have been tested and used in the existing literature, which ensures that they measure the variable exactly in the way they are supposed to. This also helps to cross-reference the findings with studies that have used them (Boynton and Greenhalgh 2004). The measures used in the survey are discussed below (See section 2.10.2)

2.10.1 Section 1: Demographic Section

The survey began with a set of demographic questions designed to capture participant characteristics and establish representativeness across key personal and organisational dimensions. These included age, gender (optional), education level, employment status, tenure in the current

organisation, and company size. Age was categorised into standard ranges from "under 18" to "65 and over" to assess generational representation as used by Bannay and Hadi (2024). Gender was asked voluntarily, offering inclusive options including "female," "male," "others," and "prefer not to say." Education level was classified as undergraduate or postgraduate, while employment status was distinguished between full-time and part-time work. To understand organisational familiarity and experience, respondents were asked how long they had worked in their current company, with options ranging from less than a year to over ten years. Company size was measured using UK standard classifications (micro, small, medium, and large enterprises), from fewer than 10 employees to 250 or more (Department for Business, Energy & Industrial Strategy 2023). These variables may serve as control variables in the analysis phase to explore whether demographic or organisational differences influence perceptions of leadership and MW.

2.10.2 Section 2: Measurement Scales

2.10.2.1 *Authentic Leadership Measurement*

The 16-item ALQ has been used in 7 out of the 12 reviewed studies examining AL. However, the instrument is copyrighted by Luthans et al. (2007), which imposes restrictions on the use of the complete set of questionnaires (Cervo et al. 2016). Only the authorised sample items may be included in the published work, with proper attribution to the copyright holder.

To address this limitation, Neider and Schriesheim (2011) developed ALI, which follows the same conceptual framework as the ALQ and is freely available. The ALI has been used in 5 of the 12 studies reviewed and was therefore selected for this study to measure AL. The items used to measure AL are mentioned in previous section (See 1.2.1.4.10). Prior research demonstrates strong psychometric support for the ALI, with Cronbach's alpha values typically ranging from 0.74 to 0.93 across different organisational contexts (Sagnak and Kuruoz 2017; Kleynhans et al. 2021).

The original version of the ALI included 16 items (Neider and Schriesheim 2011), as shown in Figure 5 for data collection. During the analysis, two items (items 1 and 6) were found to be problematic and subsequently removed by the original authors, resulting in a validated 14-item scale.

However, in this study, the full 16-item version was initially employed, including ALI 1 and ALI 6, to examine whether their inclusion would influence the overall construct validity and

reliability within the context of the current scenario. This approach aligns with previous studies such as Sagnak and Kuruo (2017) and Chaudhary (2021), which explored the performance of these items in different settings.

Studies using both the 14-item and 16-item versions consistently report high internal reliability ($\alpha=0.91-0.97$) and strong validity for the higher-order construct (Kleynhans et al. 2021; Chaudhary 2020), further supporting the robustness of the ALI across contexts. As both of these versions have been used previously, the decision regarding the inclusion or exclusion of ALI and ALI6 in this study for further analysis will be informed by the results of the reliability analysis conducted on the current dataset. By comparing reliability metrics with and without these items, the study aims to determine the best version for this context, while remaining aligned with the theoretical framework proposed by Neider and Schriesheim (2011).

The ALI scale was used to measure followers' perception of how authentic their leader is. The items were divided to measure the key dimensions of AL:

Self-awareness: AL-S was measured with items 1, 5, 9, and 13.

Relational Transparency: AL-R was measured with items 2, 6, 10, and 14.

Internalised Moral Perspective: AL-M was measured with items 3, 7, 11, and 15.

Balanced Processing: AL-B was measured with items 4, 8, 12, and 16.

Each item was rated on a five-point Likert scale (1= strongly disagree, 5= strongly agree), where lower scores indicated lower perceived authenticity of the leader as seen by employees.

2.10.2.2 Meaningful Work Measurement

For the measurement of MW, the Work and Meaning Inventory (WAMI) developed by Steger et al. (2011) was chosen in this study, as it directly measures the experience of MW. Though, Six-item Psychological Meaningfulness Scale (May et al. 2004), was used in the majority of studies, i.e. 3, WAMI has been studied in the most recent papers (Salah et al. 2020, Winton et al. 2022), as shown in Appendix F, which was derived from the SLR.

This finding is also supported by other studies, including Puchalska-Kaminska et al. (2019), Akin et al. (2013), and Paola et al. (2022). Moreover, the WAMI is specifically designed (See section 1.2.2.3) to capture the experience of work as meaningful, focusing on how individuals perceive their work as significant and aligned with a broader sense of purpose (Duarte-Lores et al.

2023).

The WAMI has demonstrated strong psychometric properties, with previous studies reporting Cronbach's alpha values between 0.91-0.93 (Winton and Mesekelis 2022; Kusmargono et al. 2023), and has shown evidence of convergent, discriminant, and concurrent validity across organisational settings.

The 10 items, used to measure MW, were rated on a five-point Likert scale (1= strongly disagree, 5= strongly agree), where lower scores indicated a lower level of employees' perception of MW in their work.

Item 3 was kept in reverse. Often, items are reversed in questionnaires to mitigate response biases such as inattention and momentum, helping to identify patterned or inconsistent answering (Swain et al. 2008; Drolet and Morrison 2001).

2.10.2.3 Extrinsic Motivators Measurement

EM in this study is defined as the work-related factors that are extrinsic to an individual. The factors included in EM, as identified by Herzberg (2017), are: company policy and administration, supervision, relationship with supervisor, work conditions, salary, relationship with peers, personal life, status, and security. No universally accepted measurement was found to measure all of these factors at once. Hinton (1968) argued that different results were found via different methodologies throughout the literature. Herzberg (2017) employed a qualitative method, interviewing a large number of participants to collect data for their theory, which is not the preferred approach for this study. Hinton (1968) used a similar qualitative methodology for the collection of data. A similar methodology was employed by Alrawahi et al. (2020), who utilised a mixed methodology, with the quantitative method being used solely for categorising themes and opinions, rather than for collecting exact data. SLR on EM revealed that they have been studied separately, with various methods used to measure several factors (References from SLR). Tang and Ghani (2012) used a questionnaire taken from the literature reviews, but the sample or questionnaire was not published in the literature.

Thus, for the measurement of EM, the questions prepared based on the study of Ozsoy (2019), including all the hygiene factors, which align with Lundberg et al. (2009) and Hur (2018), were used. The study demonstrated acceptable reliability, with Cronbach's alpha values around 0.79 for hygiene-factor scales (Ozsoy 2019), supporting the suitability of this approach for

measuring the importance of EM.

The questionnaire used the terminology “How important is the company’s policy and administration for you to do a good job?” and used similar phrases for the remaining factors.

Together, these nine items were used to measure EM and rated on a five-point Likert scale (1= very unimportant, 5= very important), where lower scores indicated a lower level of importance of those factors for employees.

2.10.3 Scale Development and Refinement Process

The questionnaire items were drawn from established and validated scales: the ALI (Neider and Schriesheim 2011) for AL, WAMI (Steger et al. 2012) for MW, and EM items adapted from Ozsoy (2019) based on Herzberg’s hygiene factors. All items were reviewed for conceptual alignment with the constructs used in this study.

Before analysis, psychometric criteria were established to guide scale refinement, and these were used as decision rules for item retention and removal throughout the process. Internal consistency was assessed using Cronbach’s alpha, with a minimum acceptable threshold of $\alpha \geq .70$, and items with low item–total correlations ($< .30$) were examined for potential removal. For the EM items, Exploratory Factor Analysis (EFA) was conducted to examine dimensionality. Sampling adequacy was evaluated using the Kaiser–Meyer–Olkin (KMO) measure, where values above 0.60 indicate acceptable adequacy, and Bartlett’s test of sphericity, which should be significant ($p < .05$) to confirm that correlations between items are sufficient for factor analysis. Items were assessed based on factor loadings of $\geq .40$ and communalities of $\geq .30$.

2.11 Pilot Study

A pilot study was carried out with 10 participants from the target population to check the clarity, timing, and reliability of the questionnaire and scales. The pilot followed a simple process: participants first completed the full survey so that the questionnaire and scales were functioning as intended, and then they were asked to comment on any confusing wording, unclear instructions, or formatting issues.

Based on their feedback, minor adjustments were made to the introduction, the wording of a few questions, and some formatting to make the questionnaire easier to follow. No major changes were required to the measurement items or response scales, which indicated that the constructs

were understood clearly.

Because these revisions did not alter the meaning of any items, the pilot responses were retained in the final dataset to avoid any unnecessary loss of data, especially given the modest sample size.

2.12 Data Collection Procedure

Data were collected using an online survey conducted through Qualtrics. Different channels were used to reach a diverse pool of employees. Invitations were distributed through personal networks via Messenger, and the participants were also requested to share the survey link with their colleagues. Further, the link was posted in WhatsApp groups representing different professional and community circles. The link was also disseminated through LinkedIn to involve professional contacts who could circulate it among their employees, and some email invitations were sent to university professors, requesting them to share the link with their eligible students.

Qualtrics automatically screened the responses, including only those participants who provided consent and completed the survey. Partial responses and non-consented cases were excluded, reducing the risk of invalid data entries.

2.13 Data analysis method

2.13.1 Equation Structure and Model Specification

This relationship was statistically examined through two-stage regression analysis. First, a simple linear regression model was used to assess the direct effect of AL on MW, as suggested by Field (2024). Following this, a moderated multiple regression model (Hayes 2018; Aiken and West 1991; MacKinnon 2017) was applied for testing the conditional effects of AL at various levels of EM on MW. The models, along with their purpose, can be seen below:

a) Simple Regression Analysis Model:

$$MW = a_0 + a_1 \cdot AL + e$$

Purpose: To determine whether AL significantly predicts employees' perception of MW.

Interpretation: A statistically significant β_1 would confirm that AL plays a role in shaping MW, supporting H1.

b) Mediation Analysis Model:

Mediator model: $EM = b_0 + b_1 \cdot AL + e$

Outcome model: $MW = c_0 + c_1 \cdot AL + c_2 \cdot EM + e$

Purpose: To examine whether EM mediates the relationship between AL and MW.

Interpretation: If the indirect effect ($b_1 \cdot c_2$) is statistically significant, this supports H2. Further, a significant indirect effect would suggest that AL influences MW through its impact on EM.

c) Moderation Analysis Model:

$MW = d_0 + d_1 \cdot AL + d_2 \cdot EM + d_3 \cdot (AL \times EM) + e$

Purpose: To examine whether EM moderates the relationship between AL and MW.

Interpretation: If β_3 (the coefficient of the interaction term, $AL \times EM$) is statistically significant, this supports H3. A significant negative interaction would indicate that the positive relationship between AL and MW is stronger when EM is low and weaker when EM is high.

d) Extended Moderation Model with Controls:

$MW = d_0 + d_1 \cdot AL + d_2 \cdot EM + d_3 \cdot (AL \times EM) + d_4 \cdot \text{Gender} + d_5 \cdot \text{Age} + d_6 \cdot \text{Education} + \dots + e$

Purpose: To assess the unique contribution of AL and EM to MW, while accounting for potential demographic influences.

Aim: To ensure that the relationships observed between AL, EM, and MW are not confounded by background characteristics such as gender, age, and company size.

Here,

a_0 : Intercept – predicted value of MW when AL is 0

a_1 : Main effect of AL – change in MW for a one-unit increase in AL

b_0 : Intercept – predicted value of EM when AL is 0

b_1 : Main effect of AL – change in EM for a one-unit increase in AL

c_0 : Intercept – predicted value of MW when AL and EM are 0

c_1 : Direct effect of AL on MW, controlling for EM

c_2 : Effect of EM on MW, controlling for AL

d_0 : Intercept – predicted value of MW when AL, EM, and interaction are 0

- d₁: Main effect of AL – change in MW for a one-unit increase in AL, assuming EM is held constant
- d₂: Main effect of EM – change in MW for a one-unit increase in EM, assuming AL is held constant
- d₃: Interaction effect – how the relationship between AL and MW changes depending on the level of EM
- d₄, d₅, d₆: Effects of control variables (e.g., gender, age, education)
- e: Error term – captures variation in MW not explained by the model

2.14 Data Analysis

2.14.1 Demographic Characteristics of Respondents

A total of 102 participants completed the survey online.

In terms of gender, most respondents identified as male (63.7%), with 34.3% being female, and 2 participants did not prefer to disclose their gender.

Participants aged between 25-34 years were higher (52.9%), followed by 35-44 years (24.5%), while small proportions were in the 18-24 (11.8%) and 45-54 (10.8%) categories.

With respect to education, 66 participants (64.7%) held a postgraduate degree, while 36 of them (35.3%) had completed an undergraduate degree.

Most participants were employed on a full-time basis (88.2%), with only 11.8% working part-time.

