Gordon Institute of Business Science
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Impact of transformational leadership on knowledge transfer, and subsequent interrelationships between knowledge transfer stages during post-merger integration

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A research project submitted to the Gordon Institute of Business Science, University of Pretoria, in partial fulfilment of the requirements for the degree of Master of Philosophy in International Business.

25 November 2024

Abstract

Mergers and acquisition (M&A) activities have consistently served as a source of growth and a strategy through which organisations attain a competitive advantage. The integration process following an acquisition, which involves designing, planning and executing the merging of multiple organisations into one entity, is significantly influenced by the leadership style and methodologies employed. Managing this transition presents challenges and requires the senior executives and managers responsible for the task to carefully balance various cultural, procedural and management systems. The transformational leadership style, with its multidimensional behaviours (idealised influence, inspirational motivation, intellectual stimulation and individualised consideration), has been found to be effective in many organisational change scenarios and is essential for effectively managing and leading during post-merger integration. The ability to transfer knowledge-based assets, particularly in the case of cross-border acquisitions, remains a key driver of business growth and source of competitive advantage.

Speed and efficacy in the knowledge transfer process are critical for securing a competitive advantage, as is maintaining organisational efficiency overall. This study examined the impact of transformational leadership on the knowledge inflow stage of the transfer process and the mechanisms facilitating knowledge flow through four stages: knowledge inflow, sharing, absorption and retention. The strength and significance of the relationship between transformational leadership and knowledge transfer were tested using partial least squares structural equation modelling (PLS–SEM). The findings indicate that leaders' individualised considerations and behaviours facilitate the knowledge transfer process. Furthermore, the knowledge transfer stages were found to progress sequentially through the stages of inflow, sharing, absorption and retention.

This study contributes to the literature on transformational leadership by providing insights on the dynamics surrounding knowledge transfer during the post-merger integration process. It also provides guidance to business practitioners on how to devise optimal HRM strategies (including employee and skills retention strategies) in the wake of the inevitable changes and disruption brought about by M&A activity, particularly from a cross-border perspective.

Keywords: Mergers and acquisitions, transformational leadership, knowledge transfer, post-merger integration

Declaration

I declare that this research project is my own work. It is submitted in partial fulfilment of the requirements for the degree of Master of Philosophy in International Business at the Gordon Institute of Business Science, University of Pretoria. It has not been submitted before for any degree or examination in any other University. I further declare that I have obtained the necessary authorisation and consent to carry out this research.

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Name & Surname Signature

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Chapter 1: Introduction to the Research Problem

1.1. Background to the Research Problem

Mergers and acquisitions (M&As) have been performed for many centuries and continue to play an important role on the global stage, increasing both in number and value – particularly over the past two decades (Angwin et al., 2023). According to the PwC global outlook on M&As, the total value of transactions has been on an upward trajectory since the 1990s, surging to USD 5 trillion in 2021, only to be halved to USD 2.5 trillion in 2023 (Levy, 2024). The PwC report further predicts that current and future deals are more likely to be driven by technological disruption, such as artificial intelligence (AI), climatic changes, environmental sustainability challenges and demographic shifts.

Despite some success but also high failure rates, cross-border M&As have remained a major driver of organisational growth and a method of internationalisation (Hassett et al., 2018). This global M&A phenomenon has continued to attract interest from both researchers and business practitioners due to the wide range of disciplines and the complexity of transactions involved (Budhiraja et al., 2023). A large number of cross-border M&As take place in multiple countries, across different continents, with diverse cultures, making post-merger integration (PMI) a challenge (Steigenberger, 2017).

Over the past 30 years, there has been a growing literature on the post-integration phenomenon, with research showing that successful PMI leads to M&A success (Bodner & Capron, 2018; Graebner et al., 2017; Talpová, 2019).The current non-financial M&A research can be summarised into three streams: organisational issues (particularly PMI), human resources management (HRM), and cultural institutional distance. This body of research emphasises the importance of issues such as management, leadership styles, employee relations and HRM practices, which play a significant role in successful PMI (Lee et al., 2023; Sarala et al., 2016 ; Stahl et al., 2013;).

After an acquisition, the design, planning and execution of the integration process to combine various organisations into a single entity are heavily reliant on the leadership style and methods used (Bodner & Capron, 2018). Handling this shift can be challenging and calls for a careful balancing act on the part of the responsible senior executives and managers to combine many cultural aspects, processes and management systems (Vasilaki et al., 2016). Scholars consider leadership styles such as transformational, adaptive, servant, distributed and transactional leadership as crucial for managing and leading PMI.

The ability to transfer knowledge-based assets, particularly through cross-border acquisitions, remains a key driver of business growth and a source of competitive advantage (Grant, 1996). The competitive advantage arises from the effective knowledge transfer through the infusion of new skills, capabilities and efficiencies which are of value to the acquirer (Pereira et al., 2023; Steigenberger & Ebers, 2023).

The knowledge transfer process during PMI is complex and fraught with various challenges. These challenges arise from disparities in organisational culture, even at a country level (in the case of global and cross-border transactions), and organisational misalignment in systems and processes (Sarala & Vaara, 2010). Business practitioners must therefore develop plans to manage the cultural discrepancies, communication styles, and knowledge types (tacit or explicit) in order to effectively manage the knowledge transfer process (Junni et al., 2012). The knowledge transfer process involves different stages, such as inflow, absorption, sharing and retention, with multi-level interactions at individual, team and organisational levels (Wang & Noe, 2010). Individual employees are at the centre of the knowledge transfer process and are the conduit through a significant contribution can be made to the organisational goal of driving efficiency and building a competitive advantage (Argote & Ingram, 2000). It is imperative for leaders and managers tasked with the PMI process to ensure that knowledge transfer is successful at the individual employee level.

1.2. The Research Problem

In the context of post-merger integration following cross-border acquisitions, knowing how transformational leadership promotes knowledge transfer is critical for organisational success. The original work of Bass and Avolio on transformational leadership concepts have been extended by various scholars to include its positive influence in promoting organizational change. These scholars highlight how processes of knowledge transfer are crucial for developing absorptive capacity and creating the environment necessary for effective knowledge sharing within organisations (Bass & Avolio, 1993; Nemanich & Keller, 2007; Savovic, 2017).

International business (IB) literature is increasingly focusing on leadership and emotions in cross-border M&As, particularly the importance of leadership in PMI success (Hassett et al., 2018; Leavy, 2019). In their research on the role of transformational leadership in leading global companies, Ramsey et al. (2017) found common leadership characteristics across different organisations worldwide that are directly related to business performance. The key attributes of such global leaders include high levels of emotional intelligence (EQ), intellectual

intelligence (IQ) and cultural intelligence (CQ). Cultural intelligence is particularly important for managing diverse cultural settings which are found in multiple geographies, where synergy needs to be created.

Vasilaki et al. (2016) articulate how the empathy side of transformational leadership positively affects employee behaviours and responses during the transition following a merger or acquisition. However, there is still a lack of understanding about the exact behaviours and activities of transformational leaders that are most effective in facilitating knowledge transfer during the PMI process.

In the past decade, research on the M&A phenomenon has mainly focused on financial and strategic aspects. However, the disconnect between the growth in M&A activity and its low success rate has not been fully explained (Angwin et al., 2023; Galpin, 2021; Gomes et al., 2020). In view of this, the research interest of business practitioners and academic scholars has shifted from financial and strategic variables to what happens after the transactions at the micro level to gain a deeper understanding of what drives success or failure.

Many M&A research studies single out knowledge transfer and moderating HRM practices as critical components of post-integration success. Knowledge assets are considered key sources of competitive advantage and may be the sole motivation for acquisition in the first place (Castro-Casal et al., 2013; Lee et al., 2023; Xi et al., 2020). The retention of high-value human resources (staff) is important for the transfer of tacit (intuitive, based on experience) knowledge which is crucial for organisational continuity and consolidation (Yahiaoui et al., 2016).

Knowledge transfer has been extensively studied from an organisational behavioural standpoint, and there are several modes through which it can be transferred: socialisation, externalisation and internalisation (Boamah et al., 2023). In the context of PMI, it is important to understand the various stages of knowledge transfer as this ensures that it is shared, absorbed and retained within the merging entities for the purposes of business continuity and the creation of a competitive advantage in the long term (Argote & Ingram, 2000). Knowledge transfer is a complex process that is dependent on various factors, such as source, context and communications, among others (Junni et al., 2012).

It is widely recognised that human resource management (HRM) plays a significant role in knowledge transfer processes (Bresman et al., 2010; Calipha et al., 2018; Minbaeva et al., 2014), to understand the role of HRM practices in PMI. Tarba et al. (2020) – building on this

trajectory of research trends pertaining to M&As – demonstrated the important role played by HRM practices, which includes leadership style and support, organisational systems and processes, communication styles, training and cultural factors, for post-integration success, while also highlighting the need for further research on leadership, knowledge transfer and other institutional dimensions that are not yet clearly understood. Sarala et al. (2019) concur and support the need to extend the "softer side of M&As" (p 1). They recognise the importance of exploring the actors' information-processing practices (and their relationships and interconnectedness) to gain further insights into possible correlations between these aspects and M&As' success or failure.

Successful cultural integration and the management of other key social issues are crucial for achieving the intended synergies, especially during PMI. The integration process should focus on the alignment of organisational cultures, work practices and other aspects, which can be achieved by creating a shared vision, promoting mutual respect, fostering a culture of collaboration, and building employee trust and psychological job safety (Hurst & Pattath, 2019; Stahl & Maznevski, 2021; Tabatabaei, 2024).

Despite extensive research having been conducted on knowledge transfer in PMI, there is limited clarity on the measurable outcomes and indicators associated with effective knowledge transfer, as facilitated by transformational leadership. In the changing world of M&As, analysing the effects of transformative leadership on the knowledge transfer process will throw more light on organisational performance and effectiveness. This research gap, as highlighted by Tarba et al. (2020) and Sarala et al. (2019), goes to the heart of the research problem in this study and addressing it will help to enhance scholarly conversations within the PMI space.

Furthermore, an examination of the relationships between the different stages in the knowledge transfer process will help to elucidate the intricate mechanisms that drive knowledge transfer during PMI. With a view to arriving at a deeper understanding of the knowledge transfer process during PMI, several studies have reviewed the importance of knowledge sharing as a contributor to successful knowledge transfer during PMI (Ahmad & Karim, 2019; Wang & Noe, 2010; Zhou & Li, 2012).

A number of studies have also evaluated the impact of transformational leadership in knowledge sharing, citing how it fosters a conducive environment for sharing and absorption (Al-Husseini et al., 2021; Le & Lei, 2017; Yin et al., 2020). Other studies have reviewed the different knowledge transfer stages, especially the role of absorptive capacity, sharing and retention within the broader context of organisational and knowledge management

behavioural dynamics (Ahmad & Karim, 2019; Argote & Fahrenkopf, 2016; Balle et al., 2020; Carmeli et al., 2013).

This study seeks to extend the current body of literature by further integrating the role of transformational leadership and the different stages in the knowledge transfer process, thereby shedding more light on the mechanisms used in the knowledge transfer process as well as the leadership impact during post-merger integration.

1.3. The Research Questions

This study responds to the call to extend the research on the human side of M&As as well as the role of HRM practices, as outlined by Sarala et al. (2019) and Tarba et al. (2020), while recognising that leadership is a principal tool for driving organisational change and performance. Additionally, it acknowledges the need to arrive at a fuller understanding of the mechanisms through which knowledge is transferred, and the relationships between the different stages of the transfer process during PMI. As such, the following research questions are presented:

1.3.1. Main research question RQ

How does transformational leadership influence the stages of knowledge transfer (inflow, absorption, sharing and retention) during post-merger integration?

1.3.2. Sub-question RQ1

How do the dimensions of transformational leadership (idealised influence, inspirational motivation, intellectual stimulation and individualised consideration) influence knowledge inflow, and how does this impact the overall post-merger integration process?

1.3.3. Sub-question RQ2

How do the stages of knowledge transfer (inflow, absorption, sharing and retention) relate to each other, and what role does transformational leadership play in initiating knowledge inflow during post-merger integration?

1.4. Research Aims

The overarching aim of this study is to arrive at a thorough understanding of the mechanisms through which transformational leadership can enhance knowledge transfer in the complex and challenging context of post-merger integration.

Additionally, the study examines the relationship between the different knowledge transfer stages in order to extend the current knowledge surrounding the mechanisms that are impacted by transformational leadership behaviours (Balle et al., 2020). By identifying how the specific transformational leadership behaviours – individualised influence (IF), inspirational motivation (IM), intellectual stimulation (IS) and individualised consideration (IC) – impact the knowledge transfer stages and the relationship between these stages, this study seeks to offer practical insights and guidelines for executive leaders and managers involved in PMI (Carreiro & Oliveira, 2019; Zhou et al., 2020).

These research aims are operationalised through the following two specific research objectives (denoting the practical steps required to achieve the aims):

1.4.1. Research objective 1

To determine how the transformational leadership behaviours – idealised influence (IF), inspirational motivation (IF), intellectual stimulation (IS) and individualised consideration (IC) – impact the knowledge inflow stage of the knowledge transfer process during post-merger integration.

1.4.2. Research objective 2

To examine the relationships between the knowledge transfer stages (inflow, absorption, sharing and retention) during post-merger integration.

1.5. Research Purpose

The purpose of this study is explanatory in nature, namely, to investigate how transformational leadership impacts the knowledge inflow stage during post-merger integration. Additionally, it seeks to examine the relationship between the knowledge transfer stages in order to extend the knowledge surrounding the mechanisms used in this transfer.

The overarching goal is to identify how the specific transformational leadership attributes – idealised influence (IF), inspirational motivation (IM), intellectual stimulation (IS) and individualised consideration (IC) – impact the knowledge inflow stage and the relationship between the knowledge transfer stages. Diverse transformational leadership attributes impact effective knowledge transfer. By examining these constructs, the researcher intends to gain insights into the causal or mediating impact of effective leadership tactics and organisational practices that allow effective knowledge sharing, thus encouraging successful integration results.

1.6. Research Contributions

1.6.1. Implications for business practitioners

From a business perspective, this study will help senior executives and managers to improve and navigate the post-merger integration process, with the potential to improve the overall success rate of M&A transactions. Business practitioners will be able to develop leadership and HRM intervention strategies that are crucial for improved organisational efficiency and performance during transitional and integration periods. Successful outcomes in this regard will help to guide future M&A research in cultural, strategic and management process alignment.

Many post-merger integrations, particularly global or cross-border M&As, face the challenge of significant cultural differences which can hinder knowledge transfer. This study's focus on the role of transformational leadership in fostering a supportive organisational culture and building trust speaks to the need to manage these cultural challenges. The knowledge gained on how the transformational leadership dimensions – idealised influence (IF), inspirational motivation (IM), intellectual stimulation (IS) and individualised consideration (IC) – support knowledge inflow will help HRM practitioners to develop training and other development strategies that are tailor-made for leaders and managers who are involved in post-merger integration.

Insights from the relationship between the knowledge transfer stages will help business practitioners to develop intervention strategies across the different stages to ensure that the knowledge transfer process is successful, thus helping to share, absorb and retain relevant knowledge at the individual, team and organisational levels.

1.6.2. Theoretical contributions:

This study will contribute to the body of knowledge on transformational leadership by demonstrating how the latter influences the knowledge transfer process, an area that has not been fully explored. By answering the stated research questions, the study will help academic scholars to gain a deeper understanding of how transformational leadership, social capital, absorptive capacity and knowledge-based view theories interact within the post-merger integration context (Angwin et al., 2023). As transformational leadership theory has been applied within a diverse context, the practical application of this theory will also be tested to understand the impact of its various dimensions on the complex knowledge transfer construct (Le & Lei, 2017).

Moreover, this study aims to contribute to the theoretical concepts that underpin the knowledge transfer stages, such as social capital, absorptive capacity and the knowledge-based view, by further exploring the intricacies involved in the different stages of knowledge transfer (inflow, absorption, sharing and retention) (Argote & Fahrenkopf, 2016; Grant, 1996; Lee et al., 2023).

1.7 Scope of the Study

This study will be limited to assessing the impact of the transformational leadership dimensions of idealised influence (IF), inspirational motivation (IM), intellectual stimulation (IS) and individualised consideration (IC) on knowledge inflow during post-merger integration. Additionally, the knowledge transfer stages will be examined with a specific focus on the relationship between the transfer stages of inflow, absorption, sharing and retention. In addition, this study will focus only on the impact of transformational leadership on the knowledge inflow stage, despite the option to investigate its impact on all other stages. The reasons for this are time constraints as well as the desire for simplicity and a deeper focus on the issue at hand.

A considerable number of research studies have been conducted on knowledge transfer, covering multiple aspects such as the determinants of knowledge transfer and different types of knowledge within the knowledge management and organisational behaviour disciplines (Calipha et al., 2018; Junni, 2011; Minbaeva et al., 2014). This study will not be extended to other factors that affect the knowledge transfer construct so as to maintain the focus on interactions with transformational leadership as well as post-merger integration. This approach will ensure that the nuances and associated knowledge transfer mechanisms are understood.

The limitations to the scope, as outlined above, will ensure that the study remains focused and manageable, and the broader domains of knowledge transfer and social capital theory will not be covered.

1.8 Conclusions

This introductory chapter has provided the foundation for the study by introducing the research problem which relates to the dearth of knowledge on how transformational leadership impacts the knowledge transfer process. While extensive research has been conducted on how transformational leadership impacts diverse organisational outcomes, the exact mechanisms through which this leadership approach impacts knowledge transfer remain underexplored. This study is motivated by the need to extend the research on the human side of M&A activity within a post-merger context, as reflected in the research questions.

The overarching aim of the study is to arrive at a thorough understanding of the mechanisms through which transformational leadership impacts knowledge transfer in the challenging context of post-merger integration. This broad aim was narrowed down into two specific objectives relating to how the specific transformational leadership dimensions (IF, IM, IS and IC) affect the knowledge inflow stage as well as the relationship between the knowledge transfer stages.

This study is significant for business practitioners in the sense that insights gained from the findings will help senior executives and managers to navigate the post-merger integration process, with the potential to improve the overall success rate of M&A transactions. Providing answers to the research questions will also help academic scholars to gain a deeper understanding of the intricacies of knowledge transfer mechanisms and how transformational leadership, social capital, absorptive capacity and knowledge-based view theories interact within the post-merger integration context.

The next chapter (Chapter 2) will review the literature and theoretical concepts underpinning transformational leadership and knowledge transfer. The objective of the literature review is to anchor this study within the right academic and theoretical space, so that the correct research design and methodologies are selected, which will be discussed in Chapter 4. Chapter 3 will present the research model as well as the hypotheses based on the literature review and relevant theories.

Chapter 2: Literature Review

2.1. Introduction

2.1.1. Objective of the literature review

This study's research questions, which focus on gaining a deeper understanding of how transformational leadership (TL) impacts knowledge transfer (KT) during post-merger integration (PMI), underpins this literature review. The evaluation of the academic literature and theories pertaining to the two constructs within post-merger settings will be reviewed and evaluated to gain more insight into the research problem that was defined and explained in Chapter 1. It is envisaged that this evaluation will reveal significant concepts and empirical evidence of the impact of TL behaviours on KT stages and the contribution thereof to the success of the PMI process. This serves to anchor this study within the correct academic and theoretical space. The anchoring of this study within the right literature and theoretical framework will guide the decisions regarding research design and methodology – choices that will improve the prospects of successful outcomes (Bono & McNamara, 2011).

This literature review will help the researcher gain a deeper understanding of the key scholarly conversations within the field and integration context, which will reduce the risk of missing out on critical information that might impact the current study's findings. An extensive literature review will also help to test the scope, depth and viability of the research questions and ground the hypotheses or propositions, which will aid the overall research process (Sparrowe & Mayer, 2011).

2.1.2. Importance of the study

Developing a comprehensive grasp of the complexities of and detailed stages in KT will improve academic dialogues and aid practitioners in optimising leadership tactics for effective knowledge integration during mergers. This review's findings will shape the study technique and direct the choice of research philosophy, design and methodologies that are most suitable for examining TL and KT in PMI in future studies.

2.1.3. Scope of the review

This literature review will examine the theoretical foundation of TL and its development, emphasising its four critical dimensions (idealised influence (IF), inspirational motivation (IM),

intellectual stimulation (IS) and individualised consideration (IC)); the theoretical underpinning of the KT construct; obstacles to effective transfer; and empirical studies of KT within the PMI context. The literature review will also cover empirical investigations into the influence of TL on KT during mergers (specifically how TL has been demonstrated to facilitate KT) and address challenges arising in PMI. To maintain the research focus, discussions on KT will be restricted to its effects during PMI to avoid diluting this broad concept.

2.2. Conceptual Framework

2.2.1. Transformational leadership

In an organisational context, transformational leadership (TL) refers to a leadership style that seeks to go beyond the employment terms of a contract by motivating and inspiring workers to exceed their own expectations (Avolio et al., 1999; Bass, 1988). Transformational leaders inspire and stimulate their followers to achieve significant outcomes and, in the process, develop their own leadership capacity (Bass & Riggio, 2006). Unlike transactional leadership, which builds on exchange and reward, transformational leadership can be described as going beyond the transactional approach by articulating a clear vision for the future and motivating followers to achieve higher levels of performance than they ever thought possible (Antonakis & House, 2014; Díaz-Sáenz, 2011). TL is usually assessed through the multi-dimensional lateral factors of idealised influence (IF), inspirational motivation (IM), intellectual stimulation (IS) and individualised consideration (IC), which are key behavioural attributes that can enhance the complex process of KT during PMI (Wang & Howell, 2010; Yukl, 1999).

2.2.2. Knowledge transfer

In the context of organisational behaviour, knowledge transfer (KT) can be defined as the steps though which knowledge, skills and expertise are disseminated between individuals, teams or organisations (Argote & Ingram, 2000). In terms of the knowledge-based view (KBV), which is embedded in the resource-based view (RBV), KT can be defined as a resource which is critical for organisations to gain a competitive advantage or improve operational effectiveness (Grant, 1996).

KT is a focal point of inquiry for organisational behaviour researchers and business professionals due to its importance in improving both performance and competitive advantage (Martin et al., 2003). Knowledge can be categorised into two types: tacit knowledge, which is challenging to transmit and is often acquired via experience, skills and intuition, and explicit

knowledge, which is formal, documented and easily transferable (D'Eredita & Barreto, 2006; Grant, 1996). There are several modes through which knowledge is transferred, such as socialisation, externalisation, combination and internalisation (Boamah et al., 2023; Nonaka, 2007). Several scholars have called KT a complex process which is influenced by various factors, such as source, recipient, context and communication (Junni et al., 2012; Marchiori & Franco, 2020; Szulanski, 1996).

2.3. Theoretical Foundations

2.3.1 Transformational leadership

TL is based on the concepts of leader behaviours and actions that inspire and motivate their followers to achieve good performance for the greater good of the organisation. It is a higher-order construct that is operationalised through the multi-dimension factors (lower-order constructs) of idealised influence (IF), inspirational motivation (IM), intellectual stimulation (IS) and individualised consideration (IC) (Carless et al., 2000; Podsakoff et al., 1996). The transformational leadership theory is used to describe this construct and concerns one of the most widely used and popular leadership styles (Stock et al., 2023). It has been compared with other leadership theories, such as transactional leadership (in its early years), charismatic leadership, spiritual leadership and, more recently, ethical leadership and authentic leadership (Banks et al., 2016).

2.3.2 Knowledge transfer

The following theories are at the interface of knowledge transfer: absorptive capacity theory, organisational learning theory, social capital theory, social exchange theory and the knowledge-based view theory. Most of these theories are frequently applied in multiple disciplines, which include leadership, behavioural science and human resources (Ahmad et al., 2023; Balle et al., 2020; Barney et al., 2001; Lee et al., 2023). Only a few, which are pertinent and relevant to the scope and context of this study, will be discussed below.

Absorptive capacity theory

In the context of organisations, absorptive capacity is a dynamic concept referring to an organisation's ability to harness, internalise and apply new knowledge to enhance performance. Absorptive capacity can be evident at different levels: individual, team and across the whole organisation (Argote & Ingram, 2000). This theory has been extensively applied in studies of organisational behaviour. In the context of PMI, it is important as the

platform through which new knowledge moves between the merging entities (Cohen & Levinthal, 1990; Volberda et al., 2009; Zahra & George, 2002). Absorptive capacity is not static; it can be acquired over time through experience, interaction with external resources, and other cognitive behavioural aspects (Boamah et al., 2023). Successful knowledge absorption manifests as improved organisational performance (Argote & Fahrenkopf, 2016). Transformational leaders can influence absorptive capacity through behavioural attributes such as inspirational motivation, intellectual stimulation and individualised consideration by fostering an environment that enhances absorptive capacity (Deng et al., 2023). Specific organisational catalysts, such as a supportive culture, open communication and effective resource allocation, have been found to positively influence TL in enhancing absorptive capacity (Ferreras Méndez et al., 2018)

Resource-based view and knowledge-based view

The knowledge-based view (KBV) theory is embedded in the resource-based view (RBV) theory. Accordingly, they will be discussed together. The KBV theory recognises knowledge as a critical, intangible resource which an organisation can leverage in order to gain a competitive advantage or improve its effectiveness (Grant, 1996). The RBV theory views all resources (tangible and intangible) that help organisations develop a sustained competitive advantage. Accordingly, organisations that effectively transfer knowledge during PMI can create synergies and foster innovation (Barney et al., 2001). Knowledge, especially tacit knowledge, is difficult to replicate and transfer between individuals or organisations, making it very valuable (Argote & Ingram, 2000).

Social capital theory

Social capital theory emphasises the role of social networks, trust and relationships in the transfer of knowledge. Social capital encompasses structural, relational and cognitive dimensions which are useful for knowledge sharing in organisations (Inkpen & Tsang, 2005; Nahapiet & Ghoshal, 1998).

In summary

The three theoretical frameworks outlined above together facilitate effective KT among organisations, especially during PMI. Absorptive capacity allows organisations to acquire and internalise incoming knowledge, serving as the mechanism for integration. Networks and relationships are essential for facilitating assimilation and knowledge sharing. The resource-based view guarantees that this knowledge is strategically employed as a resource so as to maintain the organisation’s competitive advantage. (Refer to the conceptual framework in section 2.5 for an in-depth examination of the interactions among the theories.)

2.4. Elements of the Constructs

2.4.1. Transformational leadership dimensions

TL is operationalised as a reflective, formative multi-dimensional construct comprising four latent characteristics that enhance a leader's capacity to inspire and motivate followers towards achieving shared objectives (Bass et al., 2003). These are discussed below.

Idealised influence (IF)

Leaders exhibiting idealised influence are perceived as role models, gaining followers' trust via ethical conduct, robust ideas and a clearly defined vision of the future (Bass & Avolio, 1994).They motivate adherents to synchronise with the organisation's objectives and dedicate themselves to the shared vision of the future, which inspires their followers (Rafferty & Griffin, 2004). The leader's conduct can be characterised by their charisma, personal ethics and ideals, as well as their confidence and display of authority (Antonakis et al., 2011). Specific idealised influence behaviours are leaders' capacity to act in accordance with their values and views, while persuading their followers to align with common organisational objectives.

Inspirational motivation (IM)

Leaders exhibiting inspirational motivation endeavour to invigorate their followers by envisioning the future positively, emphasising ambitious objectives, articulating an idealised vision, and conveying to followers that this vision is attainable (Antonakis et al., 2003). These leaders inspire followers to achieve more they thought possible. Such leaders can inspire their followers by creating a sense of positivity and emotional connections that unite them towards a common purpose (Bass & Riggio, 2006; Jiatong et al., 2022; Nemanich & Keller, 2007).

Intellectual stimulation (IS)

Leaders exhibiting intellectual stimulation encourage their followers to engage in critical thinking, challenge assumptions, and formulate new solutions to complex problems. These leaders cultivate a culture of learning by encouraging their flowers to challenge the status quo through new and innovative ideas. Followers are allowed to experiment and learn from their mistakes (Bass et al., 2003).

Individualised consideration (IC)

Leaders exhibiting personalised concern focus on the distinct needs and personal growth of each follower. They provide focused assistance, guidance and coaching to enable individuals to realise their ultimate potential (Antonakis et al., 2003). By focusing on individual needs,

leaders foster a sense of trust and open communication with their followers, which encourages them to perform beyond their expectations (Díaz-Sáenz, 2011).

2.4.2. Elements of the knowledge transfer construct

2.4.2.1 Types of knowledge

There are various types of knowledge, including tacit, explicit, implied, contextual and procedural knowledge. However, given the context of this study, only explicit and tacit will be discussed. Tacit knowledge refers to knowledge that is more intuitive, relates to expertise and skills, and is usually the result of experience (Nonaka, 2007). Explicit knowledge refers to knowledge that can be documented and formalised, such as in procedure manuals (King & Zeithaml, 2003). In the context of KT, tacit knowledge is usually more difficult to transfer than explicit knowledge which can be easily duplicated and transferred (Gupta & Govindarajan, 2000).

2.4.2.2. Knowledge transfer steps: inflow, absorption, sharing and retention

Knowledge inflow

Zhou et al. (2020) conceptualised KT as a two-step process, involving knowledge inflow (KI) and knowledge assimilation. The amount of KI will rise in tandem with the acquired unit's capacity for knowledge assimilation. KI refers to the acquisition of knowledge from external sources, such as acquired firms resulting from M&As (Zhou et al., 2020). Knowledge inflows are the precursor to knowledge absorption (Ahmad & Karim, 2019).

Knowledge absorption

Knowledge absorption (KA) is defined as the ability of individuals within an organisation to develop relevant knowledge bases, recognise external knowledge and be able to assimilate it (Balle et al., 2020). It has two facets: potential absorptive capacity (inert ability) and realised absorptive capacity (utilised capacity). The concept of KA was introduced to investigate the ability of an organisation to identify, assimilate and exploit new knowledge (Cohen & Levinthal, 1990). Individuals are the conduit through which knowledge can be absorbed. In a PMI context, KA is important as it allows the organisation (through individuals) to assimilate the new knowledge to develop a competitive advantage and improve operational efficiencies (Argote & Fahrenkopf, 2016).

Absorptive capacity can be conceptualised as employees' ability and motivation. The two are mutually reinforcing and necessary for ensuring effective knowledge absorption, which is a precursor to knowledge sharing (Minbaeva et al., 2014). This conceptualisation is explained in terms of the Motivation, Ability, Opportunity (MAO) framework which states that absorptive capacity is not only influenced by ability but also by the opportunity provided by the organisation. Opportunities might be leadership support, resources, rewards, culture and conducive environment for assimilation (Yildiz et al., 2019).

In the context of PMI, KA refers to the processes through which the acquiring organisation absorbs and internalises the incoming knowledge, making it part of its operational practices and routines (Argote & Ingram, 2000). Such knowledge can include new technologies, processes and practices that the acquired unit brings into the parent organisation. By breaking down this process, practitioners can develop HR practices to improve and manage the two-stage process. This has helped to create a better understanding of KT in relation to M&As (Easterby-Smith et al., 2008).

Knowledge sharing

In an organisational context, knowledge sharing (KS) involves the provision of task information and expertise in order to help others achieve organisational goals, such as solving problems, helping others through collaboration, developing new ideas, and implementing policies and procedures (Wang & Noe, 2010). From an RBV and KBV theory perspective, employees can contribute to the building of an organisation's competitive advantage through KS (Barney et al., 2001; Grant, 1996).

Various factors have been shown to affect the knowledge-sharing process: culture, management or leadership support, organisational structure, rewards and incentives. In the context of PMI, KS provides a platform to ensure that knowledge is effectively transferred between merging entities, while impacting multiple levels within the organisations. Effectively shared knowledge can lead to improved performance from individuals, teams and organisation as a whole (Ahmad & Karim, 2019). KS is a precursor to knowledge retention. In other words, when knowledge is effectively shared, it will improve the retention ability of individuals. KS can be a vital tool in converting tacit knowledge into explicit knowledge, which allows codification and retention (Argote & Ingram, 2000; Nonaka, 2007). Knowledge elaboration and externalisation are also important concepts. Elaborating on knowledge involves breaking down complex ideas and making them more understandable, while externalising involves articulating tacit knowledge (knowledge that is often internal, experiential and difficult to

express). By sharing and externalising knowledge, employees can create an organisational knowledge repository (Argote & Fahrenkopf, 2016).

Knowledge retention

Knowledge retention (KR) in an organisational setting refers to the ability to preserve and maintain acquired information over time (Argote & Fahrenkopf, 2016). KR is usually embedded within an organisation's knowledge management strategies or plans and intricately linked to individual and organisational behaviours (Martins & Meyer, 2012). KR in the context of PMI is crucial for building a competitive advantage, retaining skills and expertise – especially if there is an attrition of skills due to the integration process (Knoco, 2006) The failure to return such knowledge, especially of a tacit nature, could have a negative impact on the knowledge transfer process and overall PMI process (Martins & Meyer, 2012).

There are various challenges to KR, such as the prevalence of tacit knowledge, high employee turnover, cultural diversity, existing systems and processes, and the difficulty of retaining dynamic knowledge in fast-changing environments (Teerikangas & Very, 2006). It has been postulated that for effective KR, a plan is needed consisting of three steps: decisions, planning and implementation (DPI) (Levy, 2011). The decisions must be made regarding which information is to be retained. This is followed by planning the retention strategies. Finally, these strategies must be implemented (Knoco, 2006). The application of the DPI plan in a PMI context could look like this: Identify critical knowledge gaps through knowledge mapping, engage the knowledge holders to ensure buy in, plan the retention strategies, and implement the retention strategies (Bresman et al., 1999).

2.5. Conceptual Model

The conceptual model in Figure 2.1 below links TL and KT within the context of PMI, while illustrating the expected interactions and influences.

