UNDERSTANDING THE MECHANISMS UNDERLYING THE RELATIONSHIP BETWEEN EMPOWERING LEADERSHIP AND TEAM CREATIVITY IN CUSTOMER CONTACT SERVICES

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Submitted for the degree
of Doctor of Philosophy

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September 2022

ABSTRACT

Creativity is critical to the growth of service organisations. Yet, the question of how service organisations promote creativity remains unanswered. Prior research has highlighted the importance of team empowerment in frontline service and found that being empowered leads to greater performance; this raises the question of whether empowering leadership can bring up team creativity in a frontline service context. Thus, the purpose of this research is to investigate the relationship between empowering leadership and team creativity in a frontline service context. To do so, a theoretical-driven model was developed wherein empowering leadership could influence team creativity through team identification - knowledge sharing; relationship conflict – knowledge sharing, respectively. Based on a sample of 51 frontline service teams from China's banking sector, this study found that empowering leadership can facilitate knowledge sharing by enhancing team identification and reducing relationship conflict. The presence of a high level of team efficacy magnified the positive effect of empowering leadership on knowledge sharing through team identification but was not significant through relationship conflict. More importantly, the results support the proposed sequential mediation model in which empowering leadership influences team creativity through the two parallel mechanisms: team identification–knowledge sharing and intragroup relationship conflict–knowledge sharing. Based to these findings, this research revealed the mechanisms by which empowering team leaders may elevate team creativity. By doing so, this research provides some theoretical suggestions for future research, as well as practical implications for service organisations and managers.

Keywords: Creativity, Customer service, Empowering leadership, Knowledge sharing, Social identity, Team identification, Relationship conflict, Team efficacy.

ACKNOWLEDGEMENT

My journey would not have been possible without the support, encouragement, and dedication of my supervisors, Dr Neeru Malhotra and Dr Hongfei Liu. I would like to thank you for your patience and the endless support that you dedicated to supervising and advising me over these years.

I would like to thank my parents; you contributed to this thesis in a different way. I would like to thank you for your support. I hope in the next chapter of my life, I can contribute to the family.

For all my friends, thank you all for being beside me.

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CHAPTER 1 INTRODUCTION

1.1 Introduction

Creativity drives progress and allows organisations to stay ahead of the competition (Hughes et al., 2018). It not only contributes to employee self-actualisation and professional growth (Tuan, 2020; Li & Hsu, 2018) but is also crucial for organisational performance since it has been considered one of the prerequisites of organisational innovation (Emich & Vincent, 2020; Lee et al., 2019; Jia et al., 2021). Although creativity in the workplace can be exerted by individual employees or by a group of employees working together, when faced with an increasingly turbulent and competitive environment, many organisations (both small and large, across cultures) have moved to a team-based structure to increase their competitiveness and innovation capabilities (Mo et al., 2019; Tu et al., 2019). According to Anderson et al. (2014), "Team creativity is particularly valuable as organisations are often reliant upon teams to develop and implement creative solutions even where the ideas may have originally been proposed by an individual" (p. 1309). The basis for an organisation to be innovative can be constructed by employing team creativity as a tool (e.g., Emich & Vincent, 2021; Jia et al., 2021; Mo et al., 2019).

Although the positive consequences of creativity are widely recognised (Hughes et al., 2018), one might argue that the requirement and importance of creativity might differ depending on the task, occupation, or industry in question. However, most scholars and practitioners would agree that there is room in almost every job to manifest creative performance. Over the years, with the growth of the economy, many customers in service settings are no longer settling for

a ‘one-size-fits-all’ service experience (Wilder et al., 2014; Collier et al., 2018; Coelho et al., 2021). Responding to the increasingly diverse and unique needs of customers requires frontline service personnel to be creative (Martinaityte et al., 2019; Peng, Yang & Huan, 2020). In a service setting, it is often the case that frontline service teams frequently face customers with quite diverse needs and often hold unstructured jobs, implying that they need to be creative (Tuan, 2020; Coelho et al., 2021). Moreover, as frontline teams are responsible for service delivery, they are key to customer satisfaction and, consequently, their creative performance can be of great value to service organisations (e.g., Coelho et al., 2018). As such, team creativity in a frontline service context should not be ignored from an applied perspective.

Creativity does not happen in a vacuum; for creativity to occur, managers need to encourage and foster it (Zhou & Shalley, 2010; Zhou & Hoever, 2014). Prior studies found that empowering leadership is an enabler for employee creativity and some studies have considered empowerment practice in service organisations maybe a driving force of creativity (e.g., Peng et al., 2022). To date, however, the existing literature has not yet answered the question of whether empowering leadership can foster team creativity in a frontline service context. Accordingly, one major purpose of this study is to investigate the relationship between empowering leadership and frontline service team’s creativity. This was achieved by data collected from the customer contact teams in China’s retail banking sector. The sample comprised 51 teams (349 frontline service employees and 51 managers).