Demographic Variable	Frequency	Percentage (%)
<i>Gender</i>		
Female	35	34.3
Male	65	63.7
Do not prefer to say	2	2.0
<i>Age Group</i>		
18-24	12	11.8
25-34	54	52.9
35-44	25	24.5
45-54	11	10.8
55+	0	0
<i>Education Level</i>		
Undergraduate	36	35.3
Postgraduate	66	64.7
<i>Employment Status</i>		
Full-time (35-40 hours a week)	90	88.2
Part-time (Less than 35 hours a week)	12	11.8
<i>Tenure</i>		
Less than a year	19	18.6
1-3 years	26	25.5
3-5 years	22	21.6
5-10 years	17	16.7
10+ years	18	17.6
<i>Number of employees</i>		
0-9	10	9.8
10-49	23	22.5
50-249	15	14.7
250+	54	52.9

Table 7: Demographic sketch of the respondents

In relation to tenure, approximately a quarter of the respondents had worked in their current company for 1-3 years (25.5%), followed by 3-5 years (21.6%), less than a year (18.6%), and 5-10 years (16.7%).

Finally, the participants were invited from organisations of varying sizes. More than half worked in large companies with 250+ employees (52.9%), while others represented small to medium-sized enterprises, including those with 10-49 employees (22.5%), 50-249 employees (14.7%), and micro-enterprises with fewer than 10 employees (9.8%).

2.14.2 Descriptive Statistics

Descriptive statistics were calculated for three key variables: AL, MW, and EM, based on responses from 102 participants. The results show that EM had the highest average score ($M = 4.13$, $SD = 0.55$), followed by MW ($M = 3.83$, $SD = 0.59$) and AL ($M = 3.69$, $SD = 0.67$). This suggests that participants rated EM more positively than MW or AL. All three variables showed negative skewness, indicating that most responses were on the higher end of the scale. Notably, AL had the most substantial negative skew (-1.031) and the highest kurtosis (2.044), suggesting a more peaked distribution with some extreme values. In contrast, EM had a flatter distribution (kurtosis = -0.161), indicating more evenly spread responses. Overall, the data suggest a positive tendency in participant ratings across all three dimensions.

Variable	N	Mean	SD	Min	Max	Skewness	Kurtosis
AL	102	3.69	0.67	1.00	4.93	-1.031	2.044
MW	102	3.83	0.59	2.20	5.00	-0.718	0.552
EM	102	4.13	0.55	2.67	5.00	-0.643	-0.161

Table 8: Descriptive Statistics of Variables

2.14.3 Reliability and Validity Analysis

2.14.3.1 Reliability of Authentic Leadership

Cronbach's alpha was used to assess internal consistency. The full 16-item scale of AL demonstrated excellent reliability ($\alpha = 0.911$), while the 14-item version (after removing AL1 and AL6) retained strong reliability ($\alpha = 0.895$), indicating minimal reduction of consistency.

At the sub-dimensional level, the model produced the following coefficients:

Self-awareness (AL-S): $\alpha = 0.742$ (14 items) and $\alpha = 0.778$ (16 items)

Relational Transparency (AL-R): $\alpha = 0.671$ (14 items) and $\alpha = 0.754$ (16 items)

Internalised Moral Perspective (AL-M): $\alpha = 0.558$

Balanced Processing: AL-B: $\alpha = 0.794$

When compared with the original validation study by Neider and Schriesheim (2011), the reliability patterns were comparable. For AL-S, the original study reported $\alpha = .77$ (when item 1 was included) and $\alpha = .74$ (when item 1 was excluded). In contrast, the current study yielded slightly higher values of $\alpha = .778$ and $\alpha = .742$, respectively, indicating consistent internal reliability. AL-R showed a modest decline in reliability in the current study, with $\alpha = .754$ (when

item 6 was included) and $\alpha = .671$ (when item 6 was excluded), compared to the original values of $\alpha = .84$ and $\alpha = .81$. This suggests potential variability in item performance or sample interpretation. The most notable difference was observed in AL-M, where the original study reported a strong $\alpha = .83$. In contrast, the current study found a lower $\alpha = .558$, indicating weaker internal consistency in this sample. AL-B remained consistent, with $\alpha = .794$ in the current study compared to $\alpha = .85$ in the original, still within the acceptable range.

The removal of item 1 slightly reduced the reliability of the AL-S subscale from 0.778 to 0.742, though it remained within acceptable limits. In contrast, while item 6 was removed from the AL-R subscale led to a drop in reliability below the conventional threshold ($\alpha = 0.671$).

However, the overall 14-item version of the Authentic Leadership Inventory (ALI) retained excellent internal consistency ($\alpha = 0.895$), only marginally lower than the full 16-item version ($\alpha = 0.911$). Thus, it was decided to use 14-item version from here on, aligning with the Neider and Schriesheim (2011). The decision to follow the original theoretical model and content validity recommendations ensures conceptual clarity. It supports the use of a psychometrically sound instrument, even if minor reliability trade-offs occur at the subscale level.

The findings suggest that while individual subscale reliabilities may vary, the integrity of the overall construct remains strong.

2.14.3.2 Reliability of Meaningful Work

The internal consistency of the WAMI was measured using Cronbach's alpha (α). The overall 10-item scale demonstrated good reliability ($\alpha = 0.836$), indicating that the instrument is suitable for measuring MW in the current sample. However, when examined at the three sub-scales, the results were mixed. The positive meaning dimension showed acceptable reliability ($\alpha=0.798$), while meaning making through work ($\alpha=0.627$) and greater good motivation ($\alpha=0.538$) both indicated poor reliability, falling below the conventional threshold of 0.70. These findings suggest that while the overall scale performs well, the internal consistency of certain sub-dimensions may vary depending on sample characteristics or contextual factors.

When compared with the original validation study by Steger et al. (2012), which reported $\alpha = 0.93$ for the total scale and α coefficients of 0.89 (PM), 0.82 (MM), and 0.83 (GG) for the subscales, the current study shows a similar pattern at the overall scale level but notable differences at the subscale level. The lower reliability scores for MM and GG in the present study may reflect

differences in how participants interpret or relate to these aspects of MW, rather than issues with the scale itself.

2.14.3.3 Reliability of Extrinsic Motivators

The internal consistency of the EM was assessed using Cronbach's alpha (α) as well. The scale comprised nine items designed to measure participants' levels of EM. The reliability analysis yielded a Cronbach's alpha of $\alpha = 0.776$, indicating acceptable internal consistency and suggesting that the items reliably measure the intended construct.

However, it is essential to note that one of Herzberg's original hygiene factors, *relationship with subordinates*, was unintentionally omitted during the instrument design phase. As a result, the EM scale comprised nine items instead of the full ten. While the Cronbach's alpha of $\alpha = 0.776$ indicates acceptable internal consistency among the included items, the absence of this factor may slightly limit the comprehensiveness of the construct measurement. This limitation is acknowledged and discussed further in the limitations section of this study.

2.14.3.4 Common Method Variance (CMV) Assessment

Since the data for EM was not collected using a widely used measurement tool, a test was conducted to check whether the method of data collection might have caused bias in the responses. Harman's single-factor test was used for this purpose. This test examines whether a single factor explains most of the variation in the data, suggesting that participants' responses may be influenced by the survey format rather than their actual views.

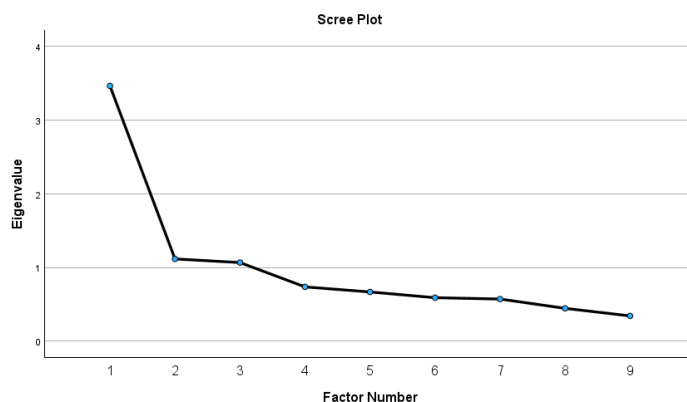


Figure 16: Scree Plot of Eigenvalues of EM (SPSS, 2025)

The analysis showed that the first factor accounted for 38.5% of the total variance, which is below the commonly accepted threshold of 50%. This means that the responses are not overly influenced by the method of data collection, and the variation in answers is more likely due to genuine differences in how participants perceive the items. Therefore, standard method bias is not considered a significant issue in this study.

2.14.3.5 Exploratory Factor Analysis

An overall EFA was conducted to test for any Common Method Variance (CMV) using Harman's single factor. The first unrotated factor accounted for 23.15% of the total variance, which suggested that CMV is not a concern in the dataset. Further, the component matrix showed that the items load across multiple factors rather than clustering heavily on a single one. This supports the idea that the structure of data is not limited to a single method factor.

2.14.4 Co-relation Analysis

The co-relation analysis was conducted next. This was done including the constructs and their sub dimensions in order to examine, how the dimensions relate with other construct in comparison with the main variable. The figure below shows the co-relation and Cronbach's alpha, calculated in the above section.

Variable	M	SD	1	2	3	4	5	6	7	8	9	10
1. Authentic Leadership	3.69	0.67	0.895									
2. Relational Transparency	3.65	0.83	.848**	0.742								
3. Internalised Moral Perspective	3.75	0.82	.846**	.615**	0.671							
4. Balanced Processing	3.69	0.64	.789**	.501**	.565**	0.558						
5. Self-awareness	3.68	0.83	.940**	.790**	.739**	.651**	0.794					
6. Meaningful Work	3.83	0.59	.155	.153	.169	.008	.189	0.836				
7. Positive Meaning	3.83	0.68	.164	.162	.145	-.005	.237*	.896**	0.798			
8. Meaning making through work	3.89	0.66	.191	.184	.152	.039	.256**	.853**	.720**	0.627		
9. Greater good motivation	3.77	0.75	.037	.042	.132	-.006	-.020	.770**	.488**	.470**	0.538	
10. Extrinsic Motivators	4.13	0.55	.183	.124	.141	.122	.223*	.369**	.333**	.428**	.183	0.776
Notes: **. Correlation is significant at the 0.01 level (2-tailed), *. Correlation is significant at the 0.05 level (2-tailed). Cronbach's alpha is shown along the diagonal.												

Figure 17: Correlation and consistency between variables (SPSS 2025).

The Cronbach alpha of each variable, and their sub-dimensions are shown along the diagonal. The breakdown of the information from the above table is done below.

2.14.4.1 AL and its Dimensions

AL showed robust positive correlations with all of its four subdimensions: AL-R ($r = 0.848$, $p < .01$), AL-IM ($r = 0.846$, $p < .01$), AL-BP ($r = 0.789$, $p < .01$), and AL-S ($r = 0.940$, $p < .01$). This indicates that as leaders are perceived to be more authentic overall, they are also consistently seen as transparent, morally grounded, fair in processing information, and self-aware. Among these, Self-awareness had the strongest link to overall AL, suggesting that awareness of one's strengths, weaknesses, and impact on others may be the most central aspect of AL in this sample.

Further, the subdimensions of AL were all strongly and positively correlated. ALI-S showed high correlations with ALI-R ($r = .790$), ALI-M ($r = .739$), and ALI-B ($r = .651$), indicating that self-awareness is perceived as a central and integrative component of AL in this sample. Similarly, ALI-R was positively associated with ALI-M ($r = .615$) and ALI-B ($r = .501$), while ALI-M and ALI-B also showed a moderate positive relationship ($r = .565$). These results suggest a cohesive perception of AL, where all dimensions are interrelated and reinforce one another.

Compared to the study of Neider and Schriesheim (2011), which reported slightly lower but still strong positive correlations among the exact dimensions (ranging from $r = .55$ to $r = .62$), the current findings demonstrate even stronger interconnections, particularly involving ALI-S. In the original study, ALI-S correlated with ALI-R ($r = .59$), ALI-M ($r = .55$), and ALI-B ($r = .58$), suggesting a solid but slightly less central role. The stronger correlations in the current study may reflect a context in which ALI-S is more prominently valued or visible in leadership behaviour, potentially due to organisational culture, leadership development practices, or sample characteristics. Overall, both studies support the conceptual integrity of AL.

2.14.4.2 AL and MW

The correlations between AL and the broader construct of MW showed a positive trend, but the overall effect was non-significant ($r = 0.155$, ns). A small yet significant correlation with Self-awareness and MW ($r = 0.189$, $p < .05$) was seen, which implies that when leaders demonstrate greater self-awareness, employees are more likely to perceive their work as meaningful. However, the weaker associations overall suggest that other factors beyond leadership style may play a more

critical role in fostering MW.