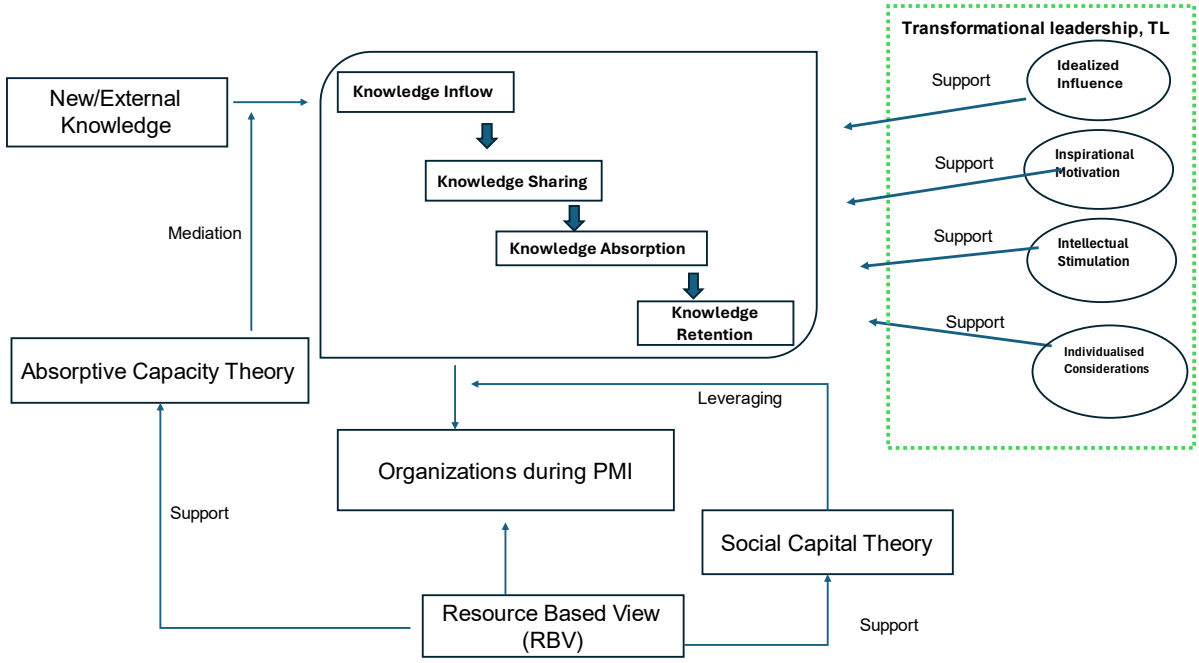


Figure 2.1: Research conceptual model

Source: Author's own compilation

2.6. Review of Transformational Leadership

2.6.1 Empirical evidence and historical development

The transformational leadership concept was introduced in the early 1970 and initially distinguished between two types of leadership: 'transactional' and 'transformational' (Díaz-Sáenz, 2011, p 3). TL relies on a reciprocal exchange of rewards for adherence, where leaders provide incentives in return for follower performance. Transformational leadership transcends this exchange by motivating followers to prioritise collective interests over individual ones for the sake of a greater good. Transformational leaders foster more engagement by aligning followers' objectives with organisational goals, creating a sense of shared purpose, and motivating individuals to participate in common success (Bass, 1988). Transactional leadership tends to focus on short-term gains while transformational leadership focuses on enduring loyalty to the organisational cause and long-term changes.

The first survey tool designed to measure leadership behaviours was the multifactor leadership questionnaire form (MLQ1) which was employed to assess the leadership behaviours of 198 army field officers (Avolio et al., 1999). Subsequent studies have refined

and enhanced the MLQ-1 over time (Antonakis & House, 2013; Bass, 1988). The initial versions of the MLQ concentrated mostly on identifying transformational leadership behaviours and differentiating these from transactional leadership behaviours. The MLQ has been applied to different sectors and contexts (Tejeda et al., 2001) .The extensive application of the questionnaire has led to enhancements in factor structure, validation and reliability assessment. The MLQ-5X, which has been progressively modified by many scholars, is currently one of the most often utilised tools for assessing transformational leadership characteristics (Bass, 1999; Podsakoff et al., 1990).

In its initial conceptualisation, transformational leadership was often compared to laissez-faire and transactional leadership. Laissez-faire leadership is considered the least effective leadership style. It denotes a deficiency in leadership characterised by the leader's avoidance of authority utilisation, indecision and delegation of responsibility to others (Antonakis et al., 2003). The TL theory has traditionally been understood as multi-dimensional, comprising four attributes: idealised influence (IF), inspirational motivation (IM), intellectual stimulation (IS) and individualised consideration (IC), collectively known as the multi-dimensional factors of transformational leadership (Stepanek & Paul, 2022). Transformational leadership theory and research were also expanded to include the leader's personal behaviours, such introversion and extraversion (Bono & Judge, 2004). Siangchokyoo et al. (2020) differentiate between intrapersonal qualities (attributes) and interpersonal behaviours, focusing especially on leader–follower interactions, which they define as transformative leadership.

The full range leadership model (FRL) comprising leadership types (transactional, laissez-faire and transformational) was developed through further transformational leadership theory refinement (Antonakis et al., 2003). Transformational leaders under the FRL model were distinguished by four attributes. The FRL model provides an explanation of how leaders can adapt their style, providing a road map for their own personal development (Antonakis & House, 2013).

Judge and Piccolo (2004) performed a meta-analysis to further enhance people's comprehension of transformational leadership's efficacy as a predictor of outcomes by contrasting it with transactional leadership. Transformational leadership was found to carry a higher predictive power over follower outcomes. The empirical evidence from this review underscores the importance of transformational leadership dimensions as a tool to achieve organisational outcomes. This evidence further cemented the reliability of these findings across various contexts, which helped validate the transformational leadership theory and framework. This study underscores the imperative of cultivating transformational leadership

competencies, especially in fluid contexts that demand adaptability and robust employee involvement.

Transformational leadership has been criticised for its simplicity and over-reliance on emotional attributes, such as idealised Influence and inspirational motivation, to explain complex interactions and leadership success as well as effective organisational outcomes. Its critics advocate for a more behaviour-based (experimental design), longitudinal approach, including the use of the full nine-factor leadership spectrum to uncover the various forms of interplay between leaders and followers (Antonakis et al., 2003). Meanwhile, recent studies have called for more research to be conducted beyond the emotional attributes with a view to improving and rebutting the construct conflation that critics have levelled against transformational leadership. Banks et al. (2016) and Stock et al. (2023) endorse this perspective, advocating for clearer distinctions between transformational leadership and comparable styles (e.g. authentic leadership and ethical leadership), as any perceived overlap may diminish the distinctive benefits of transformational leadership.

2.6.1.1. Impact of transformational leadership on follower results

Transformational leadership was found to have a positive effect on organisational outcomes, such as trust, job satisfaction and organisational citizenship behaviours. Organisational citizenship behaviours manifest as employees going above and beyond their call of duty to improve performance. Podsakoff et al. (1996), in an empirical study, validated the role and effect of idealised influence and inspirational motivation on employee performance. A leader's personality traits were found to impact leader–follower dynamics and organisational outcomes. Personality traits such as extraversion or conscientiousness can significantly affect TL behaviours and outcomes. Bono and Judge (2004) revolutionised the perception of TL. Based on their study, organisations can formulate specific leadership training programmes that best suit leaders' personality traits.

Compared with other leadership styles, such as ethical, authentic and spiritual leadership, it has been established that TL has greater predictive power with respect to follower outcomes. TL consistently surpasses the other styles in how its dimensions (IF, IM, IS and IC) can predict successful outcomes, such as job satisfaction and organisational performance, among others. Such a comprehensive comparison has also unravelled the unique befits of each leadership style (Hoch et al., 2018). This comparative method emphasises the beneficial impact of TL while acknowledging the significance of context and leader adaptability in achieving optimal outcomes.

2.6.1.2. Progress in leadership evaluation instruments

Yukl (1999) contested prevailing leadership theories and introduced a hierarchical taxonomy that prioritises adaptation and situational awareness. Expanding on Yukl's (1999) views, Antonakis and House (2014) introduced the concept of instrumental leadership, which integrates transformational and transactional leadership styles while highlighting the importance of task adaptation. This suggests that the efficacy of transformational leadership is partially contingent upon contextually adaptive behaviours. To reduce complexity and allow for quick assessments, a short measure of the transformational leadership dimension was developed which can be applied across different contexts. A key benefit is its ability to maintain construct reliability and validity across the scale (Carless et al., 2000).

2.6.1.3. Influence of transformational leadership on individuals and teams

TL was found to have dual effects at the individual and team levels. Through the TL dimensions, leaders positively impact individual followers' performance, job satisfaction, morale and enthusiasm, while also facilitating a sense of cohesion, alignment and collaboration at the team level (Wang & Howell, 2010). The same dual effects have been confirmed for virtual teams (Hoch & Kozlowski, 2104). In the information technology (IT) landscape, where a culture of continuous innovation and collaboration among individuals and teams is essential for firms to sustain a competitive advantage in a rapidly evolving environment, TL (particularly the IS and IM dimensions) has been shown to cultivate such a culture and to align it with organisational objectives (Ahmad et al., 2020).

2.6.1.4. Broadening transformational leadership's reach across sectors and contexts

Research utilising a controlled experimental methodology demonstrated that idealised influence (charisma) can be gained through training, thus contributing to the discourse on whether leadership attributes are innate or developed. This led to the development of nine charismatic leadership tactics (CLT) which are designed to assist leaders in selecting appropriate training and enhancing their charismatic traits. The CLT have been applied across various areas (Antonakis et al., 2011). Leithwood et al. (2004) illustrated the beneficial effects of TL in educational contexts, highlighting its influence on student achievement. Mittal and Dhar (2015) associated TL with employee creativity and innovation. Eagly (2007) examined gender disparities in TL, while Walumbwa et al. (2008) found that the presence of a procedural justice climate among a group within the banking environment mediated the relationship between TL behaviours and organisational outcomes, such as job satisfaction and other

organisational citizenship behaviours. That study was of importance as it demonstrated the applicability of TL to different contexts.

TL's efficacy has also been demonstrated in the context of strategic changes in the health sector (García-Morales et al., 2012; Jung et al., 2009). In addition, TL has been found to contribute positively to creating an innovation culture by fostering trust and open communication in environments where intellectual property is a key knowledge resource and employees are reluctant to share it. Over the years, these findings have demonstrated the efficacy of TL in various contexts, which underscores its relance and adaptability. For the purpose of continuous improvement, other scholars have called for a review of construct redundancy research – particularly between TL and authentic leadership (AL) so as to avoid conflating these constructs (Banks et al., 2018).

TL has been proven to be still valuable and applicable, even today – four decades after its conceptualisation. It continues to be associated with positive workplace outcomes across diverse settings, which proves its efficacy (Stock et al., 2023). Recent meta-analyses of TL in many different contexts have demonstrated its capacity to enhance cooperation, cultivate a culture of creativity and increase employee engagement, while also underscoring its impact on both individual and team outcomes. This serves to affirm the ongoing significance of TL within the context of a fast-evolving business environment and digital era (Deng et al., 2023).

2.6.1.5. Measurement of the dimensions of transformational leadership

The MLQ-5X instrument is the instrument widely used to measure leadership attributes in survey research (Avolio et al., 1999). The instrument (a questionnaire) categorises leadership into three types: transformational leadership (consisting of five dimensions: idealised influence attitudes, idealised influence behaviours, inspirational motivation, intellectual stimulation and individualised consideration), transactional leadership (consisting of three dimensions: contingent reward, management by exception–active and management by exception–passive), and laissez-faire leadership. This questionnaire seeks to encompass the full spectrum of leadership, on the premise that all leaders will demonstrate both transformational and transactional leadership traits, but to differing degrees (Bass et al., 2003).

The MLQ is a crucial tool for leadership research and application and has been translated into many different languages across the world and has been applied to different settings (Jiatong et al., 2022).

2.7. Criticism of the Four Dimensions

2.7.1. Idealised influence

The over-reliance on the leader's charisma has been criticised by some scholars who argue that this pushes style over substance. Personal appeal does not always equal effective leadership. Characteristics such as humility, adaptability and empathy are more effective in encouraging employee engagement and achieving follower outcomes than individual charisma (Nassif et al., 2021). Excessive emphasis on charisma can obscure organisational problems, suppress leader behaviour and result in social isolation. There is a huge risk that focusing on the leader's IF might drive self-serving behaviours and a cult culture around the individual, to the detriment of overall team dynamics, follower engagement and organisational outcomes (Lovelace et al., 2018; Tourish, 2013). Furthermore, the emphasis on idealised influence as a moral exemplar might elevate the leader's image, distracting them from inclusive decision-making and concrete results. This may foster the valuing of individual recognition over corporate objectives (Khurana, 2002; Tourish, 2013).

2.7.2. Inspirational motivation

Excessive emphasis on a leader's inspirational capacity in organisations may undermine the collaborative efforts that are essential for success, potentially suppressing employee autonomy and creative contributions. Meindl et al. (1985) proposed the 'romance of leadership' theory, which posits that followers frequently ascribe organisational success or failure primarily to the leader, overlooking the multifaceted elements that influence results. Day and Antonakis (2012) underscore the excessive focus on leaders' inspirational attributes, warning that followers' self-motivation and the organisational setting are equally crucial in achieving success – aspects that are frequently overlooked in the TL framework.

2.7.3. Intellectual stimulation

The IS dimension highlights the importance of originality and unconventional thinking, although it frequently neglects the operational hazards associated with rapid or excessive innovation. Constant encouragement of staff to innovate without knowledge of the real limitations or potential disruptions may result in inefficiency and exhaustion. Therefore, leaders must balance the advancement of innovation with the maintenance of operational stability (West & Anderson, 1996). Radical innovation may elicit resistance or cultural discord, especially inside organisations that have strong traditions or entrenched practices. The

development of new ideas through IS must be reconciled with the organisation's immediate operational and strategic requirements (Barker, 1993).

2.7.4. Individualised consideration

IC's focus on individual needs and personal support introduces a possible relationship bias, though unintentional. Leaders may overlook other employees on the basis of their performance, perceptions, interactions and responses to their vision. Rather, they allocate greater attention or resources (even when linked to promotion) to their relationship, ignoring the other vital attributes. This may give an impression of favouritism and exclusion, thereby undermining the principle of inclusive leadership (Keller, 2006). Leaders must therefore recognise their prejudices and diligently strive to ensure equitable development opportunities among their staff. Liden et al. (2000) examined the risks associated with the Leader–Member Exchange (LMX), where leaders cultivate high-quality relationships with select followers, resulting in perceptions of favouritism and unequal access to resources or opportunities.

2.8. Methodological Critiques

The methodology used in TL research has been criticised in the following areas: measurement bias, social desirability and cross-sectional studies, which raises doubts about the reliability and credibility of a study's findings (Van Knippenberg & Sitkin, 2013).

2.8.1. Criticism of the MLQ

Measurement concerns relate to the multifactor leadership questionnaire (MLQ), the predominant tool for evaluating TL. Critics contend that the MLQ conflates transformational leadership with other leadership styles (Tepper & Percy, 1994) and inadequately captures the intricacies of leadership phenomena (Yukl et al., 2009). Recent investigations have substantiated these apprehensions, emphasising the MLQ's restricted factorial validity and reliability (Banks et al., 2016; Frieder et al., 2018; Gardner et al., 2010) .Other authors contend that the factor structure of the MLQ may lack stability across various cultural and organisational contexts. Van Knippenberg and Sitkin (2013), in turn, critiqued the theoretical underpinnings of the MLQ, contending that the operationalisation of TL within the MLQ fails to delineate clearly between behaviours and outcomes. This measuring uncertainty may result in common method bias, as both transformational behaviours and results are assessed using the same instrument.

The above concerns indicate that researchers ought to either enhance the MLQ to augment its psychometric attributes or explore alternative metrics to guarantee more reliable outcomes in TL studies. To address these issues, several recent studies have adapted versions of the MLQ and used confirmatory factor analysis (CFA) to ensure robustness and construct validity within the factor structure (Antonakis & House, 2014; Nemanich & Vera, 2009). Triangulation through a mixed-methods approach (such as a qualitative, experiment-focused or longitudinal study) has been employed to strengthen the validity of the findings (Mindeguia et al., 2021).

2.8.1.1. Self-report bias

TL research frequently depends on self-reports, where individuals evaluate their own or their leaders' characteristics, which may be susceptible to social desirability bias. The social dynamics between leaders and followers can affect assessment outcomes, leading to either inflated or deflated ratings. The disparity between leaders' perceptions and the actual evaluations of their followers may lead to an overestimation of leadership effectiveness. Followers may react according to their emotional and cognitive biases to evade persecution or to align with team or organisational expectations (Podsakoff et al., 2003). Triangulation with other data sources and the use of other objective metrics have been found to improve the reliability of findings (Antonakis et al., 2003;Yammarino & Atwater, 1997).

2.8.1.2. Cross-sectional studies

A cross-sectional research design involves the collection of data at a single point in time (Bernerth et al., 2018). While cross-sectional designs offer quick results and are good at providing a snapshot, they are weak when it comes to establishing causal relations between TL behaviours and outcomes such as knowledge transfer or organisational changes. A longitudinal design, in contrast, is able to reflect the dynamic essence of the causal relationship between the predictor and the dependent variables as they focus on the results produced over a longer period (Avolio et al., 2009). In order to improve the accuracy and reliability of findings, several studies advocate the use of other designs, such as experiments and qualitative research (Banks et al., 2018; Wang et al., 2018).

2.8.1.3. Transformational leadership construct – practical application criticism

A major criticism of TL is that, while it positively affects follower outcomes, like engagement and job satisfaction, these improvements do not consistently correlate with quantifiable organisational success, evidenced, for example, in enhanced productivity or financial

performance (Judge & Piccolo, 2004).The relationship between TL's follower-centric focus, which emphasises individual-level outcomes, and its alignment with business objectives, such as financial performance, is often ambiguous. This lack of clarity has prompted several scholars and practitioners to question its effectiveness. A high level of follower satisfaction does not necessarily result in enhanced efficiency, profitability or innovation, unless it is aligned with strategic organisational objectives (Judge & Piccolo, 2004; Stock et al., 2023).

The organisational context significantly influences the effects of TL. TL is more likely to produce positive outcomes in contexts characterised by change or crisis, as followers exhibit a greater willingness to be inspired and guided. In contrast to stable or highly structured settings, where goals and performance metrics are rigidly defined and call for a rigid and authoritarian approach, TL may not be as effective as other styles, such as authentic leadership or spiritual leadership. The context in which TL is practised can significantly influence its overall impact on organisational performance. Arriving at a thorough understanding of leadership effectiveness necessitates the consideration of organisational, cultural and situational factors. The context is a crucial variable affecting leader behaviours and outcomes; neglecting it may result in overly generalised findings that limit the applicability of leadership theories to other settings. An integrated approach is necessary – one that incorporates contextual elements into leadership research methodologies, including case studies and longitudinal research (Johns, 2024).

2.8.1.4. Subjective vs objective outcomes

Empirical studies have shown a weak correlation between objective business performance metrics (e.g. share price, profits and market share) and TL's subjective metrics (e.g. follower satisfaction, leader self-survey reports). This indicates TL's limited applicability beyond morale boosting and positive psychological outcomes (Van Knippenberg & Sitkin, 2013). While TL fosters a culture of innovation and organisational change, these are long-term outcomes. Thus, TL may not impact the organisation sufficiently speedily to be regarded as delivering successful outcomes. This makes it difficult to quantify its impact/success criteria, which could negatively affect some organisations' acceptance and application of TL if they are looking for a quick turnaround on objectively determined business outcomes (Avolio et al., 1999).

2.8.1.5. Leader-centric approach

TL has been criticised for being overly focused on the leader while ignoring the follower contribution to the leader–follower interaction. This focus assumes that the follower has no

role to play within the TL theory, which is an oversimplification of the real dynamics at play. Several scholars have called for a more integrative model to TL conceptualisation which considers the role of the follower within this dynamic to support the empirical evidence on follower contributions (Stock et al., 2023). Other scholars have even argued that followers are the lynchpin of this relationship for, without them, there is no leadership result (Siangchokyoo et al., 2020). Leaders' actions have more of an impact on follower outcomes when such actions first meet their (followers') psychological needs (Kehr et al., 2023).

2.9. Knowledge Transfer in Post-Merger Integration

The rise in numbers of M&As has garnered considerable attention from researchers and practitioners regarding the dynamics of KT in these transactions. This has resulted in an expanding body of research focused on clarifying the challenges and opportunities linked to this essential aspect of PMI (Bresman et al., 2010; Calipha et al., 2018; Rhodes et al., 2008). Successful KT is vital as it underpins successful PMI (Sarala et al., 2016).The main impediments to KT during PMI include cultural differences, different types of knowledge and organisational misalignment.

2.9.1. Cultural differences

During the PMI process, successful KT can be hampered by differences in organisational culture (Hofstede et al., 1990; Szulanski, 1996). Cultural differences can take a variety of shapes and forms: language, communication style, values, norms and power distance, among others (Hofstede et al., 1990; Rottig & Reus, 2018). These differences may in turn impact transparency, openness and willingness to share, which creates barriers to effective KT (Bresman et al., 1999; Sarala & Vaara, 2010). This underscores the importance of considering the complex interplay between organisational cultures and values in facilitating effective KT during PMI (Junni et al., 2012).

The growth in global M&As has heightened the need to explore the development of multi-layered identities within multinational enterprises (MNEs), driven by cultural disparities (Sarala et al., 2019). Furthermore, the influence of emotions on TL decision-making, as it relates to organisational strategy, direction and performance, requires further examination. Sarala et al. (2019) advocate for further research to be conducted on: (1) the management of emotions by transformational leaders, particularly in post-acquisition contexts, (2) their function as change agents and role models, and (3) the importance of addressing employees' personal needs.

2.9.2. Tacit vs. explicit knowledge

Tacit knowledge, rooted in experience and context, is challenging to articulate and transfer (D'Eredita & Barreto, 2006).It includes cultural nuances, personal relationships and expertise, which are critical to an organisation's competitive advantage (Calipha et al., 2018). Tacit knowledge is transferred through socialisation, face-to-face interactions and trust-building initiatives (Nonaka, 2007). Tacit knowledge, which is experiential and hard to codify, is particularly challenging to transfer during PMI (Junni et al., 2012). Explicit knowledge, on the other hand, is codified and easily articulated. It includes databases, process manuals and knowledge management systems. Explicit knowledge transfer is facilitated through documentation, training programmes and technology (Davenport & Prusak, 1998). Other studies have, in their investigations, found that the retention of high-value human resources is important for tacit knowledge transfer during PMI.

Lee et al. (2023) conceptualised KT as the successful transmission of tacit, codified and complex knowledge resources between merging entities in an M&A context. Further studies have revealed that, in addition to institutional factors such as culture, language and geography, KT is crucial for preventing slow growth and limited outcomes in M&As (Lundmark et al., 2023; Talpová, 2019; Yahiaoui et al., 2016).

2.9.3. Trust and communication:

Trust and communication are crucial for successful KT during PMI, as their absence might significantly impede the process (Rao-Nichelson et al., 2016). A lack of trust between merging entities fosters suspicion and discourages knowledge sharing, while poor communication creates misunderstandings and confusion, further complicating KT efforts. Research has shown that when employees feel psychologically safe and trust their leadership, they are more willing to engage in knowledge-sharing activities (Stahl et al., 2011).

2.9.4. Organisational misalignment – systems and processes

According to Rhodes et al. (2008) , user-friendly operational processes in IT, targeted training, a culture of innovation and an accessible top leadership structure are some of the aspects that determine the speed of KT within organisations. These authors found that effective transfer of all knowledge types (both experience-driven and purposefully acquired) had a positive impact on intellectual property (IP) development and company success.

2.9.5. Organisational misalignment – routines and structures

In an empirical study that they conducted, Xi et al. (2020) investigated the role of organisational unlearning and knowledge integration in facilitating KT in cross-border M&As. They were able to demonstrate how the information incorporated into organisational processes reflects an accumulation of knowledge. The key premise of their study was that organisational unlearning, which involves discarding obsolete routines and knowledge, fosters greater compatibility between acquired and existing organisations. This unlearning subsequently facilitates knowledge integration, which is vital for effective KT. Outdated knowledge may impede the transmission of new knowledge. This will result in established organisational procedures interrupting KT after the transaction, leading to failure or underperformance.

2.9.6. Organisational misalignment – human resource management practices

There is a need to plan and develop well-formulated HRM practices or policies to ensure alignment and harmony within the organisation during PMI. Several studies suggest that HRM practices influence the degree to which knowledge is shared during the PMI process (Sarala et al., 2016; Weber & Tarba, 2010; Zhang et al., 2015; Zhou et al., 2020). During PMI, KT is facilitated by human capital and social dynamics. The knowledge, skills and abilities (KSAs) of employees constitute human capital, which is improved via HRM procedures such as career development plans, ongoing training and targeted hiring. The KSAs that are required for efficient knowledge sharing are built with the aid of these practices. Furthermore, social capital that is promoted through cooperation, communication and a common language allows staff members to take part in cooperative knowledge-sharing activities.

Thus, KT is made possible by the dynamic relationship between HRM practices and social capital, which ensures that information instead of simply being in people's possession is actively shared and used to improve organisational outcomes (Aklamanu et al., 2016). In building on the role of social capital, Lee et al. (2023) suggest that effective KT requires a shared vision and interest by the two entities during integration. They define social capital as relationships, networks and trust within and between organisations. Social capital theory plays a significant role in interpersonal interactions and communication channels which facilitate KT among personnel from various cultures and backgrounds (Lee et al., 2023).

2.9.7. Reverse knowledge transfer

The rise of emerging market multinational enterprises (EMNEs) has birthed the new phenomenon of reverse knowledge transfer due to the unconventional flow of information from developed to developing markets. Reverse knowledge transfer does not follow the conventional KT route from head office (in developed markets) to subsidiaries (in developed markets). Rather, the opposite occurs (Yahiaoui et al., 2016). This trend is primarily driven by EMNEs seeking not only market access but also advanced technological capabilities, managerial expertise and innovative practices, which they lack. By acquiring established companies in developed economies, EMNEs can tap into their intellectual capital, research and development (R&D), and leverage innovations to enhance their own competitive advantage back home (Liu & Meyer, 2020).

Language, cultural barriers and resentment are some of the major challenges associated with this approach. It is mainly engaged in by firms from Asia (such as China and India) that lack sophisticated technological know-how but are armed with financial resource and strategic intent to bridge the gaps through acquisitions (Bresman et al., 1999; Rhodes et al., 2008).

2.9.8. The dark side of knowledge transfer

Not all KT during PMI, especially in the case of cross-border acquisitions, yields positive or beneficial outcomes. In fact, the process often reveals a dark side, where various barriers (both motivational and organisational) emerge. For instance, individuals may resist sharing knowledge due to personal interests or organisational politics, fearing a loss of status or job security in the newly merged entity. In more extreme cases, this resistance can escalate into sabotage, where knowledge is either withheld or destroyed intentionally to maintain power or protect one's role within the organisation. These power dynamics and internal struggles can have significant implications for KT, destabilising the organisation and disrupting human relations, particularly in the case of foreign acquisitions (Reus et al., 2016).

2.10. Synthesis of Findings on Knowledge Transfer in a Post-Merger Integration Context

KT in PMI is a complex process bit it is critical for bringing about a successful PMI outcome. Various challenges arise from disparities in organisational cultures and other forms of organisational misalignment, such as incompatible systems and processes (Junni et al., 2012). Based on the literature reviewed, it has been established that cultural discrepancies in

terms of communication styles, decision-making processes and knowledge-sharing activities, can impede effective KT (Hofstede, 1990; Sarala & Vaara, 2010). Moreover, tacit knowledge, which is embedded in human experience, is more difficult to transfer than explicit knowledge which is developed in more formal settings (Davenport & Prusak, 1998).

HRM practice and social capital, which promote collaboration, trust and openness, are essential for effective KT (Aklamanu et al., 2016; Lee et al., 2023). Unfortunately, KT has a potential dark side where power dynamics, sabotage and fear of job losses can undermine the transfer process (Rao-Nicholson et al., 2016). By recognising these challenges, business practitioners can develop strategies to overcome them, clearing the way for effective, unhindered KT which supports the overall PMI process.

2.11. Role of Transformational Leadership in Facilitating Knowledge Transfer

TL behaviours can play an important role in overcoming obstacles to successful KT, as discussed above, given TL's applicability and adaptability to diverse contexts (Deng et al., 2023). These TL attributes are discussed below:

2.11.1. Idealised influence

Several of the studies discussed above have shown how overcoming a lack of psychological safety through the building of trust, respect and open communication are essential for dispensing with cultural barriers between merging organisations (Rao-Nicholson et al., 2016; Tarba et al., 2017). Leaders who demonstrate idealised influence can build trust, which is critical for knowledge sharing (Dirks & Ferrin, 2002). Having trust in the leadership positively impacts employees' willingness to share knowledge, especially during periods of organisational change. By fostering a culture of integrity and respect, leaders who are capable role models encourage employees to freely share critical knowledge across organisational lines, reducing silos and promoting collaboration (Calipha et al., 2018; Sarala et al., 2016).

2.11.2. Inspirational motivation

Leaders' ability to motivate their followers is crucial for fostering employee engagement during PMI. By clearly communicating a shared vison of the future, including the benefits of integration, leaders can align employees from both organisations towards common goals (Day & Antonakis, 2012). Inspirational leaders help reduce resistance to change, thus facilitating knowledge sharing by creating a sense of purpose. Employees become more willing to

contribute their expertise to the integration process when they believe in the vision. Employees' commitment to organisational goals is a key driver of knowledge sharing (Reade & Lee, 2012).

2.11.3. Intellectual stimulation

Leaders who are able to foster a culture of creativity through intellectual stimulation can facilitate effective KT. Such leaders allow their followers to innovate, make mistakes without being reprimanded, and encourage them to think 'out of the box'. Intellectual stimulation can create a safe space for employees to share tacit knowledge: the unspoken insights and expertise that are crucial during integration. Promotion of critical thinking has been linked to successful transfer of tacit knowledge. Leaders who stimulate creativity can encourage employees to share innovative solutions to integration challenges (Nonaka, 2007; Zhou & Li, 2012). Supporting this thinking, TL has been found to be positively related to a creative culture and to follower creativity; it is also more effective when projects require deeper innovative thinking (Jung et al., 2003; Keller, 2006) .

2.11.4. Individualised consideration

By focusing on employees' needs through individualised consideration and personalised support, leaders can promote adaptability and free space for teams to internalise and tailor-make new knowledge. This focus on individual needs and personalised attention, such as training, coaching and mentoring, helps to guide individual interventions, which in turn promote knowledge KT (Hoch et al., 2018; Wang & Rode, 2010).

2.12. Empirical Studies on Transformational Leadership in Knowledge Transfer within a PMI Context

2.12.1. Overcoming cultural barriers

Cultural intelligence (CQ) plays a significant role in enabling transformational leaders to effectively manage global teams. CQ allows leaders to adapt their behaviours and decision-making processes to meet the needs of culturally diverse workforces, thereby enhancing their ability to inspire and motivate followers. Effective transformational leaders with high CQ can navigate cultural differences, understand cultural nuances, and facilitate inspirational motivation and KT (Ramsey et al., 2017). TL behaviours such as inspirational motivation (IM) and individualised consideration (IC) resonate with multicultural teams, fostering better KT and

collaboration across borders. Transformational leaders with high CQ can align their team's goals with organisational objectives and address cross-cultural barriers that impede knowledge sharing. As companies become more global, leaders need to develop CQ to ensure that TL behaviours translate into tangible outcomes across culturally diverse teams (Ramsey et al., 2017).

Cultural diversity, especially in global M&As, can either be a source of friction and conflict or an opportunity to learn and develop team cohesion (Stahl & Maznevski, 2021). Research has established that through individualised consideration and inspirational motivation, leaders can develop cohesion between culturally diverse teams in different geographies. These TL attributes were found to foster open communication, psychological safety and enhanced inclusivity, which improved diverse team dynamics and performance (Stahl & Maznevski, 2021).

2.12.2. Resource-based view and transformational leadership in post-merger integration

TL has also been shown to use the resource-based view (RBV) theory as a key input in the creation and sustenance of a competitive advantage. Leaders' ability to steer the organisation through change, such as the PMI transition phase, are an important resource in the organisation (Galpin, 2021; Gomes et al., 2020). Strategic agility is often referred to as a business's ability to quickly detect and react to changes in the environment. Businesses may gain a competitive edge during PMI if they can quickly detect and react to changes in the environment.

The resource-based view (RBV), which emphasises that success depends on the coordination and management of critical resources, especially knowledge, is closely related to the idea of strategic agility. In this process, TL is essential because it helps businesses to efficiently deploy and manage resources in response to the ever-changing requirements and challenges of PMI (Weber & Tarba, 2014) .

2.12.3. Transformational leadership's impact on organisational performance, human resource management practices

Rao-Nicholson et al.'s (2016) study on TL emphasised that empathy and shared values are crucial for employees feeling secure in the knowledge that they will not lose their jobs after a merger or acquisition. These authors discovered that behavioural characteristics of motivation

and attention to personal needs tend to resonate well with employees during PMI. Cognitive behaviours and neuroscience perspectives have attracted attention in the study of transformational leadership behaviours. TL behaviours are important for managing three specific aspects: routines, incremental thinking and the fear of the unknown, all of which are prevalent following a merger or acquisition (Gheerawo et al., 2020).

2.12.4. Resource orchestration theory

Recent studies have shown a link between resource orchestration theory (ROT) and TL by examining how TL influences the orchestration of resources and capabilities during PMI. It is argued that simply possessing resources does not create a competitive advantage; instead, the coordination and orchestration of those resources, particularly knowledge as a strategic asset, is the key to success.

Transformational leaders play a critical role in orchestrating these resources through a structured, phased approach that ensures resources are effectively utilised to create value (Lee et al., 2023). Three separate stages make up the orchestration process: structuring, bundling and leveraging. Through integration and alignment within the combined entities, TL assists in the identification and organisation of resources during the structuring phase, especially knowledge and human resources. TL integrates complementary resources during the bundling phase, encouraging cooperation and information exchange to improve organisational capacities. Lastly, TL makes sure that these combined resources are used efficiently to generate a competitive advantage during the leveraging phase, while encouraging creativity, flexibility and long-term organisational success. Organisations may unleash the full potential of their resources through this dynamic resource orchestration process, which is led by TL and produces better results in the highly competitive M&A landscape (Lee et al., 2023).

2.12.5. Distributed leadership vs transformational leadership

Other studies have advanced a different approach, arguing that distributed leadership is more significant than conventional TL in influencing PMI, particularly among EMNEs. Traditional leadership models emphasise that top management is responsible for making choices and influencing their subordinates in all activities pertaining to knowledge dissemination. Distributed leadership adopts a lateral view as it attempts to incorporate various skills and talents, irrespective of hierarchy. It allows all level employees to participate in and drive

knowledge sharing. This increases their resilience and creativity as they feel a sense of project ownership (Khan et al., 2021) .