In this chapter, the background of this study will be discussed to understand the research context. This is followed by a statement of the research problems and objectives. Afterwards, the importance of this study is presented. Lastly, the chapter outlines the structure of the thesis.

1.2 Research Context

In this section, a brief view of the Chinese financial services sector is presented. This is followed by an overview of the banking sector in China with statistics from the industry. In the second part, the problems that the banking industry has faced are discussed, especially with respect to team creativity.

1.2.1 A Glimpse into the Financial Services Sector in China

Compared to Western economies, such as the United Kingdom, the history of the financial markets and financial services sector in China has been relatively short. Before 1978, China was isolated and had a planned economy. Alongside the gradual introduction of a market economy in the 1980s, the country began its process of economic liberalisation which also brought about the development of a financial services sector. The Chinese financial services sector comprises banking, securities, and insurance (Figure 1.1). Three major authorities supervise the three types of financial institutions and their business activities: the China Banking Regulation Commission (CBC), the Securities Regulation Commission, and the Insurance Regulation Commission (IRC).

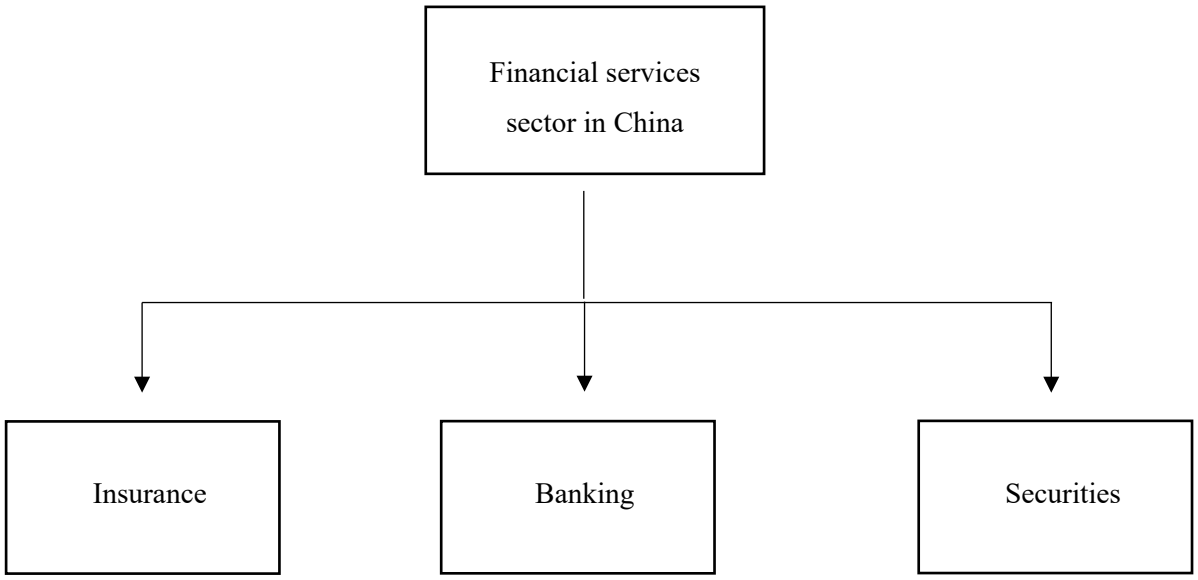


Figure 1.1: Financial services sector in China

1.2.2 Banking Sector in China

1.2.2.1 Building a Banking Sector from Scratch

Before 1978, the banking sector in China consisted of one bank only, namely, the *People's Bank of China* (PBC), which acted as both the central bank and a commercial bank. Since 1978, as part of the economic reformation, as well as to spur the economy, the state council hived off the commercial banking functions of the PBC into four banks (Figure 1.2): the *Bank of China* (BOC, established in 1978), the *Agricultural Bank of China* (ABC, 1979), the *China Construction Bank* (CCB, 1980), and the *Industrial and Commercial Bank of China* (ICBC, 1984). These four banks, commonly known as the 'Big Four', are each state funded and under the direct leadership of the government. Since their establishment, the Big Four have made many policy-based loans, especially to state-owned enterprises. However, those enterprises had little incentive or were reluctant to make repayments and, consequently, the banks' asset quality

deteriorated significantly. To stem the losses from policy-based lending, three policy banks were set up in 1994 to take over the policy-lending business from the Big Four. They are the *Development Bank of China*, the *Export-Import Bank*, and the *Agricultural Development Bank of China* (Figure 1.3).