Compared to previous studies, these findings show a noticeably lower correlation. For instance, Sağnak and Kuruöz (2017) reported a correlation of $r = 0.45$, while Chaudhary (2022, 2024) found stronger associations of $r = 0.409$ and $r = 0.623$, respectively. Even Winton et al. (2022), who reported a modest correlation of $r = 0.20$, observed a stronger link than the current study.

2.14.4.3 MW and its Subdimensions

The three subdimensions were all strongly interrelated. MW was highly correlated with MW-PM ($r = 0.896$, $p < .01$), MW-MM ($r = 0.853$, $p < .01$), and MW-GG ($r = 0.470$, $p < .01$). Within themselves, MW-PM was highly correlated with MW-MM ($r = 0.720$, $p < .01$), and MW-GG (MW-PM ($r = 0.488$, $p < .01$). At the same time, MW-MM and MW-GG showed a strong but comparatively weaker correlation ($r = 0.470$, $p < .01$). These findings confirm that employees' experience of MW is multi-faceted: deriving personal significance, constructing meaning through their tasks, and contributing to a greater purpose are interconnected processes.

Compared to the study of Steger et al. (2012), the correlations between MW and its subdimensions in this study are generally consistent, particularly for MW-PM and MW-MM, which show similarly high associations ($r = 0.896$ and $r = 0.853$, respectively, versus $r = 0.94$ and $r = 0.85$ in the original). However, the correlation between MW and MW-GG is notably lower ($r = 0.470$) than in the original study ($r = 0.86$), suggesting that the experience of contributing to a greater good may be less central to the perception of MW in this sample. Similarly, the intercorrelations among the subdimensions show a weaker relationship involving MW-GG, with MW-PM and MW-GG ($r = 0.488$) and MW-MM and MW-GG ($r = 0.470$) both falling short of the original study's values ($r = 0.78$ and $r = 0.65$, respectively). These differences may reflect a workplace context in which personal meaning and task-related engagement are more noticeable drivers of MW than broader societal impact, due to the nature of roles, organisational culture, or individual value orientations within the sample.

2.14.4.4 EM and MW

EM showed a moderate positive correlation with MW ($r = 0.369$, $p < .01$). They were also positively associated with MW-PM ($r = 0.333$, $p < .01$) and MW-MM ($r = 0.428$, $p < .01$). This suggests that when EM are adequately addressed, employees are more likely to find meaning in

their jobs. Interestingly, EM were only weakly related to MW-GG ($r = 0.183$, ns), indicating that external conditions support individuals in terms of giving meaning but may not necessarily drive a person to meet societal expectations.

2.14.4.5 AL, EM and MW

The analysis highlights that the internal consistency within the constructs is strong. The cross-variable correlations, although perceived as weaker, suggest that leadership authenticity and EM contribute to employees' perceptions of meaning in their work. In summary, while personal leadership qualities and EM may operate differently in shaping employees' experiences, both hold some value in understanding workplace dynamics.

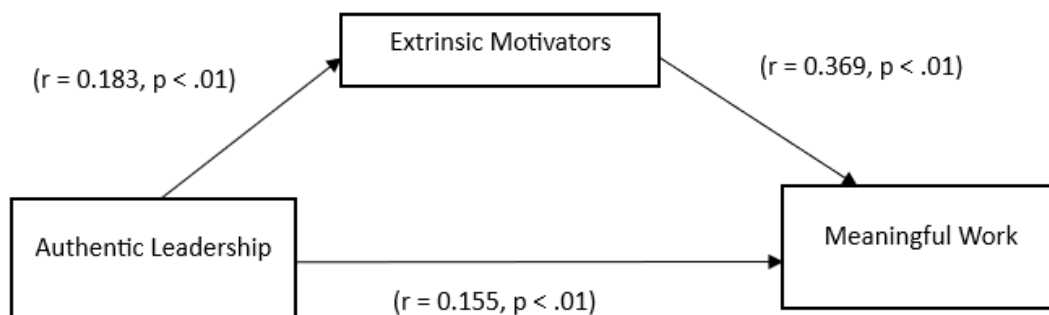


Figure 18: Correlation between the main variables.

However, the aim of this study is also to examine the effect of EM on the relationship between AL and MW. A correlation analysis alone is not sufficient to establish such a relationship. Therefore, it remains unclear whether EM strengthens or weakens the influence of AL on employees' perception of MW. To address this, multiple regressions were conducted.

2.14.5 Regression

2.14.5.1 Assumption Testing for Regression

Preliminary diagnostic tests confirmed that the data met the key assumptions for multiple regression. Although the Kolmogorov–Smirnov and Shapiro–Wilk tests indicated deviations from normality ($p < .05$), visual inspection of histograms and Q–Q plots suggested a normal distribution of residuals, acceptable given the sample size. Scatterplots of standardised residuals showed linear

and homoscedastic relationships. The Durbin–Watson value (≈ 2) indicated independence of errors. Multicollinearity was not a concern ($VIF < 1.2$; $Tolerance > 0.87$). Examination of standardised residuals and Cook’s Distance (< 0.156) revealed no influential outliers. Overall, the regression assumptions were adequately satisfied.

Regression was then conducted in multiple steps to test whether AL, EM, and MW predicted each other. For this, the predictor variables, AL and EM, were mean-centred. This was done to reduce multicollinearity between the predictors and their interaction term (AL*EM), making it easier to interpret.

2.14.5.2 Simple Linear Regression

This simple linear regression was conducted to test hypothesis 1: a direct relationship between AL and MW, by following our regression model:

$$MW = \beta_0 + \beta_1 AL + \varepsilon$$

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.155 ^a	.024	.014	.58238

a. Predictors: (Constant), AL_center

Figure 19: Model Summary of Linear Regression Predicting MW from AL

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1	(Constant)	3.829	.058	66.409	<.001
	AL_center	.136	.087	.155	.120

a. Dependent Variable: MWmean

Figure 20: Coefficients of Linear Regression Predicting MW from AL

The regression model was evaluated using both the Model Summary and Coefficients tables. The Model Summary indicated a weak relationship between AL and MW ($R^2 = 0.024$). The Coefficients table showed that AL was not a statistically significant predictor of MW ($B = 0.136$, $p = 0.120$). These results suggest that AL does not meaningfully explain variation in MW. Overall, the results indicate that AL alone is not a strong predictor of MW, and other variables may need to be considered to improve the model’s accuracy.

Thus, Hypothesis 1 was not supported, as the effect was not statistically significant ($p = 0.120$), meaning that AL alone does not significantly support MW.

A separate simple regression was used to assess the direct influence of EM on MW. This analysis provides a more comprehensive understanding of the dynamics between these three variables.

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.369 ^a	.136	.128	.54782

a. Predictors: (Constant), EM_center

Figure 21: Model Summary of Linear Regression Predicting MW from EM

Coefficients ^a					
Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1	(Constant)	3.829	.054	70.598	<.001
	EM_center	.396	.100	3.975	<.001

a. Dependent Variable: MWmean

Figure 22: Coefficients of Linear Regression Predicting MW from EM

The regression analysis indicates a modest relationship between the EM and MW ($p < 0.001$). The R^2 value of 0.136 implies that while the model has some predictive power, a substantial portion of the variance remains unexplained. The adjusted R^2 , slightly lower at 0.128, accounts for sample size and model complexity, reinforcing the limited strength of the prediction. The standard error of the estimate (0.54782) reflects the average deviation of predicted values from actual outcomes, indicating moderate prediction accuracy.

While individual EM were measured as predictors of MW, working conditions emerged as the most significant predictor of MW ($B = 0.184$, $p = 0.020$), suggesting that physical and environmental factors matter more for the employees than others. This was followed by Supervision ($B = 0.092$, $p = 0.086$) and Job Security ($B = 0.080$, $p = 0.401$), which were not statistically significant. This suggests that while no single factor (except working conditions) strongly predicts MW on its own, the combined influence of all EM contributes significantly to explaining how

employees perceive their work as meaningful.

In summary, EM contributes to explaining MW, but additional predictors may be needed to improve the model's effectiveness.

Overall, this model also suggests that the AL alone does not significantly predict MW. However, the second regression model showed that EM have a more substantial effect on MW, which indicates that AL's impact may depend on other factors, such as its interaction with EM. This can be further explained in the next section, where the effect of the interaction term ($AL \times EM$) on MW would be examined.

2.14.5.3 Hierarchical Regression

After conducting multiple regression analyses to examine the individual relationships between AL and MW, and between EM and MW, ~~as well as their interaction ($AL \times EM$)~~, hierarchical regression was employed, like the work of Sarkar (2019). This process helped to systematically evaluate how each predictor and its interaction influence employees' perceptions of MW. This method allows for a clearer understanding of whether EM not only contributes directly to MW but also moderates the relationship between AL and MW. By entering variables in sequential blocks—first AL, then EM, and finally the interaction term—hierarchical regression provides insight into the explanatory power of each component and helps determine whether EM strengthens or weakens the effect of AL on MW.

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.155a	.024	.014	.58238
2	.380b	.144	.127	.54806
3	.381c	.145	.119	.55067
a. Predictors: (Constant), AL				
b. Predictors: (Constant), AL, EM				
c. Predictors: (Constant), AL, EM, and $AL \times EM$				

Table 9: Hierarchical Regression Analysis Predicting MW from AL and EM

The table above (Table 10) presents the results of three regression models, each incorporating different combinations of predictors. Model 1 includes only AL and explains a minimal portion of the variance in the outcome ($R^2 = 0.024$), with a relatively high standard error (0.58238), indicating poor predictive power. Model 2 adds EM as a second predictor, substantially improving the model's explanatory strength ($R^2 = 0.144$) and reducing the standard error to 0.54806, suggesting a better fit. Model 3 introduces an interaction term (AL*EM) between AL and EM, but it offers only a marginal increase in R^2 to 0.145 and a slight rise in the standard error to 0.55067. Notably, the adjusted R^2 drops in Model 3 compared to Model 2, implying that the added complexity does not enhance the model's performance. Overall, Model 2 strikes the best balance between simplicity and explanatory power.

2.14.6 Mediation Analysis

The mediation analysis was further conducted using 4th model of Hayes' PROCESS macro (Model 1) using 5000 bootstraps. Based on the results shown in Table 11, the findings indicate a potential but non-significant mediating role of EM in the relationship between AL and MW. While the initial regression revealed that AL does not significantly predict MW directly, AL showed a marginally significant association with EM ($B = 0.1501$, $p = 0.0655$), suggesting that AL may slightly influence employees' perceptions of extrinsic conditions. Crucially, EM emerged as a strong and significant predictor of MW ($B = 0.3787$, $p = 0.0003$), and when both AL and EM were included in the model, the effect of AL on MW became weaker and non-significant ($B = 0.0796$, $p = 0.3413$). The bootstrapped indirect effect of AL on MW through EM ($B=0.0568$, 95% CT [-0.0084, 0.1602]) included zero, indicating that the mediation effect was not statistically significant. Overall, this pattern suggests that AL may influence MW indirectly through EM, but the effect is weak and inconclusive. These findings highlight that while AL may help shape EM, it is the EM themselves that play the stronger and more direct role in fostering employees' sense of MW.

Accordingly, Hypothesis 2 was not fully supported, as EM did not significantly mediate the relationship between AL and MW.

Term		B	SE	T	P	95% CI	R ²	Interpretation
Path a EM = a ₀ + a(AL)+e	AL → EM	0.1501	0.0806	1.862	0.0655	- 0.0098, 0.3100	0.034	AL marginally predicts EM.
Path b MW = c' ₀ + c'(AL) + b(EM)+e	EM → MW (controlling AL)	0.3787	0.1015	3.731	0.0003**	0.1773, 0.5801		EM strongly predicts MW.
Path c' (Direct) MW = c' ₀ + c'(AL) + b(EM)+e	AL → MW (controlling EM)	0.0796	0.0832	0.956	0.3413	- 0.0855, 0.2447	0.144	The direct effect was non- significant.
Total effect (path c) MW = c ₀ + c(AL)+e	AL→MW	0.1364	0.0869	1.566	0.1197	- 0.0357, 0.3086	0.024	The total mediation effect was non- significant.
Indirect effect (a*b)	Via EM	0.0568	0.0434 *			- 0.0084, 0.1602	Boot 95% CI includes 0. non-significant	
Note: N=102; bootstrap = 5000 samples; 95% bias-corrected CI. * Bootstrapped SE. **p<0.001 EM partially mediates the AL-MW relationship, but the indirect effect is not significant.								

Table 10: Mediation path summary

2.14.7 Moderation Analysis

The moderation analysis was also conducted using 1st model of Hayes' PROCESS macro (Model

1). The findings can be seen in Table 12 below. The overall model was statistically significant ($R^2 = .1449$, $F(3, 98) = 5.53$, $p = .0015$), indicating that the combination of AL, EM, and their interaction explain approximately 14.5% of the variance in MW. Among the predictors, EM showed a substantial positive effect on MW ($B = .3868$, $p = .0005$), suggesting that higher levels of EM are associated with greater perceptions of MW. In contrast, AL did not significantly predict MW on its own ($B = .0745$, $p = .3885$), and the interaction term ($AL \times EM$) was also non-significant ($B = .0371$, $p = .8049$). This indicates that EM does not significantly moderate the relationship between AL and MW. The change in R^2 due to the interaction was minimal (.0005), and the conditional effects of AL across low, medium, and high levels of EM were relatively flat, as visualised in the interaction plot. Overall, while EM plays a significant direct role in shaping MW, it does not appear to alter the influence of AL in a meaningful way.