2.13. Analysis of Findings

The various studies on the impact of TL on KT in a PMI context have revealed the following to be key requirements or strategic imperatives: cultural adaptation, open communication, trust, and responsive HRM strategies that enable organisations to navigate the often tumultuous environment and uncertainty associated with the PMI context.

It is important to integrate TL behaviours and HR strategies in order to achieve smooth PMI and realise the full potential of the merged entities. TL plays a crucial role in enhancing the effectiveness of HR practices during PMI. Transformational leaders are able to alleviate employee resistance and increase their engagement by creating a supportive and motivational environment. TL behaviours, such as individualised consideration and inspirational motivation, make employees more receptive to change, thereby reducing the challenges posed by cultural clashes and uncertainty. HR practices aimed at improving communication, fostering trust and addressing employee concerns are more effective when coupled with TL, leading to better integration outcomes (Vasilaki et al., 2016).

Transformational leaders play a critical role in fostering a positive organisational climate, characterised by trust and collaboration, which is essential for smooth integration. Leaders who exhibit TL behaviours, such as providing a clear vision, showing individualised consideration and intellectually stimulating employees, help alleviate employees' anxieties and uncertainties during the acquisition process. This, in turn, leads to higher employee commitment, better performance and a more successful integration outcome (Nemanich & Keller, 2007).

HRM practices play an important role in managing the human side of mergers, concentrating on difficulties such as culture integration, staff retention and process alignment. Effective HRM strategies are acknowledged to be critical for managing the emotional and psychological challenges that employees encounter during mergers, as well as lowering resistance to change and keeping top talent, both of which are critical for business continuity. Leadership is, in general, critical for managing these HR difficulties by encouraging communication, eliminating opposition to change, and ensuring that staff remain aligned to the organisation's new goals (Tarba et al., 2020).

2.13.1. Implications for practice

This literature review has established a number of practical issues that need business practitioners' attention in their quest for successful KT facilitated by TL during the PMI process. These include fostering TL behaviours, cultural integration, organisational alignment and planning of effective KT.

TL behaviours

Business practitioners should ensure that leaders practise TL behaviours that foster trust, build psychological safety, and promote open communication during the period of uncertainty that is typically associated with PMI.

Cultural integration

The importance of cultural integration in facilitating KT has been emphasised in the literature (Bresman et al., 1999; Sarala et al., 2016). Business practitioners must therefore develop strategies to manage cultural integration during the integration phase. This includes identifying key barriers, such as mismatches in language, values, norms and beliefs, and setting up cross-cultural teams to mitigate these.

Organisational alignment

Organisational misalignment – especially in terms of routines, systems and processes – can potentially derail the PMI process. Leaders must ensure that proper plans are put in place to facilitate the relevant changeover to new IT systems, standard operating procedures and routines, thereby helping to avoid any disruptions to the business operation. This includes planning for unlearning and learning new systems and routines where necessary. HRM practices must also be aligned, with remuneration structures and rewards programmes being explained to employees to allay any fears (associated with psychological safety) of job and income losses.

Knowledge transfer planning

The success of PMI is heavily dependent on successful KT, with organisations leveraging resources to build a competitive advantage and improve efficiency (Grant, 1996). It is well known that KT is a complex process, and its inherent challenges need to be carefully managed, including through proper planning to manage the critical stages of inflow, sharing, absorption and retention (Argote & Ingram, 2000; Teerikangas & Very, 2006). A KT plan based on a DPI strategy (as discussed earlier) must be implemented to ensure that tacit knowledge

is also transferred. Leaders must be able to create an atmosphere conducive to KT, which includes building trust and encouraging open communication.

2.13.2. Synthesis and gaps in the literature

The literature review highlighted the significant role that TL plays in facilitating KT during PMI. It was established that TL behaviours such as inspirational motivation, intellectual stimulation and individualised consideration help to foster trust, open communication and collaboration which are essential to bridge the gaps that arise from cultural differences, organisational resistance and operational integration challenges. The transfer of knowledge between merging organisation is complex, with an additional challenge being that tacit knowledge is difficult to document as it resides within individuals (Junni, 2011).

TL behaviours have been shown to positively influence the flow of such knowledge between the merging entities, which contributes to overall PMI success (Le & Lei, 2017; Yin et al., 2020). Despite the recognised benefits of TL, several gaps in the literature persist. There has been an over-reliance on cross-sectional studies, while the longitudinal, multilevel effects of leadership on KT have been overlooked (Johns, 2024). Several scholars have called for more research to be conducted on TL behaviours, using other methods such as experiments, and qualitative and longitudinal approaches to validate the casual relationship while ensuring that the long-term benefits of TL behaviours are quantified. This will address the criticism relating to the low impact of TL dimensions on organisations' objective metrics, such as profits, market share and stock price (Stock et al., 2023; Van Knippenberg & Sitkin, 2013).

While the KT stages have been examined in this literature review, there is a need to explore more specific mechanisms through which TL is able to influence knowledge transfer, such as inflow, absorption, sharing and retention – all of which are critical elements of successful integration. This area is underexplored and, accordingly, forms the basis of this study which will be discussed in more detail in subsequent chapters. Another area that is underexplored is the interaction between leader–follower dynamics in cross-border mergers, particularly in culturally diverse settings (Sarala et al., 2019; Stock et al., 2023). Additionally, the role of emotions in TL decision-making in relation to organisational strategy, direction and performance warrants reconsideration. Specifically, Sarala et al. (2019) call for more research on: (1) how transformational leaders manage emotions, especially post-acquisition; (2) transformational leaders' function as change agents and role models; and (3) employees' personal needs, which point to a better, more nuanced understanding of how the four dimensions of IF, IM, IS and IC interact in different contexts, such as KT and PMI.

Addressing these gaps through multi-level, longitudinal research that accounts for both contextual factors and reciprocal leader–follower relationships will deepen our understanding of how TL drives effective KT during PMI and contributes to the development of more targeted strategies for managing cross-border mergers. A recent call has been made for leadership studies to not neglect the context in which leadership is practised, as context-sensitive studies can lead to a better understanding of leadership theory and how it can be effectively applied in different settings (Johns, 2024).

While TL has been widely recognised for the important role it plays in enhancing KT during PMI, future research must address the context-specific, dynamic aspects of leadership and its impact on long-term knowledge outcomes. By focusing on these underexplored areas, we can better establish how to leverage TL to foster successful knowledge integration, thereby ensuring that organisations fully capitalise on the potential benefits of M&As.

2.14. Conclusion

The conceptual and theoretical frameworks underpinning TL and KT have been thoroughly examined in this literature review. Various empirical studies have highlighted the role of TL in influencing KT within various contexts, particularly the PMI phase (Antonakis & House, 2013; Bass & Riggio, 2006). The elements (or lower-level constructs) of the TL construct – i.e. idealised influence (IF), inspirational motivations (IM), intellectual stimulations (IS) and individualised consideration (IC) – were reviewed from the point of view of how they impact the KT process and individual stages (Carreiro & Oliveira, 2019; Yukl et al., 2009). The literature review also established the complex nature of KT, particularly within the PMI context, evidenced by various challenges to effective transfer, such as cultural differences, different types of knowledge (tacit, explicit), organisational misalignment (systems, processes, procedures, HRM practices) and variable leadership support programmes (Junni et al., 2012).

Through the meticulous review of the literature, the research gap for this study was arrived at (Sarala et al., 2019; Tarba et al., 2020). Building on this, the review also guided the development of the research model and hypotheses (covered in the next chapter, Chapter 3) that will address the research problem (outlined in Chapter 1) and inform the research design and methodology (covered in Chapter 4).

Chapter 3: Conceptual Model and Research Hypotheses

3.1. Introduction

This chapter will address the research questions (RQ) and their accompanying hypotheses. Figure 3.1 below illustrates the chapter summary and roadmap:

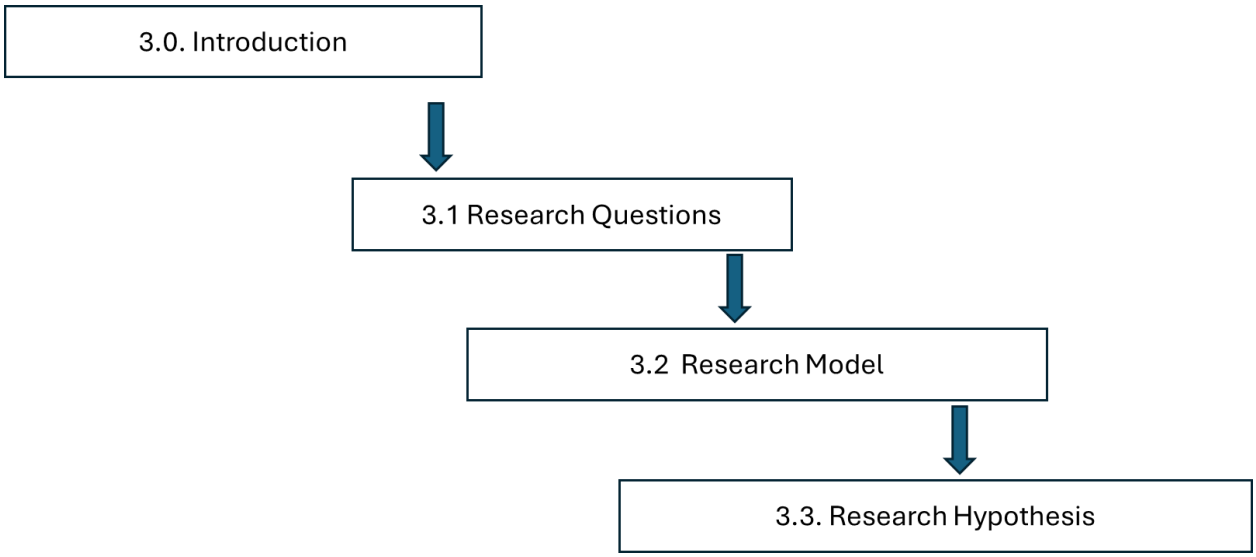


Figure.3.1: Chapter summary and roadmap

Source: Author's own compilation

Over the years, mergers and acquisitions (M&As) have become the most common approach adopted by firms to enter new markets, enabling them to acquire new resources and technologies, gain a competitive advantage and kickstart growth strategies (Bansal, 2020). M&As' success is often dependent on the efficiency, speed and timing of the post-merger integration (PMI) process, especially how well knowledge resources are transferred across the merging organisations (Tarba et al., 2017).

Knowledge transfer (KT) is an essential component in the PMI process and can be viewed under the knowledge-based view (KBV) theory which is embedded in the resource-based view (RBV) theory. Knowledge assets are intangible resources which a firm acquires to gain a competitive advantage and improve efficiency (Barney et al., 2001; Zhou et al., 2020). Effective KT relies heavily on sound leadership, especially transformational leadership (TL), which is essential for cultivating the behaviours and attitudes required for successful knowledge exchange.

Transformational leaders can, through their actions and behaviours, inspire and motivate individuals, stimulate creativity and provide individualised support, which help the organisations in question to navigate the new landscape during times of change and PMI (Bass, 1988; Carreiro & Oliveira, 2019). Using TL behaviours, leaders are well-equipped to foster the various stages of information transfer: inflow, absorption, sharing and retention, and to cultivate an atmosphere of trust, intellectual stimulation and personalised assistance (Rao-Nicholson et al., 2016). Going to the lengths of understanding the exact mechanisms used in transferring knowledge through the four stages can greatly enhance the PMI process. To this end, this study aims to address the research questions presented in Chapter 1 and repeated below.

- **Main research question RQ**

How does transformational leadership influence the stages of knowledge transfer (inflow, absorption, sharing and retention) during post-merger integration?

- **Sub-question RQ**1

How do the dimensions of transformational leadership (idealised influence, inspirational motivation, intellectual stimulation and individualised consideration) influence knowledge inflow, and how does this impact the overall post-merger integration process?

- **Sub-question RQ2**

How do the stages of knowledge transfer (inflow, absorption, sharing and retention) relate to each other, and what role does transformational leadership play in initiating knowledge inflow during post-merger integration?

This study's overarching aim is to gain insights into how TL promotes effective knowledge transfer across all the different stages – inflow, absorption, sharing and retention – by extending the current elucidation of the relationship between TL and KT constructs with a view to improving the M&A success rate (Sarala et al., 2019).

3.2. Conceptual Model Used in the Study

The conceptual model formulated for this study is underpinned by the need to answer the research questions and, furthermore, explore the impact of TL on KT, as highlighted by the literature. In this regard, the human resource dynamics during PMI have attracted a great deal of research interest over the past few years, yet the deeper issues influencing the success or failure of M&As are still not well understood (Sarala et al., 2019; Tarba et al., 2020).

The conceptual model used in this study, which is presented in Figure 3.2 below, seeks to elucidate the connections between TL behaviours (idealised influence (IF), inspirational motivation (IM), intellectual stimulation (IS) and individualised consideration (IC)) and the various stages of KT (inflow, absorption, sharing and retention). The model was formulated to address the main research question (RQ) directing this study, which relates to the effects of TL on each phase of KT in PMI; the first sub-question (RQ1), which relates to the influence of various dimensions of TL on knowledge inflow; and the second sub-question (RQ2) which relates to the interrelationship between KT stages, while also exploring the role of TL in facilitating knowledge inflow during PMI. By incorporating these research questions, the conceptual model reveals the intricate ways in which TL behaviours impact KT mechanisms, thereby enhancing the prospects of the PMI success.

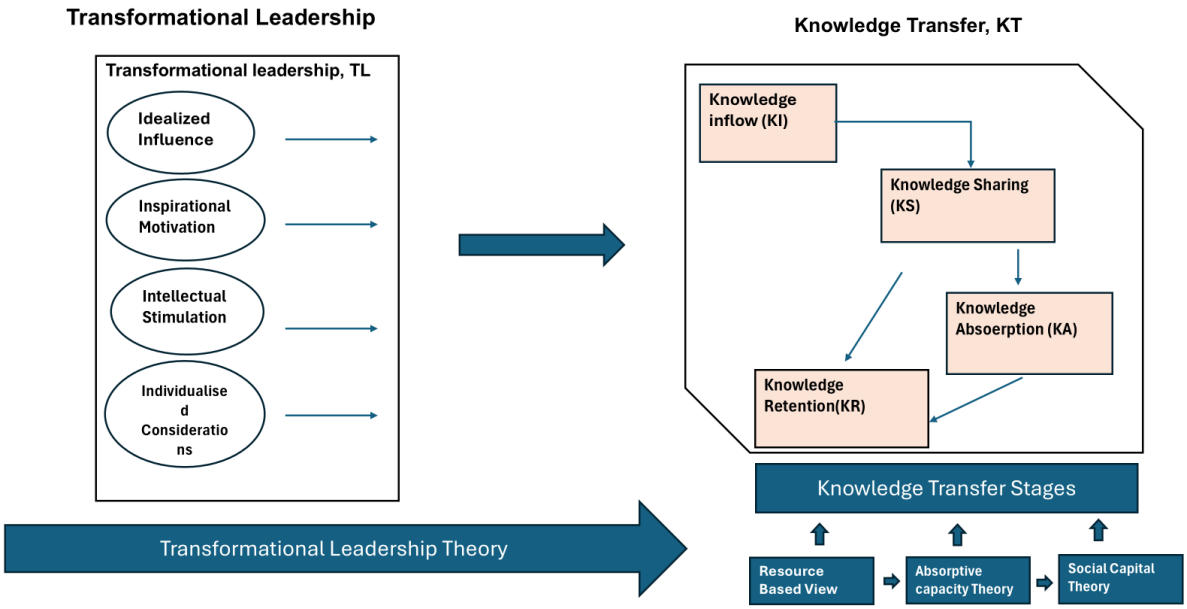


Figure 3.2: Conceptual model used in the study

Source: Author's adaptation from Zhou et al. (2020)

3.3. Research Hypotheses

The research hypotheses presented below were postulated in order to answer the main research question (RQ) which seeks to extend the understanding of the relationship between TL and KT during PMI. This overarching question which will be answered through the operationalisation of RQ1 and RQ2 and corresponding hypotheses H1–H4 (for RQ1) and H5–H8 (for RQ2).

3.3.1. Proposed hypotheses for RQ1 (H1–H4)

H1: Idealised influence (IF) leads to increased knowledge inflow (KI)
By leading from the front and acting as role models, transformational leaders can increase employees' sense of psychological safety. This fosters trust and commitment as well as an increased willingness to share information during PMI, which in turn boosts knowledge inflow.

H2: Inspirational motivation (IM) leads to increased knowledge inflow (KI)
Leaders who articulate a compelling vision and motivate employees to envisage a better future and a sense of shared purpose are likely to reduce barriers and encourage higher levels of knowledge inflow during PMI.

H3: Intellectual stimulation (IS) leads to increased knowledge inflow (KI)
By creating an atmosphere of intellectual stimulation, leaders promote critical thinking among employees and encourage them to question the status quo. This creates a culture of learning, innovation and creativity which enhances knowledge inflow.

H4: Individualised consideration (IC) leads to increased knowledge inflow (KI)
By engaging in individualised consideration (IC), transformational leaders offer personalised support and/or mentorship in line with individual needs. This fosters a sense of importance among employees and enhances their willingness to share knowledge, which enhances knowledge inflow.

3.3.2. Proposed hypotheses for RQ2 (H5–H8)

H5: Increased knowledge inflow (KI) leads to increased knowledge sharing (KS)
There is a positive relationship between knowledge inflow and knowledge sharing such that increased knowledge inflow leads to better knowledge sharing.

H6: Increased knowledge sharing (KS) leads to increased knowledge absorption (KA)
An increase in the information that employees share enhances their ability to externalise this knowledge, which is likely to result in a greater absorption of this knowledge across the organisation.

H7: Increased knowledge sharing (KS) leads to enhanced knowledge retention (KR)
Increased knowledge sharing enhances the dissemination of information throughout the organisation, thus augmenting the likelihood of knowledge retention across diverse departments and functions.

H8: Knowledge absorption (KA) mediates the relationship between knowledge sharing (KS) and knowledge retention (KR)
Knowledge absorption serves as a conduit between knowledge sharing and knowledge retention, as absorbed knowledge is more likely to be retained and employed effectively inside the organisation.

The research hypotheses model used in this study is depicted in Figure 3.3.

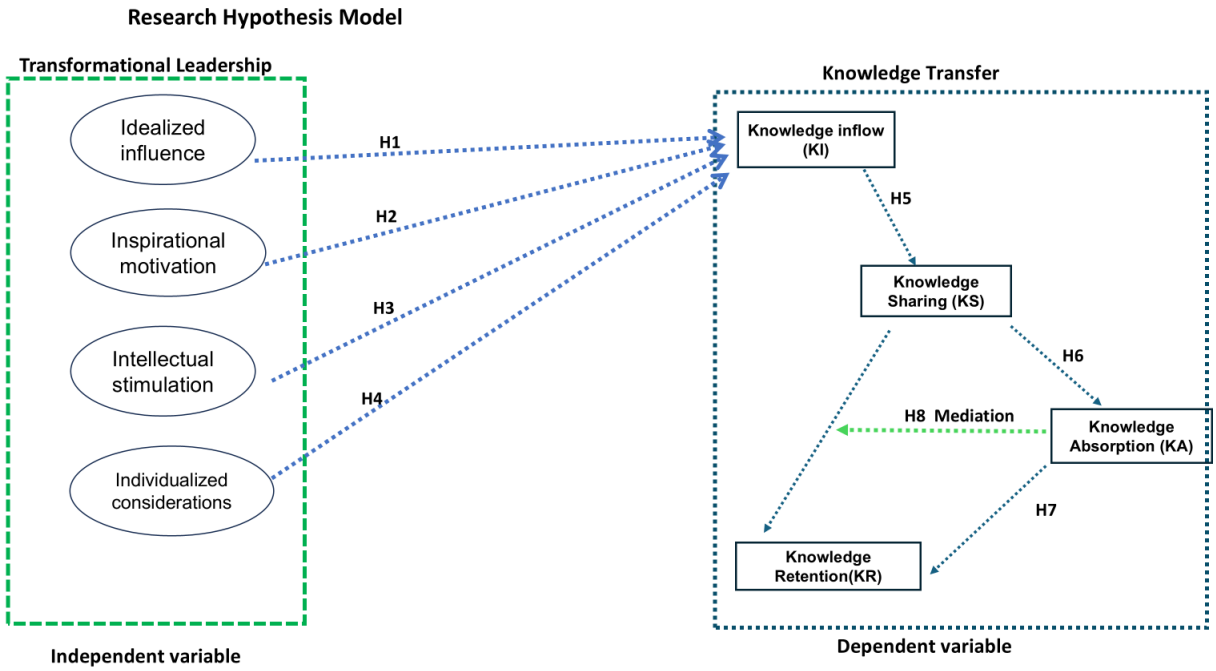


Figure 3.3: Research hypotheses model used in the study
Source: Author's own, adapted from Carreiro and Oliveira (2019, pp 104–113)

The above hypotheses delineate the logical progression of the knowledge transfer process and position the mediation function of knowledge sharing between knowledge absorption and knowledge retention. This illustrates how each phase of knowledge transfer is contingent upon its predecessor, with knowledge sharing serving as a vital mechanism that fortifies the connection between knowledge absorption and knowledge retention.

3.4. Conclusion

This chapter has presented a theoretical or conceptual model to illustrate the impact of TL on KT, while also highlighting the various stages of knowledge transfer within the context of PMI. The design of the model was influenced by a number of key issues arising from the literature review, including the call for extended research into the nuances associated with human interactions and dynamics during the PMI process (Sarala et al., 2019; Tarba et al., 2020). The research questions, objectives and hypotheses were developed to investigate the precise impacts of the TL dimensions of idealised influence, inspirational motivation, intellectual stimulation and individualised consideration on knowledge inflow, as well as the interrelationships among the different KT stages.

In the next chapter (Chapter 4), the methodology used to evaluate these hypotheses will be presented. The chapter will outline the research design, data collection methods and analytical tools utilised to empirically assess the links between TL and the KT stages. The main research question relates to the overarching topic to be addressed; sub-question 1 relates to H1 to H4; and sub-question 2 relates to H5 to H8. This alignment guarantees that each topic raised in the study is linked to a distinctly articulated hypothesis, ensuring the thoroughness and depth of the investigation.

Chapter 4: Research Design and Methodology

4.1. Introduction

This chapter describes the research design and methodology employed to evaluate the hypotheses pertaining to the research questions outlined in Chapter 1 and Chapter 3. The purpose of this section is to explain how and why data was collected, including a full description of the operationalisation of the transformational leadership (TL) and knowledge transfer (KT) constructs, and the types of analysis to be conducted.

To show the link between the research design and the findings, this section also sets out to reinforce the validity of the research findings, thereby ensuring that the conclusions drawn will have a solid theoretical and empirical foundation (Zhang & Shaw, 2012). The outline and roadmap for this chapter are shown in Figure 4.1 below.

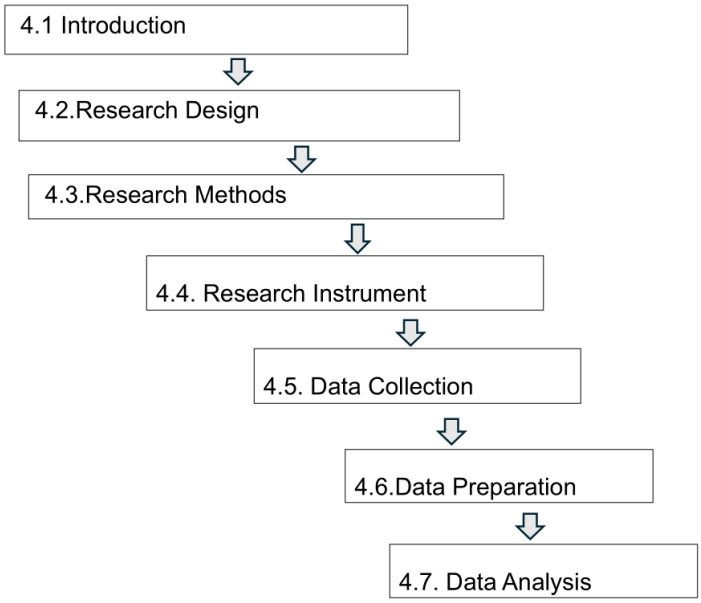


Figure 4.1: Chapter summary and roadmap
Source: Author's own compilation

4.2. Research Design

A robust research design is characterised by its suitability to effectively answer the research questions, while minimising (as far as possible) possible threats to its validity (Bono &

McNamara, 2011). Those engaged in practical research are often confronted by the challenge of balancing external constraints, such as access to data, time and costs, with the need for an optimal, valid design that can address the research questions. This often gives rise to a complex dilemma, which calls for elements from both art and science. In developing the research design for this study, careful consideration was given to achieving an appropriate balance between methodological rigour and practical feasibility (McGrath, 1981).

4.2.1. Research philosophy and assumptions

This study adopted a positivist research philosophy which focuses on objectively studying phenomena through empirical observation and measurement with a view to establishing causal relationships (Saunders & Thornhill, 2023). During this study, transformational leadership (independent variable) and knowledge transfer (dependent variable) were analysed to determine their relationship within the context of PMI. TL was examined as a reflective multi-dimensional construct with four latent factors: idealised influence, inspirational motivation, intellectual stimulation and individualised consideration. The positivist approach ensured coherence between the research questions, methodology and objective of measuring causal effects. The study also presented several research assumptions, including ontological (nature of reality), epistemological (how knowledge is acquired) and axiological (values and ethics) perspectives, which could influence the findings (Mkansi & Acheampong, 2012).

The researcher employed a realist ontology, acknowledging that TL and KT in a PMI scenario are objective phenomena that are independent of human experience. These constructs are viewed as having genuine and quantitative representations within the organisational setting which can be observed and objectively analysed. This method was supported by the fact that TL and KT are well-established research constructs, validated by numerous meta-analytical reviews and strong theoretical frameworks (Banks et al., 2016; Bass, 1999; Lundmark et al., 2023). In addition, the study followed a positivist epistemology to produce objective insights on the connection between the TL and KT processes in PMI.

Large numbers of studies have demonstrated the value of systematic observation, measurement and empirical analysis using quantitative methods to test hypotheses and develop models (Prasad et al., 2001). In this study, the researcher remained objective throughout, minimising bias by striving for neutrality and limiting any personal impact on the findings (Bernerth et al., 2018). Ethical considerations were prioritised, ensuring integrity, transparency and respect for participants' rights and anonymity. Special care was taken to avoid bias on the part of the researcher (as an insider within the organisation), including

emotional bias towards the findings (Saunders & Thornhill, 2023). A reflective approach was adopted by the researcher, who had extensive consultations with other, experienced researchers and the research supervisor to mitigate biases, such as cultural, contextual, confirmational and participant selection biases (Saunders & Thornhill, 2023).

4.2.2. Research purpose

The explanatory technique was chosen as the best way of efficiently answering the research questions and achieving the research objectives. TL is a well-developed leadership construct, with burgeoning literature over the past four decades. The explanatory technique was therefore used to explain this phenomenon as an influential process of influencing organisational behaviours and outcomes across various disciplines (Podsakoff et al., 1990). Likewise, the KT construct has been extensively studied in organisational, business and other social science disciplines (Balle et al., 2020; Calipha et al., 2018)**.**

The explanatory approach used in reviewing the literature was also adopted for the empirical part of the study. This involved collecting and analysing quantitative data, and utilising statistical techniques to arrive at a clear view and form inferences about the relationship between TL and KT.

4.2.3. Research strategy

The research strategy refers to the plan or approach that guided the researcher in collecting, analysing and interpreting data, including how the research design was conceived. Common research strategies include experiments, case studies, surveys, ethnography and grounded theory (Mkansi & Acheampong, 2012). This study employed a survey strategy. Survey research can be described as a method used to collect self-reported, descriptive data relating to a population's attitudes, habits and other traits. In organisational research, surveys are widely acknowledged as the most utilised data collection approach for evaluating phenomena that are not directly observable (Swanson & Holton III, 2005).

Data was collected through a questionnaire circulated within a single multinational chemical business which acquired a local company in 2020 for its ambidexterity strategy. The acquisition was aimed at exploiting the local South African market while utilising the local company’s location advantage to explore growth opportunities in other African emerging markets. The survey-based research strategy for this organisation provided insights into the different TL dimensions and how they related to KT activities, within a PMI context.

4.2.4. Research time horizon

The time horizon for this survey was cross-sectional, meaning that data was collected from the sample of participants at a single point in time. This approach provided a snapshot of the interactions between TL and KT within the chosen organisation (Podsakoff et al., 2003). The cross-sectional design allowed for staggered data collection and facilitated the comparison of two distinct groups, namely leaders and followers, and their perceptions of the two constructs given the available timeframe and resources. Although a longitudinal approach would have been better suited to exploring the causal relationship between TL and KT, the limitations of the cross-sectional design were mitigated by the rich contextual details provided by the field-conducted survey (Bono & McNamara, 2011).

4.3. Research Methodology

In any study, a well-considered research methodology must be derived from the research questions, aims and objectives (Ellis & Levy, 2008). Despite the growing popularity of experimental, quasi-experimental and qualitative methods of studying TL, quantitative approaches remain the most prevalent among leadership researchers (Banks et al., 2016).

Given the breadth of existing literature and its applicability to this study's research questions and hypotheses, a mono-quantitative research method was employed. Quantitative methods are characterised by a focus on how best to maximise objectivity, replicability and generalisability (Fielding et al., 2008). This is achieved through the use of structured instruments, such as surveys, to collect data and reliance on probability theory to test statistical hypotheses. Quantitative research typically follows a deductive approach, allowing inferences to be drawn from statistical testing with a view to generalising findings about the population. This method also facilitates replicability in different contexts using standardised techniques (Harwell, 2011).

The adoption of a mono-quantitative method enabled a focused investigation of the relationships through statistical analysis of numerical data, which yielded precise estimates of associations between variables. Compared to qualitative methods, quantitative data collection and analysis often require fewer resources, making this approach suitable for research with time and budgetary constraints. The findings generated from the quantitative approach offer practical utility and provide actionable insights and evidence-based recommendations for organisational leaders and practitioners. These insights can inform leadership development

programmes, organisational change initiatives and integration strategies (Barroga & Matanguihan, 2022).

4.3.1. Research population

The population in a research study is defined by the finite collection of units from which the data is sought, which comprises the content, unit, extent and temporal dimensions (Lavrakas, 2008). The population for this study comprised employees involved in the PMI process (where KT was critical), including team leaders, middle and senior managers, and subject matter experts. The population was from one of the world's leading chemical suppliers which employs over 15,600 people and has operations in 130 countries, strategically located across all major continents. This global company has a rich history of growth through acquisition (more than five acquisitions in the past 10 years) and a wealth of knowledge, having operated in highly technical industries. The company currently holds over 3,400 patents and has 16 R&D centres and more than 70 manufacturing facilities worldwide.

4.3.2. Level and unit of analysis

The level and unit of analysis are fundamental aspects of the research design which specify where the data is collected and how it is analysed. These concepts are particularly important for ensuring that the conclusions drawn are accurate and applicable to the right context (Yammarino et al., 2005). The level of analysis refers to the layer or scope at which phenomena are studied and measured. The unit of analysis refers to the primary entity being analysed in the study (Bell et al., 2014). In the context of this study, the level and unit of analysis were the same, i.e. individual respondents. TL and KT constructs were measured at the individual level, which included an analysis of data compiled on their perceptions of TL behaviours and the impact thereof on the KT stages.

4.3.3. Sample and sampling techniques

4.3.3.1. Sample

In line with the survey questionnaire approach, the total population within the chosen organisation was considered to be the target population. While including every individual in the organisation would have been ideal, practical constraints, such as time, finances and access, limited the sample size (Saunders & Thornhill, 2023). Individual employees (both leaders and followers) from different departments across various geographical locations,

including Africa, Europe and the USA, to which the researcher had access, were invited to take part. Participants were asked to evaluate their immediate supervisors on the basis of their TL behaviours, strategies and actions as these related to the different stages of the KT process during PMI. This approach was consistent with previous studies that have examined transformational leader and follower behaviours, using quantitative methods (Balwant et al., 2020; Carreiro & Oliveira, 2019; Rafferty & Griffin, 2004).

4.3.3.2. Sampling technique

A purposive sampling technique was used to ensure that participants had sufficient experience of both TL and KT processes (Bell et al., 2022). This sampling technique was chosen because of the specific nature of the research context and to select participants who were most likely to provide rich and relevant data. While purposive sampling allowed for targeted data collection, it also introduced some limitations regarding the generalisability of the findings (Podsakoff et al., 2003). The cross-sectional nature of the data, collected at a single point in time, further impacted the ability to generalise the results to other settings (Kline, 2017). Future research could employ random sampling or longitudinal designs, or qualitative and experimental designs to enhance the generalisability of the findings and mitigate these limitations (Avolio et al., 2009; Wang et al., 2018).

4.3.3.3. Sample size

In quantitative research that uses inferential statistics, the sample size is based on the effect size and the amount of predictor analysis needed (Harris & Quade, 1992). The effect size should be interpreted in conjunction with other statistical results, and the research context and practical significance (Green, 1991). In most transformational leadership studies reviewed that used a survey design, the sample size varied from 100 to 1650 and was dependent on the factors outlined above (Bednall et al., 2018; Deng, 2010; Zdaniuk & Bobocel, 2015).

The sample size for this study was determined on the basis of the context and the statistical analysis required, with the sample size defeminations as per the formula:

$$N = 104 + m$$

where N = sample size, and m = the number of predictors or dependent variables (Green, 1991).

The sample size for this study was estimated to be 108, given that there were four predictors (multidimensional factors) measuring transformational leadership. A minimum target number of 200 was set for collected survey responses, based on statistical recommendations and similar work done within a PMI context (Carreiro & Oliveira, 2019). The questionnaire survey link outreach target was 400, determined on the basis of the work of Cycyota and Harrison (2006) who found that the executive and employee response rate can go up to 51% if the questions are engaging and are of value to the organisation in question. A notification strategy (informing the participant well beforehand to enhance the response rate) was adopted, as were follow-up communication tools to encourage non-participants to take part (Anseel et al., 2010).

4.4. Research/Measurement Instruments

4.4.1. Survey design

Research/measurement instruments are tools for collecting data in a regulated and methodical manner. The choice of instrument(s) is determined from an assessment of the key variables/attributes pertaining to the research questions (Hagan, 2014). While leadership studies have recently seen an increase in other instruments, such as experiments, and qualitative and historiometric methods, survey instruments/questionnaires remain the most common method. It is easier to collect survey data from real-world leaders – a population not always amenable to experimental or qualitative (interview) methods due to time constraints. Most leadership theories already have well-developed questionnaires that have been subjected to validity and reliability testing. This means that results are generalisable and can be repeated by other researchers (Friedrich et al., 2009).