Hypothesis 3 was not supported; EM did not significantly moderate the relationship between AL and MW.

Predictor	B	SE	T	P	CI	R ² Change	Interpretation
Constant	3.8269	0.0554	69.061	0.000	3.7170, 3.9369		
AL	0.0745	0.0860	0.866	0.3898	-0.096, 0.245		AL alone did not significantly predict MW.
EM	0.3868	0.1072	3.609	0.0005 ***	0.174, 0.599		EM was a strong positive predictor of MW.
AL*EM	0.0371	0.1497	0.248	0.805	-0.260, 0.334	0.0005 ns	The interaction was not significant. EM did not moderate the relationship between AL and MW.
Model summary					R=0.31, R ² =0.145, F(3,98)=5.53, p=0.0015		The model was significant. The interaction was not important.
Note: N= 102; AL, EM mean-centred before interaction. ** p<0.001.							
Interpretation: EM has a significant main effect on MW, but the AL*EM interaction is not essential.							

Table 11: Moderation pathways summary

2.14.8 Variability testing

ANOVA was examined to determine whether the overall regression models were statistically

significant, indicating that the predictors collectively explain a meaningful portion of variance in MW. The results can be seen in the figure below (Figure 13):

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	.835	1	.835	2.462	.120 ^b
	Residual	33.917	100	.339		
	Total	34.752	101			
2	Regression	5.015	2	2.508	8.349	<.001 ^c
	Residual	29.736	99	.300		
	Total	34.752	101			
3	Regression	5.034	3	1.678	5.534	.001 ^d
	Residual	29.718	98	.303		
	Total	34.752	101			

a. Dependent Variable: MWmean
b. Predictors: (Constant), AL_center
c. Predictors: (Constant), AL_center, EM_center
d. Predictors: (Constant), AL_center, EM_center, AL_EM

Figure 23: ANOVA Summary for Regression Models Predicting MW

Model 1, which includes only AL as a predictor, gives an F-value of 2.462 and a p-value of .120, indicating that the model is not statistically significant at conventional levels. Model 2, which adds EM, shows a substantial improvement with an F-value of 8.349 and a highly significant p-value of less than .001, suggesting that the combination of AL and EM significantly predicts MW. Model 3 introduces an interaction term (AL*EM) and maintains statistical significance (F = 5.534, p = .001), though the improvement over Model 2 is modest. Overall, the results suggest that including EM significantly enhances the model, while the interaction term adds only a slight additional explanatory benefit.

2.14.9 Coefficients

Following this, the coefficients figure was reviewed to assess the specific impact of each variable, including their direction, magnitude, and statistical significance.

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	3.829	.058		66.409	<.001
	AL_center	.136	.087	.155	1.569	.120
2	(Constant)	3.829	.054		70.567	<.001
	AL_center	.080	.083	.090	.956	.341
	EM_center	.379	.102	.353	3.731	<.001
3	(Constant)	3.827	.055		69.061	<.001
	AL_center	.075	.086	.085	.866	.388
	EM_center	.387	.107	.360	3.609	<.001
	AL_EMc	.037	.150	.025	.248	.805

a. Dependent Variable: MWmean

Figure 24: Regression Coefficients for Predictors of MW Across Models

The coefficients table outlines how each predictor contributes to explaining the dependent variable MW across three regression models. In all models, the constant term was highly significant ($p < .001$), indicating a substantial baseline value for MW when all predictors are zero. In Model 1, AL had a positive coefficient ($B = .136$) and a moderate standardised effect ($\beta = .155$), but its p-value (.120) suggests it was not statistically significant. Model 2 introduces EM, which showed a strong positive effect ($B = .379$, $\beta = .353$) and was highly significant ($p < .001$), while AL became weaker and remained non-significant ($p = .341$). Model 3 added the interaction term AL*EM, which had a negligible effect ($B = .037$, $\beta = .025$) and was not significant ($p = .805$). Overall, EM emerged as the only consistently significant predictor, while AL and the interaction term did not show meaningful individual contributions.

2.14.10 Control Variables

To assess the unique contribution of control variables, hierarchical regression analysis was conducted.

Model 1 included only demographic control variables (age, gender, education level, employment status, tenure, and company size), and was not statistically significant, explaining only 9.4% of the variance in MW ($R^2 = 0.094$, $p = .143$). Model 2 added the key predictors, AL, EM, and their interaction (AL*EM), which significantly improved the model ($R^2 = 0.203$, $p = 0.008$).

Model Summary									
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	R Square Change	Change Statistics			
						F Change	df1	df2	Sig. F Change
1	.307 ^a	.094	.037	.57561	.094	1.648	6	95	.143
2	.451 ^b	.203	.125	.54857	.109	4.199	3	92	.008

a. Predictors: (Constant), What is the total number of employees in this company?, What is your gender? (Optional), What is your education level?*, What is your employment status?*, What is your age?, How long have you been working in this company? *

b. Predictors: (Constant), What is the total number of employees in this company?, What is your gender? (Optional), What is your education level?*, What is your employment status?*, What is your age?, How long have you been working in this company? *, AL_EMc, AL_ctr, EM_ctr

Figure 25: Model Summary of Hierarchical Regression Predicting MW

The correlation coefficient (R) reflects the strength of association between predictors and MW. In Model 1, $R=0.307$ suggests a weak positive relationship between control variables and MW, whereas $R=0.451$ in Model 2 indicates a moderately stronger relationship once AL, EM, and AL*EM were included.

The coefficient of determination (R^2) shows the variance explained in MW, where Model 1 accounted for 9.4%, and Model 2 explained 20.3%, indicating a better overall model fit. The Adjusted R^2 corrects for the number of predictors and provides a more conservative estimate. The increase from 0.037 in Model 1 to 0.125 in Model 2 confirms that Model 2 fits the data better.

The Standard Error of the Estimate decreased in Model 2, indicating improved prediction accuracy. The F Change statistic and its Significance ($\Delta F= 4.199$, $p = 0.008$) further demonstrate that the improvement from Model 1 to Model 2 was statistically significant.

ANOVA ^a						
Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	3.276	6	.546	1.648	.143 ^b
	Residual	31.476	95	.331		
	Total	34.752	101			
2	Regression	7.067	9	.785	2.609	.010 ^c
	Residual	27.685	92	.301		
	Total	34.752	101			

a. Dependent Variable: MWmean

b. Predictors: (Constant), What is the total number of employees in this company?, What is your gender? (Optional), What is your education level?*, What is your employment status?*, What is your age?, How long have you been working in this company? *

c. Predictors: (Constant), What is the total number of employees in this company?, What is your gender? (Optional), What is your education level?*, What is your employment status?*, What is your age?, How long have you been working in this company? *, AL_EMc, AL_ctr, EM_ctr

Figure 26: ANOVA for Regression Models Predicting MW

The ANOVA results support the above findings. Model 2 yielded a significant F-value ($F(9,92) = 2.609$, $p = 0.010$), confirming that the inclusion of AL, EM, and AL*EM enhances the model's (Model 2) ability to explain variance in MW, compared with the demographic-only model (Model 1).

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
1	(Constant)	4.632	1.226		3.780	<.001		
	What is your age?	.038	.088	.054	.431	.668	.614	1.629
	What is your gender? (Optional)	-.252	.109	-.247	-2.305	.023	.829	1.207
	What is your education level?*	.068	.126	.055	.538	.592	.902	1.108
	What is your employment status?*	-.212	.193	-.117	-1.098	.275	.836	1.196
	How long have you been working in this company? *	-.067	.048	-.192	-1.398	.165	.507	1.971
	What is the total number of employees in this company?	.063	.068	.115	.934	.353	.625	1.599
2	(Constant)	4.720	1.195		3.951	<.001		
	What is your age?	.005	.086	.007	.056	.955	.596	1.677
	What is your gender? (Optional)	-.179	.107	-.176	-1.669	.098	.780	1.281
	What is your education level?*	.041	.120	.034	.343	.732	.891	1.122
	What is your employment status?*	-.206	.188	-.114	-1.096	.276	.805	1.242
	How long have you been working in this company? *	-.060	.048	-.169	-1.254	.213	.474	2.108
	What is the total number of employees in this company?	.063	.065	.114	.963	.338	.614	1.628
	AL_ctr	.077	.089	.088	.864	.390	.839	1.192
	EM_ctr	.334	.110	.312	3.036	.003	.822	1.216
	AL_EMc	-.009	.152	-.006	-.056	.955	.839	1.191

a. Dependent Variable: MWmean

Figure 27: Regression Coefficients for Demographic Variables and AL Predicting MW

Finally, the Coefficients table provides insight into the contribution of each predictor. Gender emerged as the only significant predictor of MW ($\beta = -.247$, $p = .023$). The negative coefficient indicates that female participants reported slightly higher levels of MW compared to male participants. Other control variables, including age, education level, employment status, tenure, and company size, were not significant predictors.

Other statistics like t-values, p-values (Sig.), and collinearity statistics (Tolerance and VIF) were also examined to ensure the reliability and independence of predictors. All tolerance was higher than 0.1, and VIF values were below 5, suggesting no multicollinearity issues (predictors do not overlap).

The inclusion of demographic factors showed that, except for gender, others did not influence the perception of MW. A small but significant effect of gender was seen, with female participants reporting slightly higher levels of MW. More importantly, when AL and EM were added, the model's explanatory power significantly increased, indicating that EM contribute meaningfully to how employees perceive their work.

2.15 Ethical considerations

This study received ethical approval from BU's research ethics committee (Ethics ID: 65936), ensuring that the questionnaires were in line with BU's research ethics code of practice. All participants were provided with a detailed information sheet outlining the purpose of the study, the voluntary nature of their participation, and the types of data being collected. Participation was entirely optional, and individuals were informed that they could withdraw from the survey at any time before submission without penalty or explanation. Due to the anonymous nature of data collection, however, once responses were submitted, it was not possible to identify or remove individual entries.

The study posed minimal risk to participants, as it did not involve any personal or sensitive topics beyond general workplace perceptions. Potential benefits included the opportunity for self-reflection and contributing to research that may inform improved leadership practices in the future. Consent was obtained via a separate section at the end of this information. Participants could not proceed to the questionnaire unless they confirmed their consent.

All survey responses were stored in Qualtrics itself, accessible only to the researcher. Those anonymised data will be deposited in BU's online Research Data Repository (BURO), where they may be used in future academic research. As no identifiable information was collected, there is no risk of personal data disclosure. Data will be retained solely for educational purposes. A copy of the consent form is available in the Appendix.

During the instrument design process, an error occurred in the preparation of the EM scale derived from Herzberg's (2017) Hygiene Factors Theory. Although the original framework includes ten factors, only nine were mistakenly incorporated into both the ethics submission and the administered questionnaire. This oversight was not intentional, and data were collected accordingly. While the omission of one factor ("relationship with subordinates") slightly narrows the construct's scope, the remaining nine items were sufficient to represent the key EM relevant

to this study. The error was recognised during data analysis and transparently acknowledged to uphold ethical integrity and research transparency.

2.16 Limitations

While this study provides valuable insights into the relationships between AL, EM, and MW, several limitations should be acknowledged.

First, the reliability of specific subscales, particularly AL-M ($\alpha = 0.558$) and MW-GG ($\alpha = 0.538$), fell below the conventional threshold, which may affect the validity and interpretability of those constructs. These results are notably lower than those reported in the original validation studies by Neider and Schriesheim (2011) and Steger et al. (2012), suggesting potential contextual or sample-specific issues in this study.

Second, one of Herzberg's original hygiene factors, "relationship with subordinates," was unintentionally omitted from the EM scale, potentially limiting its comprehensiveness. While the remaining nine items captured key aspects of EM, this omission may have slightly limited the comprehensiveness of the construct and its explanatory power. This is particularly relevant given that interpersonal relationships (with supervisors, peers, and subordinates) are central to Herzberg's Two-Factor Theory (Herzberg 2017).

Third, the study relied on self-reported survey data, which introduces the possibility of response bias, including CMV. Although Harman's single-factor test indicated that CMV was not a significant concern, this test has known limitations, such as not detecting subtle forms of bias (Podsakoff et al. 2003). Future studies may benefit from using more robust techniques, such as multi-source data collection or longitudinal designs, to mitigate CMV.

Fourth, the sample size ($N = 102$), while adequate for simple regression analysis, may have limited the statistical power, particularly in moderation and mediation models. This effect was also seen in the study of Winton et al. (2022). Additionally, the sample was predominantly composed of full-time employees with postgraduate degrees, which may constrain the generalisability of findings to other occupational groups or sectors.

Fifth, the cross-sectional design of the study restricts the ability to infer causality. While associations between variables were identified, longitudinal or experimental designs would be necessary to determine the directionality and temporal stability of these relationships (Arnett and Claas 2017).

Finally, although gender emerged as a significant predictor of MW, other demographic

variables, such as age, educational level, tenure, and company size, did not show meaningful effects, suggesting that contextual or cultural factors, not captured in this study, may play a larger role than those captured in this study. Prior reports have supported this view (Yang 2024), highlighting how cultural expectations influence the interpretation of authenticity and meaning at work.

Overall, the limitations outlined above help to frame the scope and boundaries of this study; they do not undermine the value of the findings but offer a realistic view of the conditions under which they were produced. Recognising these constraints allows for a more balanced understanding of the results and supports a fair interpretation of their relevance within organisational settings.

2.17 Summary of the data analysis

This section applied several key statistical tools of data analysis to examine the relationships between AL, EM, and MW. Descriptive statistics provided an overview of participant responses, while reliability tests confirmed that most scales were internally consistent and suitable for further analysis, despite some subscale limitations.

Correlation analysis revealed generally positive but moderate relationships between the key variables. AL showed weak links to MW, while EM demonstrated stronger and more consistent relationships with MW, particularly with its subdimensions of MW-PM and MW-MM.

Regression analysis offered the most critical findings of the study: AL did not have a significant effect on MW, and EM did not moderate the strength of this relationship. However, further testing revealed a potential mediation effect of EM between AL and MW. When EM was included in the model, the direct impact of AL on MW weakened further, indicating that EM might act as a pathway through which leadership indirectly affects employees' perceptions of MW.

In summary, these results mean that, for this sample, EM were more influential in shaping employees' sense of MW than AL alone. While the analysis confirmed the dependability of the research process, the findings did not support the two main hypotheses (H1 and H3); however, they did suggest the potential mediation of EM in the AL-MW relationship.

2.18 Discussion

The purpose of this section is to interpret and contextualise the findings of this study in relation to existing literature and theoretical frameworks. While the previous chapter presented the empirical results concerning the relationships among AL, MW, and EM, this chapter moves beyond description to examine what these findings mean within broader academic and practical contexts. Specifically, it explores how AL contributes to employees' perception of MW, and how this relationship is shaped by the presence or absence of key EM such as salary, supervision, and job security.

The study set out to address the research question: "How does AL influence employees' perception of MW, and to what extent is this relationship shaped by EM among UK employees?" The findings demonstrated that the strength of this relationship is contingent upon contextual conditions, specifically the adequacy of EM within the organisational environment. Where EM, such as fair salary, job security, supportive supervision, and working conditions, were perceived as sufficient, the positive influence of AL on MW was amplified. Conversely, in environments where EM were lacking, even AL appeared limited in their ability to sustain employees' perception of MW.

These findings have both theoretical and practical significance. Theoretically, they extend their current understanding of AL by integrating Herzberg's Two-Factor Theory (1959) and Self-Determination Theory (Ryan and Deci 2000), offering a more complete model that recognises the interdependence of intrinsic and extrinsic influences on workplace meaning. This integration provides a different perspective from earlier assumptions that intrinsic motivation alone drives MW (Udahemuka et al. 2024), suggesting instead that EM provides the psychological security necessary for employees to internalise leadership and pursue MW. Practically, the results highlight the importance of organisations to balance leadership development with fair EM that addresses employees' basic needs.

2.18.1 Interpretation of Key Findings

The primary aim of this study was to examine how AL influences employees' perception of MW and whether this relationship is shaped by EM. The results offer a complete picture of these dynamics, revealing that while AL and EM are both positively associated with MW, only EM emerged as a statistically significant predictor.

Contrary to expectations, AL did not show a significant direct effect on MW, and EM did not significantly mediate or moderate the relationship between the two. However, the findings confirm that EM play an independent and substantial role in shaping how employees experience MW. These relationships can be further described below:

2.18.1.1 AL and MW

The simple regression analysis revealed that AL had a positive but non-significant relationship with MW ($B = 0.136$, $p = 0.120$), which was further confirmed in the other analysis as well. For example: the moderation analysis ($B = .0745$, $p = .3885$), and mediation analysis ($B = 0.0796$, $p = 0.3413$). These results indicate that, although employees who perceive their leaders as authentic tend to report slightly higher MW, this effect is weak and lacks statistical significance.

Although AL demonstrated a positive relationship with MW, the relationship was not statistically significant in the present study. This finding differs from several studies identified in the SLR, which reported a significant positive association between AL and employees' perceptions of MW (e.g., Chaudhary 2021; Sagnak and Kurucz 2017; Rego et al. 2016). These studies generally suggested that authentic leaders foster trust, value alignment, and psychological safety, thereby strengthening employees' sense of purpose and meaning at work. However, many of these studies were conducted in relatively homogeneous professional groups, such as teachers, nurses, or public sector employees, where employees may experience stronger professional identity and purpose associated with their occupational roles, and where organisational conditions may have been more contextually consistent across participants. In such settings, AL may more easily translate into MW because employees operate within relatively stable work environments.

One possible explanation for this difference is that prior studies largely focused on the direct psychological and relational effects of AL on MW, while giving comparatively less attention to the role of EM and broader organisational conditions. Most studies in the SLR did not include EM or job quality variables in their models, meaning AL appeared as a stronger predictor partly because competing contextual factors were not accounted for. In contrast, the present study specifically examined the role of EM within the AL–MW relationship and found that EM demonstrated a stronger predictive effect on MW than AL itself.

Additionally, differences in organisational context, workforce composition, and sector diversity between the current study and previous research may have contributed to the variation in

findings. The present study drew from a heterogeneous UK sample across multiple sectors, where pay, security, supervision, and working conditions vary widely. This variability may have amplified the influence of EM and reduced the relative impact of AL. Therefore, rather than contradicting existing literature, the findings suggest that the relationship between AL and MW may be more context-dependent than previously assumed.

From a theoretical standpoint, the absence of a significant AL–MW link suggests that the fulfilment of intrinsic psychological needs (autonomy, competence, and relatedness) may not be sufficiently met by leadership behaviour alone, as assumed by Self-Determination Theory (Ryan & Deci, 2000). It implies that even authentic leaders may struggle to influence MW when extrinsic work conditions (e.g., pay, job security, supervision) dominate employees' daily experiences. This finding refines the assumption that leadership authenticity universally enhances MW and suggests that its impact is conditional on contextual or organisational factors.

2.18.1.2 Impact of EM on MW

EM demonstrated a substantial and statistically significant effect on MW ($B = 0.379$, $p < 0.001$), confirming that external work conditions are key determinants of how employees experience meaning in their roles. Employees who perceived adequate pay, job security, fair company policies, and supportive supervision were more likely to report a sense of MW. This aligns with Herzberg's Two-Factor Theory (1959), which posits that EM are essential for satisfaction and psychological stability. These results also mirror prior studies (e.g., Winton et al. 2022; Bailey et al. 2019) that highlight the foundational role of structural and environmental conditions in enabling employees to focus on higher-order meaning. Salleh et al. (2020) also reported similar results where both financial ($SE = 0.03$, $p = 0.02$) and non-financial rewards ($SE = 0.06$, $p = < 0.001$) were positively related to MW.

Interestingly, this finding also suggests that the motivational hierarchy between extrinsic and intrinsic factors may be more interdependent than traditionally assumed. While intrinsic motivators like purpose and autonomy drive deeper engagement, EM provide the necessary foundation that allows such intrinsic drivers to emerge. Without sufficient EM, even AL behaviours may have limited reach or resonance.

2.18.1.3 Role of EM as Mediator/Moderator

EM has been studied both as a mediator and a moderator in this study, as existing literature has not explored its role in the relationship between AL and MW. The effect of either of these roles can be seen below.

2.18.1.3.1 Mediating effect of EM

The mediation analysis, conducted using Hayes' PROCESS macro (Model 4), revealed a potentially null statistically non-significant mediating role of EM in the relationship between AL and MW. This was done with bootstrapping 5000 samples.

AL showed a marginal association with EM. Similar patterns have been observed in prior studies. For instance, Kleynhans et al. (2021) found AL and job insecurity were inversely related ($r=-0.137$), Bannay and Hadi (2021) reported that AL significantly influenced perceived job security ($\beta=0.690$, $p<0.001$), and Dirik and Intepeler (2021) found a significant correlation between AL and safety climate ($r=0.47$, $p<0.001$).

However, AL did not significantly predict MW when EM was included in the model. EM remained a strong and significant predictor of MW. This result is consistent with this study's previous findings, which were conducted without bootstrapping.

The indirect effect of AL on MW through EM was weak and statistically inconclusive, as the bootstrapped confidence interval included zero ($B=0.0568$, 95% CI $[-0.0084, 0.1602]$). This suggests that while EM may carry some influence from AL to MW, the pathway is not strong enough to confirm a mediating effect. In practical terms, although AL may help shape the perceptions of EM, it is the EM themselves that play a more direct and reliable role in fostering MW.

This outcome implies that EM and AL may operate in parallel rather than sequentially. Employees may value AL, but unless EM are favourable, the leadership's influence on MW remains limited. The findings reinforce the idea that EM are not just background conditions but central drivers of workplace meaning, and their role in transmitting leadership effects is minimal in this context. Similar findings were reported by Salleh et al. (2020), who found that non-financial rewards.

2.18.1.3.2 Moderating effect of EM

The moderation analysis, both through hierarchical regression and Hayes' PROCESS macro, found no significant interaction between AL and EM ($B = 0.037$, $p = 0.805$). This means that EM did not significantly strengthen or weaken the influence of AL on MW. In practical terms, even in workplaces with high levels of extrinsic support, AL did not exert a more substantial impact on MW. This contradicts the initial hypothesis and suggests that EM and AL operate more as independent predictors rather than interacting variables.

This outcome may reflect the reality that EM are primarily contextual and structural, whereas AL is behavioural and relational. Their effects might coexist without necessarily interacting. Another plausible explanation is that EM in this study were measured more broadly (e.g., nine hygiene factors combined) rather than as distinct subdimensions (e.g., pay, supervision, policy), potentially diluting the moderating signal. Thus, while EM strongly influence MW directly, they do not appear to amplify the psychological impact of leadership authenticity.

2.18.1.4 Integrating the Findings with Theoretical Perspectives

Taken together, the findings of this study suggest that employees' perception of MW in this sample is shaped more strongly by tangible and structural conditions than by leadership style alone. This does not diminish the conceptual importance of AL but rather indicates its limited influence in environments where EM dominates employees' attention.

Overall, the findings reinforce Herzberg's hygiene factor perspective by demonstrating the foundational role of EM in shaping employees' perceptions of MW. Consistent with SDT, the findings suggest that extrinsic supports may facilitate, but not necessarily strengthen, leader-driven experiences of MW.

2.18.1.5 Theoretical Contributions

This study makes several theoretical contributions to the literature on AL, MW, and EM, while also refining the combined application of Self-Determination Theory (SDT) and Herzberg's Two-Factor Theory (1959). Although the hypothesised direct, mediating, and moderating effects of AL were not statistically supported in this context, the results offer valuable conceptual insights that challenge and extend existing assumptions about how leadership authenticity and extrinsic work conditions jointly shape employees' experience of meaning.

The findings extend Herzberg's framework by suggesting that EM may function not only as preventive conditions but also as direct contributors to MW. Due to the modest sample size, these findings should be interpreted with caution and may generalise only to organisations similar to those studied.

Regarding AL theory, it offers a different perspective, suggesting that AL may positively influence employees' intrinsic motivation; however, this effect is relatively weak and insignificant in this context. Thus, AL should be more widely explored across cultures and regions to determine how it can best influence employees' perceptions of MW. While the theory shows a positive impact on various employee outcomes, it might not always hold in a small sample. This is further supported by Winton et al.'s (2022) findings.

Further, it provides valuable information about SDT: employees can be motivated by EM as well if they are favourable to them. In this context, full-time employees dominated, so it can be said that, while spending too much time at work, they might think that favourable EM, such as good working conditions, healthy relationships with colleagues and supervisors, and a fair salary, motivate them more than the authentic behaviours of leaders.

However, this finding was only in this context. It might not be true in other contexts, as it has been found in the existing literature. Hence, while these findings shed some light on different contexts, more research is required to compare them with existing literature that has found results aligned with the theory.