The following stepwise approach was adapted from Best and Krueger (2004) who set out how to administer a questionnaire: (1) select a communication mode, (2) adopt measures for access control, (3) format the instrument, (4) include a stimulus, (5) limit item non-responses, (6) provide instructions, and (7) administer the questionnaire. These steps are show in Table 4.1 below.

Table 4.1. How to administer a survey

Stage/Step	Activities
1.Select a communication mode	Communication took place through email and MS Teams as a notification only.

2.Adopt measures for access control	Access control was facilitated using the organisation's internal SharePoint and web access which are accessible to employees only.
3. Format the instrument	The instrument was formatted into MS Forms (the platform of choice), after the questionnaire had been compiled/adopted.
4. Limit item non-response	Item non-response was incorporated into the design to encourage engagement.
5. Provide instructions	Instructions were provided for the survey instrument/ questionnaire.
6. Administer the questionnaire	The survey link was distributed through email to the organisation's respondents.

Source: Author's own compilation, adapted from Best and Krueger (2004)

4.4.2. Primary data

Primary data for this study was collected using a structured questionnaire administered within the chosen organisation. The questionnaire's structure is outlined in Table 4.2 below. Questions related to TL were adapted from previous studies conducted in similar contexts, focusing specifically on leadership and PMI. The following authors utilised the multifactor leadership questionnaire (MLQ), a validated instrument widely used in transformational leadership research: Carless et al. (2000); Nemanich and Keller (2007); Rafferty and Griffin (2004); Ramsey et al. (2017); Savovic (2017). Questions related to the knowledge transfer stages were adapted and modified from previous studies: Balle et al. (2020); Wang and Noe (2010); Zhou et al. (2020). The lower-order constructs of transformational leadership (i.e. idealised influence (IF), inspirational motivation (IM), intellectual stimulation (IS), and individualised consideration (IC)) and knowledge transfer (i.e. knowledge inflow (KI), knowledge absorption (KA), knowledge sharing (KS) and knowledge retention (KR)) were operationalised as reflective indicators, in alignment with the established literature (Becker et al., 2012).

This approach ensured consistency with prior studies, which have commonly treated these constructs as reflective in order to effectively capture the underlying latent variables (Balle et al., 2020; Carless et al., 2000). Consent, demographic and qualifying questions were also included at the top of the questionnaire to secure participants' agreement (in line with ethical

research guidelines) and to better understand the composition of the sample (Story & Tait, 2019).

Table 4.2: Survey structure

Section	Purpose	Measurement	Questions	Source
Consent	Agreement to take part	-		-
Qualifier	Qualifying filter	-	3	-
A	Demographics	-	8	-
B	TL dimensions:			Nemanich and Keller (2007) Rafferty and Griffin, (2004) Carless et al. (2000)
B	Idealised influence (II)	5-point Likert scale	5	
B	Inspirational motivation (IM)	5-point Likert scale	5	
B	Intellectual stimulation (IS)	5-point Likert scale	5	
	Individualised consideration (IC)	5-point Likert scale	5	
C	Knowledge transfer (KT) Knowledge inflow (KI) Knowledge absorption (KA) Knowledge sharing (KS) Knowledge retention (KR)	 5-point Likert scale 5-point Likert scale 5-point Likert scale 5-point Likert scale	24 (total) 6 6 6 6	Zhou et al. (2020) Balle et al. (2020) Wang and Noe (2010)

Source: Author's own compilation

4.5. Data Collection

In line with the research guidelines and ethical requirements, ethical clearance for data collection was obtained from GIBS. A copy of the ethical clearance document appears in **Appendix A**. The data collection period spanned 43 days, beginning on 5 September 2024 and closing on 18 October 2024.

The survey link was sent to organisational directors in the US global office for confirmatory and legal verification on 28 August 2023.The survey link for data collection purposes was eventually sent out on 4 September 2024 after receiving legal and compliance approval from the global head office and other regional structures.

4.5.1. Phase 1: Pilot test

The survey questionnaire was imported into Microsoft Forms for dissemination within the target organisation. Initially, 30 respondents were emailed the survey questionnaire with a URL and QR code for pilot testing. A few (five) respondents were asked to test the functionality of the additional notification option (notification only) using Microsoft Teams. Table 4.3 summarises the pilot test phase.

Table 4.3: Pilot test phase

Objective	Motivation	Comments/Review action
Assess clarity and comprehension	Ensure that participants understand the questions or items as intended, identifying any ambiguities or confusing language in the questionnaire.	Two respondents identified some spelling mistakes in Q7; there was a request for a brief explanation of the meaning of status quo to be included in Q12 and Q22 in the interests of clarity.
Test reliability	Evaluate measurement scale reliability.	Cronbach's alpha was used to remove unreliable items. A validated scale was used for the TL construct (Carless et al., 2000), while a portion of the KT construct was adapted from the literature (Balle et al., 2020).
Identify potential biases	Detect potential biases in the question wording, structure or order that may influence participant responses or introduce systematic errors.	No issues were detected that could potentially lead to bias.

Optimise survey length and flow	Ensure that instructions are clear and easy to follow, and that the layout is user-friendly, thereby enhancing the likelihood of obtaining accurate responses.	All the knowledge transfer questions (Q32–Q55) were adjusted according to each stage, (i.e. knowledge flow, absorption, sharing and retention) to improve the logical flow.
Evaluate data collection process and logistics	Test the functionality of the questionnaire, which could impact the response accuracy.	The link and QR code functionality were certified and working correctly.
Estimate completion time	Arrive at an accurate estimate of how long it will take to complete the questionnaire.	The average questionnaire completion time was 8 minutes. 23 of the initial 30 respondents participated, giving a response rate of 76%. The average turnaround time was 2 days.

Source: Author's own compilation, adapted from the survey guidelines of Fink (2003)

4.5.2. Phase 2: Main study

Prior to the start of the main study, the researcher informed the HR Department, including the regional directors of the target geographical area (i.e. Middle East, India, Africa + Russia (MEIA–R), European Union (EU + UK), North America (USA + Canada) and Asia Pacific) of the impending main data collection process. The researcher gained access to the senior leadership through the MEIA–R director, requesting that the latter engage his counterparts at senior executive and global level so that he (the researcher) could leverage their network while also providing the assurance that any survey participants in the organisation would remain anonymous. A new survey link and QR code were generated for the main study and sent via an email, together with the notification message encouraging potential participants to take part in the survey.

The survey was first distributed to, and completed by, the senior leadership team who confirmed to their own team that they had taken part in the survey and encouraged others to do so. This created a snowballing effect and built trust among the target participants in the organisation. Data collection took place between September and October 2024. While the responses were concentrated in the last two weeks of the collection phase, much

communication took place with the HR and legal departments to ensure that different teams were encouraged to participate and were made aware of their rights to withdraw voluntarily.

In addition, the anonymous and ethical nature of the survey was emphasised. These steps were taken to control for common method bias, to which this type of survey is prone (Podsakoff et al., 2003). Some individuals (particularly in the South African divisions) enquired, when engaging with HR, whether there were any financial benefits and on learning that there were not, decided not to participate. The collection period was closed once the target number of participants had been achieved.

4.6. Data Preparation

During the data collection phase, both numerical and categorical data was collected as part of the quantitative study with a view to analysing it and testing the hypothesis presented in Chapter 3. Data preparation is a multi-step process that involves cleaning, transforming, validating and testing the dataset to ensure its quality and reliability for quantitative analysis. Each of these steps is vital for minimising errors, maximising statistical validity, and improving the robustness of the findings (Hair et al., 2019).

4.6.1. Data coding

As the downloaded data from Microsoft Forms was already in an Excel format, the spreadsheet was reviewed for any obvious errors, such as number of responses, columns and format, so as to confirm the document's integrity. Once the document integrity had been confirmed, data coding took place which involved converting word responses into numerical data. The coding key appears in the **Appendix C**. No errors were found. This stage was necessary to ensure that the data was ready for uploading to the statistical software (Kothari, 2004).

4.6.2. Data editing

The process of data editing involves reviewing/checking the data for completeness and consistency and addressing any missing responses or anomalies before analysis. Editing ensures that the dataset is clean and devoid of errors during the process of analysis (Kothari, 2004). From the original 218 respondents, seven indicated they did not give their consent, while another respondent did not fully complete the questionnaire. This left 210 respondents.

Inconsistent respondents – i.e. with no standard deviation (all statements filled in with the same value) = no sd – were excluded from the Excel file tabled for analysis. This showed that some respondents were not fully engaged. The respondents accepted for the dataset were indicated by standard deviation (sd) and are presented in Chapter 5.

By excluding respondents who did not provide their informed consent, who had incomplete questionnaires, and who showed no variability in their responses (i.e. answered all items with the same value), the researcher attempted to minimise response bias. This lack of variability and dishonest or non-differentiating responses had the potential to compromise the integrity of the dataset (Meade & Craig, 2012; Podsakoff et al., 2003). Table 4.4 below summarises the data editing process and decisions taken.

Table 4.4: Data editing process and decisions

Total number of respondents	Error type	Decision
387	Total sent out	Response rate = 56%
218	Total received	Review
7	No consent	Reject
3	Inconsistent completion	Reject
208	Completed forms	Accept
43 days	Data collection period	5 Sept – 18 Oct 2024

Source: Author's own compilation

The survey response rate of 56% was higher than the benchmark of 51% in organisational research (Cycyota & Harrison, 2006). A higher response rate helps to reduce non-response bias (which occurs when potential respondents who do not participate differ significantly from those who do). Lower non-response bias (based on a higher response rate) ensures that results are more representative of the population, which in turn strengthens the credibility of the findings (Cycyota & Harrison, 2006).

4.6.3. Exploratory factor analysis tool

The exploratory factor analysis (EFA) is a tool used to determine the correlation among variables in a dataset (Gaskin, n.d.). For this study, the EFA tool was used to validate the measurement instrument/scale items in the dataset measuring knowledge transfer, i.e. through verification of whether the survey items adequately reflected the construct items of interest. The TL scale items did not require any validation since they were adopted from an

already-validated MLQ scale (Carless et al., 2000).Validation of the KT scale items was necessary as the items were adopted from two different sources in the literature (Balle et al., 2020; Zhou et al., 2020). The EFA was used to identify the underlying factor structure of a set of variables and to explore potential latent factors for the KT constructs (Q32–Q55 in the questionnaire).

The EFA was conducted using the SPSS software. As a rule of thumb, the required number was verified for sufficiency of data to conduct the test (5 to 10 respondents per item within the instrument, with a minimum of 100 to 200 cases being desirable for reliable results). The actual respondents (208 in total) in the researcher's dataset represents 8.6 respondents per item (Hair et al., 2019).

Assessing data suitability for the EFA, using the Kaiser–Meyer–Olkin (KMO) test, was the second step. The KMO test measures sampling adequacy through a correlation comparison of individual variables and ranges between 0 and 1. A KMO value of 0.6 and above indicates that factor analysis is appropriate. The Bartlett test of sphericity was then conducted to check whether the correlation matrix was significantly different from the identity matrix. A significant result ($p < 0.05$) indicated that the variables were sufficiently correlated to proceed with the EFA (Gaskin, n.d.).

There are two available methods for factor analysis: principal component analysis (PCA) and principal axis factoring (PAF). PAF was preferred as the factor extraction method in this study because it is specifically designed to identify underlying, latent factors. Unlike PCA, which aims to maximise the total variance explained by the components, PAF allows for both common variance (shared by multiple variables) and unique variance (specific to each variable). This approach acknowledges that there are both common and unique factors contributing to the variance of each observed variable (Pallant, 2020).

The decision regarding the number of factors to be extracted was guided by several criteria: (1) Cumulative percentage of variance: factors were retained if the cumulative percentage of variance explained exceeded 60%. (2) Kaiser-Guttman rule: factors were retained with eigenvalues greater than 1. (3) Scree plot: A graphical method was used where eigenvalues were plotted against their corresponding factors. The elbow point, where the curve begins to flatten, was used to determine the optimal number of factors. (4) Significant decline in scree plot: A noticeable decline in the scree plot was considered for identifying the point where the number of factors should be cut off (Pallant, 2020).

Factor rotation was used to enhance the interpretability of the factor solution by simplifying the factor loadings. Two types of rotation were considered: (1) Orthogonal rotation (Varimax): This method is used when it is assumed that factors are uncorrelated. (2) Oblique rotation (Promax/Oblimin): This method allows for factors to be correlated and is useful when there is theoretical support for relationships among the factors.

In this study, oblique rotation was chosen since there was theoretical justification (based on an anchor reference article on knowledge transfer steps) for the assumption that the factors are correlated. This allowed for a more realistic and meaningful representation of the underlying structure, as the factors were expected to have some level of interdependence (Balle et al., 2020; Gaskin, n.d.).

4.7. Data Analysis

4.7.1. Outlier detection

Following the editing of the data, the next stage was to locate outliers. This included recognising and selecting whether to keep or exclude extreme data points. Given the two options available, i.e. visual tools (e.g. box plots) or statistical approaches (e.g. Z-score and Interquartile range (IQR)), the researcher chose box plots due to their suitability and ease of application (visual assessment) to this type of study (Field, 2017).

The box plots had a dual role, i.e. to visually summarise the distribution characteristics of each variable as part of the descriptive statistics and to identify potential outliers (Acosta & Brooks, 2021). All the data points were retained for the following reasons: (1) Genuine responses: all the outliers appeared to be genuine responses, rather than errors. Retaining them reflected the varied responses from the whole spectrum, which would be more representative of the population (Osborne & Overbay, 2004). (2) Valuable insights: retaining all data points will provide valuable insights into the leadership and knowledge transfer processes, including extreme cases (outliers) which might provide rare and valuable insights. Some studies considered outlier leaders as being able to gain valuable insights on what distinguished them from normal and average types of leaders (Antonakis et al., 2017). (3) PLS SEM robustness: the choice of inferential tool, the PLS method, uses a non-parametric approach which can handle outliers across all data results, which would not result in significant bias (Henseler et al., 2015; Sarstedt et al., 2021).

4.7.2. Validity and reliability tests

4.7.2.1. Validity

Validity ensures that a measurement accurately represents what it was designed to measure. Validity is vital in research because it assures that the findings are true and appropriate, thereby contributing to useful conclusions (Bell et al., 2022).

In the context of leadership research (into which this study falls), validity can take different forms, including construct validity, internal validity, external validity and criterion validity (Tepper & Percy, 1994). Construct validity ensures that survey instruments accurately measure leadership traits, while internal and external validity ensure that findings are causally accurate and generalisable (Kline, 2017). Criterion validity is the ability of one measure to predict an outcome based on another. It was examined in three ways: convergent, discriminant and predictive. These steps involve correlational statistical techniques (Heale & Twycross, 2015).

Construct validity

Construct validity refers to how well the survey items (scale) represent the theoretical constructs they are designed to measure. In this study, TL and KT were complex constructs measured through multiple dimensions. Exploratory factor analysis (EFA) and common factor analysis (CFA) are the tools at a researcher's disposal when engaged in the process of scale development and validation. EFA is used during the initial phase of scale development to identify the underlying factor structure of the items. It is often used in the initial stages of research if there is uncertainty about how many factors there are or how the items relate to them. EFA helps to ensure that items group together as expected, providing an initial assessment of construct validity (Pallant, 2020).

CFA is conducted after EFA to confirm the factor structure and assess the fit of the measurement model. CFA is a hypothesis-driven technique where the expected relationships between items and factors are specified in advance. CFA is then used to test whether the hypothesised factor structure fits the collected data. CFA is crucial for establishing construct validity by testing how well the proposed model fits the collected data (Kline, 2015). The criticism and evolution of, and subsequent improvements to, TL's construct validity were discussed extensively in Chapter 2. For the purposes of this study, EFA and CFA were not conducted for the TL construct, given that the survey question was adopted from the already-validated MLQ scale (Carless et al., 2000; Rafferty & Griffin, 2004). EFA and CFA were

conducted for the knowledge transfer construct and to test the proposed hypotheses H5 to H9 on the KT steps model or paths. EFA is a precursor to CFA, and the PLS SEM process involves factor structure validation which is a component of the CFA process (Dash & Paul, 2021).

Criterion validity

The three aspects that fall under criterion validity, i.e. predictive, convergent and discriminant, are discussed in this section.

Predictive validity assesses how well a measure can predict future outcomes relating to the construct. Several studies have demonstrated the predictive nature of the TL construct on outcomes, such as employee satisfaction and organisational performance (Avolio et al., 2009; Bono & Judge, 2004; Hoch et al., 2018; Wang & Rode, 2010).

Convergent validity is the degree to which multiple attempts to measure the same concept are in agreement. It assesses whether different indicators of the same construct are highly correlated, thus indicating that they measure the same underlying concept (Hair et al., 2019). The average variance extracted (AVE) is the common measure used to establish convergent validity. AVE represents the grand mean of the squared loading of the indicators measuring a construct. The AVE of a construct should be 0.5 or higher to be considered acceptable.

Discriminant validity ensures that the constructs being measured are distinct from one another. The notion is that if two or more concepts are unique, then valid measures of each should not correlate too highly. The Fornel-Lacker criterion and inspection of the factor loadings are the most common methods used to assess discriminant validity. Discriminant validity is established when the square root of AVE is greater than its correlation with all other constructs (Henseler et al., 2015). Problems associated with TL's discriminant validity were discussed during the literature review (Siangchokyoo et al., 2020). Discriminant validity for the KT construct will be covered as part of the partial list squares (PLS–SEM) methodology (Shmueli et al., 2019).

Other validity types – internal, external, face and content

Internal validity is the extent to which a study accurately establishes a causal relationship between variables, ensuring that observed effects are due to the independent variable rather than confounding factors. Since this study used a survey questionnaire, potential threats to internal validity included common method bias (CMV) and response bias. Attempts were made to control for CMV by changing the type of question format between the TL and KT constructs.

This was to disrupt respondents' mindsets and hence reduce consistency bias. Response bias was controlled by maintaining participants' anonymity (Podsakoff et al., 2003).

In this study, external validity would ensure the generalisability of the findings across different PMI contexts (Creswell, 2003). One of the limitations of this study was its cross-sectional nature (Bernerth et al., 2018). The survey questionnaire was designed to comply with face validity, i.e. ensuring that the items appeared to measure the constructs adequately and make intuitive sense to respondents. This is essential for capturing accurate perceptions in leadership research. Content validity was achieved by reviewing the survey items to ensure that they comprehensively covered all aspects of TL and KT (Heale & Twycross, 2015).

4.7.2.2. Reliability in leadership research

Reliability refers to the consistency of the measurement process or the degree to which an instrument measures in the same way each time it is used, under the same condition with the same subjects. Reliability has three attributes: internal consistency (homogeneity), stability (consistency of a measurement over time) and equivalence (extent to which different observers or raters give consistent results over time) (Heale & Twycross, 2015).

In this study, Cronbach's alpha was used to assess the internal consistency reliability of the survey instrument. Cronbach's alpha is a measure of internal consistency or how closely related a set of items are as a group. It is used to assess the reliability of a scale, ensuring that the items collectively measure the intended construct consistently (Streiner, 2003). Higher correlations among items indicate that they are measuring the same underlying concept, boosting reliability.

Table 4.5: Interpreting Cronbach's alpha values

Alpha value	Interpretation
0.9 and above	Excellent reliability: items are highly consistent
0.8–0.89	Good reliability; acceptable consistency for most research purposes
0.70–0.79	Acceptable reliability: generally acceptable in the social sciences, though improvements can be made
0.60–0.69	Questionable reliability; items are moderately related, suggesting that the scale may not be entirely consistent. Such results may require that the items are revised, removing those that do not correlate well, or considering a different instrument.

0.50–0.59	Poor reliability: the items may not measure the same construct consistently.
Below 0.50	Unacceptable reliability; indicating significant issues with the scale.

Source: Author's own compilation, adapted from Streiner (2003)

4.7.3. Normality testing

The next step in the data analysis was assessing the normality of the data distribution, i.e. how the data approximated a normal distribution using the skewness and kurtosis values method. The normality test was conducted before the parametric inferential statistics, as normality affects the choice of analysis.

Skewness or kurtosis that falls outside acceptable ranges may indicate significant non-normality, affecting the reliability of statistical techniques which require normally distributed data (Field, 2017). Skewness indicates the asymmetry of the distribution, where a value of 0 represents perfect symmetry (i.e. a normal distribution). Positive skewness means that the data distribution has a longer right tail, while negative skewness indicates a longer left tail. Generally, skewness values between -1 and +1 are acceptable for assuming a near-normal distribution.

Kurtosis, in contrast, measures the peakedness or tailedness of the data compared to a normal distribution. A kurtosis value close to 0 suggests that the distribution is similar to a normal one in terms of peak and tails, positive kurtosis (leptokurtic) indicates a sharper peak with more extreme values, and negative kurtosis (platykurtic) suggests a flatter distribution. Kurtosis values between -2 and +2 are typically considered acceptable for normality (Tabachnick et al., 2019). Additionally, the values of skewness and kurtosis were used to assess for potential outliers. The more 'normally' distributed the data is, the less likely it is that the data set will carry outliers. Normality of the data set was conducted using SPSS and SmartPLS. The results and decisions in this regard are presented in Chapter 5.

4.7.4. Descriptive statistics

Descriptive statistics were performed on the data to summarise, organise and describe the basic characteristic of the data: mean, median, standard deviation, and so on. This was done to provide a simplified overview of the data before hypothesis testing (Acosta & Brooks, 2021). Frequencies and percentages were used for categorical values as they specified how many people responded to each question. Descriptives also provided some information

about the distribution of scores for the continuous variables. This information may be needed if these variables are to be used in parametric statistical techniques (Pallant, 2020). The descriptive measures produced during the study are summarised in Table 4.6 below:

Table 4.6: Descriptive statistics outline

Section and question number	Descriptive measure	Descriptive measure
Section A (Q4–Q11) Demographic information	Categorical values	Frequency, percentage
Section B (Q12–Q32) TL construct (IF, IM, IS, IC)	Continuous variables	Count, mean, median, deviation, box plots
Section C (Q33–Q55) KT construct (KI, KA, KS, KR)	Continuous variables	Count, mean, median, deviation, box plots

Source: Author's own compilation

4.7.5. Inferential statistics

4.7.5.1. Introduction

Inferential statistics involve testing hypotheses and exploring relationships using regression, structural equation modelling (SEM) or other techniques. This is the correct final step for drawing conclusions from the data and generalising the findings (Field, 2017). SEM is usually used to explain multiple statistical relationships simultaneously through visualisation and model validation. There are two popular SEM techniques, i.e. covariance-based SEM (CB–SEM) and partial least squares SEM (PLS–SEM), which can be described as a combination of simultaneous factor analysis and multiple linear regression (Dash & Paul, 2021).

For the purposes of this study, PLS–SEM was the technique of choice, the reason for which is discussed below. As alluded to earlier, factor analysis (EFA and CFA techniques) will be discussed as a precursor to PLS–SEM.

4.7.5.2. Partial least squares – structural equation modelling

Partial least squares – structural equation modelling (PLS–SEM) was employed for the data analysis due to its suitability for small sample sizes and data that may not follow a normal distribution. PLS–SEM allows for the simultaneous assessment of the measurement model

and the structural model, making it the ideal choice for exploring the complex interrelationship between TL and KT (Hair et al., 2014; Sarstedt et al., 2021).

The key steps in PLS-SEM are defining constructs, assigning indicators, specifying relationships, configuring the measurement model, running the PLS algorithm, evaluating reliability and validity, bootstrapping for significance testing, assessing model fit, and finally interpreting and reporting the results. These steps can be broken down into measurement model and path analysis.

- **Model estimation**: The centroid weighting scheme, factor weighing scheme and path weighing scheme are the three structural path (model weighing scheme) alternatives that are available. Given the small differences in the results across the available options, the path weighing scheme was chosen for this study as it can be applied to a wide range of path model specifications (Dash & Paul, 2021).

- **Measurement model**: The assessment of the reflective measurement models in PLS–SEM was conducted by evaluating the internal consistency reliability (Cronbach's alpha and composite reliability), convergent validity (average variance extracted AVE) and discriminant validity (Fornell–Laker Criterion and HTMT ratio) (Hair et al., 2014).

PLS-SEM steps

The following are the detailed steps that were followed for PLS–SEM using SmartPLS:

1 **Construct definition:** The constructs were defined under the TL and KT umbrella in the model, operationalised as reflective measures of the lower-order constructs, and adapted from the literature (Balle et al., 2020; Carless et al., 2000; Nemanich & Keller, 2007; Zhou et al., 2020). The guidelines on how to structure lower-order constructs for reflective measurements using PLS–SEM were also followed (Becker et al., 2012).

2 **Construct indicators:** Indicators (observed variables) from the survey items/questions were assigned to appropriate latent factors (multi dimensions) as outlined below:

Table 4.7: Construct indicators

Independent variable – TL construct	Survey item (observed variable)	Dependent variable – KT construct	Survey item (observed variable)
Idealised influence (IF)	Q12–Q16	Knowledge inflow (KI)	Q32–Q37
Inspirational motivation (IM)	Q17–Q21	Knowledge sharing (KS)	Q38–Q42
Intellectual stimulation (IS)	Q22–Q26	Knowledge absorption (KA)	Q44–Q49
Individualised consideration (IC)	Q27–Q31	Knowledge retention (KR)	Q50–Q55

Source: Author's own compilation

3 **Define path relationships:** The relationships between the latent variables were defined by drawing paths to represent hypothesised relationships based on the hypothesised structure and final paths, which are shown with the results in Chapter 5 (Becker et al., 2012).

4 **Configure measurement models:** Each construct was specified as reflective, based on the nature of the measurement.

5 **Run the PLS algorithm:** The PLS algorithm was run to estimate the relationships in the model, while ensuring that the settings were configured correctly.

6 **Interpret the outer loadings and reliability:** The outer loadings of all indicators were interpreted and are discussed in the results chapter (Chapter 5). An iterative process was followed in assessing Cronbach's alpha (CA) and composite reliability (CR) (values > 0.7 were desirable, while items below 0.4 were dropped).

7 **Convergent validity:** The average variance extracted (AVE) was used to establish convergent validity. AVE represents the grand mean of the squared loadings of the indicators measuring a construct. Consideration of both CR and AVE in an iterative decision-making process was followed (AVE should be > 0.5 and CR should be > 0.7) (Shmueli et al., 2019).

8 **Discriminant validity:**

8.1. The Fornell–Larcker criterion: the Fornell–Larcker values were assessed for all constructs.

8.2**.** HTMT ratio: Ensured values were below 0.85 or 0.90 (depending on the context).

9 **Bootstrapping for significance testing:** The bootstrapping feature was run to test the significance of path coefficients. The t-statistics (> 1.96) and p-values (< 0.05) were checked for significance.

10 **Model fit:** The model fit was assessed using the standardized root mean square residual (SRMR) to verify that the SRMR was below 0.08, thereby ensuring a good model fit.

11 **Path analysis:** The path's coefficient was analysed in order to understand the relationships while checking R^2 values to assess the proportion of the explained variance.

12 **Report findings:** All the results of **r**eliability, validity (convergent and discriminant), path coefficients and model fit were summarised and reported in the results chapter (Chapter 5). The steps outlined above were adapted from the literature and similar studies that have used the same PLS–SEM technique (Balle et al., 2020; Hair et al., 2014).

4.8. Data Storage

All gathered data was uploaded into the research submission platform, stored and managed by the GIBS faculty in accordance with research protocols and procedures, as outlined in the purple pages (GIBS, 2023).

4.9. Research Quality and Ethics

4.9.1. Research quality and rigour

Research rigour, as explored in recent literature, refers to the application of meticulous and systematic research methods that lead to accurate, reliable and unbiased results. Rigour ensures that findings are robust, reproducible and scientifically valid. This involves carefully choosing research designs, enhancing transparency (systematic approach), and

implementing reliable methodologies (reliability and validity) that limit errors or biases (Otten et al., 2020; Maula & Stam, 2020). Several quality control measures were employed in this study to ensure the credibility of the results and overall findings. These are discussed in detail in Chapter 5.

4.9.2. Ethical considerations

The researcher obtained informed consent from participants before the survey was administered, ensuring the confidentiality and anonymity of responses. The researcher also adhered to the ethical guidelines and standards for research involving human subjects, including the principles of beneficence, non-maleficence and justice. A copy of the ethical clearance obtained from GIBS appears in **Appendix A**.

4.10. Limitations

4.10.1. Population and sampling

The researcher recognises the limited generalisability of the results to other organisations or contexts because of the sampling method used and the focus on a cross-sectional study.
The purposive sampling method employed had a high chance of residual sampling bias since it might not have been representative of the whole organisation. The findings might also have been context-specific and not easily transferable or understandable to people outside the particular organisational setting (Hair et al., 2019).

4.10.2. Research instrument

Although care was exercised in utilising questions from validated instruments, such as the MLQ, the questionnaire's structured format compromised depth and could have led to interpretation bias. Furthermore, the richness of the TL construct and the nuances surrounding the KT mechanism might have been lost through the reliance of closed-ended question, thereby leading to the possible misrepresentation of the true dynamics at play. There was also no opportunity for further probing to gain further insights – which is why several scholars have called for diversification of the methods used in leadership studies (Bernerth et al., 2018)..

4.10.3. Common method bias

The same survey instrument was used to measure both the TL and the KT constructs, thus increasing the chances of common method bias. Although the efforts taken to minimise common method bias were discussed earlier in the chapter, these may still be inadequate as they have the potential to leave some residual bias, making it impossible to generalise (Podsakoff et al., 2003).

4.10.4. Self-reported bias

Although the survey structure required individuals to report on their leader's behaviours, this method assumed that participants would be honest and self-aware. In practice, however, people may overestimate or underestimate their understanding of their leader's abilities or behaviours, leading to measurement error (Stock et al., 2023).

4.11. Conclusion

The research methodology used in this study was designed to comprehensively address the research problem and the research questions, while also ensuring methodological rigour (Bono & McNamara, 2011). By employing partial least squares – structural equation modelling (PLS-SEM), the study addressed non-normality in the dataset and retained outliers for the potential theoretical insights that they offered (Dash & Paul, 2021). The use of reliability and validity measures, such as Cronbach's alpha, composite reliability (CR), average variance extracted (AVE) and discriminant validity (HTMT), ensured that the constructs were accurately measured, adding robustness to the findings (Henseler et al., 2015).

Despite the inherent limitations associated with online survey methods and self-reported data, as discussed above, methodological decisions such as increased bootstrap resampling and careful handling of skewness and kurtosis contributed to the overall reliability and validity of the research outcomes. This provides a solid platform for the detailed presentation of the results in Chapter 5.

Chapter 5: Results and Findings

5.1. Introduction

The results presented in this chapter are crucial for understanding this study's research problem, i.e. the impact of transformational leadership (TL) on knowledge transfer (KT) stages and how each of these KT stages relates to each other during post-merger integration (PMI). The findings are the result of a comprehensive exploration of how the different dimensions of TL – idealised influence (IF), inspirational motivation (IM), intellectual stimulation (IS) and individualised consideration (IC) – impact the knowledge inflow step and how knowledge inflow subsequently relates to and affects the other stages, i.e. absorption, sharing and retention. These results are directly linked to the research design and methodology discussed in Chapter 4, providing empirical evidence that supports or refutes the hypothesised relationships introduced in Chapter 3.

The two earlier chapters, Chapter 3 and Chapter 4, laid the foundation for the empirical work by detailing the hypotheses and conceptual model used in this study, followed by the research design and methods. This chapter builds on this by offering data-driven insights. The PLS–SEM, which was used to determine the direct and indirect relationships between the variables and helps to answer the core research questions outlined earlier, serves to anchor this results chapter. The roadmap and outline of this chapter are shown in Figure 5.1 below.

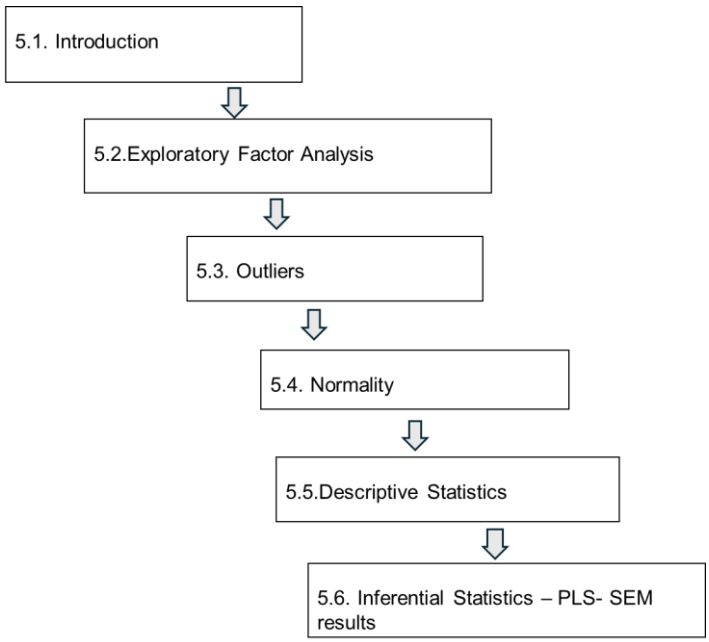


Figure 5.1: Chapter summary and roadmap

Source: Author's own compilation

5.2. Exploratory Factor Analysis

The measurement scale/instrument validation that was done through exploratory factor analysis (EFA) using SPSS software is presented below. The EFA was performed for the KT construct only, as explained in Chapter 4, and a validated scale was adopted for the TL construct (Carless et al., 2000). The EFA was performed to identify the underlying factor structure for each of the lower-order KT constructs, i.e. knowledge inflow (KI), knowledge sharing (KS), knowledge absorption (KA) and knowledge retention (KR), and validates its measurement scale items. The detailed EFA iterative process is outlined in **Appendix D.** A summary of the key outcomes is reported in section 5.2.1. below:

5.2.1. Sampling adequacy – KMO and Bartlett test results

Table 5.1: KMO and Bartlett test results

Kaiser–Meyer–Olkin measure of sampling adequacy		0.939
Bartlett test of sphericity	Approx. chi-square	2401.901
	df	276
	Sig.	0.000

Source: Author's own compilation, extracted from SPSS

The Kaiser–Meyer–Olkin (KMO) measure of sampling adequacy was 0.939, indicating excellent suitability for factor analysis.