2.18.1.5.1 Re-evaluating Authentic Leadership's Explanatory Power

The findings of this study indicate that although AL demonstrated a positive relationship with MW, this relationship was not statistically significant ($\beta = .155$, $p = .120$). This suggests that, within the current sample, perceptions of leader authenticity alone do not meaningfully predict how employees experience meaning in their work. This outcome contrasts with several previous studies, such as Sagnak & Kuruoz's (2017) $\beta = 0.45$, $p < .01$, and Chaudhary's (2024) $\beta = 0.75$, $p < .001$, Chaudhary's (2020) $\beta = 0.38$, $p < .01$, Sarkar's (2019) ($t = 1.88$, $p < 0.10$), which have reported moderate to strong positive relationships between AL and MW. The variance implies that AL's impact on MW may not be as consistent or universal as earlier research has suggested.

However, in line with Winton et al.'s (2022) findings ($\beta = 0.70$, $p = .055$), the present study also found that AL was not significantly associated with MW ($\beta = 0.155$, $p = .120$). This indicates that AL alone may not sufficiently explain the variance in MW. Although the effect size in the

current study was smaller, both results failed to reach statistical significance. One possible explanation could be the relatively small sample sizes in both studies ($n = 90$ and $n = 102$, respectively), which may have limited statistical power. Additionally, similarity in sampling methods, such as the use of snowball and convenience sampling in the previous study, may have contributed to variability in the results. These findings suggest that further research with larger and more diverse samples is needed to clarify the relationship between AL and MW.

While AL is widely recognised for fostering trust, psychological safety, and value alignment (Gardner et al. 2005), the findings of this study suggest that AL alone may not be sufficient to generate MW. This challenges the assumption that authenticity in leadership universally translates into meaningfulness (Chaudhary 2024). Instead, AL appears to require a supportive organisational context, particularly adequate EM, to realise its potential fully (Bamford et al. 2013). In environments where EM are lacking, employees may be too preoccupied with foundational concerns to engage with the deeper values that AL promotes (Bannay and Hadi 2021). Thus, AL may be most effective in fostering MW when basic needs are met, allowing employees to interpret authentic behaviours as meaningful. This supports a threshold model, where EM functions as enabling conditions for AL to influence MW, rather than as direct amplifiers.

These findings collectively suggest that the explanatory power of AL may be more context-dependent than universally applicable across organisational settings. Conceptually, this outcome challenges the prevailing assumption that leader authenticity automatically triggers employees' sense of purpose. This finding refines the theoretical understanding of AL by suggesting that its influence may be context-dependent rather than universal. It proposes that, in environments dominated by EM (e.g., job security, workload, pay), the symbolic and relational aspects of AL may become secondary. Consequently, this study contributes to refining AL theory by positioning authenticity as a *necessary but insufficient* condition for MW, dependent on supportive environmental and motivational contexts.

2.18.1.5.2 Extending Herzberg's Two-Factor Theory

The results of this study strongly support and extend the foundational propositions of Herzberg's (2017) Two-Factor Theory. The regression analysis revealed that EM had a significant and positive effect on MW ($\beta = .353$, $p < .001$), indicating that employees who reported higher satisfaction with external work conditions such as salary, supervision, job security, and company policies also experienced higher levels of MW. In contrast, AL did not significantly predict MW when

examined independently or in combination with EM.

The present findings extend Herzberg's framework by demonstrating that EM may actively contribute to MW rather than merely preventing dissatisfaction. However, the present results challenge this strict dichotomy. The significant direct influence of EM on MW suggests that extrinsic factors can do more than eliminate dissatisfaction; they can actively enhance employees' experience of MW, which is consistent with the study of Mrayyan et al. (2022).

In this study, EM explained 14.4% of the variance in MW (Model 2, $R^2 = .144$), substantially more than AL alone ($R^2 = .024$). This empirical evidence supports the view that in real-world organisational settings, EM exert a stronger and more consistent influence on employees' day-to-day experience of meaning than leadership authenticity. Such results disagree with contemporary interpretations of Herzberg's (2017) work, as the organisational support, fair remuneration, and stable employment are not only baseline expectations but also enablers of deeper psychological engagement in modern-day organisations. Consistent with Bannay and Hadi (2021), this study finds that when these extrinsic needs are met, employees may feel secure enough to invest cognitively and emotionally in their work, thereby deriving meaning from it.

By showing that EM contribute significantly to MW even when AL does not, the findings extend Herzberg's model to emphasise that EM possess both preventive and promotive value. It suggests that, particularly in knowledge-based and post-pandemic work environments, employees increasingly interpret fairness, stability, and recognition as integral components of meaning itself. This challenges the long-standing assumption that MW is derived solely from internal or value-based sources. Instead, it highlights that meaning can also arise from the perceived integrity, fairness, and predictability of the work environment.

2.18.1.5.3 Revisiting Self-Determination Theory (SDT)

The findings refine SDT by suggesting that EM may function as contextual enablers of MW rather than merely external motivators competing with intrinsic psychological needs (Ryan and Deci 2000). In this study, AL was expected to fulfil these needs through relational authenticity, moral integrity, and balanced communication, thereby enhancing MW. However, the empirical results did not confirm this pathway: AL showed a positive but non-significant effect on MW ($\beta = .155$, $p = .120$). By contrast, EM exhibited a substantial positive impact ($\beta = .353$, $p < .001$), suggesting that employees' sense of meaning was shaped more by external support and structure than by relational or value-based leadership qualities.

These findings invite a re-examination of SDT's assumption that intrinsic influences such as AL are the primary drivers of MW. In the present study, Em, including fair pay, job security, and supportive supervision, appeared to provide the foundational conditions necessary for employees to engage more meaningfully with their work. By supporting employees' sense of competence and security, these extrinsic conditions may facilitate deeper and more self-determined work experiences. Consequently, the findings suggest that EM can function not merely as external reinforcers, but as contextual enablers of intrinsic engagement and MW.

This interpretation aligns with later refinements of SDT, where Ryan and Deci (2020) argue that when extrinsic factors are perceived as fair, dependable, and autonomy-supportive, they can promote internalisation, the process by which external regulations become self-endorsed. The significant role of EM in this study reflects this supportive function. For example, transparent company policies and predictable supervision may reduce perceived pressure and uncertainty, allowing employees to exercise greater choice and competence in their roles. In this sense, EM indirectly contribute to MW by establishing the environmental stability required for self-determined behaviour to occur.

The strong predictive power of EM relative to AL implies that external supports can partially compensate for weaker intrinsic or relational inputs. In practical terms, this means that in organisations where leadership authenticity is present but not dominant, ensuring fair and consistent extrinsic conditions may still produce substantial gains in perceived work meaning. Conversely, even the most authentic leaders may struggle to inspire meaning if employees' basic external expectations are unmet.

Overall, the study refines SDT by positioning EM as contextual enablers of need satisfaction rather than as competing sources of motivation. This conceptual refinement bridges a theoretical gap between SDT and Herzberg: EM can sustain internalised motivation when perceived as supportive rather than controlling. This further reinforces the idea that sustainable meaningfulness arises when structural adequacy and intrinsic purpose coexist within the same motivational ecosystem.

2.18.1.5.4 Inter-Theory Integration: Toward a Contextual Model of MW

The combined interpretation of AL, EM, and MW supports a contextualised model of MW, in which extrinsic and intrinsic mechanisms coexist but operate independently. Instead of interacting

directly, each exerts an additive influence: EM provide environmental stability, while AL represents relational authenticity. This dual-path conceptualisation contributes to a more balanced theoretical framework, clarifying that MW results from the complementarity, not necessarily the moderation of structural and interpersonal factors.

Such a model expands existing MW theory by showing that meaningfulness does not arise exclusively from intrinsic psychological mechanisms; it is also embedded in organisational systems that safeguard fairness and stability. Future theoretical work could therefore explore how leadership authenticity translates into meaning only once hygiene-level conditions are adequately met, a threshold model rather than a linear one.

2.18.1.6 Practical Implications

MW has been widely linked to lower turnover intentions, higher satisfaction, and improved well-being (Bailey et al. 2019; Lips-Wiersma & Wright 2012). The present findings suggest that these benefits may depend more on extrinsic stability than previously assumed. In practice, this means that improving job security, pay transparency, and workplace equity can have as much impact on employee well-being as leadership style interventions. Organisations aiming to strengthen retention should therefore ensure that their reward systems and policies are perceived as fair and dependable. Once such conditions are in place, AL may further reinforce meaning by cultivating belonging and authenticity.

Considering the fewer sample in the study and the domination of full-time post graduate employees, this might be suitable for businesses, employing postgraduate or early-career professionals. While MW is linked to lower turnover and engagement, the businesses should focus on providing favourable foundation factors such as fair salary, healthy working conditions, job security, and proper supervision. Small firms, often limited in resources, can still enhance retention and influence meaningfulness by ensuring fair reward system and healthy work conditions. Further, as female were seen to perceive more MW, the addition of fair EM can help the business to retain female employees more than male.

However, the large organisations should still maintain the favourable EM in the organisation, especially considering the generational shifts and how the GenZ's are found to be more motivated by extrinsic rewards than intrinsic (Krishna and Agrawal 2024).

2.18.1.7 Methodological Contribution to Motivation Research

Finally, by combining hierarchical regression and Hayes' PROCESS macro (Model 1) with a multi-instrument design (ALI, WAMI, custom EM scale), the study demonstrates the methodological feasibility of testing joint effects of leadership and motivational constructs within a single statistical framework. Although the moderation was non-significant, the process model validated the independent explanatory power of EM and underscored the need to examine moderating effects at more granular levels (e.g., supervision, pay, policy).

The internal consistency between the subdimensions of both AL, and WAMI was found to have some weakness. This might be because of the small sample size. However, as existing literatures have been implementing these tools for a long time and has been validated by various scholars, it might have such results only in this context. Regarding EM custom scale, one of the factors of EM was unintentionally excluded, regardless of which the consistency was found to be strong. As this custom scale is not accepted by scholars, a complete validated tool to measure EM is required for further studies, in order to find the results more accurate.

This methodological approach strengthens future theoretical testing by clarifying how distinct motivational domains can be modelled concurrently.

2.18.2 Conclusion

In conclusion, the findings position EM as the primary driver for enhancing MW, while AL serves a supportive rational role. As the interaction effect had no significant impact on MW, it can be concluded that AL and EM affect MW independently, rather than together. This means that both leadership behaviour and EM are essential, but they work in different ways. For employees to perceive their work as meaningful, they must first experience fair EM in work environments. Only then can AL work better. Practically, organisations should balance leadership with fair EM for employees to feel both secure and valued.

2.18.3 Recommendations for Practice

The findings of this study carry several important implications for leaders, human resource practitioners, and organisations seeking to enhance employees' experience of MW. Although AL did not significantly predict MW in this sample, EM emerged as a strong and consistent determinant. This suggests that the experience of meaning is anchored more in structural and

environmental conditions than in leadership style alone. The results, therefore, suggest that employees' sense of meaning comes from positive external factors, such as fair pay, job security, work-life balance, supportive supervision, and favourable work conditions. Leadership authenticity adds value in the perceptions and can play a supportive role in improving MW, but it does not directly create a sense of meaning. Organisations should prioritise creating a fair and stable work environment as the base of MW for the employees.

The significant positive relationship between EM and MW ($\beta = .353$, $p < .001$) highlights that employees derive greater meaning from work when foundational extrinsic needs are met. For HR professionals, this reinforces the need to prioritise EM, not merely as a compliance mechanism but as active enablers of meaningful engagement. Organisations should therefore view reward systems, supervisory support, and workplace policies as psychological resources, not just administrative functions. Ensuring fairness and predictability in these systems can help employees focus on purpose and contribution rather than on fundamental concerns about stability or equity.

Furthermore, the study suggests that addressing EM does more than prevent dissatisfaction; it provides the groundwork for intrinsic fulfilment. Leaders and HR departments can integrate this understanding by conducting regular assessments of employee perceptions regarding supervision quality, policy transparency, and job stability. Targeted interventions, such as improving communication about company policies, providing career development assurances, and offering flexible benefit schemes, can directly enhance employees' experience of MW.

Although AL did not significantly predict MW in this study, its consistently positive direction indicates that authenticity still holds qualitative value in shaping relational trust and ethical climates. Organisations should therefore continue investing in leadership development programmes that foster self-awareness, transparency, and moral integrity, but with a more contextual focus. Training interventions could emphasise how authentic leaders can translate personal values into practical organisational support by advocating for fair workloads, recognising contributions, and creating psychologically safe spaces.

Given the non-significant results, organisations should avoid over-relying on leadership authenticity as a standalone driver of MW. Instead, leadership development should be integrated with structural reforms, ensuring that authentic leaders operate within systems that reinforce, rather than contradict, their messages. For instance, a leader who practices openness and empathy will have greater credibility if organisational policies also reflect fairness and consistency. Aligning

AL behaviours with EM can create a synergistic environment that enables employees to perceive meaning both relationally and structurally.

General Discussion

Summary

This research aimed to examine how employees perceive the role of EM in shaping the relationship between AL and their experience of MW within UK-based organisations. To address a gap in the existing literature, the study was guided by one question. To what extent do employees of UK-based organisations perceive the impact of EM on the relationship between AL and their experience of MW?