The Bartlett test of sphericity yielded a significant result, demonstrating that the correlation matrix is not equivalent to an identity matrix. This means that there are meaningful relationships among the variables, making the dataset appropriate for factor analysis. Furthermore, a high KMO value of 0.939 indicates excellent sampling adequacy, suggesting that the variables are highly suitable for EFA.

5.2.2. Factor extraction

The Principal Axis factoring was used to extract the number of factors, followed by the Oblimin (Promax) rotation method, as outlined in Chapter 4. The decision regarding the number of factors was arrived at by using the following criteria: 1) The aggregate proportion accounted for by the factors should be 60% or more; (2) Eigenvalues must be greater than 1 (referred to

as the Kaiser Guttman rule); and (3) An assessment should be done as to how the Scree plot recedes or declines.

Table 5.2: Total variance explained

Factor	Initial Eigenvalues		
	Total	% of variance	Cumulative %
1	10.481	43.671	43.671
2	1.535	6.394	50.066
3	1.422	5.924	55.990
4	1.128	4.698	60.688
5	0.938	3.906	64.595

Source: Author's own compilation, extracted from SPSS

5.2.3. Factor loadings and factor structure

The factor matrix revealed that most items had high loadings (> 0.6) onto their respective factors, indicating that these items were well represented by the extracted factors. Items such as Q32, Q33, Q34, Q35, etc., had loadings ranging from 0.619 to 0.727, which suggests strong contributions to their respective factors. Items with lower loadings, such as Q36 (loading 0.490), were retained because they still showed meaningful associations.

However, Q43 was removed due to its ambiguous association across multiple factors, which was addressed through the iterative refinement process.

5.2.4. Factor correlation matrix

Table 5.3: Factor correlation matrix

Factor	1	2	3	4
1	1.000	0.621	0.667	0.574
2	0.621	1.000	0.701	0.562
3	0.667	0.701	1.000	0.610
4	0.574	0.562	0.610	1.000

Source: Author's own compilation, extracted from SPSS

There is a moderate correlation among the factors, ranging from 0.562 to 0.701. This indicates some degree of interdependence among the factors since they are a lower-order construct of a higher dimension, which is consistent with the literature and the choice to use the Oblimin rotation method.

5.2.5. Final factors

The final factors extracted are listed in Table 5.4 below.

Table 5.4: Final factors

Construct	Factor structure	Comments
Knowledge inflow (KI)	Q32–Q37	Adopted
Knowledge sharing (KS)	Q38–Q42 (Q43 removed)	Adopted with modification
Knowledge absorption (KA)	Q44–Q49	Adopted
Knowledge retention (KR)	Q50–Q55	Adopted

Source: Author's own compilation, extracted from SPS.

Following the factor validation, these lower-order construct scale items were ready to be used for the model estimation process during the PLS–SEM analysis.

5.3. Outliers

Addressing outliers is crucial for ensuring the accuracy and validity of statistical analysis, as outliers can disproportionately influence estimates and lead to biased or misleading results (Aguinis et al., 2013). In this study, boxplots were generated for each of the TL and KT variables to visually identify potential outliers, with points falling outside the whiskers considered possible outliers. These points were retained for analysis based on several considerations: (1) Genuine responses: The outliers appeared to be genuine responses rather than errors or artifacts of data collection. Retaining these data points helped ensure that the analysis accurately reflected the real diversity in TL and the KT stages (Osborne & Overbay, 2004). (2) Valuable insights: This allowed for a more comprehensive assessment of variability within the sample. Retaining extreme cases could provide valuable insights rather than just normal or average results (Antonakis et al., 2017). (3) PLS–SEM robustness: PLS–SEM can handle outliers since it is a non-parametric method (Sarstedt et al., 2021). The retention of the outliers strengthened the richness of the findings, which ensured that the conclusion was more representative of the population (Becker et al., 2012).

5.4. Normality

Below is a summary of the skewness and kurtosis values for the TL and KT variables. These metrics help one to understand the data's distribution characteristics, aiding in assessing the appropriateness of the PLS–SEM statistical model. The average score (mean) was calculated from the composite score of each individual respondent score to give accuracy of spread.

Table 5.5: Summary of skewness and Kurtosis values

Variable	n	mean	sd	median	trimmed	MAD	min	max	range	Skewness value	Kurtosis value
IF	208	4.23	0.52	4.4	4.27	0.41	1.8	5	3.2	-1.06	2.06
IM	208	4.14	0.48	4.2	4.16	0.3	2.4	5	2.6	-0.62	0.91
IS	208	4.12	0.5	4	4.14	0.49	2	5	3	-0.86	2.4
IC	208	4.1	0.44	4.2	4.13	0.3	1.6	5	3.4	-1.34	4.53
KI	208	3.99	0.57	4.17	4.06	0.25	1	5	4	-1.63	4.57
KA	208	4.04	0.58	4.2	4.1	0.3	1.4	5	3.6	-1.2	2.47
KS	208	4.04	0.5	4.17	4.08	0.25	1.17	5	3.83	-1.54	5.56
KR	208	3.98	0.55	4	4.03	0.49	1.17	5	3.83	-1.43	4.51

Source: Author's own compilation, extracted from SmartPLS

Notes:

Idealised influence = IF, Inspirational motivation = IM, Intellectual stimulation = IS, Individualised consideration = IC, Knowledge inflow= KI, Knowledge absorption = KA, Knowledge sharing = KS, Knowledge retention = KR, Sample number = n, Standard deviation = sd, Average = mean, median average deviation = MAD, Minimum = min, Maximum = max.

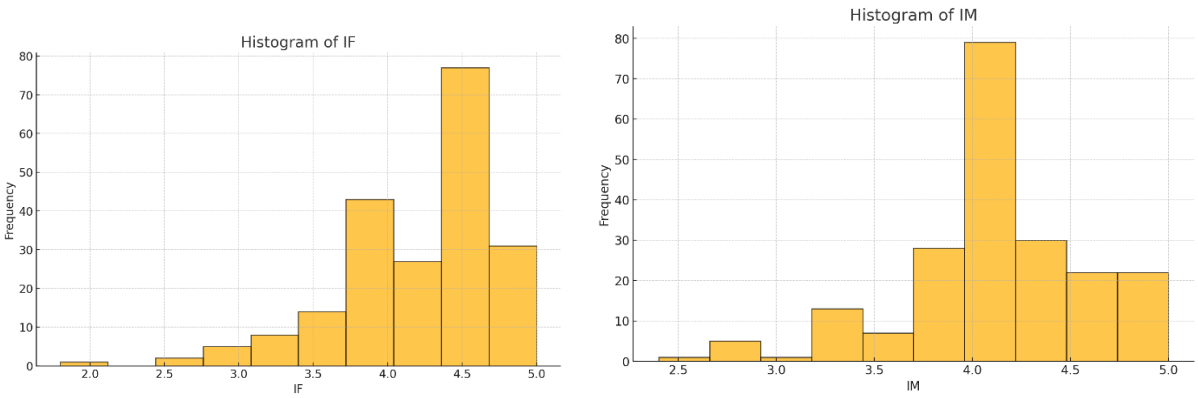


Figure 5.2: Histograms of IF and IM

Source: Author's own compilation, extracted from SmartPLS

Notes:

IF Histogram (left): The distribution is negatively skewed, indicating more responses towards higher values. The kurtosis value suggests a distribution that is slightly more peaked than normal, but not extreme.

IM Histogram (right): The distribution is slightly left-skewed, with values tending towards higher ratings. Kurtosis is close to normal, indicating a moderate spread without extreme peaks or heavy tails.

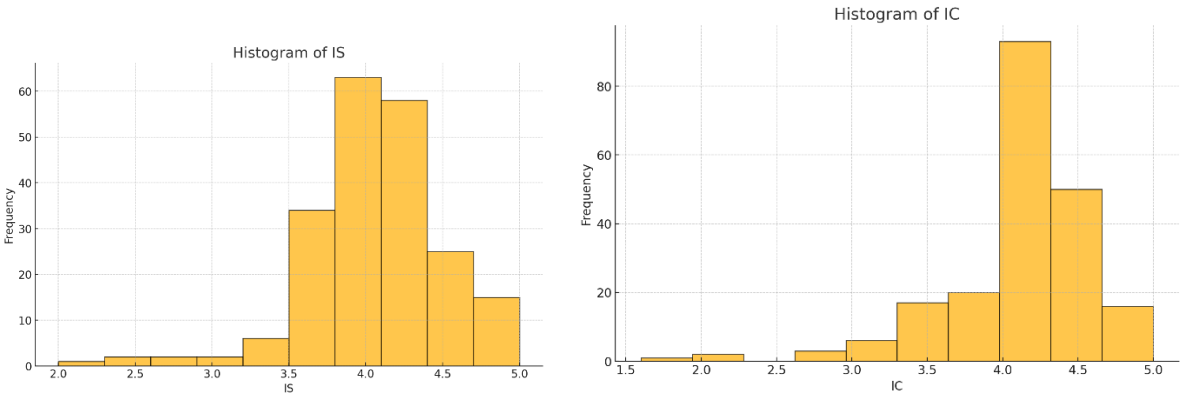


Figure 5.3: Histograms of IS and IC

Source: Author's own compilation, extracted from SmartPLS

Notes:

IS Histogram (left): There is a negative skew, indicating a concentration of higher ratings. The kurtosis value (moderately leptokurtic) suggests a moderate peak with a slightly higher likelihood of extreme values.

IC Histogram (right): The distribution is strongly negatively skewed, with more ratings towards the higher end. High kurtosis indicates a sharp peak with heavy tails, suggesting several extreme values (outliers).

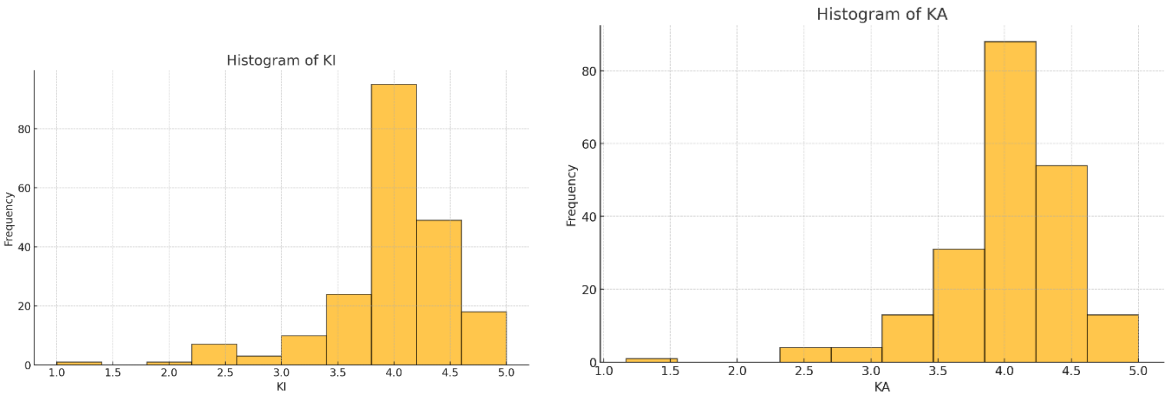


Figure 5.4: Histograms of KI and KA

Source: Author's own, extracted from SmartPLS

Notes:

KI Histogram (left): Strong negative skewness implies that most respondents rated knowledge inflow highly. The high kurtosis (highly leptokurtic) suggests the presence of significant outliers and a highly peaked distribution.

KA Histogram (right): The distribution is heavily skewed to the left, with high ratings being most common. The very high kurtosis suggests a sharp peak and heavy tails, indicating several extreme values.

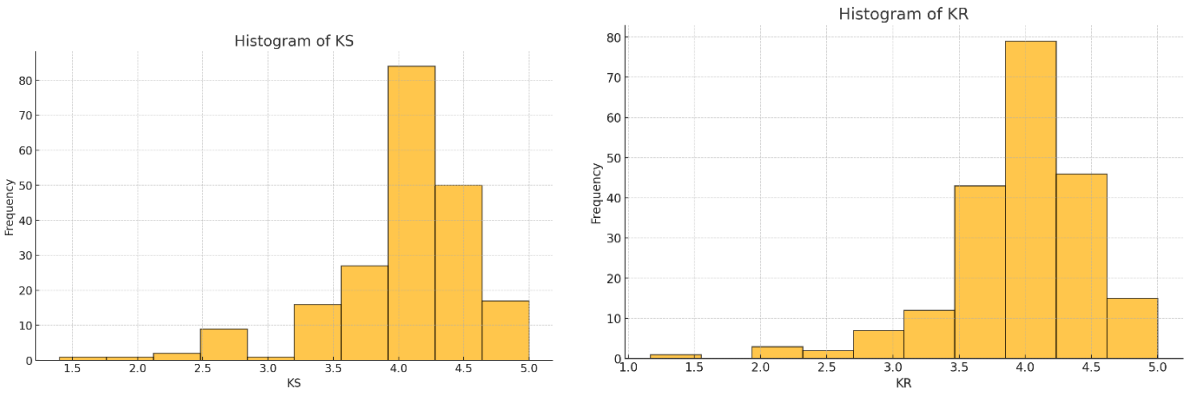


Figure 5.5: Histograms of KS and KR

Source: Author's own, extracted from SmartPLS

Notes:

KS Histogram (left): The distribution is negatively skewed, with more responses on the higher end. Kurtosis indicates a moderate peak but does not suggest extreme outliers.

KR Histogram (right): The negative skewness indicates a concentration of high ratings for knowledge retention. The high kurtosis value points to a sharp peak and heavy tails, suggesting possible outliers.

The analysis showed negative skewness for most TL and KT variables, indicating that respondents generally provided high ratings on the Likert scale, with values for skewness ranging from -0.62 (IM) to -1.63 (KI). This suggested response bias, such as social desirability, as TL and KT constructs are typically perceived positively. High kurtosis values, ranging from 0.91 (IM) to 5.56 (KS), indicated leptokurtic distributions, meaning that the data was more peaked, with more extreme values than expected in a normal distribution (Chowdhury et al., 2021).

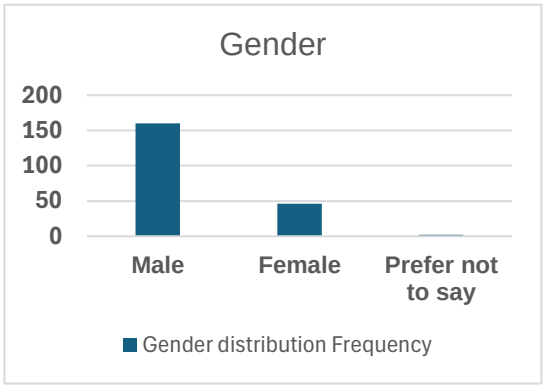
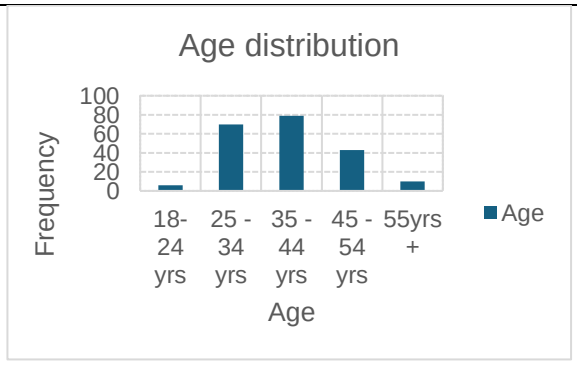
Many traditional statistical techniques, such as ordinary least squares (OLS) regression, assume normally distributed data, and violations of this assumption could lead to biased parameter estimates. However, PLS–SEM, being a non-parametric method, did not require

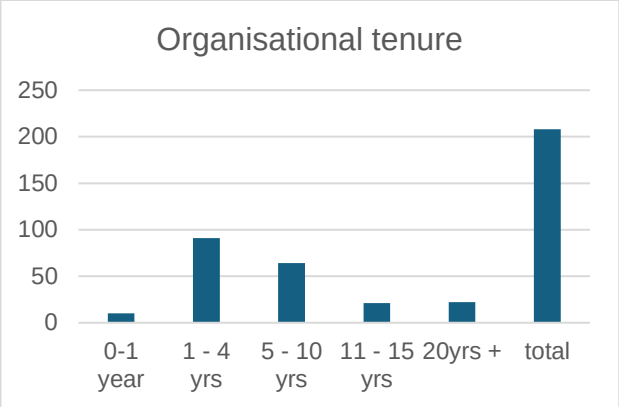
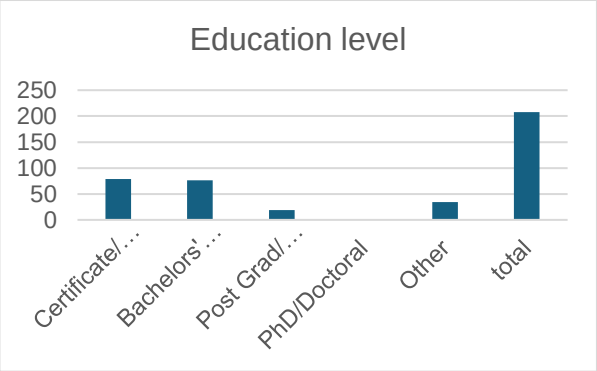
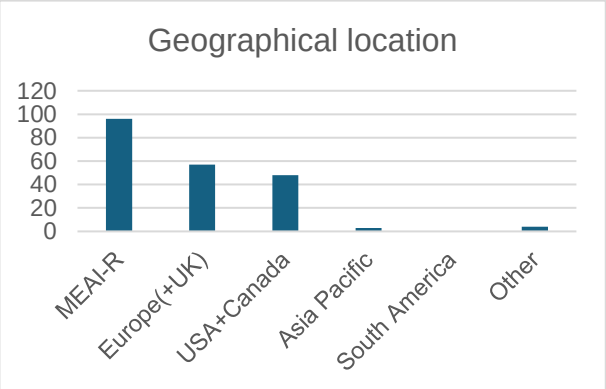
normally distributed data, making it particularly well suited to the current analysis (Sarstedt et al., 2021). The robustness of PLS–SEM to non-normal data ensured that even with the observed skewness and kurtosis, reliable model estimates could be obtained. To further enhance robustness, bootstrapping was employed during the model evaluation. A sufficient number of bootstrap samples (increased from the default 500 to 1000) were used to generate empirical sampling distributions that were less sensitive to non-normality, thereby improving the reliability of parameter estimates (Sarstedt et al., 2021).

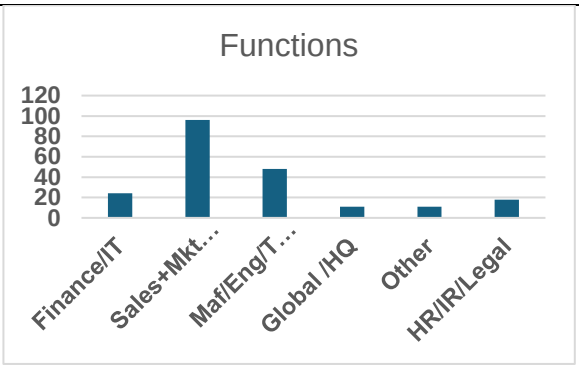
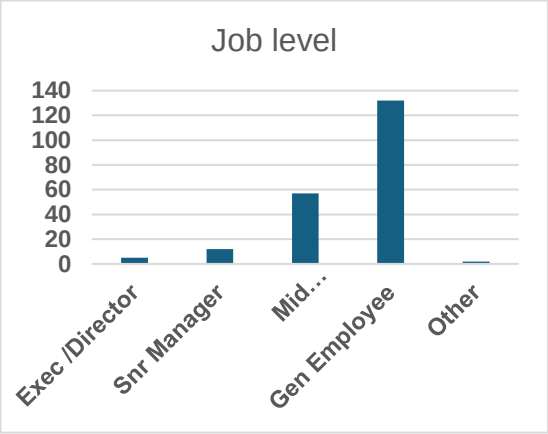
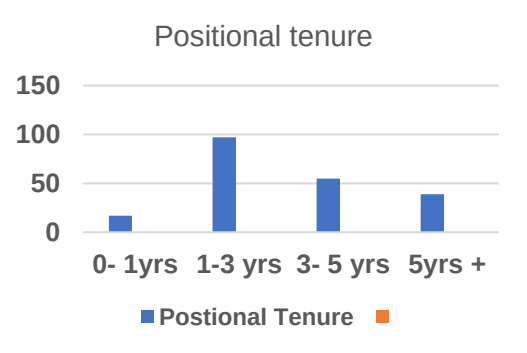
5.5. Descriptive Statistics

This section presents a summary of the demographic characteristics of the survey respondents, including key aspects such as age, tenure, educational background, department function, location and organisational level. These demographics offer the context for the diversity of respondents, who were all from a single organisation. Descriptive statistics for the variables analysed provide an overview of the dataset characteristics before the inferential analysis is explored. The demographic statistics were derived from section A while that of the variables from sections B and C.

Table 5.6: Demographic statistics summary

Gender: Although the gender balance is positively skewed towards a male majority, there is a sufficient female representation to form a balanced view from respondents.	
Age distribution: Most respondents fall into the middle-age category, particularly 35–54 years, suggesting a sample of mid-career and experienced professionals.	

Organisational tenure: Experience levels are bimodal, with peaks at the 1–4 years and 20+ years categories. This mix indicates a sample that includes both early-career and seasoned professionals.	
Education level: The majority of respondents hold a certificate or diploma, followed by some with a bachelor's degree, suggesting a well-educated sample. This educational background may reflect the specific professional or industry focus of the survey.	
Region/Geographical location: Respondents primarily come from the Middle East, Africa and Europe. This was influenced by the researcher's organisational access from South Africa.	

Functional area: A significant proportion of respondents work in customer-facing functions like Sales, Marketing and Customer Service, suggesting a professional focus that may influence perspectives on leadership and knowledge transfer.	
Job level: There is a significant distribution between leaders and followers. This indicates a wide range of views, from senior leaders to experienced followers.	
Positional tenure: The distribution shows a higher proportion of respondents still in the early stages of their positions and a gradual progression towards higher positional tenure.	

Source: Author's own compilation

Table 5.7 below provides the descriptive statistics (mean, standard deviation, min, max, etc.) for the TL and KT dimensions. This overview supports the understanding of the central tendencies and variability within each construct. Individual box plots were used for visual inspection of each variable's characteristics.

Table 5.7: Summary of variable descriptive statistics

Statistic	IF	IM	IS	IC	KI	KA	KS	KR
count	208.00	208.00	208.00	208.00	208.00	208.00	208.00	208.00
mean	4.23	4.14	4.12	4.10	3.99	4.04	4.04	3.98
std	0.52	0.48	0.50	0.49	0.57	0.50	0.58	0.55
min	1.80	2.40	2.00	1.60	1.00	1.17	1.40	1.17
25%	4.00	3.80	4.00	4.00	3.83	3.83	3.80	3.83
50%	4.40	4.20	4.00	4.20	4.17	4.17	4.20	4.00
75%	4.60	4.40	4.33	4.40	4.33	4.33	4.40	4.33
max	5.00	5.00	5.00	5.00	5.00	5.00	5.00	5.00

Source: Author's own compilation, extracted from SmartPLS

The mean reported for each variable was calculated using the composite average for each item on the scale with the average for each item (n = 208) being reported. This was to ensure reliability while incorporating other items which were removed from the initial scale during validation, e.g. Q26 for IS variable.

Means

The means for all TL dimensions (IF, IM, IS, IC) are relatively high, ranging from 4.10 to 4.23. This indicates that respondents generally perceive that TL behaviours are to a large extent present within their organisational context. The means for the KT stages (KI, KS, KA, KR) are also above average, ranging from 3.98 to 4.04. This suggests that KT processes are perceived as being effectively implemented.

Standard deviations (std)

Standard deviations for all variables range from 0.48 to 0.58, suggesting moderate variability in responses. This indicates that while there is some variation in perceptions, the general consensus is relatively consistent across respondents.

Minimum and maximum values

All variables have a maximum value of 5.00, showing that some respondents rated TL dimensions and KT processes at the highest possible level. The minimum values for the TL dimensions range from 1.60 (IC) to 2.40 (IM), while the KT variables range from 1.00 (KI) to 1.40 (KS). This indicates that while some respondents perceived these constructs as relatively low, such cases were rare.

Quartiles

The 25th, 50th (median) and 75th percentiles for all variables are clustered closely around their respective means, showing that most respondents rated the TL and KT variables above average. The medians for TL dimensions and KT stages generally range from 4.00 to 4.40, suggesting strong tendencies towards positive assessments.

5.5.2. Variables box plots

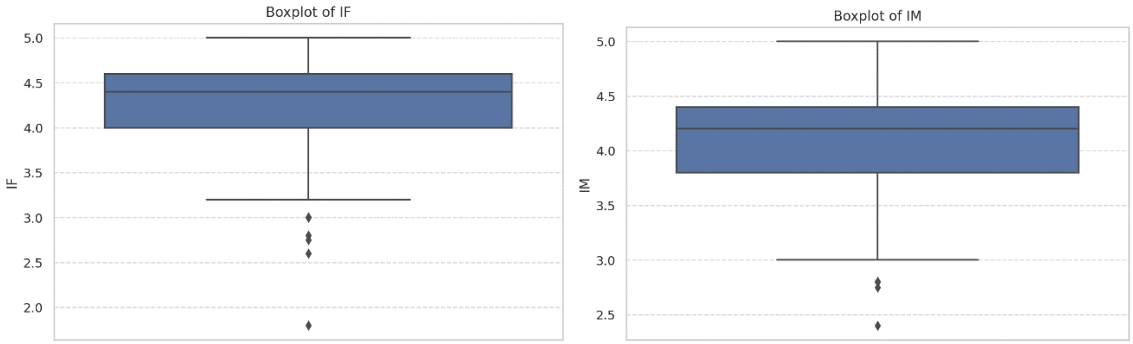


Figure 5.6: Idealised influence (IF) and inspirational motivation (IM) box plots

Source: Author's own compilation extracted from SmartPLS

Notes:

IF Box (left): The box plot for idealised influence (IF) shows the distribution of responses, providing insights into the spread of perceived influence among leaders.

IM Box (right): The box plot for inspirational motivation (IM) reflects the variability of responses, indicating how well leaders inspire and motivate their teams.

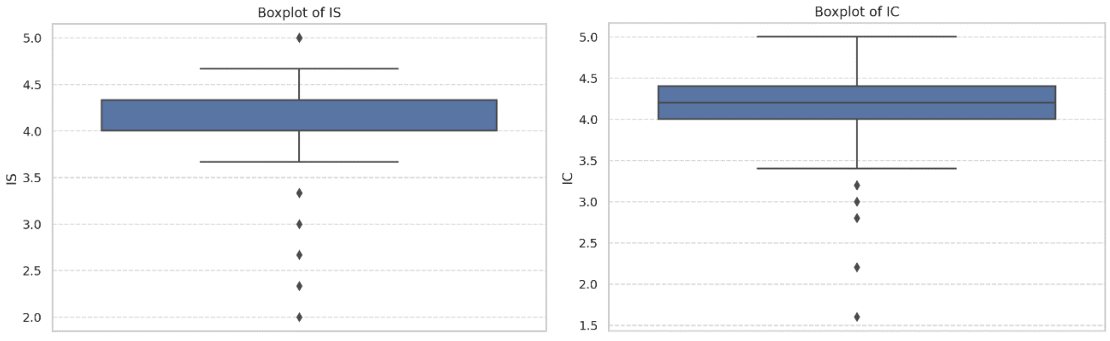


Figure 5.7: Intellectual stimulation (IS) and individualised consideration (IC) box plots

Source: Author's own compilation, extracted from SmartPLS

Notes:

IS Box (left): The box plot for intellectual stimulation (IS) shows how leaders encourage innovation and creativity in their teams.

IM Box (right): The box plot for individualised consideration (IC) illustrates the extent to which leaders address individual team members' needs.

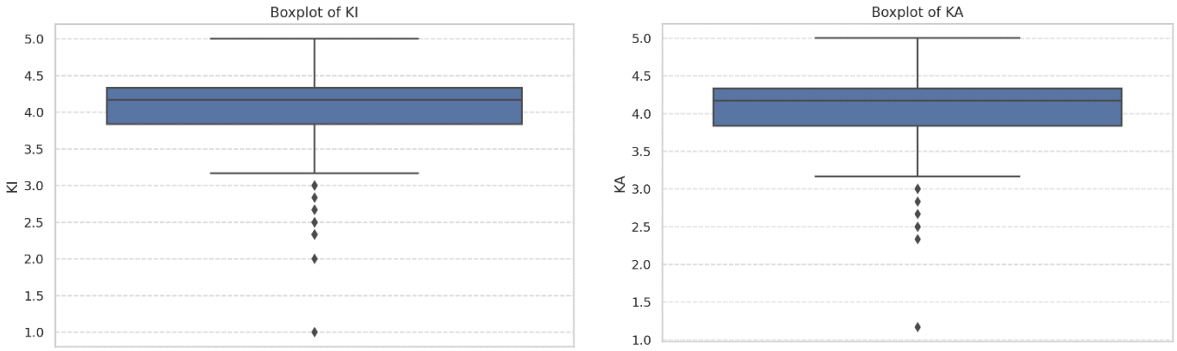


Figure 5.8: Knowledge inflow (KI) and knowledge absorption (KA) box plots

Source: Author's own compilation, extracted from SmartPLS

Notes:

KI Box (left): The box plot for knowledge inflow (KI) depicts the spread of responses related to the ease and rate of knowledge entering the organisation.

KA Box (right): The box plot for knowledge absorption (KA) highlights how well incoming knowledge is assimilated within the organisation.

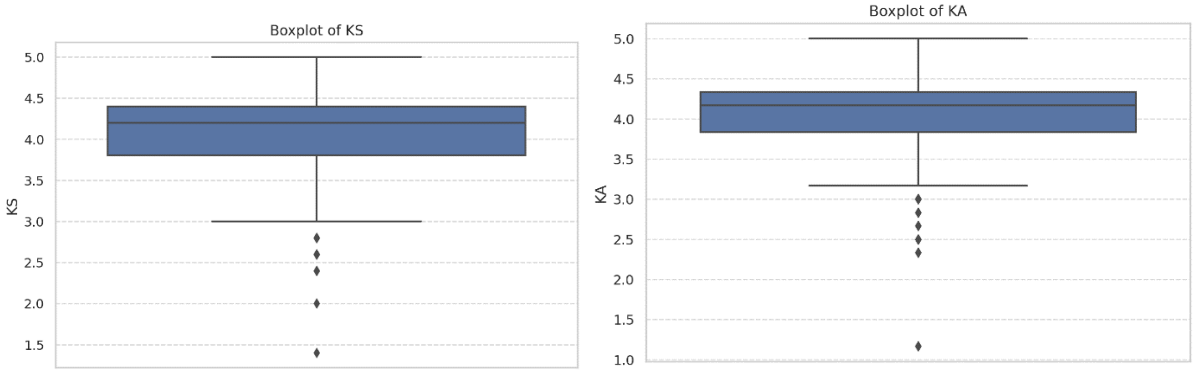


Figure 5.9: Knowledge sharing (KS) and knowledge retention (KR) box plots

Source: Author's own compilation, extracted from SmartPLS

Notes:

KS Box (left): The box plot for knowledge sharing (KS) shows how effectively knowledge is being distributed among individuals or teams.

KR Box (right): The box plot for knowledge retention (KR) indicates how well knowledge is being preserved for future use within the organisation.

5.6. Inferential Statistics – PLS–SEM Results

5.6.1. Introduction

This section presents the PLS–SEM results which were employed to test the relationship between TL and KT. This was done by testing the hypotheses H1 to H8 presented in Chapter 3. The results are presented according to the PLS–-SEM two-step process, i.e. assessment of the measurement model evaluation results followed by that of the structural path model results. The measurement model evaluation results are a validation of the reliability and validity of the two constructs, TL and KT. Structural path results represent an assessment of the relationship between the paths.

5.6.2. Measurement model evaluation results

5.6.2.1. Factor loadings

The measurement model valuation component for the PLS–SEM process begins with the factor loading for all constructs to be used in the model. This is different from the initial EFA process which was more exploratory (identification of the underlying factor structure). In this case, both TL and KT latent factors are tested within the confirmatory context where the measurement model is already specified. PLS–SEM is employed to confirm the hypothesised relationships between indicators and latent constructs as well as between constructs in the structural model (Dash & Paul, 2021). The results of the outer loading and the iteration process are presented in Table 5.8 below:

Table 5.8: Outer loadings of the latent factors from SmartPLS

Scale Item	IndividualisedConsiderations	Idelaised Inf	Inspirational Motivation	Intellectual Stimulation	Knowledge Absorption	Knowledge Inflow	Knowledge Retention	Knowledge Sharing
Q12		0.73						
Q13		0.798						
Q14		0.774						
Q15		0.719						
Q16		0.576						
Q17			0.836					
Q18			0.812					
Q19			0.733					
Q20			0.563					
Q21			0.665					
Q22				0.713				
Q23				0.726				
Q24				0.648				
Q25				0.667				
Q26				0.627				
Q27	0.643							
Q28	0.785							
Q29	0.757							
Q30	0.702							
Q31	0.747							
Q32						0.767		
Q33						0.753		
Q34						0.793		
Q35						0.797		
Q36						0.65		
Q37						0.761		
Q38								0.768
Q39								0.801
Q40								0.809
Q41								0.794
Q42								0.814
Q44					0.75			
Q45					0.766			
Q46					0.769			
Q47					0.765			
Q48					0.653			
Q49					0.753			
Q50							0.767	
Q51							0.751	
Q52							0.787	
Q53							0.738	
Q54							0.787	
Q55							0.761	

Source: Author's own compilation, extracted from SmartPLS

Factor loadings should generally be 0.70 or higher to indicate sufficient contribution to the latent construct. After evaluation, Q26 was taken out because of low AVE. The final loadings for each latent variable are presented below:

Table 5.9: Final outer loadings

	IC	IF	IM	IS	KA	KI	KR	KS
Q12		0.73						
Q13		0.798						
Q14		0.774						
Q15		0.719						
Q16		0.575						
Q17			0.836					
Q18			0.812					
Q19			0.733					
Q20			0.562					
Q21			0.665					
Q22				0.785				
Q23				0.772				
Q24				0.707				
Q25				0.649				
Q27	0.643							
Q28	0.785							
Q29	0.757							
Q30	0.702							
Q31	0.747							
Q32						0.768		
Q33						0.754		
Q34						0.793		
Q35						0.796		
Q36						0.649		
Q37						0.761		
Q38								0.768
Q39								0.801
Q40								0.809
Q41								0.794
Q42								0.814
Q44					0.75			
Q45					0.766			
Q46					0.769			
Q47					0.765			
Q48					0.653			
Q49					0.753			
Q50							0.767	
Q51							0.751	
Q52							0.787	
Q53							0.738	
Q54							0.787	
Q55							0.761	

Source: Author's own compilation, extracted from SmartPLS

5.6.2.2. Multicollinearity

The multicollinearity (degree of correlation) between the variables TL (IF, IM, IS, IC) and KT (KI, KA, KS, KR) from SmartPLS is presented in Table 5.10 below.

Table 5.10: VIF interpretation key

VIF scale	Interpretation
Less than 3	No significant multicollinearity
3–5	Moderate multicollinearity
More than 5	High multicollinearity

Source: Author's own compilation, extracted from SmartPLS

Table 5.11: VIF values for the predictor paths

Path	VIF
IC -> KI	1.366
IF -> KI	1.577
IM -> KI	1.627
IS -> KI	1.448
KA -> KR	1.766
KI -> KS	1
KS -> KA	1
KS -> KR	1.766

Source: Author's own compilation, extracted from SmartPLS

Table 5.12: VIF values for all variables

Variable	Scale item	VIF
IF	Q12	1.569
	Q13	1.521
	Q14	1.635
	Q15	1.483
	Q16	1.31

Variable	Scale item	VIF
IM	Q17	1.651
	Q18	1.803
	Q19	1.749
	Q20	1.366
	Q21	1.465

Variable	Scale item	VIF
IS	Q22	1.532
	Q23	1.363
	Q24	1.508
	Q25	1.157
	Q26	removed

Variable	Scale item	VIF
IC	Q27	1.275
	Q28	1.624
	Q29	1.614
	Q30	1.438
	Q31	1.63

Variable	Scale item	VIF
KI	Q32	1.838
	Q33	1.726
	Q34	1.892
	Q35	1.871
	Q36	1.33
	Q37	1.808

Variable	Scale item	VIF
	Q38	1.7
	Q39	1.958
	Q40	2.033
	Q41	1.827
	Q42	1.895
	Q43	removed

Variable	Scale item	VIF
	Q50	1.786
	Q51	1.735
	Q52	1.886
	Q53	1.682
	Q54	1.834
	Q55	1.75

Source: Author's compilation, extracted from SmartPLS

5.6.2.3. Construct reliability

The results of Cronbach's alpha (CA) and composite reliability (CR) are presented in Table 5.13 below.

Table 5.13: Construct validity (CA and CR values)

Construct	Cronbach's alpha	Composite reliability (rho_a)
IC	0.777	0.783
IF	0.776	0.82
IM	0.788	0.853
IS	0.709	0.706
KA	0.838	0.842
KI	0.848	0.852
KR	0.859	0.862
KS	0.857	0.86

Source: Author's own compilation, extracted from SmartPLS

Note: These are the initial results before Q26 was removed because of low AVE.

The results of CA and CR are presented in Table 5.14 below.

Table 5.14: Construct validity (after iterations)

Construct	Cronbach's alpha	Composite reliability (rho_a)
IC	0.777	0.783
IF	0.776	0.82
IM	0.788	0.853
IS	0.712	0.718

KA	0.838	0.842
KI	0.848	0.852
KR	0.859	0.862
KS	0.857	0.86

Source: Author's own compilation, extracted from SmartPLS

The CA values for all constructs ranged from 0.712 to 0.859, which exceeds the recommended threshold of 0.70, indicating satisfactory internal consistency. Similarly, CR values ranged from 0.712 to 0.862, although the CR is on the lower end it acceptable to further confirming that the constructs demonstrate adequate reliability.

5.6.2.3.1. Convergent validity

The results of the average variance extracted (AVE) from SmatPLS, used to measure the convergent validity, are presented in Table 5.15 below.

Table 5.15: Convergent validity – AVE

Variable	Average variance extracted (AVE)
IC	0.531
IF	0.524
IM	0.531
IS	0.459
KA	0.553
KI	0.57
KR	0.586
KS	0.636

Source: Author's own compilation, extracted from SmartPLS

After the review, Q26 was removed from the IS scale due to low AVE. The results appear in Table 5.16 below.

Table 5.16: Final AVE results

Construct	Average variance extracted (AVE)
IC	0.531
IF	0.524

IM	0.531
IS	0.534
KA	0.553
KI	0.57
KR	0.586
KS	0.636

Source: Author's own compilation, extracted from SmartPLS

An AVE greater than 0.5 is acceptable for convergent validity of construct.

5.6.2.3.2. Discriminant validity

Fornell–Larcker criterion

The results of the Fornell–Larcker criterion matrix to establish discriminant validity are presented in Table 5.17 below.

Table 5.17: Fornell-Larcker criterion

	IC	IF	IM	IS	KA	KI	KR	KS
IC	**0.728**							
IF	0.401	**0.724**						
IM	0.438	0.545	**0.729**					
IS	0.417	0.458	0.46	**0.731**				
KA	0.333	0.295	0.269	0.305	**0.744**			
KI	0.363	0.297	0.25	0.323	0.657	**0.755**		
KR	0.359	0.294	0.294	0.263	0.732	0.6	**0.765**	
KS	0.46	0.355	0.344	0.348	0.659	0.629	0.638	**0.797**

Source: Author's own compilation, extracted from SmartPLS

When the square root of AVE is higher than its correlation with every other construct, as it is in Table 5.17, discriminant validity is demonstrated (Dash & Paul, 2021).

Heterotrait-Monotrait ratio (HTMT) criterion

The HTMT ratio criterion is used to determine discriminant validity between the constructs.

Table 5.18: HTMT ratio

	IC	IF	IM	IS	KA	KI	KR	KS
IC								
IF	**0.537**							
IM	**0.602**	**0.721**						
IS	**0.556**	**0.617**	**0.613**					
KA	**0.41**	**0.344**	**0.329**	**0.391**				
KI	**0.443**	**0.347**	**0.271**	**0.397**	**0.776**			
KR	**0.438**	**0.34**	**0.347**	**0.325**	**0.856**	**0.7**		
KS	**0.561**	**0.429**	**0.406**	**0.424**	**0.764**	**0.732**	**0.736**	

Source: Author's own compilation, extracted from SmartPLS

Discriminant validity is established based on the HTMT ratio. The HTMT ratio criterion is established as follows: lower than 0.90 for conceptually similar constructs and 0.85 if they are different.

5.6.3. Structural (path) model results

5.6.3.1. Model fit

Coefficient of determination (R^2)

The R^2 value is the squared correlation between actual and expected power. This value ranges from 0 to 1. The greater the value, the more precise the prediction. This value represents how well the regression model fits the data.

Table 5.19: (R^2) values

Dependent variable	R-square	R-square adjusted
KA	0.434	0.431
KI	0.179	0.163
KR	0.579	0.575
KS	0.396	0.393

Source: Author's own compilation, extracted from SmartPLS

Knowledge absorption (KA): The R-squared value is 0.434, indicating that 43.4% of the variance in KA is explained by the predictors. The adjusted R-squared is 0.431, suggesting a minimal adjustment when accounting for the number of predictors.

Knowledge inflow (KI): The R-squared value is 0.179, meaning that 17.9% of the variance in KI is explained by the predictors. The adjusted R-squared is 0.163, indicating a slight decrease, which may be due to the number of predictors relative to the sample size.

Knowledge retention (KR): The R-squared value is 0.579, meaning that 57.9% of the variance in KR is explained by the model. The adjusted R-squared is 0.575, showing minimal difference, which suggests that the model is stable in explaining the variance in KR.

Knowledge sharing (KS): The R-squared value is 0.396, indicating that 39.6% of the variance in KS is explained by the predictors. The adjusted R-squared is 0.393, again showing very little change, suggesting good stability in the model's explanatory power for KS.

5.6.3.2. Standardised root mean squared residual (SRMR) values

SRMR is a model fit index used to measure the discrepancy between the observed correlations and those predicted by the model. It provides an indication of how well the model fits the data. A lower SRMR value indicates a better model fit. Typically, an SRMR value of 0.08 or below is considered acceptable for a good model fit.

Table 5.20: Standardised root mean squared residual (SRMR)

Model	Original sample (O)	Sample mean (M)	95%	99%
Saturated model	0.068	0.054	0.062	0.07
Estimated model	0.097	0.064	0.078	0.09

Source: Author's own compilation, extracted from SmartPLS

The saturated model demonstrates a good fit, as indicated by an SRMR value of 0.068 for the original sample, and the confidence intervals are all within the acceptable range. The estimated model has an SRMR value of 0.097 for the original sample, which is above the acceptable threshold. This suggests that there are discrepancies between the observed and predicted correlations which the model does not fully explain.

The sample mean SRMR value (0.064) and the 95% confidence interval (0.078) are acceptable, indicating that the estimated model can still be considered a reasonable fit based on average estimates, but it might need refinements to improve the overall model fit, particularly when considering more stringent criteria.

If the Q^2 value is positive, the prediction error of the PLS–SEM results is smaller than the prediction error of simply using the mean values. In that case, the PLS–SEM model offers better predictive performance. The Q^2 measures if the model has predictive relevance, i.e. it must be $Q^2 > 0$.

5.6.3.3. Predictive relevance(Q^2), mean square error (RMSE root) and mean absolute error (MAE)

Q^2predictive is a measure of predictive relevance in PLS–SEM. It is obtained by using a blindfolding procedure and indicates the ability of the model to predict the values of endogenous (dependent) constructs. Values greater than 0 indicate that the model has predictive relevance for the given construct. Higher Q^2predict values indicate stronger predictive accuracy of the model. RMSE measures the average magnitude of prediction errors, with larger values indicating higher discrepancies between the observed and predicted values. A lower RMSE value indicates a better fit and less error. MAE measures the average of the absolute differences between observed and predicted values. It also provides insights into prediction accuracy. Like RMSE, a lower MAE value indicates better predictive accuracy (Sarstedt et al., 2021).

Together, these metrics provide a comprehensive evaluation of a model's quality. Q^2 focuses on predictive relevance (how well the model predicts future observations), while RMSE and MAE focus on the prediction error (accuracy and reliability). A model with high Q^2, low RMSE and low MAE is considered to have good predictive accuracy, model quality and construct reliability. The results are provided in Table 5.21 below.

Table 5.21: Q^2predict, RMSE and MAE values

	Q^2predict	RMSE	MAE
KA	0.09	0.98	0.662
KI	0.117	0.963	0.689
KR	0.09	0.978	0.672
KS	0.182	0.922	0.648

Source: Author's own compilation, extracted from SmartPLS

Knowledge sharing (KS) has the highest Q^2predict value (0.182), suggesting that the model has the highest predictive relevance for this construct compared to the others. Knowledge inflow (KI) also shows moderate predictive relevance, with a Q^2predict value of 0.117. Both

knowledge absorption (KA) and knowledge retention (KR) have Q^2predict values of 0.09, indicating some predictive relevance, but less than that of KI and KS.

RMSE values are fairly similar across all four constructs, with knowledge sharing (KS) having the lowest RMSE (0.922), indicating that the model has better prediction accuracy for this construct. MAE values also follow a similar trend, with knowledge sharing (KS) having the lowest value (0.648), suggesting that KS is the most accurately predicted construct among the four. Knowledge inflow (KI) has the highest MAE (0.689), indicating that the model has relatively more error in predicting KI compared to the other constructs.

5.6.3.4. Effect size f^2

The f^2 value measures the effect size of the independent (exogenous) constructs against the dependent variable. It measures how much a variability or effect experienced by the dependent variable is a result of the independent variable. A construct is considered to have a small effect if its f^2 value is between 0.02 and 0.14, while it is considered to have a medium effect if its f^2 value is between 0.15 and 0.34 and a large effect size if the f^2 value is greater than 0.35 (Shmueli et al., 2019).

Table 5.22: Effect size f^2

	Original sample (O)	Sample mean (M)	Bias	2.50%	97.50%	Interpretation
IC -> KI	0.054	0.253	0.199	-0.065	0.017	Small effect
IF -> KI	0.012	0.129	0.117	-0.339	0.033	No effect
IM -> KI	0	0.016	0.016	-0.195	0.13	No effect
IS -> KI	0.023	0.172	0.149	-0.121	0.03	Small effect
KA -> KR	0.408	0.554	0.146	0.29	0.383	Large effect
KI -> KS	0.656	0.63	-0.026	0.539	0.779	Large effect
KS -> KA	0.766	0.658	-0.108	0.764	0.849	Large effect
KS -> KR	0.101	0.27	0.169	0.008	0.066	Medium effect

Source: Author's own compilation, extracted from SmartPLS

Notes:

-> represents a path relationship between the two constructs within the model in PLS–SEM, e.g. IC -> KI represents a path relationship between individualised consideration and knowledge inflow. Certain paths demonstrated no effect (between 0.02 and 0.04) or a small

effect. This means that in these paths the independent variable had no impact in explaining the variability within the dependent variable. Since the f value is an additional measure to explain the path significance, such low results will impact negatively on the overall path decision, i.e. the hypothesis might be rejected.

5.6.3.5. Hypothesis testing

This section presents the results of the hypothesis testing conducted using PLS–SEM. Each hypothesis was evaluated based on the beta value (path coefficient), t-statistic, p-value, and confidence intervals from bootstrapping. The hypotheses, as stated in Chapter 3, are presented together with the findings. Hypotheses H1–H4 were postulated for research sub-question 1 (RQ1) to explore the impact of TL dimensions (IF, IM, IS and IC) on knowledge inflow (KI), and hypotheses H5–H8 were postulated for research sub-question 2 (RQ2) to explore the relationship between the KT paths (inflow (KI), absorption (KA) and retention (KR)).

Table 5.23: Hypothesis test results – extracted from PLS–SEM

	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
IF -> KI	0.125	0.129	0.071	1.767	0.077
IM -> KI	-0.001	0.016	0.078	0.017	0.986
IS -> KI	0.164	0.172	0.085	1.93	0.054
IC -> KI	0.246	0.253	0.088	2.795	0.005
KA -> KR	0.551	0.554	0.06	9.192	0
KI -> KS	0.629	0.63	0.068	9.323	0
KS -> KA	0.659	0.658	0.063	10.489	0
KS -> KR	0.275	0.27	0.066	4.19	0

Source: Author's own compilation, extracted from SmartPLS

5.6.3.6. Interpretation of the results

Original sample (O)

This is the path coefficient for the original data to quantify the strength and direction of the relationship between the variables.

Sample mean (M)

This is the average of the path coefficients across all bootstrapped samples. It provides an idea of the average strength of the relationship based on multiple resampling of the data.

T-statistics (|O/STDEV|)

The t-statistic is calculated as the ratio of the original path coefficient to the standard deviation (|O/STDEV|). A t-value greater than 1.96 generally indicates that the relationship is statistically significant at the 5% significance level.

P-values

P-values indicate the probability that the observed relationship is due to chance. A p-value less than 0.05 suggests that the relationship is statistically significant at the 5% significance level.

Although the beta value shows some stability across the paths, the t-values are less than 1.96 for paths: IF-> KI, IM-> KI, IS-> KI and the probability that it is not due to chance is higher than 0.05, which means that these paths are not statistically significant. This factor which could affect the overall relationship between the variables and draw positive conclusions.

Bootstrapping results

The bootstrapping procedure was used to validate the significance and stability of the relationships identified through PLS–SEM. This technique provides an estimate of the variability in path coefficients (sample mean, bias) and confidence intervals to assess if relationships are significant (Sarstedt et al., 2021). The bootstrapping results provide additional validation for the hypothesis results, making the conclusion drawn more robust and credible. The bootstrapping results are presented in Table 5.24 below.

Table 5.24: Bootstrapping results

Hypothesis	Original sample (O)	Sample mean (M)	Bias	2.50%	97.50%
IF -> KI	0.125	0.129	0.004	-0.013	0.262
IM -> KI	-0.001	0.016	0.017	-0.199	0.127
IS -> KI	0.164	0.172	0.008	-0.001	0.33
IC -> KI	0.246	0.253	0.008	0.072	0.415
KA -> KR	0.551	0.554	0.003	0.426	0.663
KI -> KS	0.629	0.63	0.001	0.466	0.738

KS -> KA	0.659	0.658	0	0.513	0.762
KS -> KR	0.275	0.27	-0.005	0.144	0.402

Source: Author's own compilation, extracted from SmartPLS

The paths IF->KI, IM->KI and IS-> KI show that the path mean values are very close to -0.1 to 0.1. The lower bound (2.5%) and upper bound (97.5%) pass through zero, which means that the path relationship between them is not significant, even with bootstrapping. This makes it highly probable that the overall hypothesis will not be supported.

Mediation path identification

The mediation analysis for this study focused on understanding the role of knowledge absorption (KA), knowledge sharing (KS) and knowledge retention (KR) as mediators in the KT process during PMI.

Using PLS–SEM, both the direct effects of predictor variables on outcome variables and the indirect effects through the proposed mediators were assessed. Specifically, the relationships involving KS -> KA -> KR paths were closely examined for their mediation potential (Shmueli et al., 2019). All the possible paths were evaluated for significance and strength based on beta value, t-statistics and p-values. The detailed results, including all direct, indirect and total effects, are presented in Tables 5.25–5.27.

Table 5.25: Indirect effects mediation

Path	Original sample (O)	Sample mean (M)	Bias	2.50%	97.50%	Path	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
IC -> KA	0.102	0.107	0.005	0.026	0.194	IC -> KA	0.102	0.107	0.044	2.324	0.02
IC -> KR	0.099	0.103	0.004	0.026	0.187	IC -> KR	0.099	0.103	0.042	2.372	0.018
IC -> KS	0.155	0.161	0.006	0.043	0.277	IC -> KS	0.155	0.161	0.061	2.55	0.011
IF -> KA	0.052	0.053	0.002	-0.004	0.115	IF -> KA	0.052	0.053	0.03	1.71	0.087
IF -> KR	0.05	0.051	0.001	-0.004	0.109	IF -> KR	0.05	0.051	0.029	1.733	0.083
IF -> KS	0.078	0.081	0.002	-0.007	0.167	IF -> KS	0.078	0.081	0.044	1.766	0.077
IM -> KA	-0.001	0.008	0.008	-0.083	0.055	IM -> KA	-0.001	0.008	0.033	0.017	0.987
IM -> KR	-0.001	0.007	0.008	-0.08	0.053	IM -> KR	-0.001	0.007	0.032	0.017	0.986
IM -> KS	-0.001	0.011	0.012	-0.121	0.083	IM -> KS	-0.001	0.011	0.05	0.017	0.986
IS -> KA	0.068	0.07	0.002	0.002	0.137	IS -> KA	0.068	0.07	0.034	1.97	0.049
IS -> KR	0.066	0.068	0.002	0.002	0.136	IS -> KR	0.066	0.068	0.034	1.919	0.055
IS -> KS	0.103	0.106	0.003	0.001	0.198	IS -> KS	0.103	0.106	0.051	2.035	0.042
KI -> KA	0.415	0.418	0.003	0.252	0.552	KI -> KA	0.415	0.418	0.076	5.439	0
KI -> KR	0.401	0.403	0.002	0.249	0.536	KI -> KR	0.401	0.403	0.074	5.438	0
KS -> KR	0.363	0.365	0.002	0.254	0.484	KS -> KR	0.363	0.365	0.058	6.236	0

Source: Author's own compilation, extracted from SmartPLS

Table 5.26: Direct/specific effects

Direct /Specific effects	mediation										
Path	Original sample (O)	Sample mean (M)	Bias	2.50%	97.50%	Path	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
IC -> KI -> KS	0.155	0.161	0.006	0.043	0.277	IC -> KI -> KS	0.155	0.161	0.061	2.55	0.011
IF -> KI -> KS -> KA -> KR	0.028	0.029	0.001	-0.002	0.066	IF -> KI -> KS -> KA -> KR	0.028	0.029	0.017	1.675	0.094
KI -> KS -> KA	0.415	0.418	0.003	0.252	0.552	KI -> KS -> KA	0.415	0.418	0.076	5.439	0
IF -> KI -> KS	0.078	0.081	0.002	-0.007	0.167	IF -> KI -> KS	0.078	0.081	0.044	1.766	0.077
IM -> KI -> KS	-0.001	0.011	0.012	-0.121	0.083	IM -> KI -> KS	-0.001	0.011	0.05	0.017	0.986
KI -> KS -> KR	0.173	0.171	-0.002	0.086	0.27	KI -> KS -> KR	0.173	0.171	0.046	3.72	0
IS -> KI -> KS	0.103	0.106	0.003	0.001	0.198	IS -> KI -> KS	0.103	0.106	0.051	2.035	0.042
IS -> KI -> KS -> KA -> KR	0.037	0.039	0.001	0.002	0.078	IS -> KI -> KS -> KA -> KR	0.037	0.039	0.019	1.944	0.052
KS -> KA -> KR	0.363	0.365	0.002	0.254	0.484	KS -> KA -> KR	0.363	0.365	0.058	6.236	0
IF -> KI -> KS -> KR	0.022	0.022	0	0	0.055	IF -> KI -> KS -> KR	0.022	0.022	0.014	1.587	0.113
IC -> KI -> KS -> KR	0.042	0.043	0.001	0.013	0.092	IC -> KI -> KS -> KR	0.042	0.043	0.02	2.143	0.032
IF -> KI -> KS -> KA	0.052	0.053	0.002	-0.004	0.115	IF -> KI -> KS -> KA	0.052	0.053	0.03	1.71	0.087
IM -> KI -> KS -> KR	0	0.003	0.003	-0.037	0.022	IM -> KI -> KS -> KR	0	0.003	0.014	0.017	0.986
IC -> KI -> KS -> KA	0.102	0.107	0.005	0.026	0.194	IC -> KI -> KS -> KA	0.102	0.107	0.044	2.324	0.02
IS -> KI -> KS -> KR	0.028	0.03	0.001	0.002	0.07	IS -> KI -> KS -> KR	0.028	0.03	0.017	1.646	0.1
IM -> KI -> KS -> KA	-0.001	0.008	0.008	-0.083	0.055	IM -> KI -> KS -> KA	-0.001	0.008	0.033	0.017	0.987
IS -> KI -> KS -> KA	0.068	0.07	0.002	0.002	0.137	IS -> KI -> KS -> KA	0.068	0.07	0.034	1.97	0.049
IC -> KI -> KS -> KA -> KR	0.056	0.059	0.003	0.014	0.113	IC -> KI -> KS -> KA -> KR	0.056	0.059	0.026	2.167	0.03
KI -> KS -> KA -> KR	0.228	0.233	0.004	0.129	0.342	KI -> KS -> KA -> KR	0.228	0.233	0.055	4.175	0
IM -> KI -> KS -> KA -> KR	0	0.004	0.005	-0.045	0.032	IM -> KI -> KS -> KA -> KR	0	0.004	0.019	0.017	0.987

Source: Author's own compilation, extracted from SmartPLS

Table 5.27: Total effects

Total effects											
Path	Original sample (O)	Sample mean (M)	Bias	2.50%	97.50%	Path	Original sample (O)	Sample mean (M)	Standard deviation (STDEV)	T statistics (|O/STDEV|)	P values
IC -> KA	0.102	0.107	0.005	0.026	0.194	IC -> KA	0.102	0.107	0.044	2.324	0.02
IC -> KI	0.246	0.253	0.008	0.072	0.415	IC -> KI	0.246	0.253	0.088	2.795	0.005
IC -> KR	0.099	0.103	0.004	0.026	0.187	IC -> KR	0.099	0.103	0.042	2.372	0.018
IC -> KS	0.155	0.161	0.006	0.043	0.277	IC -> KS	0.155	0.161	0.061	2.55	0.011
IF -> KA	0.052	0.053	0.002	-0.004	0.115	IF -> KA	0.052	0.053	0.03	1.71	0.087
IF -> KI	0.125	0.129	0.004	-0.013	0.262	IF -> KI	0.125	0.129	0.071	1.767	0.077
IF -> KR	0.05	0.051	0.001	-0.004	0.109	IF -> KR	0.05	0.051	0.029	1.733	0.083
IF -> KS	0.078	0.081	0.002	-0.007	0.167	IF -> KS	0.078	0.081	0.044	1.766	0.077
IM -> KA	-0.001	0.008	0.008	-0.083	0.055	IM -> KA	-0.001	0.008	0.033	0.017	0.987
IM -> KI	-0.001	0.016	0.017	-0.199	0.127	IM -> KI	-0.001	0.016	0.078	0.017	0.986
IM -> KR	-0.001	0.007	0.008	-0.08	0.053	IM -> KR	-0.001	0.007	0.032	0.017	0.986
IM -> KS	-0.001	0.011	0.012	-0.121	0.083	IM -> KS	-0.001	0.011	0.05	0.017	0.986
IS -> KA	0.068	0.07	0.002	0.002	0.137	IS -> KA	0.068	0.07	0.034	1.97	0.049
IS -> KI	0.164	0.172	0.008	-0.001	0.33	IS -> KI	0.164	0.172	0.085	1.93	0.054
IS -> KR	0.066	0.068	0.002	0.002	0.136	IS -> KR	0.066	0.068	0.034	1.919	0.055
IS -> KS	0.103	0.106	0.003	0.001	0.198	IS -> KS	0.103	0.106	0.051	2.035	0.042
KA -> KR	0.551	0.554	0.003	0.426	0.663	KA -> KR	0.551	0.554	0.06	9.192	0
KI -> KA	0.415	0.418	0.003	0.252	0.552	KI -> KA	0.415	0.418	0.076	5.439	0
KI -> KR	0.401	0.403	0.002	0.249	0.536	KI -> KR	0.401	0.403	0.074	5.438	0
KI -> KS	0.629	0.63	0.001	0.466	0.738	KI -> KS	0.629	0.63	0.068	9.323	0
KS -> KA	0.659	0.658	0	0.513	0.762	KS -> KA	0.659	0.658	0.063	10.489	0
KS -> KR	0.638	0.635	-0.002	0.491	0.741	KS -> KR	0.638	0.635	0.064	10.043	0

Source: Author's own compilation, extracted from SmartPLS

The possible mediation paths were all evaluated. The results indicate that the mediating paths between KS -> KA -> KR all indicate significance, while the rest of the paths showed small significance (beta values close to zero, and p-values higher than 0.05 [all indicated in red] which does not support the paths). The indirect path KS -> KA -> KR had a significant t-statistic of 6.236 and a p-value of 0, confirming the mediating role of knowledge absorption (KA) in the

relationship between knowledge sharing (KS) and knowledge retention (KR). Furthermore, the direct effect of KS -> KR remained significant, with a t-statistic of 10.043 and a p-value of 0, indicating partial mediation by KA.

Overall, these findings demonstrate that KA and KS serve as important intermediaries in enhancing KR during the KT stages. This could suggest a partial mediation since both the direct and indirect paths are significant (Nitzl et al., 2016).

5.6.3.7. Hypothesis review

The initial hypotheses are now reviewed in line with the results obtained, where RQ1 relates to hypotheses H1–H4 pertaining to transformational leadership and RQ2 relates to hypotheses H5–H8 pertaining to knowledge transfer.

H1 (IF -> KI): **Idealised influence (IF) leads to increased knowledge inflow (KI)**

- path coefficient (β): 0.125
- t-statistic: 1.767
- p-value: 0.077 (not significant at $p < 0.05$)
- confidence interval: -0.013 to 0.262 (includes zero)

Result: H1 is not supported.

The results indicate that the effect of idealised influence on knowledge inflow is not statistically significant, suggesting that IF does not have a strong impact on increasing knowledge inflow in this context.

H2: Inspirational motivation (IM) leads to increased knowledge inflow (KI).

- path coefficient (β): -0.001
- t-statistic: 0.017
- p-value: 0.986 (not significant)
- confidence interval: -0.199 to 0.127 (includes zero)

Result: H2 is not supported.

The results show no significant effect of inspirational motivation on knowledge inflow, indicating that IM does not significantly enhance knowledge inflow among employees.

H3: Intellectual stimulation (IS) leads to increased knowledge inflow (KI).

- path coefficient (β): 0.164
- t-statistic: 1.93
- p-value: 0.054 (marginally not significant at $p < 0.05$)

- confidence interval: -0.001 to 0.33 (includes zero)

Result: H3 is marginally not supported.

The path from intellectual stimulation to knowledge inflow shows a positive effect, but it is not significant at the 5% level, suggesting only weak evidence of a relationship between IS and knowledge inflow.

H4: Individualised consideration (IC) leads to increased knowledge inflow (KI).

- path coefficient (β): 0.246
- t-statistic: 2.795
- p-value: 0.005 (significant at $p < 0.05$)
- confidence interval: 0.072 to 0.415 (does not include zero)

Result: H4 is supported.

The results show that individualised consideration has a significant positive effect on knowledge inflow, suggesting that providing personalised support and coaching encourage employees to contribute their knowledge.

H5: Increased knowledge inflow (KI) leads to increased knowledge sharing (KS).

- path coefficient (β): 0.629
- t-statistic: 9.323
- p-value: 0.000 (highly significant)
- confidence interval: 0.466 to 0.738 (does not include zero)

Result: H5 is supported.

The results show that knowledge inflow has a strong positive effect on knowledge sharing, implying that increased knowledge inflow facilitates better sharing and integration of new knowledge.

H6: Increased knowledge sharing (KS) leads to increased knowledge absorption (KA).

- path coefficient (β): 0.659
- t-statistic: 10.489
- p-value: 0.000 (highly significant)
- confidence interval: 0.513 to 0.762 (does not include zero)

Result: H6 is supported:

The results show that as knowledge sharing increases, knowledge absorption also increases significantly, suggesting that absorbed knowledge is effectively disseminated across the organisation.

H7: Increased knowledge sharing (KS) leads to increased knowledge retention (KR).

- path coefficient (β): 0.275
- t-statistic: 4.19
- p-value: 0.000 (significant)
- confidence interval: 0.144 to 0.402 (does not include zero)

Result: H7 is supported.

The results show that knowledge sharing has a significant positive effect on knowledge retention, implying that sharing knowledge across the organisation increases the likelihood of retaining important knowledge.

H8: Knowledge absorption (KA) mediates the relationship between knowledge sharing (KS) and knowledge retention (KR).

Indirect path analysis:

KS -> KA: path coefficient (β) = 0.659, p = 0.000 (significant)

KA -> KR: path coefficient (β) = 0.551, p = 0.000 (significant)

Since both paths are significant, knowledge absorption plays a mediating role in the relationship between knowledge sharing and knowledge retention.

Result: H8 is supported.

The results show that knowledge absorption significantly mediates the relationship between knowledge sharing and knowledge retention, indicating that the effective absorption of shared knowledge is key to retaining it in the organisation.

Table 5.28: Summary of hypothesis testing results

Hypothesis	Path	Beta (β)	T-statistic	P-value	Confidence interval (95%)	Result
H1: IF -> KI	0.125	1.767	0.077	-0.013 to 0.262	Not supported	Not supported
H2: IM -> KI	-0.001	0.017	0.986	-0.199 to 0.127	Not supported	Not supported
H3: IS -> KI	0.164	1.93	0.054	-0.001 to 0.33	Marginally not supported	Marginally not supported
H4: IC -> KI	0.246	2.795	0.005	0.072 to 0.415	Supported	Supported
H5: KI -> KS	0.629	9.323	0.000	0.466 to 0.738	Supported	Supported
H6: KS -> KA	0.659	10.489	0.000	0.513 to 0.762	Supported	Supported
H7: KS -> KR	0.275	4.19	0.000	0.144 to 0.402	Supported	Supported

H8: KA mediates KS -> KR	0.638	0.551	0.000		Supported	Supported

Source: Author's own compilation, extracted from SmartPLS

5.6.3.8. PLS–SEM model – extracted from SmartPLS

The final model with lower-order constructs of TL and KT, which summarised the results discussed above, is shown in Figure 5.10 below, extracted from SmartPLS:

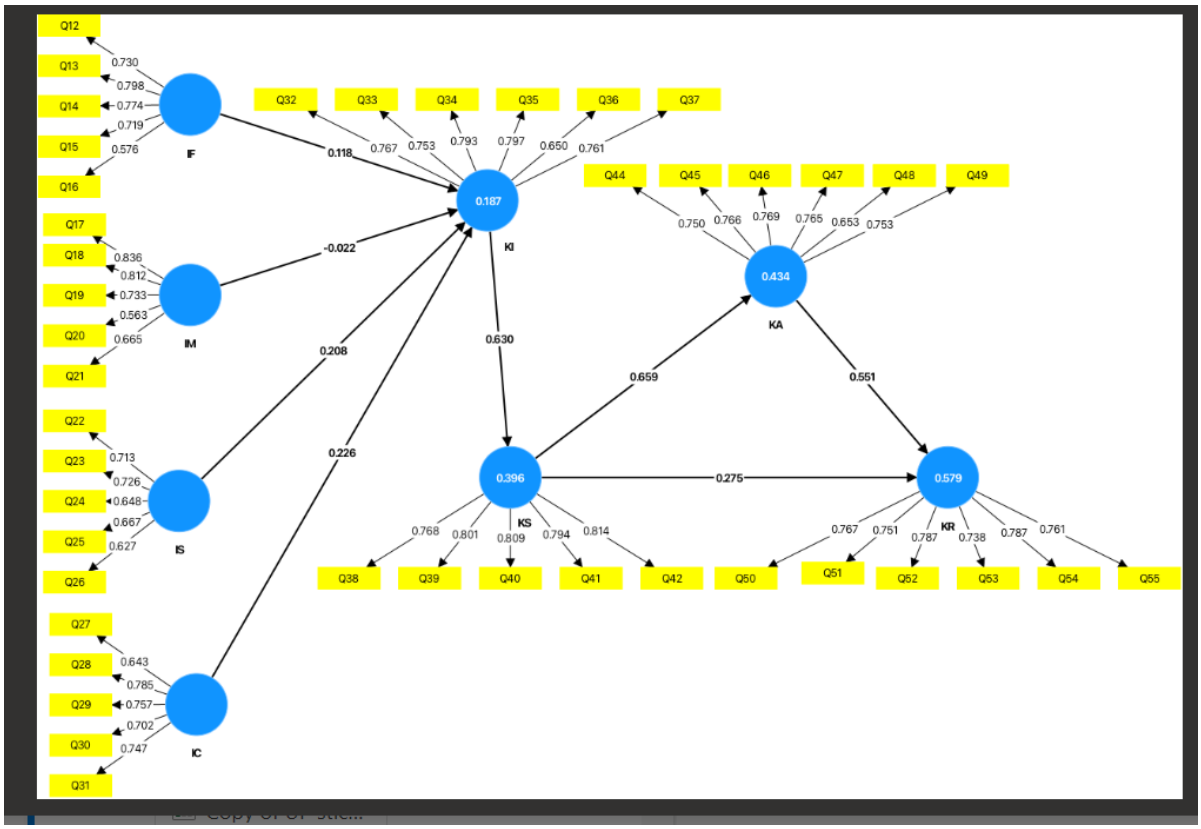


Figure 5.10: PLS–SEM model diagram

Source: Author's own compilation, extracted from SmartPLS

The blue circles represent latent constructs: IF: idealised influence, IM: inspirational motivation, IS: intellectual stimulation, IC: individualised consideration, KI: knowledge inflow, KA: knowledge absorption, KS: knowledge sharing, and KR: knowledge retention. The yellow boxes represent the measurement items (e.g. Q12, Q13, etc.) that load onto each latent construct. The numerical values on the arrows represent path coefficients and factor loadings.