The first chapter conducted a detailed conceptual review along with a robust Systematic Literature (SLR) to synthesise existing knowledge on the three core constructs: AL, MW, and EM. This review drew some essential studies that helped to clarify the theoretical gap in the literature and to develop a conceptual framework for this study. The literature suggested a) a positive relationship between AL and MW, while leaving some gap for consideration through 1 paper (Winton et al. 2022), and b) the potential for EM to impact as either a moderator or mediator in this relationship.

Building on this foundation, the second chapter presented an empirical study involving employees from various businesses in the UK. The survey measured the employees' perceptions of their leader's authenticity, the meaningfulness of their work, and the importance of EM in their workplace. Validated scales, along with demographic controls, were used to ensure reliability and representativeness.

The collected data were analysed using SPSS using different instruments (e.g. regression, moderation tests) to examine a) the direct relationships between AL and MW, b) the direct impact of EM on MW, and c) the potential moderation/mediation impact of EM in the AL-MW relationship. However, the result showed a different result than the existing literature had revealed. AL and MW were not significantly related, and EM did not act as either a mediator or moderator in the relationship. Instead, EM emerged as a sole significant predictor of MW. These findings leave a critical gap in the literature and suggest the need for further research, while taking other things, such as cultural interventions and sample size, into consideration.

Overall, the combination of SLR, survey data, and statistical analysis provided a triangulation of theory and empirical evidence. The findings answered the study's initial question by demonstrating that employees in UK organisations perceive EM as a more essential factor than AL in shaping their experience of MW. While favourable EMs are acknowledged as crucial, they are not seen as enhancing the intrinsic motivation, typically associated with AL.

Limitations

Despite its contributions, several limitations should be acknowledged.

First, the relationship between AL and MW was found to be positive but not statistically significant. This may be due to factors such as the sample size ($N = 102$), similar to Winton et al. (2022), which was adequate for regression analysis but relatively small for detecting subtle effects or interactions. A larger or more diverse sample might have provided more substantial evidence of the relationships between variables in other similar studies, such as Chaudhary (2020; 2024), Sarkar (2019), and Salleh et al. (2020), who had populations of 350, 368, 755, and 343, respectively.

Second, the study relied on self-reported data collected through an online questionnaire. While this method is efficient, it can introduce common method bias or social desirability bias (Winton et al. 2022), as participants may respond in ways they believe are favourable or expected. Although Harman's single-factor test showed that standard method variance was not a serious concern, self-reporting still limits the depth of understanding about why participants answered as they did.

Third, one item from Herzberg's hygiene factors, "relationship with subordinates," was accidentally omitted from the EM scale. While this did not significantly reduce reliability ($\alpha = 0.776$), it slightly narrowed the scope of the construct, potentially overlooking an important interpersonal aspect of extrinsic motivation.

Fourth, two subscales, AL–Moral Perspective ($\alpha = 0.558$) and MW–Greater Good ($\alpha = 0.538$), fell below the conventional reliability threshold ($\alpha = 0.70$). This suggests that these dimensions may not have been fully captured in this sample or may be interpreted differently across work contexts.

Finally, the cross-sectional design of this study means that the results show correlations rather than causation. Arnett and Class (2017) do not advise such a design as they argue that such a design

provides less robust evidence on at what period of time the factors have been affected. Thus, because the data were collected at one point in time, it is not possible to confirm whether AL or EM actually cause changes in MW, only that they are related.

Recommendations for Future Research

Based on these limitations, several recommendations for future research are proposed:

Larger and more diverse samples: Future studies could include more participants across industries and countries to improve generalisability and test cultural differences in how AL, EM, and MW are perceived, as studies such as Chaudhary (2020; 2024), and Sagnak and Kuruo (2017), Salleh et al. (2020) had more than 200 samples and they all have found positive significant relationship between AL and MW. Whereas the study of Winton et al. (2022) had fewer samples, i.e. 90, similar to this study (N=120), and found consistent results.

Longitudinal or mixed-method designs: Following employees over time or using interviews alongside surveys could help identify how leadership and workplace conditions influence MW, not just whether they are related. However, most of the studies found in SLR have used quantitative methods for studying the relationship between these factors; mixed methods allow researchers to capture complex, context-dependent insights (Sarkar 2019).

Separate examination of EM sub-factors: Future work could test which EM (e.g., salary, supervision, job security) have the most substantial impact on MW, rather than combining them into one scale. This would provide more precise insights for managers and policymakers. Studies such as Sarkar (2019), Kleyhans et al. (2021), and Bannay and Hadi (2021) have examined the relationship between AL and separate EM, finding a positive and significant relationship, which contrasts with the findings of this study.

Improved measurement reliability: Refining or revalidating subscales such as AL–Moral Perspective and MW–Greater Good could enhance the accuracy of future studies and better capture employees' ethical and societal dimensions of meaning. Most of the studies found through SLR have acceptable reliability (Chaudhary 2021; 2024, Sarkar 2019, Bannay and Hadi (2021)), on either or both AL and MW sub-dimensions, unlike the results of this study.

Qualitative extensions: In line with these results, future qualitative studies could explore why employees value EM more highly than leadership behaviour, helping explain the strong statistical role these factors played in this study.

By addressing these limitations and considering the recommendations, future research can contribute to a more robust tool for perceiving MW in a workplace.

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APPENDICES

Appendix A:

Population	Intervention 1	Intervention 2	Outcome
Employees OR Staff OR Workers	Authentic Leader/s, Leader Authenticity, Authentic Leadership, Authentic Manager/s, Authentic Supervisor/s, Authentic Supervision, Authentic Boss, Genuine Leader/s, Genuine Leadership, Leader's genuineness, Authentic executive, Authentic Director	Extrinsic Motivator/s, hygiene factor/s, dissatisfaction- avoidance factor/s, extrinsic factor/s, KITA Company policy and administration, supervision, relationship with supervisor, working conditions, salary, relationship with peers, personal life, relationship with subordinates, status, security	MW/s, work meaningfulness, purposeful work/s, work purposefulness, worthwhile work/s, impactful work/s, relevant work/s, meaningful job/s, job meaningfulness, purposeful job/s, worthwhile job/s, impactful job/s, relevant job/s, meaningful occupation/s, purposeful occupation/s, worthwhile occupation/s, impactful occupation/s, impactful occupation/s, relevant occupation/s.

Table 12: Search Strings used to search papers for SLR (Appendix A)

Appendix B:

Author	Definition	No. of papers
Luthans and Avolio (2003)	“a process that draws from both positive psychological capacities and a highly developed organisational context, which results in both greater self-awareness and self-regulated positive behaviours on the part of leaders and associates, fostering positive development”	5 Kleynhans et al. (2021); Bamford et al. (2012); Winton et al. (2022); Chaudhary (2022); Salleh et al. (2020).
Walumba et al. (2008)	“a pattern of leadership behaviour that promotes self-awareness, internalised moral perspective, balanced processing and relational transparency in the leader”	7 (Sagnak and Kuruoz, (2017); Chaudhary (2021); Mrayyan et al. (2021); Bamford et al. (2012); Dirik and Intepeler (2017); Sainz et al. (2020); Sarkar (2019)
Avolio et al. (1991)	AL are the leaders who knows themselves clearly and achieve a high level of authenticity.	1 Bannay and Hadi (2021).

Table 13: Definitions of AL found across the studies (Appendix B)

Appendix C:

Author	Methods	No. of papers
Walumba et al. (2008)	Authentic Leadership Questionnaire	7 Mrayyan et al. (2021); Bannay and Hadi (2021); Bamford et al. (2012); Dirik and Intepeler (2017); Sainz et al. (2020); Sarkar (2019); Salleh et al. (2020).
Neider and Schriesheim (2011)	Authentic Leadership Inventory	5 Sagnak and Kuruoaz (2017); Chaudhary (2021; 2022)- 16 item ALI; Kleynhans et al. (2021); Winton et al. (2022).

Table 14: Measurement tools of AL found across the studies (Appendix C)

Appendix D:

Author	Theory	Context	No. of papers
Avolio et al. 2004	Authentic leadership theory	Leadership	4 Chaudhary (2021; 2022); Bamford et al. (2012); Winton et al. (2022).
Tajfel, 1949	Social identity theory	leadership	1 Chaudhary (2021).
Deci and Ryan (2000)	Self-determination theory	Leadership	1 Sarkar (2019).
Hobfall (1989)	Conservation Resources Theory	Both leadership and meaningfulness	1 Salleh et al. (2020).
Blau, 1964	Social Exchange theory	leadership	1 Kleynhans et al. (2071)
Lyu et al. (2019)	Leader-Member Exchange (LMX)	Leadership	1 Bannay and Hadi (2021).
Shamir (1991)	Self-concept theory of motivation	Meaningfulness	1 Sarkar (2019).
Kelley (1973)	Attribution Theory	Meaningfulness	1 Chaudhary (2021).
*Sarkar (2019)	Work-family enrichment theory	Family support	1 Sarkar (2019).
	Not mentioned		4 Sainz et al. (2020); Dirik and Intepeler (2017); Mrayyan et al. (2021); Sagnak and Kuruoz (2017).

Table 15: Theories that were used to conceptualise the constructs across the studies (Appendix D)

Appendix E:

Author	Perspective of MW	No. of papers
Kahn (1990)	MW as a psychological state, derived from the Job Characteristics Model, including studies of engagement and psychological empowerment.	2 Chaudhary (2021; 2022)
May et al. (2004)	Meaningfulness is defined here as the value of a work goal or purpose, judged in relation to an individual's own ideals or standards.	1 Sagnak and Kurucz, 2017
Cameron (2012)	Meaningfulness means finding purpose of work in the setting where the work is performed, rather than just at work.	1 Winton et al. 2022
Not referenced	MW is a work that is aligned with value and purpose of oneself.	1 Sarkar (2019)
Steger et al. (2012)	MW is a work that is both positive and significant in valence.	1 Salleh et al. (2020)
Frankl (1963)	Concept of "Will to meaning"	1 Busse et al. (2018)

Table 16: Definition of MW found across the studies (Appendix E)

Appendix F:

Author	Methods	No. of papers
Steger et al. (2020)	WAMI	2 Winton et al. (2022) Salleh et al. (2020)
May et al. (2004).	Six-item Psychological Meaningfulness Scale	3 Sagnak and Kuruo, 2017; Chaudhary, 2021; Chaudhary, 2022
Reker (1992)	Life Attitude Profile-Revisited (LAP-R)	1 Busse et al. (2018)
Ashmos and Duchon (2000)	Four items Meaning at work scale	1 Sarkar (2019)

Table 17: Measurement tools for measuring ML found across the literature (Appendix F)

Appendix G:

Extrinsic Factors	Measurement scale	No. of papers
Job Security	Eleven items Job Security scale (Baillien & De Witte, 2009; Prado-Gascó et al. 2021; Silla et al. 2009)	1 Bannay and Hadi, 2021
Job Insecurity	Job Insecurity Scale (JIS) developed by De Witte (2000)	1 Kleynhans et al. 2021
Family Support	Five items from Multidimensional Scale of Perceived Social Support (Zimet et al. 1988)	1 Sarkar (2019)
Mentoring Support	Mentoring practices measure (Dreher and Ash, 1990)	1 Sarkar (2019)
Safety Climate	Safety Climate Survey (SCS) (Sexton et al. 2006; (Sexton et al. 2003)	2 (Mrayyan et al. 2021; Dirik and Intepeler, 2017)
Fairness	-	1 Busse et al. 2018
Stress at work	Effort-reward imbalance at work scale (Siegrist et al. 2004)	1 (Sainz et al. 2020)
Financial and non-financial rewards	Remuneration and Benefit Reward (Schlechter et al. 2015) Total Rewards model (Pregnolato 2010)	1 Salleh et al. (2020)

Challenging life events	Custom four-item scale based on pilot studies	1 Sarkar (2019)
Six areas of worklife: (Workload, control, rewards, community, fairness, and values)	Areas of Worklife scale (Leiter & Maslach, 2002)	1 (Bamford et al. 2013)

Table 18: Different EMs and their respective measurement tools found across the literature (Appendix G)

Appendix H:

Authors/Journal	Research Aim	Theme	Relatability in our research	Sample size	Methodology	Findings	Limitations	Conclusion
Sarkar (2019) Leadership & Organisation Development Journal (Q1)	Explores the impact of work and non-work domain factors such as MW, Mentoring support, Family support, and challenging life support, in AL.	AL, MW, and EM	• The impact of MW on AL has been studied. • Mentoring support can be related to supervision. • Family support and challenging life events can be related with personal life.	• 201 senior and middle-level managers and 554 followers in India. • Interviewed 7 Indian business leaders	Mixed methodology.	• The relationship between follower-rated AL and self-rated AL had a positive relationship with MW. (t=1.88, p<0.10) • Mentoring Support and AL were not	• The qualitative phase emphasised mentoring, while showing opposite results through quantitative approach.	AL is self-based construct influenced by interconnected work and non-work contextual factors. Leaders with supportive family environments and meaningful tasks are more likely to develop AL behaviours.

						significant ly positive. Family support ($\beta = 0.18$ to 0.20), and challenging life events ($\beta = 0.15$ to 0.18) were positive associated with AL.		
Salleh et al. (2020) Asian Academy of Management Journal (Q3)	This study examines the role of AL style through financial and non-financial rewards and MW on	AL, MW, and EM	Employees may become overly reliant on extrinsic rewards (like	343 employees in 30 manufacturing companies in Malaysia	Quantitative. Multilevel modelling for cross-level and mediation analysis; CFA for	Financial reward has positive, but small effect on MW ($\gamma = 0.09$, $SE =$	Single sector sample.	Non-financial rewards are more potent than financial rewards. Authentic leaders help employees

	Employee Wellbeing.		bonuses or pay raises), which can lead to a decrease in motivation and well-being once the extrinsic rewards are removed or reduced. It gives an understanding that absence of EM affects MW. • This study examines the other		construct validity and reliability	0.03, $p = 0.02$) • non-financial reward has positive relationship with MW ($r = 0.27$, $SE = 0.06$, $p = < 0.001$). • The findings show that non-financial rewards fully mediate the relationship		feel valued and purposeful leading to improved wellbeing.
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			non-financial motivators like compensation, benefits, work-life effectiveness, workplace flexibility, recognition, and talent development, along with financial rewards (salary, bonus).			p between AL and EW.		
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Winton et al. (2022) European Business Review (Q1)	Extends the leader-engagement connection to include the role AL plays in cultivating meaningfulness and engagement.	AL and MW	This study explores how MW mediates the relationship between AL and Employee Engagement, thereby showing the relationship between AL and MW.	90 working professionals from USA	Quantitative . Ordinary least squares regression using PROCESS Macro	AL has not significantly positive relationship with meaningfulness ($\beta = 0.70, p = 0.055$), however another study was conducted after the first one and found out positive meaning is associated with AL. ($r = 0.29, p < 0.01$)	Small sample size, Non-random sampling	Unlike transformational leadership, AL does not necessarily enhance perceptions of meaningfulness in work
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Chaudhary (2022) Current Psychology (Q1)	The study examines the role of self-efficacy as a mediator and a moderator of the relationship between authentic leadership and work meaningfulness.	AL and MW	This study explored the relationship between AL and MW with self-efficacy as both mediator and moderator.	350 employees from the manufacturing industry in India.	Quantitative . PROCESS macro for mediation and moderation.	the total effect of AL on work meaningfulness (B = 0.38, p < .01) was significant and positive.	Single sector population Purposive sampling	AL directly influences MW. The influence of AL is more pronounced for employees with low self-efficacy.
Chaudhary (2021) Management Decision (Q1)	This study posits that AL leads to more favourable perceptions of Corporate Social Responsibility	AL and MW	This study shows the indirect effect of AL on MW.	368 employees from top 20 Indian IT firms	Quantitative Process macro for regression, mediation, and moderation	The results of regression analysis revealed a significant effect of AL on	Single-sector population.	Employee attributions of extrinsic motives moderate the mediated path between AL and

	y (CSR), which, in turn, results in enhanced experiences of meaningfulness at work.					meaningfulness ($B = 0.75, p < 0.001$).		meaningfulness through CSR perceptions such that the relationship is stronger when attribution of extrinsic motives is low than when it is high.
Sagnak and Kuruoz (2017) Universal Journal of Educational Research (Q2)	Investigates the mediating effects of meaningfulness on the relationship between AL and altruistic behaviour.	AL and MW	This study shows AL has a positive relationship with MW.	356 teachers randomly selected from 14 primary and secondary schools in Nigde, Türkiye.	Quantitative . Pearson correlation and SEM	AL was significantly related to meaningfulness ($r=0.45, p<.01, \beta=0.45$)	Conducted in only one sector.	AL leaders foster MW, which in turn promote altruistic behaviour.

Kleynhans et al. (2021) SA Journal of Industrial Psychology (Q3)	Investigates the impact of AL on follower trust in the leader (TL), while considering the possible indirect influence of perceived precariousness in the form of job insecurity.	AL and EM	Job insecurity itself is not an EM. But, while our study is trying to study whether the relationship between AL and MW is affected by the presence or absence of an EM., Job insecurity is the absence of one of the EM, job security.	570 employees from a South African manufacturing organisation	Quantitative . CFA, SEM, moderation via PROCESS	AL and Job insecurity are inversely related. ($r = -0.137$; $p < 0.05$) suggesting that AL positively impacts trust in leader regardless of job insecurity levels.	Single organisation	Organisation can benefit from AL behaviours regardless of economic uncertainty.
Mrayyan et al. (2021)	Aims to compare nurses' AL	AL and EM	Safety climate is not an EM by itself but	180 nurses' governmental hospitals,	Quantitative .	A significant positive moderate	Convenience sampling. Nurses from	Relational transparency and self-

Leadership in Health Services (Q2)	and perceptions of the safety climate and concepts association according to different areas of work and types of hospitals.		aligns closely to one of the working conditions in which employees work.	50 from private hospitals and 290 from military hospitals of Jordan	Descriptive stats, t-tests, ANOVA, Pearson correlations.	association was found between nurses' AL and safety climate perceptions in units ($r = 0.609$) and the wards ($r = 0.654$). The positive association was found in government, private, and military hospitals.	only one private hospital	awareness are essential traits for safety.
Dirik and Intepeler (2017)	Analyses nurses' perceptions of AL and	AL and EM	Safety climate is closely aligned with working	350 nurses in three Turkish hospitals.	Quantitative . Hierarchical regression	The safety climate was significantly and	Only one sector: hospitals.	Senior leaders were seen as less engaged

Journal of Nursing Management (Q1)	safety climate and examined the contribution of AL to the safety climate.		conditions of any organisation.			positively correlated with AL (Pearson correlation coefficient $r = 0.47$, $P < 0.001$).		compared to unit-level leaders.
Bannay and Hadi (2021) Jurnal Pengurusan (Q4)	Explores how well broad variables of leadership and perceived job security are correlated with nurses' psychological well-being.	AL and EM	This study includes job security as a mediator between AL and Psychological well-being of employees.	250 nurses from Iraq	Quantitative . Smart PLS, Bootstrapping, mediation: PROCESS	AL positively influences the perceived job security of nurses in healthcare centres in Iraq ($\beta=0.690$, $P < .001$). Job security has positive relationship	Conducted in post-conflict situation.	There is a strategic value of promoting AL behaviours in emotional professions like healthcare during occupational uncertainty.

						with psychological well-being ($\beta=0.422$, $P<.001$). It acts as a partial mediator between AL and WB.		
Bamford et al. (2013) Journal of Nursing Management (Q1)	Examines the relationships among nurses' perceptions of nurse managers' AL, nurses' overall person-job match in the six areas of	AL and EM	This study studied six areas of work life, i.e., control, workload, community, rewards, fairness, and values. Rewards are an EM while	280 registered nurses working in acute care hospitals	Quantitative . Hierarchical multiple regression and mediation analysis. Pearson correlation and Cronbach's	AL were significantly related to areas of work life. ($b = 0.42$, $t(263) = 7.54$, $P<0.001$).	Focus only on acute-care nurses, limiting generalisability to other healthcare contexts.	Nurses who find AL behaviours in their leaders show better alignment in the six areas of work life, which leads to higher engagement.

	work life and their work engagement.		workload (as demotivator), control are working conditions, fairness can be related with supervision, and community with relationship.		alpha for reliability.			
Sainz et al. (2020) Journal of Work and Organisational Psychology (Q1)	Examines the relationship between AL and Stress at work through the mediation role of organisational	AL and EM	Stress at work is a result of unfavourable EM in an organisation.	930 Spanish workers	Quantitative . Descriptive statistics and Bivariate co-relations, regression analysis	AL has adverse effect on stress ($\beta = -0.13$)		Followers feel less stress at work when they perceive AL behaviours in leaders. Feels the test boundaries of AL is needed:

	dehumanisation							if it still protects workers from unfavourable conditions. Poor physical environments may overwhelm any positive leadership influence.
Busse et al. (2018) Journal of Leadership & Organisational Studies (Q1)	Explores the factors that significantly contribute to MW.	EM and MW	Studies about the extrinsic rewards and extrinsic motivation as the determinant of MW	187 employees from Germany, 148 from USA, 121 from China, 149 from India, and	Quantitative . Co-relation analysis, Regression	Extrinsic Rewards, significantly contributed to MW but were not the top predictors of meaningful		Employees can adapt to poor conditions without leadership support. But the presence of supportive leader

				182 from Korea		self at the workplace.		significantly enhances the ability to find meaning and fulfilment in their roles.
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Table 19: Summary of the journals found (Appendix H)

Appendix: I

Participant Information Sheet

The title of the research project

Authentic Leadership and MW: A Role of Extrinsic Motivators

What is the purpose of the research/questionnaire?

My name is Bandeet Poudel, and I am a research student at the Business School of Bournemouth University. I am excited to share this data collection project with you all that I am doing as a part of my study.

This UK-based study explores how Authentic Leadership (referring to leading with self-awareness, strong ethics, openness, and fairness to inspire growth in oneself and others) behaviours impact employees' perception of MW (work that feels purposeful, aligns with personal values, and contributes to a greater good, offering a deep sense of fulfilment), and examines whether Extrinsic Motivators (external rewards or incentives that encourage individuals to complete tasks or perform work) influence this relationship.

To examine the dynamics of how a leader's authentic qualities can enhance employees' sense of MW, even in the face of challenging extrinsic motivators, a comprehensive survey has been developed.

Why have I been invited?

You have been invited to participate in this study because you are an employee of a business based in the UK. This survey aims to invite employees from a wide range of business sectors and company sizes to capture diverse perceptions and experiences.

Do I have to take part?

It is up to you to decide whether to take part. You can withdraw from participation at any time and without giving a reason, simply by closing the browser page. Please note that once you have completed and submitted your survey responses, we are unable to remove your anonymised responses from the study. Deciding to take part or not will not impact you in any way.

How long will the questionnaire/online survey take to complete?

The questionnaire will take 10 to 15 minutes to complete. Your authenticity and thoughtful responses will contribute to the quality of this study's findings.

What are the advantages and possible disadvantages or risks of taking part?

Whilst there are no immediate benefits for those people participating in the project, it is hoped that this work will contribute to helping future leaders develop effective strategies to improve meaningful experiences even in challenging environments. Further, this questionnaire might give you a chance to reflect on your own experiences, values, and motivation at work.

What type of information will be sought from me, and why is the collection of this information relevant for achieving the research project's objectives?

The questionnaire will collect information about your experiences with your leader and their behaviour, your feelings about your work, and the factors that motivate you. It will also include your demographic details relevant to the study.

This questionnaire gathers insights into leadership behaviour, employee motivation, and perceptions of MW. By analysing both responses and demographic data, the research explores how these elements relate and impact workplace dynamics. The results will help connect academic theory with practical leadership approaches, offering actionable recommendations for positive change within organisations.

Use of my information

Participation in this study is on the basis of consent. You do not have to complete the survey, and you can change your mind at any point before submitting the survey responses. We will use your data on the basis that it is necessary for the conduct of research, which is an activity in the public interest. We put safeguards in place to ensure that your responses are kept secure and only used as necessary for this research study and associated activities, such as the research audit.

Once you have submitted your survey response, it may not be possible for us to remove it from the study analysis, as this might affect our ability to complete the research appropriately or the accuracy and reliability of the research findings.

The anonymous information collected may be used to support other research projects in the future, and access to it in this form will not be restricted. It will not be possible for you to be identified from this data. Anonymised data will be added to BU's Online Research Data Repository (a central location where data is stored), which will be publicly available.

Contact for further information.

If you have any questions or would like further information, please contact bpoudel@bournemouth.ac.uk (Researcher).

In case of complaints

Any concerns about the study should be directed to Professor Lee Miles, Deputy Dean for Research & Professional Practice, Business School, Bournemouth University, by email to researchgovernance@bournemouth.ac.uk.

Consent to Participate

Please indicate that you have read and understood the Participant Information Sheet for this research project and that you consent to take part in this questionnaire before continuing:

☐ I have read and understood the Participant Information Sheet and consent to take part in this questionnaire.

☐ I do not consent to take part in this questionnaire.

Please indicate your agreement for the Research Team to access and use your recorded responses to this questionnaire before continuing:

☐ I give permission for members of the Research Team to have access to my anonymised responses. I understand that my anonymised responses may be reproduced in reports, academic publications, and presentations, but I will not be identified or identifiable.

☐ I understand that my data may be included in an anonymised form within a dataset to be archived at BU's Online Research Data Repository.