Path coefficients indicate the strength and direction of the relationships between the latent constructs. Factor loadings indicate how well each item represents its latent construct.

5.7. Concluding Remarks

5.7.1 Transformational leadership constructs:

Individualised consideration (IC) was the only significant predictor of knowledge inflow. The remaining leadership dimensions (IF, IM, IS) did not show significant effects on knowledge inflow.

5.7.2 Knowledge transfer relationships

All hypothesised paths between the stages of knowledge transfer (KI, KA, KS, KR) were supported, suggesting that knowledge flows effectively through the stages, with strong relationships between inflow, absorption, sharing and retention. Knowledge absorption plays a critical mediating role between knowledge sharing and knowledge retention, emphasising the importance of effective absorption processes for retaining shared knowledge.

The results and findings presented in this chapter provide a solid foundation for further discussion in the next chapter (Chapter 6).

Chapter 6: Discussion

6.1. Introduction

The purpose of this chapter is to discuss the findings reported in Chapter 5, placing them within the context of current literature and theory in order to lay the groundwork for the final chapter (Chapter 7), which will address the practical (business-related) and theoretical contributions of the findings and suggest areas for future research.

This discussion focuses on how the empirical findings relate to theory and the findings from other empirical studies discussed in Chapter 2 (Geletkanycz & Tepper, 2012). The demographic results are discussed below to provide the relevant context, followed by the research questions and associated hypotheses.

6.2. Demographics

6.2.1. Main demographic findings

The descriptive statistics showed that the transformational leadership (TL) dimensions of idealised influence (IF), inspirational motivation (IM), intellectual stimulation (IS) and individualised consideration (IC), as well as the knowledge transfer (KT) stages of knowledge inflow (KI), knowledge absorption (KA), knowledge sharing (KS) and knowledge retention (KR) were generally rated positively by the respondents.

6.2.2. Interpretation and comparative analysis

The consistently high scores for the TL and KT dimensions indicate a significant correlation between TL behaviours and effective KT within the organisation, which is consistent with the literature (Carreiro & Oliveira, 2019; Liu & Li, 2018). These findings are consistent with TL theory, which holds that transformational leaders build trust, motivation and psychological safety, increasing employees' desire to participate in knowledge transfer (Bass & Riggio, 2006; Nemanich & Keller, 2007). Leaders were viewed as excellent role models and motivators, as deduced from the high mean value on IF and IM, which is supported by similar studies (Dirks & Ferrin, 2002).

Possible obstacles during the early stage of KI could result in a low mean score. This is consistent with the literature which describes cultural and other barriers to KT (Sarala & Vaara,

2010; Tarba et al., 2017). Leadership strategy must be adjusted to manage such early challenges to ensure effective KT.

Considering the impact of demographic factors, including age, tenure and educational background, is essential. Younger employees may exhibit a greater preference for leaders who demonstrate inspirational and motivational behaviours, which in turn serve to motivate and inspire them as they advance their careers. In contrast, older employees tend to prioritise individualised consideration, focusing on their own needs and personalised support as they approach retirement (Wang & Rode, 2010). These findings emphasise the need for leadership adaptation in meeting employees' different requirements during KT processes.

In the context of post-merger integration (PMI) in the current organisation, which focuses on the manufacturing and supply of chemicals, the emphasis on idealised influence and inspirational motivation is consistent with the need to build trust and maintain morale among employees as they face operational changes (Wei et al., 2020). In more regulated environments, such as those with strict compliance requirements, transformational behaviours may need to be supplemented by directive leadership to ensure standard adherence. This suggests that other leadership styles, such as authentic leadership and supportive leadership, may be more appropriate (Banks et al., 2016).

These differences in responses on TL dimensions could also be sector- or industry-specific and aligned to the type of leadership required (Wei et al., 2020). Leaders in highly creative sectors, for example, may need to prioritise intellectual stimulation and individualised consideration to encourage staff adaptation and responsiveness (Jung et al., 2003). In contrast, in more stable or compliance-driven sectors, idealised influence and inspirational motivation may be more effective at making sure that procedures and other mundane tasks are implemented, which could ultimately be more effective (Sadeghi et al., 2012).

6.3. Research Questions and Hypotheses

The main research question (RQ) was to investigate the impact of TL on KT during the PMI process. This was broken down into two sub-questions, RQ1 and RQ2 (and operationalised through two corresponding research objectives – research objective 1 and research objective 2), which were addressed by hypotheses H1–H4 and H5–H8, respectively.

The hypothesis testing in this study looked at the impact of several characteristics of TL on the KI stage, as well as the interrelationships between various stages of KT in the context of PMI.

6.3.1. Research objective 1 (Hypotheses H1–H4)

H1: Idealised influence (IF) -> Knowledge inflow (KI)

Hypothesis: Idealised influence (IF) is expected to have a favourable impact on knowledge inflow (KI), based on previous studies.

The surprising outcomes could be explained by the particular circumstances and context of the study. These included factors such as job security and the need to navigate new systems such that abstract-related leadership behaviours like IF might not meet the immediate needs of the employees (Minai et al., 2020; Walumbwa et al., 2011; Yin et al., 2020). While charisma linked with IF might be a powerful motivator for followers, it does not ensure good leadership. Charisma can blur the distinction between actual leadership effectiveness and personal charm, perhaps leading to followers being persuaded by personality rather than substance. In PMI circumstances, when practical direction and clarity are critical, an over-reliance on charisma may obscure underlying organisational challenges and fail to satisfy employees' true requirements (Nassif et al., 2021).

Emphasising charisma may hinder leadership behaviour, resulting in social isolation and diminishing leader effectiveness, as employees tend to avoid leaders perceived as self-centred. During change and a transitional period such as PMI, effective leadership entails humility, a focus on team needs and open-mindedness rather than personal charisma. It is possible that in this study, employees required more leadership attributes than charisma to navigate the complexities of PMI (Banks et al., 2017; Barnes et al., 2016; Lovelace et al., 2018; Tourish, 2013).

The context may have diminished the role of IF in this specific study, where a global organisation acquired a local business. Employees' fear of job loss, which is related to psychological safety, could have been a significant concern, particularly if they perceived that the acquiring company might close local business units in the future to drive synergies with more profitable regions. The significance of this is heightened when the acquiring firm aims to optimise operations and enhance efficiencies through global value chains, often located in Asia (Hollweg, 2019; Rao-Nicholson et al., 2016).

Employees want to feel recognised for their contribution. Furthermore, failure may fuel psychological safety issues and the tendency to want to leave following a merger. Research conducted in Chinese organisations has shown that a lack of psychological safety can have a negative impact on TL dimensions, particularly idealised influence (Rao-Nicholson et al., 2016; Yin et al., 2020). It can also create a reverse knowledge transfer effect, where knowledge is not effectively shared or there is evidence of sabotage in the form of knowledge being destroyed. In other words, employees from acquired organisations, who are often concerned about job security and their positions in the new organisational structure, may hide information or even sabotage knowledge-sharing initiatives. This reluctance to share knowledge can be ascribed to concerns about how the new management might use the information, as well as fears of redundancy, complicating the process of effective knowledge transfer.

This study did not set out to corroborate previous findings that indicate that IF holds particular significance in more stable industries, such as banking and health, where it enhances performance (García-Morales et al., 2012; Vasilaki et al., 2016). In dynamic and uncertain contexts, such as PMI, employees need concrete support and clear guidance instead of an abstract vision or charisma (Nassif et al., 2021). This suggests that contingency theory may be more effectively applied in this context than TL, as the former emphasises reciprocity, trust and emotional connection, which are essential during PMI (Dinibutun, 2020; Peters et al., 1985).

Instrumental leadership, emphasising practical guidance and job-oriented behaviours, may offer greater support during periods of uncertainty than IF (Yukl, 1999). In a PMI context, characterised by high ambiguity and role uncertainty, instrumental behaviours such as task adaptability and directive leadership may prove more advantageous than TL which does not provide the necessary adaptability and task guidance for managing challenging transitions (Antonakis & House, 2014).

H2: Inspirational motivation (IM) -> Knowledge inflow (KI)

Hypothesis: Leaders that convey a compelling vision are more likely to persuade staff to contribute their knowledge (Liu et al., 2024; Wang & Howell, 2010).

The finding contradicts prior literature which demonstrated that inspirational leaders can, with a compelling vision, improve organisational effectiveness and knowledge inflow by fostering a collaborative culture, openness and trust (García-Morales et al., 2012; Vasilaki et al., 2016). Promoting an innovative culture, while important for setting corporate goals in a technical

environment, might not resonate with employees during PMI who may seek concrete advice, genuine support and an assurance that the change will not affect them.

During PMI, leaders who provide tangible answers and reduce ambiguity are more likely to build employee trust and engagement, resulting in improved KI outcomes (Ahmad et al., 2020; Banks et al., 2016). Meindl et al. (1985) established the notion of the 'Romance of Leadership', arguing that followers frequently ascribe organisational success or failure disproportionately to the leader, rather than acknowledging the complex interplay of elements that influence outcomes. In a PMI context, emphasising the leader's inspirational role may be insufficient to tackle the various issues faced by employees, who may require more practical help, autonomy and peer collaboration to successfully traverse the integration process. This could explain why IM is not supported in this study.

In IM-dominated organisations, followers may regard the leader as the sole source of innovative direction, making them less likely to actively participate in knowledge-sharing initiatives (Junni et al., 2012). Thus, while IM is useful for aligning and encouraging followers, over-emphasis may unintentionally impede the collaborative and autonomous behaviours required for effective KT. The balance between visionary leadership and the development of healthy team-level dynamics, where individuals feel empowered to share and create knowledge autonomously, is critical for successful PMI (Day & Antonakis, 2012).

The lack of relevance of IF and IM may indicate that during PMI, the leader's personal traits or inspirational vision may not be enough to overcome the barriers created by different company cultures. Instead, the data indicates that cultivating social capital by building trust, nurturing networks and developing shared interests between merging entities is more important for promoting effective KT. This is consistent with the work of Lee et al. (2023), who found that social capital is critical for linking workers from varied backgrounds, encouraging easier KT and closing the cultural and operational gaps.

H3: Intellectual stimulation (IS) -> Knowledge inflow (KI)

Hypothesis: IS improves KI by encouraging employees to think creatively and challenge established processes (Mittal & Dhar, 2015; Wang & Rode, 2010).

The internal sharing of procedures and the existence of supportive structures are critical for ensuring effective KT in a PMI setting. The study's marginal finding suggests that IS alone may not provide adequate stability or practical advice during times of major organisational transformation. Employees may be afraid to take risks or defy established standards in the

PMI setting since their responsibilities are uncertain (Sarala et al., 2016). Contextual barriers frequently impede KT and so, during a period of organisational transformation, individuals may avoid hazardous or non-conformist behaviours (Szulanski, 1996).

This is congruent with existing studies which indicate that IS, in order to be effective, requires a supportive environment and that without proper support, its impact on KI is minimal or non-consistent. The supportive environment that IS needs might be lacking during PMI, which is a highly uncertain context. This supports calls by several scholars to focus on the quality of HRM practices during PMI (Hoch & Kozlowski, 2104; Zhou et al., 2020).

A potential explanation for the limited perceived contribution of IS in this study is the inherent risks associated with fostering continuous innovation, while neglecting operational stability. Intellectual stimulation fosters originality and unconventional thinking; however, it often neglects the practical risks linked to rapid or excessive innovation. Frequently encouraging staff to innovate, without understanding the practical constraints or potential disruptions that this could cause, may lead to inefficiency, confusion and burnout (West & Anderson, 1996).

It might be quite difficult for employees to focus on creative problem-solving in the midst of PMI as their primary focus tends to be on the changes and their possibly new roles (Dezi et al., 2018) .This study showed that IS promotes innovation, but its efficacy may diminish shortly after an M&A as employees prioritise operational stability and adaptation to new organisational frameworks.

H4: Individualised consideration (IC) -> Knowledge inflow (KI)

Hypothesis: IC has a beneficial impact on KI because leaders who provide customised attention, build trust and address individual needs are more likely to foster a supportive environment that is conducive to KI.

Such an environment promotes simple adaptability as employees adjust to organisational changes (Wang & Noe, 2010). The findings from this study are consistent with the literature (Antonakis & House, 2013; Jiatong et al., 2022). Ambiguity can be reduced by leaders who take the time to explain employees' new duties, the organisational structure and particular job requirements when positions change. When uncertainty is reduced, employees are more likely to accept and adapt to changes caused by PMI, resulting in less opposition and more positive outcomes (Nemanich & Keller, 2007).

IC entails mentoring, coaching and supporting individual followers to help them realise their full potential (Fischer et al., 2017). During PMI, employees want leaders who can guide them through the complexities, help them adjust to new organisational routines, and manage the obstacles created by changes in the organisational structure. In many circumstances, employees may need to unlearn old habits so as to properly receive and apply new information (Xi et al., 2020).

IC is crucial in this type of situation, with leaders ideally providing concentrated attention through coaching and mentoring to enable employees to learn and embrace new organisational norms. Fostering creative problem-solving capacity entails giving employees individualised attention, encouraging them to participate in creative pursuits, and assisting them in overcoming specific obstacles. This goes beyond academic stimulation as it represents a personalised approach for each follower. Leaders who practise IC can dramatically improve KI by recognising their employees' particular needs and supporting them through innovative problem-solving techniques (Carmeli et al., 2013).

Furthermore, leaders who exhibit high levels of IC are frequently more available to attend to their followers' demands (Bass & Riggio, 2006; Fischer et al., 2017). Leaders that use IC create a supportive environment by being receptive to new ideas and delivering personalised feedback that address individual needs. Such an environment encourages employees to discuss creative ideas and take prudent risks, which is especially important for arriving at technological and operational breakthroughs. These outcomes are consistent with the findings from this study, showing that KI is strongly supported by IC. Leaders who serve as mentors and provide advice in line with individuals' specific needs and concerns, particularly in high-stakes areas such as IT and innovation, make a major contribution to effective KT during PMI.

6.3.2 Research objective 2 (Hypotheses H5–H8)

To address research objective 2, the study investigated the correlations between the various stages of KT during PMI, with a particular focus on KI, KA, KS and KR. Hypotheses H5–H8 were proposed to investigate these linkages sequentially for the purpose of better understanding how knowledge flows through different stages of PMI. The data revealed considerable positive impacts between each pair of stages, indicating a well-coordinated and efficient KT process. The findings shed light on how acquired knowledge is internalised, communicated and preserved within a rapidly changing business.

H5: Knowledge inflow (KI) -> Knowledge sharing (KS)

Hypothesis: The significant positive influence of information inflow (KI) on knowledge sharing (KS) shows that initial information acquisition is critical in determining an organisation's ability to share additional knowledge.

This resonates with studies showing that the quality and quantity of knowledge inflow influence the extent of knowledge shared (Nonaka, 2007). Moreover, the quality, clarity and relevance of incoming knowledge significantly influence the organisation's capacity to implement new practices, which is essential for achieving effective synergy and organisational coherence in a post-merger context (Junni, 2011).

H6: Knowledge sharing (KS) -> Knowledge absorption (KA)

Hypothesis: The free sharing of knowledge enhances the process of knowledge absorption.

The findings from this study align with existing literature indicating that increased knowledge sharing enhances knowledge absorption within an organisation (Balle et al., 2020; Wang & Hu, 2020; Wang & Noe, 2010). Additionally, organisational dynamics, including open communication, trust and shared goals, have demonstrated a positive impact on knowledge sharing within an organisation, which is essential for knowledge absorption (Ferreras Méndez et al., 2018).

Extensive due diligence, such as prior learning about partners or involvement before the purchase is completed, has been shown to improve knowledge transfer during post-merger integration (Zhou et al., 2023). In pre-acquisition contexts, familiarity gained through transparent communication between prospective partners offers essential insights that aid in the subsequent phase of more profound understanding. This enhanced learning results in greater absorptive capacity, facilitating more efficient knowledge transfer. Early collaboration fosters familiarity, which enhances trust and understanding, which are essential components of effective integration, and sharing of acquired information within a broader corporate structure (Junni, 2011).

Knowledge sharing refers to the process through which information is disseminated within an organisation (Boamah et al., 2023). KS is an important step in ensuring that this information goes throughout the company to improve collective knowledge, decision-making and efficiency. The efficacy of KS ensures that valuable absorbed knowledge is accessible to all organisational units, promoting broader learning and coherence in organisational strategy.

KS enhances the organisational knowledge base by facilitating access to and understanding of tacit knowledge among employees. This is essential for enhancing absorptive capacity (KA) (Boamah et al., 2023).

Knowledge sharing and absorptive capacity (KA) are mutually reinforcing processes that underpin successful knowledge management. KA enhances an organisation's capability to assimilate and internalise new knowledge, which is subsequently disseminated throughout the organisation through KS. Absorptive capacity is essential for effective information sharing, as employees who have fully assimilated knowledge can communicate it more meaningfully.

This interwoven relationship ensures that absorbed knowledge is converted into a shared organisational resource, fostering broader collective learning and contributing to the overall success of knowledge transfer programmes during post-merger integration (Balle et al., 2020).

H7: Knowledge sharing (KS) -> Knowledge retention (KR)

Hypothesis: The favourable effect of KS on KR shows that shared knowledge is crucial for developing organisational memory (Argote & Fahrenkopf, 2016).

KS is a critical predictor of organisational learning, which in turn leads to KR. During PMI, it is crucial that the information gained during the transition is kept for future use. The large positive association between KS and KR found in this study suggests that the more effectively knowledge is disseminated among employees, the more likely it will be kept as part of the corporate knowledge base (Carmeli et al., 2013; Martins & Meyer, 2012). This retention is critical for assuring continuity, reducing redundancy and sustaining the organisation's competitive advantage. This embedded information is also critical for preserving institutional memory, which helps to prolong the organisation’s high standard of performance.

Tacit knowledge is more difficult to transmit since it is based on personal experience, intuition and context-specific insights (Calipha et al., 2018). Employees usually gain tacit knowledge through hands-on experience, making it less organised and more difficult to define (Junni et al., 2012). However, part of this tacit information can be converted into explicit knowledge through elaboration (breaking down more complicated ideas into simpler, easier-to-understand forms) and externalisation, in which employees actively explain and contextualise their knowledge. The conversion process is only possible through sharing, as it makes the otherwise intangible, experience-based knowledge more widely accessible and usable by others in the organisation (Ahmad & Karim, 2019).

H8: Knowledge absorption (KA) mediates the relationship between knowledge sharing (KS) and knowledge retention (KR)

Hypothesis: KA plays a mediating role in KS and KR, thus emphasising the significance of not only sharing knowledge but also ensuring that it is correctly absorbed by employees in an organisation.

The absorption process facilitates the comprehensive grasp and internalisation of shared knowledge, which is necessary for effective knowledge retention (Ahmad et al., 2018). The findings in this study showed that KS alone is insufficient to ensure KR; knowledge must be assimilated in order to be retained effectively (Balle et al., 2020). The statistical significance of the mediation effect suggests that KA serves as a vital intermediate factor in transforming shared information into retained organisational memory, thus ensuring the long-term durability of that knowledge. This underlines the importance of organisations focusing on both effective knowledge sharing mechanisms and absorption strategies, such as training, learning programme support, and the provision of opportunities to employees to use new information in real-world contexts.

Concluding comments on research objective 2 and Hypotheses H5–H8

Objective 2 sought to elucidate the interrelationships between the different stages of KT during PMI: knowledge inflow (KI), knowledge absorption (KA), knowledge sharing (KS) and knowledge retention (KR). All the hypotheses were well supported, indicating a strong relationship between the sequential stages. KI and KS paths demonstrated that significant flows of information within the organisation lead to higher levels of sharing. This is because as knowledge increases among individuals, so does their ability to absorb it (Zhou et al., 2020). This is consistent with the resource-based view (RBV) and social capital theories, both of which emphasise the value of knowledge as a resource and the role of trust in facilitating information transmission (Barney et al., 2011; Lee et al., 2023; Nahapiet & Ghoshal, 1998).

The KS-to-KR path revealed that shared knowledge is necessary for developing organisational memory, which is required for building up and maintaining critical knowledge assets across time (Argote & Fahrenkopf, 2016; Carmeli et al., 2013). Effective KS guarantees that useful information is widely available, which contributes to the organisation's stability and competitive advantage (Ahmad & Karim, 2019; Boamah et al., 2023).

Finally, the mediating role of KA in the link between KS and KR emphasises the importance of not just sharing but also thoroughly absorbing knowledge for long-term retention (Crossan & Dutta, 2005).

The findings in this study underlined the significance of both sharing and absorbing knowledge in order to develop a long-term knowledge base within the organisation.

The theory of tasks, tools, members and networks (TTMN) can be used to explain the KT stages. Tasks are the actions that must be completed, tools are the procedures or technologies that facilitate these actions, members are the people who participate, and networks are the relationships among these people. When tasks, tools, members and networks are aligned, significant route linkages emerge between the KT stages (Argote & Ingram, 2000). Effective tools and well-defined tasks are crucial for facilitating knowledge inflow (KI to KS), while strong member relationships and resilient networks are required for the movement from KA to KS, and finally to knowledge retention KR. The strength of these interactions must be greater than any barriers to KT, which include cultural difficulties, power dynamics and other contextual challenges. These aspects are consistent with the study's findings, which emphasise the relevance of human capabilities, trust and organisational support in facilitating transitions between the different stages of KT.

In the absence of strong evidence of TL behaviours that promote essential KT processes, human resource management (HRM) activities are crucial (Zhou et al., 2020). HRM practices such as targeted training, employee development and the fostering of a learning culture improve subsidiaries' absorptive capacity. This is because these measures help to create an environment in which employees are motivated and capable of learning and sharing knowledge successfully (Junni, 2011). Employee motivation and readiness to share are crucial for improving the KA-to-KS path, especially when TL has minimal impact (Aklamanu et al., 2016). HRM practices thus provide structural support for KT by increasing absorptive ability, fostering trust and stimulating collaboration, ensuring that the KA-to-KS process remains robust (Minbaeva et al., 2014).

Overall, the results of Hypotheses H5–H8 demonstrate the crucial necessity of successful knowledge flows through the various stages, highlighting the role of absorptive capacity and collaborative efforts in optimising the benefits of KT during PMI.

6.4. Conclusion

The discussion of the findings in this chapter offers in-depth insights on how the literature and theoretical frameworks support, or in some cases contradict, the observed findings. TL has been shown to have a strong context-dependent influence on KT.

The KT process, though, is very complex and can be influenced by a variety of elements, such as organisational culture, psychological safety, motivation, team dynamics and power dynamics (Bresman et al., 1999; Junni, 2011; Minbaeva et al., 2014; Sarala & Vaara, 2010).

The findings also highlighted that TL's influence on KT is not uniform but varies depending on the organisational environment and the extent of individual and collective willingness to share knowledge (Oc, 2018). The combination of frameworks such as absorptive capacity and the tasks, tools, members and networks (TTMN) model enable a more comprehensive understanding of the mechanisms behind KT (Argote & Fahrenkopf, 2016). Absorptive capacity, which includes ability and drive, is critical for guaranteeing successful KA and KS. Moreover, the TTMN framework emphasises that aligned tasks, effective tools, strong member involvement and robust networks are required to establish strong relationships between the various stages of KT, such as KI to KA, KA to KS and KS to KR.

Furthermore, the findings highlighted how contextual barriers, such as power dynamics and inter-departmental silos, might hamper KT. However, evidence suggests that high individual absorptive capacity and focused HRM practices might help to overcome these obstacles, allowing knowledge to flow more easily between stages. These findings have been corroborated by studies by (Liu et al., 2024; Podsakoff et al., 1996; Volberda et al., 2009), which show that trust, motivation and a collaborative culture are critical enablers of effective KT. These characteristics are consistent with the hypothesised pathways between KI, KA, KS and KR, suggesting that the links between these stages are dependent on both individual and organisational factors.

Final research hypothesis (supported) model

The final research hypothesis model in support of the results appears in Figure 6.1 below.

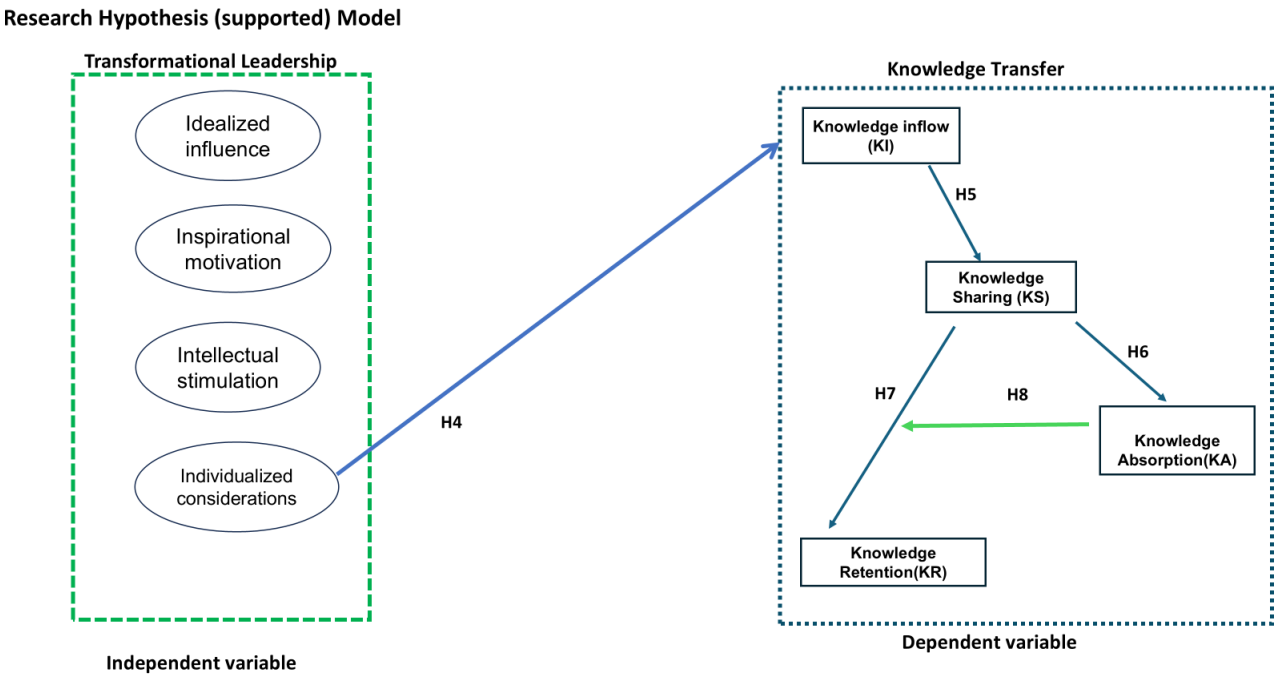


Figure 6.1: Research hypothesis (supported) model

Source: Author's own compilation

The next chapter (Chapter 7) will conclude by summarising the key findings, discussing the practical and theoretical implications of the study, highlighting the study's contributions, and offering final remarks and recommendations for future research.

Chapter 7: Conclusion

7.1. Introduction

Research interest in M&As has significantly shifted from financial and strategic streams towards the micro level in order to gain more insights into the post-merger integration (PMI) process (Galpin, 2021). Knowledge transfer (KT) is crucial during PMI for the purposes of competitive advantage and transitional performance (Grant, 1996). Various factors affect the KT process, including leadership support, culture and organisational alignment (Tarba et al., 2017). Transformational leadership (TL), through its multidimensional aspects, has been known to support KT by fostering an environment that is conducive to such transfer (Deng et al., 2023). Despite the plethora of studies that have been conducted on TL, the exact mechanisms through which TL affects knowledge transfer remain under-explored. The relationships between the different stages of KT are crucial to ensure that such transfer is effective, which in turn leads to the overall success of the PMI process (Argote & Fahrenkopf, 2016).

This study's main research question, which addressed the identified research problem, was to understand how TL impacts the KT process during PMI. This main research question (RQ) was broken down into sub-questions and operationalised into two main research objectives. The first research objective (extracted from sub-research question RQ1) was to explore how the multidimensional dimensions of TL (idealised influence (IF), inspirational motivation (IM), intellectual stimulation (IS) and individualised consideration (IC)) affect the knowledge inflow stage of the KT process. Four hypotheses (H1–H4) were postulated for the first research objective. The measurement scale for these hypotheses did not require any validation since an already-validated scale was used (Carless et al., 2000).

The second research objective (extracted from sub-research question RQ2) was to examine the strength and significance of the relationships between the different KT stages (inflow, absorption, sharing and retention). Four hypotheses (H5–H8) were postulated for the second research objective. Exploratory factor analysis (EFA) was conducted to identify the underlying factor structure within the KT construct (Gaskin, n.d.; Hurley et al., 1997).

Descriptive statistics were used to give a general picture of the data, which was followed by partial least squares structural equation modelling (PLS–SEM) to test the significance and strength of each of the paths (hypotheses) (Dash & Paul, 2021).

Hypotheses H1–H4 tested the relationship between IF, IM, IS and IC against knowledge inflow (KI). H1 and H2 (IF and IM) were not supported, while H3 (IS) was marginally not supported. Only H4 (which considered the impact of IC on KI) was supported. All the hypotheses (H5–H8) that considered the relationships between the KT stages were significantly and well supported. The beta values, t-test and p-values validated the strength and significance of each path, as presented in Chapter 5 and discussed in Chapter 6.

7.2. Principal Conclusions

7.2.1. Research objective 1

Based on the findings from this study, a number of principal conclusions can be drawn for the first research objective (i.e. to determine how each of the dimensions of TL (IF, IM, IS, IC) impacted the knowledge inflow stage during PMI). These are discussed below.

Only IC leadership behaviour and related actions were able to influence the process of KI during PMI. IC encompasses coaching, mentoring and the leader being readily available to support followers' needs. This finding and conclusion concur with previous studies (Banks et al., 2016; Hoch et al., 2018).

During PMI, IF and IM did not influence follower behaviour for successful KT outcomes, despite positive results in this regard from other empirical studies (Fischer et al., 2017). In this context, characterised by fear of job loss and high levels of uncertainty, followers tend to look more for stability and practical leadership to guide them rather than rely on charisma and a motivational approach which are more abstract (Avolio et al., 1999). In this study, the TL behaviours of IF and IM, which focus on charisma and motivation respectively, had little influence on followers during PMI (Mittal & Dhar, 2015; Van Knippenberg & Sitkin, 2013).

While the IS behaviours of fostering creativity and encouraging innovation are essential during PMI, such activities must be balanced with guiding employees and the organisation through uncertainty and the change process. It is necessary to drive creativity, while innovation must be balanced with ensuring that mundane tasks relating to procedures and processes are put in place (Gong et al., 2009; West & Anderson, 1996)

7.2.2. Research objective 2

Similarly, based on the findings from this study, a number of principal conclusions can be drawn for the second research objective (i.e. to evaluate the relationships between the KT stages of KI, KA, KS and KR). These are discussed below.

Overall, strong and significant relationships exist between the sequential KT stages during PMI, which are necessary for successful transfer of knowledge (Argote & Ingram, 2000). Increased KI leads to increased KS. This is because as individuals internalise the abundance of new knowledge, their ability to share it also increases. By internalising new knowledge, individuals are the conduit through which organisations gain a competitive advantage (Wang & Noe, 2010). More knowledge being shared will expand the knowledge repository of the organisation as employees will be able to effectively assimilate this knowledge (Argote & Fahrenkopf, 2016).

This finding also supports the notion of a possible reverse relationship between KS and KA (Balle et al., 2020). This is necessary to maintain effective skill sets as well as easier transfer of tacit knowledge, which is difficult to share and absorb (D'Eredita & Barreto, 2006). Furthermore, KA mediates the relationship between KS and KR. Sharing alone does not effectively increase KR within an organisation (Al-Husseini et al., 2021). The sharing of absorbed knowledge enhances the long-term retention of such knowledge as individuals can better articulate knowledge that has been absorbed (Martins & Meyer, 2012).

7.3. Contributions

7.3.1. Implications for business

Based on the findings, this study suggests that business practitioners involved in the PMI process should focus on IC behaviour dimension of TL as this leads directly to improved KI (Hoch et al., 2018). This could include coaching, mentoring and specific leadership training programmes covering mindful leadership and developing resilience. To this end, the PMI process should include integration teams who focus on HRM practices which have been shown to be critical in managing cultural differences and ensuring psychological safety as they help to dissolve barriers to KT (Junni et al., 2012; Zhou et al., 2020).

For example, HR departments should implement strategies to assess and measure the degree of IC within the organisation's leadership team using 360-degree feedback and other cognitive evaluation practices to identify gaps and training needs (Jacobsen et al., 2022).

Business leaders driving M&As should conduct through cultural surveys in the merging organisations to assess the extent of organisational alignment required to effectively overcome cultural differences, since culture has been shown to significantly affect KT (Sarala & Vaara, 2010; Stahl et al., 2013). Leadership or managerial succession planning strategies must include a thorough assessment of individuals' personality, as certain personality types, such as introversion or extroversion, have been found to support TL behaviours while others have not (Bono & Judge, 2004). Additionally, business practitioners involved in PMI must strike a balance between focusing on the practical aspects of business (such as maintaining financial and operational stability) and implementing gradual change to ensure that individual employees are not overwhelmed by sudden change initiatives, thus bringing a sense of ordered efficiency that will pave the way for effective KT.

As tacit knowledge has been shown to be difficult to transfer, business practitioners should implement a strategy to identify, capture and retain high-value employees as this ensure continuity and minimise the loss of critical skills during PMI. Tacit knowledge usually resides within high-value employees, and mechanisms to transfer knowledge should be based on the decision, planning and implementation (DPI) framework. This will aid decisions on which knowledge to transfer and retain, and how best to plan for and implement such knowledge (Levy, 2011). In addition, the motivation–opportunity framework should be implemented which will aid the dentification of resources, rewards and incentives for knowledge sharing. Practitioners should consider communication strategies such as open forums, townhalls, emails and social media, which – in the right combination – will ensure that employees are fully apprised of any impending changes. Business practitioners involved in PMI in the case of cross-border transactions should consider the adoption of indigenous language usage and other initiatives that foster diversity and inclusiveness.

7.3.2. Theoretical contributions

This study has the potential to contribute to the literature on the PMI process while also throwing more light on the human aspects associated with PMI (Sarala et al., 2019; Tarba et al., 2020). The findings from this study also extend the current research on the impact of TL by providing more insight into the specific relationship between TL and the knowledge inflow stage (Carreiro & Oliveira, 2019).

Insights gained about the KT process, particularly the pathways and interrelationships between KS and KA as well as the mediation role of KA in respect of KS and KR, confirm the findings from earlier, similar studies (Balle et al., 2020).

The findings on the sequential stages of KT in this study revealed the mechanisms of KT at each specific stage (Wang & Noe, 2010). These findings support the idea that individuals are both sources of and conduits for competitive advantage within an organisation (Argote & Ingram, 2000).

7.4. Research limitations

Despite the valuable insights gained from this study, it had several limitations, which are discussed below.

7.4.1. Cross-sectional design

Although all caution was exercised to ensure the reliability and accuracy of the finding by using a validated scale and reporting on Cronbach's alpha, the cross-sectional nature of the study was a limitation (Carless et al., 2000). The cross-sectional design, where data was collected at a single point in time, limited both the study's ability to establish causal relationships between variables and the generalisability of the findings (Avolio et al., 2009).

7.4.2. Self-report bias

Self-reports, which are influenced by social desirability bias in both leaders and followers, can result in either deflated or inflated self-ratings, depending on the need for affirmation stemming from a fear of victimisation (Podsakoff et al., 2003). This limitation prevailed, although measures were put in place to ensure respondents' anonymity and voluntary participation.

7.4.3. Sample size

The sample size ($n > 200$) with a response rate of 56% ensured the statistical significance of the PLS–SEM test method used. However, other practical, resource and time constraints prevented the inclusion of more respondents from across different sectors (Cycyota & Harrison, 2006). This limited the generalisability of the findings.

7.4.4. Scope of the investigation

By using PLS–SEM, the scope of the investigation was limited to determining the strength and significance of the TL dimensions (IF, IM, IS and IC) on the KI stage.

The other paths, i.e. the impact of Tl dimensions on KS, KA and KR (including possible mediation), were not investigated due to time constraints and the narrowness of the study's scope. The opportunity to explore more relationships was therefore missed (Shmueli et al., 2019).

7.5. Recommendations for Future Research

7.5.1. Longitudinal methods

One criticism of the TL style is its emphasis on subjective outcomes, such as enhancing follower motivation and related cognitive behaviours, which require time to manifest in objective metrics like profits and share price (Van Knippenberg & Sitkin, 2013). It is proposed that a longitudinal design be used to capture the causal relationships between TL dimensions and other objective outcomes as well as to assess the impact of subjective behaviour (Avolio et al., 2009; Hoch et al., 2018). This study could be extended to other contexts, such as emerging markets, while using a longitudinal approach (Johns, 2024).

7.5.2. Mixed-methods study

Similar studies could be undertaken using mixed methods, including a survey design with qualitative and experimental components, to arrive at a deeper understanding of and explanations for the answers provided to the open-ended questions and the practical field experiments. This will improve the methodological credibility (Podsakoff & Podsakoff, 2019; Wang et al., 2018).

7.5.3. Other leadership styles

Based on the importance of IC to the KI stage, it is suggested that the investigation be extended, using emotional intelligence (EQ) and social exchange theory (SET) leadership approaches (Dirks & Ferrin, 2002). The need to establish trust and emotional connection through IC, as established by this study, could be tested against EQ and SET which are

primarily based on establishing emotional connection, trust and reciprocity (Ahmad et al., 2023).

This study established the critical role of context and situational adaptability, which explains why the other TL dimensions were not adequately supported (Antonakis & House, 2014). This study could be extended to use the contingency theory leadership style which is prescriptive and matches style to situations rather than TL which is more visionary (Fry, 2003; Kriger & Seng, 2005). The authentic leadership style needs to be explored, with more focus on self-awareness, as genuine authenticity acknowledges fears and challenges encountered by employees during PMI (Banks et al., 2016).

7.6. Final Reflections and Concluding Remarks

In conclusion, this study provided valuable insights on how TL dimensions (idealised influence (IF), inspirational motivation (IM), intellectual stimulation (IS) and individualised consideration (IC)) impact knowledge transfer (KT) during PMI. The study also arrived at important conclusions about the strength and significance of the KT stages (inflow, sharing, absorption and retention). Although certain TL dimensions, such IF and IM, were not supported – as per the literature and the theoretical expectation – the findings highlighted the specific impact of context, such as the role of culture and psychological fear, the need for managerial/leadership training and other programmes that foster KT. Regarding the interrelationships between the different KT stages, the study was able to validate the findings in the literature concerning the impact of KS on KA (Balle et al., 2020).

Despite the challenges encountered, this study has gone a long way towards demonstrating the efficacy of TL in addressing complex organisational issues, such as cultural differences and a trust deficit in a post-merger context. The study has also created a better understanding of the human side of mergers in response to calls from various scholars to establish why some mergers succeed and some fail (Sarala et al., 2019; Tarba et al., 2020).

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Appendix A: Ethical Clearance

GIBS ETHICAL CLEARANCE APPLICATION FORM 2024/25

G. APPROVALS FOR/OF THIS APPLICATION

When the applicant is a student of GIBS, the applicant must please ensure that the supervisor and co-supervisor (where relevant) has signed the form before submission.

STUDENT RESEARCHER/APPLICANT:

29.I affirm that all relevant information has been provided in this form and its attachments and that all statements made are correct.

Student Researcher's Name in capital letters: _____AARON MAKAZA_____

Date: 06 Aug 2024

Supervisor's Name in capital letters _____ALICIA FOURIE _____

Date: 06 Aug 2024

Co-supervisor's Name in capital letters: _____

Date: 06 Aug 2024

Note: GIBS shall do everything in its power to protect the personal information supplied herein, in accordance to provided personal information is restricted, only employees who need the information to perform a specific Job are granted access to this information.

Decision: _____

Approved: _____

REC comments: _____

Good luck with your research

Date: 21 Aug 2024

Appendix B: Survey Questionnaire

The Role of Leadership Style in Knowledge Transfer Processes

Dear Colleague,

I am currently a student at the University of Pretoria's Gordon institute of Business Science (GIBS) and conducting research in partial fulfilment of my MPhil in International Business.

I am conducting research to explore the relationship between leadership style (transformational, to be specific) and how knowledge is shared within our Solenis following integration of newly acquired businesses.

In order to achieve this, you will be presented with a survey questionnaire covering your demographics as well as the areas of interest in this research study, transformational leadership style and knowledge transfer. Your insights will help further understand the relationship between leadership style and how knowledge is transferred and shared within Solenis.

You participation is voluntary, and you can withdraw at any time without penalty. Your participation is anonymous only aggregated data will be reported and no individual names or organisations will be reported. The survey should take no more than 10 minutes of your time. By participating in this survey, you indicate that you voluntarily participate in this research.

Thank you. Should you have any concerns, please contact my supervisor or myself. Our details are provided below:

Researcher name: Aaron Makaza
Email: 230236352@mygibs.co.za
Mobile number: +27 72 649 7870

Research project Supervisor: Prof Alicia Fourie
Email: fouriea@gibs.co.za
Mobile number:

Consent:

Do you give consent?

Mark only one.

( ) I agree

( ) I disagree

Qualifying Filter:

1. Since you joined the organisation, have you witnessed or heard of any new business which was acquired by company A?

   Mark only one.

   ( ) Yes
   ( ) No

2. Has your organisation been integrated into company A within the last five years?

   Mark only one.

   ( ) Yes
   ( ) No

   If your answer is **NO** to the two questions above, unfortunately you do not fall within the scope of this research. Thank you for you participation and time thus far; you may discontinue the survey.

Section A: Demographic Information

1. What is your age?

○ Under 25
○ 25-34
○ 35-44
○ 45-54
○ 55 and above

2. What is your gender?

○ Male
○ Female
○ Other

3. What is your function/department in the company?

○ Sales/marketing/customer service
○ Supply Chain/Administration/Accounting
○ Manufacturing/Technical/ Research and Development
○ Technical/Engineering/IT
○ Other (please specify)

4. How long have you been in this position?

○ Less than 1 year
○ 1-3 years

○ 4-6 years
○ 7-10 years
○ More than 10 years

5. How long have you been with the company?

○ Less than 1 year
○ 1-3 years
○ 4-6 years
○ 7-10 years
○ More than 10 years

6. What is your highest qualification?

○ Certificate or Diploma
○ Bachelor's Degree
○ Master's degree
○ Doctorate (PhD)
○ Other

Section B 1: Transformational Leadership – Idealised Influence

Please rate the following statements based on your immediate supervisor's behaviours.
(1 = Strongly disagree, 5 = Strongly agree)

1. My manager inspires me to achieve more than they thought possible.

O 1 Strongly disagree
O 2 Disagree
O 3 Neither agree nor disagree
O 4 Agree
O 5 Strongly agree

2. My manager is a role model for our team, demonstrating the behaviours and values I expect from them.

O 1 Strongly disagree
O 2 Disagree
O 3 Neither disagree nor agree
O 4 Agree
O 5 Strongly agree

3. My manager encourages me to strive for excellence and surpass my own expectations.

O 1 Strongly disagree
O 2 Disagree
O 3 Neither disagree nor agree
O 4 Agree
O 5 Strongly agree

4. My manager is willing to take risks and challenge the status quo to achieve our goals.

O 1 Strongly disagree
O 2 Disagree
O 3 Neither disagree nor agree
O 4 Agree
O 5 Strongly agree

5. My supervisor/manager demonstrates a strong sense of purpose and vision for our team.

O 1 Strongly disagree
O 2 Disagree
O 3 Neither disagree nor agree
O 4 Agree
O 5 Strongly agree

Section B2: Transformational Leadership Self-assessment – Inspirational motivation

Please rate yourself on the following statements regarding your leadership style.
(1 = Strongly disagree, 5 = Strongly agree)

6. My manager articulates a clear and compelling vision for our team's future.

O 1 Strongly disagree
O 2 Disagree
O 3 Neither agree nor disagree
O 4 Agree
O 5 Strongly agree

7. My manager encourages my team to think creatively and explore new ideas.

O 1 Strongly disagree
O 2 Disagree

O 3 Neither disagree nor agree
O 4 Agrees
O 5 Strongly agree

8. My manager communicates a sense of excitement and enthusiasm for our team's goals.

O 1 Strongly disagree
O 2 Disagree
O 3 Neither disagree nor agree
O 4 Agree
O 5 Strongly agree

9. My manager inspires my team to work towards a common purpose.

O 1 Strongly disagree
O 2 Disagree
O 3 Neither disagree nor agree
O 4 Agree
O 5 Strongly agree

10. My manager provides meaningful and challenging work assignments to my team members.

O 1 Strongly disagree
O 2 Disagree
O 3 Neither disagree nor agree
O 4 Agree
O 5 Strongly agree

Section B3: Transformational Leadership – Intellectual Stimulation

Please rate yourself on the following statements regarding your leadership style.
(1 = Strongly disagree, 5 = Strongly agree)

11. My manager encourages our team to question assumptions and challenge the status quo.

O 1 Strongly disagree
O 2 Disagree
O 3 Neither agree nor disagree
O 4 Agree
O 5 Strongly agree

12. My manager stimulates our team's thinking by presenting new ideas and perspectives.

O 1 Strongly disagree
O 2 Disagree
O 3 Neither disagree nor agree
O 4 Agrees
O 5 Strongly agree

13. My manager empowers our team to experiment and take calculated risks.

O 1 Strongly disagree
O 2 Disagree
O 3 Neither disagree nor agree
O 4 Agree
O 5 Strongly agree

14. My manager provides opportunities for our team to learn from failures and setbacks.

O 1 Strongly disagree
O 2 Disagree
O 3 Neither disagree nor agree
O 4 Agree
O 5 Strongly agree

15. My manger fosters a culture of continuous learning and improvement.

O 1 Strongly disagree
O 2 Disagree
O 3 Neither disagree nor agree
O 4 Agree
O 5 Strongly agree

Section B4: Transformational Leadership – Individualised considerations.

Please rate yourself on the following statements regarding your leadership style.
(1 = Strongly disagree, 5 = Strongly agree)

16. My manager takes personal interest in the growth and development of each team member.

O 1 Strongly disagree
O 2 Disagree

O 3 Neither agree nor disagree
O 4 Agree
O 5 Strongly agree

17. My manager provides individualised feedback and coaching to support each team member's needs.

O 1 Strongly disagree
O 2 Disagree
O 3 Neither disagree nor agree
O 4 Agrees
O 5 Strongly agree

18. My manager empowers team members to take ownership of their work and make decisions.

O 1 Strongly disagree
O 2 Disagree
O 3 Neither disagree nor agree
O 4 Agree
O 5 Strongly agree

19. My manager recognises and celebrates individual contributions and achievements.

O 1 Strongly disagree
O 2 Disagree
O 3 Neither disagree nor agree
O 4 Agree
O 5 Strongly agree

20. My manager demonstrates a strong sense of purpose and vision for our team.

O 1 Strongly disagree
O 2 Disagree
O 3 Neither disagree nor agree
O 4 Agree
O 5 Strongly agree

Section C: Knowledge Transfer

Please rate the following statements regarding knowledge transfer within your organisation. (1 = Strongly disagree, 5 = Strongly agree)

1. Knowledge sharing is encouraged and valued in my organisation.

O 1 Strongly disagree
O 2 Disagree
O 3 Neither disagree nor agree
O 4 Agree
O 5 Strongly agree

2. There are effective systems in place for transferring knowledge between departments.

O 1 Strongly disagree
O 2 Disagree
O 3 Neither disagree nor agree
O 4 Agree
O 5 Strongly agree

3. I feel confident in sharing my knowledge with colleagues.

O 1 Strongly disagree
O 2 Disagree
O 3 Neither disagree nor agree
O 4 Agree
O 5 Strongly agree

4. Effective knowledge transfer has improved our team performance and outcomes.

O 1 Strongly disagree
O 2 Disagree
O 3 Neither disagree nor agree
O 4 Agree
O 5 Strongly agree

5. I can quantify improvements in work process and efficiency due to knowledge transfer.

O 1 Strongly disagree
O 2 Disagree
O 3 Neither disagree nor agree
O 4 Agree

O 5 Strongly agree

6. Our organisation always shares reliable and accurate knowledge.

O 1 Strongly disagree
O 2 Disagree
O 3 Neither disagree nor agree
O 4 Agree
O 5 Strongly agree

7. I often receive knowledge and feedback from my leader/supervisor.

O 1 Strongly disagree
O 2 Disagree
O 3 Neither disagree nor agree
O 4 Agree
O 5 Strongly agree

8. My leader/supervisor encourages and facilitates knowledge sharing within the team.

O 1 Strongly disagree
O 2 Disagree
O 3 Neither disagree nor agree
O 4 Agree
O 5 Strongly agree

9. My leader/supervisor individual recognizes and rewards knowledge sharing in the team.

O 1 Strongly disagree
O 2 Disagree
O 3 Neither disagree nor agree
O 4 Agree
O 5 Strongly agree

10. The knowledge I received helps to enhanced innovation and creativity in the team.

O 1 Strongly disagree
O 2 Disagree
O 3 Neither disagree nor agree
O 4 Agree
O 5 Strongly agree

Conclusion:

Thank you for completing this survey. Your responses are invaluable to our research on transformational leadership and knowledge transfer during post-merger integration.

Appendix C: Demographic Coding and Frequency Table

Demographics Coding and Frequency Table

Prefered Language

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1=Afrikaans	2	1.0	1.0	1.0
	2=English (United	3	1.4	1.4	2.4
	3=English (United States)	198	95.2	95.2	97.6
	4=Français (France)	2	1.0	1.0	98.6
	5=Italiano	1	0.5	0.5	99.0
	6=Svenska	2	1.0	1.0	100.0
	Total	208	100.0	100.0	

Q1

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1=Yes	208	100.0	100.0	100.0
	0=No				

Q2

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		4	1.9	1.9	1.9
	No	6	2.9	2.9	4.8
	Yes	198	95.2	95.2	100.0
	Total	208	100.0	100.0	

Q3

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1	0.5	0.5	0.5
	1=No	107	51.4	51.4	51.9
	2=Yes	100	48.1	48.1	100.0
	Total	208	100.0	100.0	

Q4

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1=Female (She/Her)	46	22.1	22.1	22.1
	2=Male (He/him)	160	76.9	76.9	99.0
	3=Prefer not to say	2	1.0	1.0	100.0
	Total	208	100.0	100.0	

Q5

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1=18-24	6	2.9	2.9	2.9
	2=25-34	70	33.7	33.7	36.5
	3=35-44	79	38.0	38.0	74.5
	4=45-54	43	20.7	20.7	95.2
	5=Above 55	10	4.8	4.8	100.0
	Total	208	100.0	100.0	

Q6

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid	1=1 - 4 years	91	43.8	43.8	43.8
	2=11 - 15 years	21	10.1	10.1	53.8
	3=5 - 10 years	64	30.8	30.8	84.6
	4=Less than 1 year	10	4.8	4.8	89.4
	5=More than 20 years	22	10.6	10.6	100.0
	Total	208	100.0	100.0	

Q7

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1	0.5	0.5	0.5
	1=Bachelor's degree	75	36.1	36.1	36.5
	2=Certificate or diploma	79	38.0	38.0	74.5
	3=Other	34	16.3	16.3	90.9
	4=Postgraduate/ Masters	19	9.1	9.1	100.0
	Total	208	100.0	100.0	

Q8

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		4	1.9	1.9	1.9
	1 =North America (US +Canada)	48	23.1	23.1	25.0
	2 = Europe (including UK)	54	26.0	26.0	51.0
	2= South America	2	1.0	1.0	51.9
	3 = Middle East +Africa + India +Russia (MIEAR)	77	37.0	37.0	88.9
	3= Europe	3	1.4	1.4	90.4
	4= Middle East +Africa + India +Russia (MIEAR)	19	9.1	9.1	99.5
	5=Asia Pacific + Other	1	0.5	0.5	100.0
	Total	208	100.0	100.0	

Q9

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		2	1.0	1.0	1.0
	1= Finance/IT	21	10.1	10.1	11.1
	2=HR/Industrial relations/Legal	14	6.7	6.7	17.8
	3= Sales/Marketing/Customer Service	83	39.9	39.9	57.7
	4=Manufacturing/Engineering/Technical	39	18.8	18.8	76.4
	5=Global/HQ	7	3.4	3.4	79.8
	6= Other	42	20.2	20.2	100.0
	Total	208	100.0	100.0	

Q10

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		2	1.0	1.0	1.0
	1=Executive/Director	5	2.4	2.4	3.4
	2=Manager/Supervisor	57	27.4	27.4	30.8
	3=Other	6	2.9	2.9	33.7
	4=Salaried employee	128	61.5	61.5	95.2
	5=Senior Manager	10	4.8	4.8	100.0
	Total	208	100.0	100.0	

Q11

		Frequency	Percent	Valid Percent	Cumulative Percent
Valid		1	0.5	0.5	0.5
	1=1- 3 years	96	46.2	46.2	46.6
	2=3- 5 years	55	26.4	26.4	73.1
	3=less than 1 year	17	8.2	8.2	81.3
	4=more than 5 years?	39	18.8	18.8	100.0
	Total	208	100.0	100.0	

Appendix D: Exploratory Factor Analysis

Exploratory Factor Analysis

[DataSet1]

KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		0.939
Bartlett's Test of Sphericity	Approx. Chi-Square	2401.901
	df	276
	Sig.	0.000

Communalities

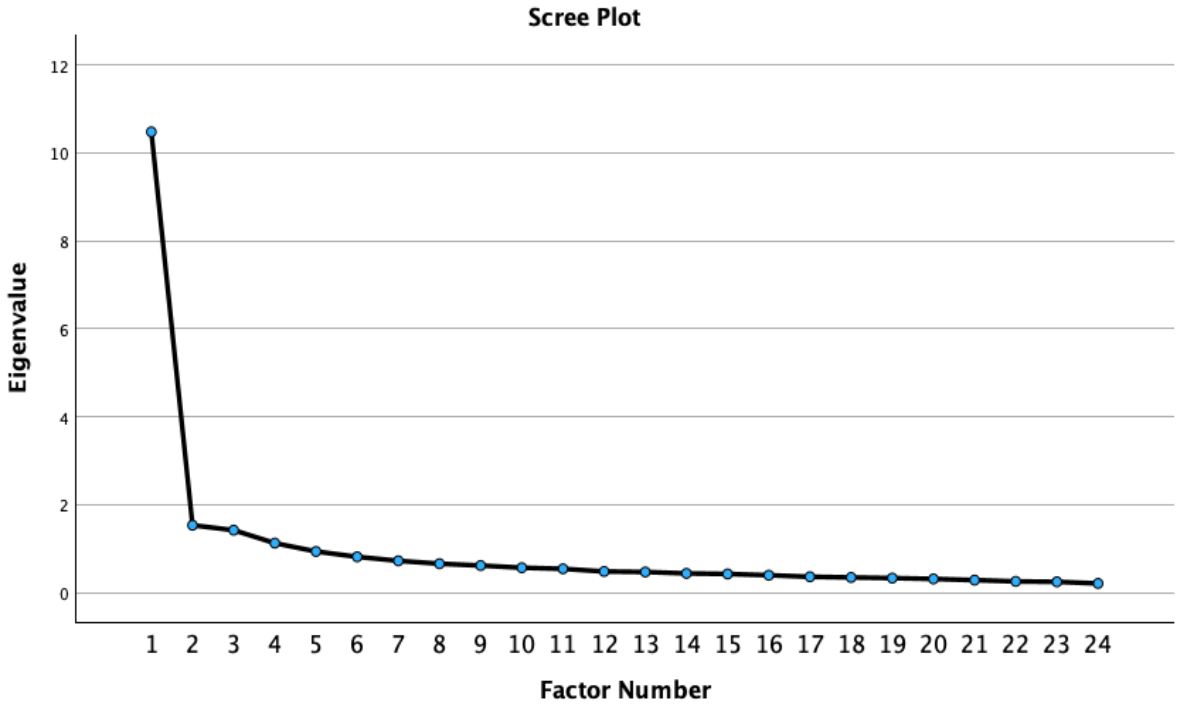
	Initial	Extraction
Q32	0.543	0.545
Q33	0.536	0.517
Q34	0.520	0.570
Q35	0.543	0.578
Q36	0.324	0.271
Q37	0.510	0.556
Q38	0.563	0.482
Q39	0.587	0.627
Q40	0.581	0.649
Q41	0.587	0.565
Q42	0.614	0.598
Q43	0.553	0.582
Q44	0.578	0.527
Q45	0.523	0.493
Q46	0.535	0.500
Q47	0.542	0.524
Q48	0.423	0.351
Q49	0.501	0.520
Q50	0.577	0.588
Q51	0.511	0.522
Q52	0.559	0.587
Q53	0.476	0.492
Q54	0.589	0.595
Q55	0.523	0.523

Extraction Method: Principal Axis Factoring.

Total Variance Explained

Factor	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	10.481	43.671	43.671	10.020	41.752	41.752
2	1.535	6.394	50.066	1.077	4.488	46.240
3	1.422	5.924	55.990	1.001	4.170	50.410
4	1.128	4.698	60.688	0.663	2.762	53.173
5	0.938	3.906	64.595			
6	0.816	3.399	67.994			
7	0.725	3.021	71.015			
8	0.659	2.746	73.761			
9	0.617	2.573	76.334			
10	0.568	2.366	78.700			
11	0.543	2.262	80.962			
12	0.483	2.011	82.973			
13	0.471	1.961	84.934			
14	0.439	1.828	86.762			
15	0.426	1.775	88.537			
16	0.397	1.655	90.191			
17	0.362	1.509	91.700			
18	0.347	1.444	93.144			
19	0.332	1.384	94.528			
20	0.313	1.305	95.832			
21	0.286	1.192	97.025			
22	0.257	1.070	98.095			
23	0.247	1.029	99.124			
24	0.210	0.876	100.000			

Extraction Method: Principal Axis Factoring.



Structure Matrix				
	Factor			
	1	2	3	4
Q35	0.758	0.445	0.507	0.463
Q34	0.740	0.431	0.470	0.518
Q37	0.734	0.466	0.556	0.378
Q32	0.732	0.478	0.536	0.387
Q33	0.716	0.465	0.470	0.455
Q36	0.508	0.382	0.408	0.364
Q52	0.428	0.761	0.541	0.457
Q50	0.576	0.734	0.555	0.575
Q54	0.563	0.730	0.682	0.449
Q51	0.477	0.718	0.512	0.462
Q53	0.392	0.699	0.488	0.381
Q55	0.496	0.679	0.646	0.396
Q49	0.509	0.533	0.719	0.447
Q47	0.535	0.552	0.718	0.459
Q46	0.504	0.557	0.697	0.400
Q44	0.600	0.597	0.694	0.470
Q45	0.518	0.487	0.693	0.502
Q43	0.352	0.385	0.658	0.635
Q48	0.447	0.476	0.582	0.360
Q40	0.435	0.513	0.434	0.791
Q39	0.547	0.407	0.483	0.776
Q42	0.535	0.562	0.663	0.718
Q41	0.542	0.529	0.631	0.706
Q38	0.473	0.516	0.518	0.671

Extraction Method: Principal Axis Factoring.
Rotation Method: Promax with Kaiser Normalization.

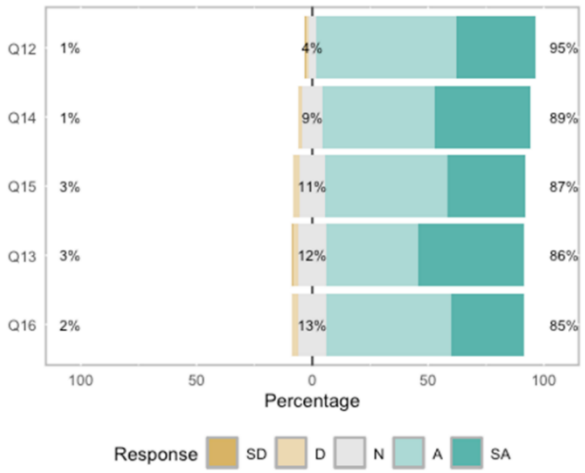
Factor Correlation Matrix				
Factor	1	2	3	4
1	1.000	0.621	0.667	0.574
2	0.621	1.000	0.701	0.562
3	0.667	0.701	1.000	0.610
4	0.574	0.562	0.610	1.000

Extraction Method: Principal Axis Factoring.
Rotation Method: Promax with Kaiser Normalization.

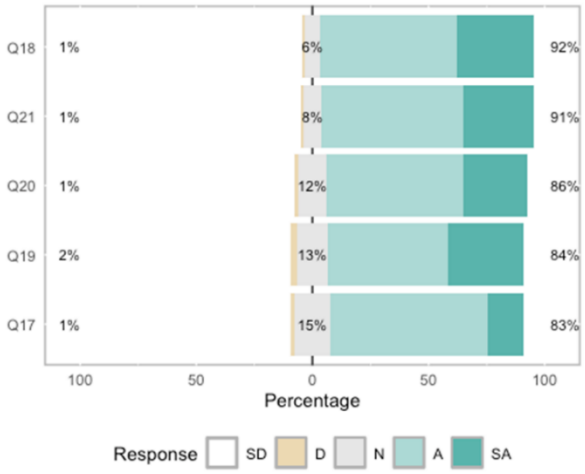
Appendix E: Percentile Tables on Responses per Construct

(SD = Strongly disagree, D = Disagree, N = Neither agree nor disagree, A = Agree, SA = Strongly agree)

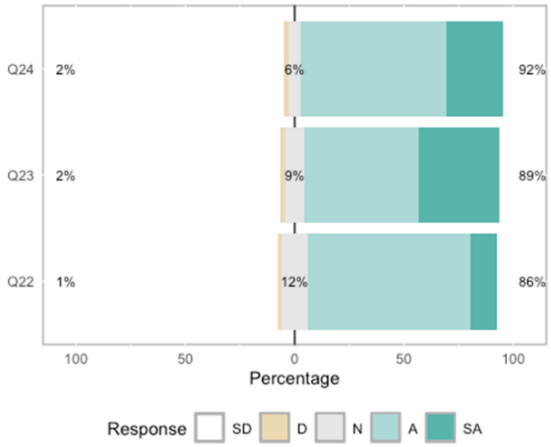
Idealised Influence (Q12–Q16):



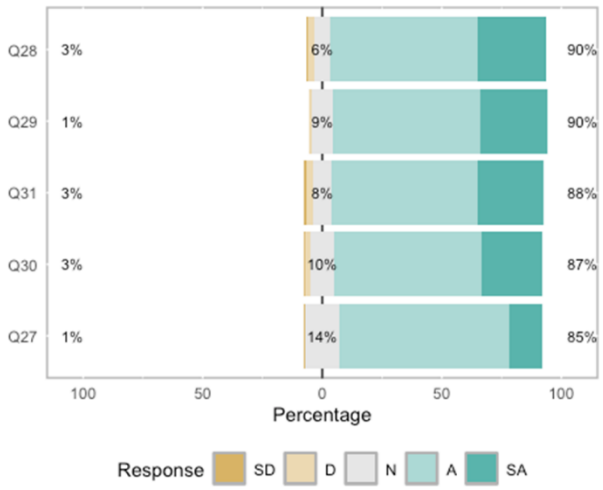
Inspirational Motivation (Q17–Q21):



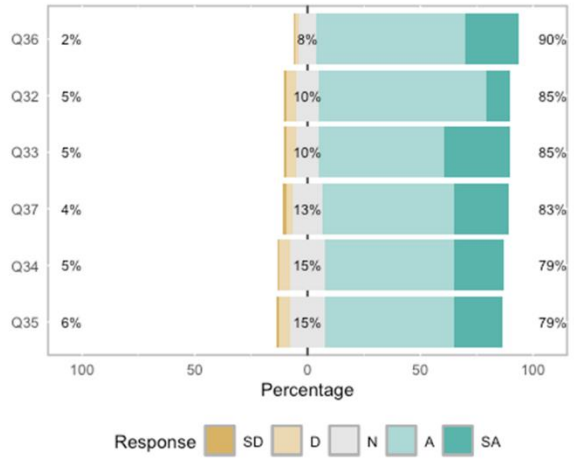
Intellectual Stimulation (Q22–Q26):



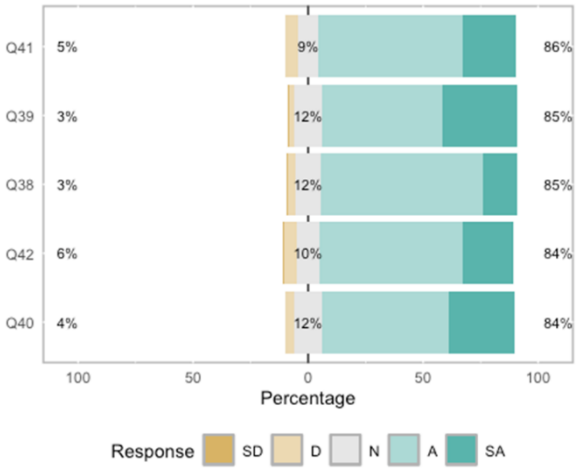
Individualised Consideration (Q27–Q31):



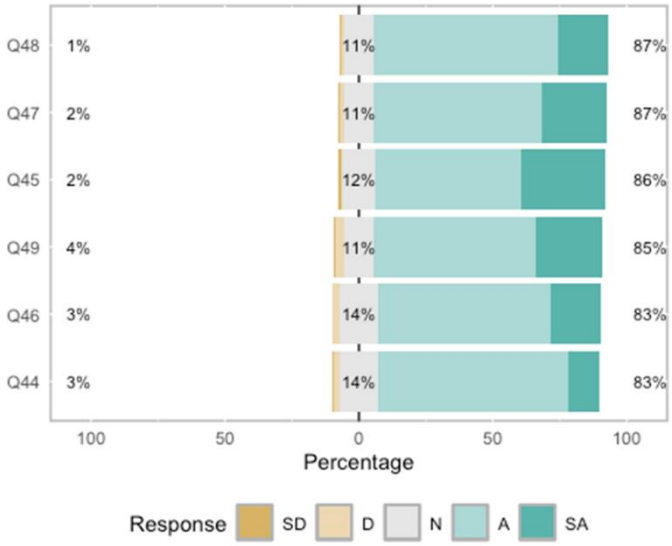
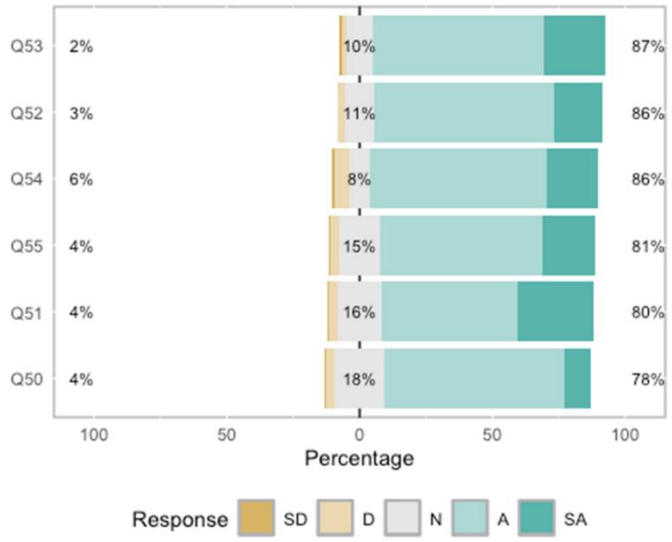
Knowledge Inflow (Q32–Q37):



Knowledge Sharing (Q38–Q42): (-Q43- removed)



Knowledge Absorption (Q44–Q49):



Knowledge Retention (Q50–Q55):