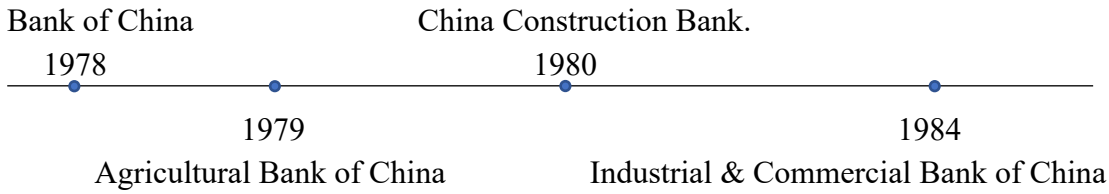


Figure 1.2: Timeline of China's Big Four banks

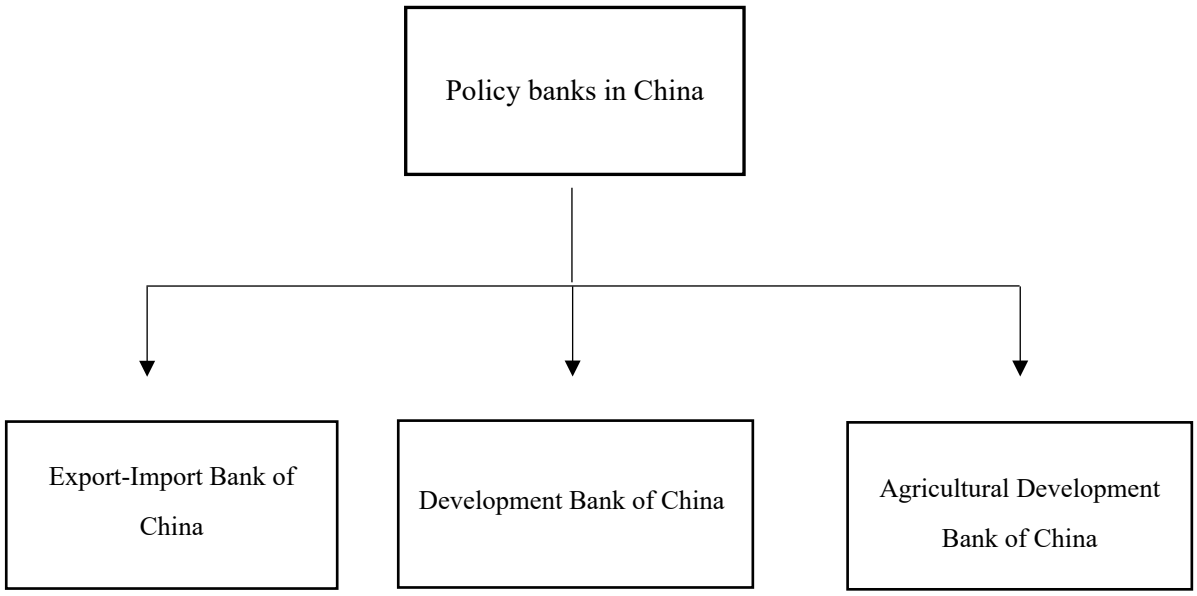


Figure 1.3: China's policy banks

1.2.2.2 Establishing a Modern Banking System

In 1995, the government allowed the state-owned policy banks to engage in retail banking business, instead of merely providing policy-based lending services. Moreover, to deepen institutional reform in the banking sector and further boost the economy, from the mid-1980s, joint-stock commercial banks emerged and joined the marketplace, such as the *Bank of Communication* (BOC, 1986), the *China CITIC Bank* (1987), and the *China Merchants Bank* (CMB, 1987). In addition, China also has many rural commercial banks (RCBs) and city commercial banks (CCBs). The precursors to RCBs and CCBs were primarily regional and urban credit cooperatives, which had many non-performing loans because of poor management. To address the problem, the PBC allowed these rural and urban credit cooperatives to consolidate and merge into joint-stock commercial banks. The shareholders of these RCBs and CCBs commonly include shareholders of former credit cooperatives, local government and collectively or privately owned companies. RCBs and CCBs are primarily engaged in lending to local enterprises, rather than retail banking. An overview of the main domestic commercial banks in China is presented in Table 1.1.

In addition to the above-mentioned domestic banks, foreign banks were permitted to open branches in China in 1992. In 1996, foreign banks that were licensed to do so were allowed to make loans to Chinese companies.

Table 1.1: Overview of major domestic commercial banks in China

State-owned banks	**Joint-stock banks**
Bank of China	China CITIC Bank
Agricultural Bank of China	China Merchants Bank
Industrial & Commercial Bank of China	Shanghai Pudong Development Bank
China Construction Bank	China Everbright Bank
Postal Savings Bank of China	China Minsheng Bank
Bank of Communications	Industrial Bank China Co. Ltd

As one of the world's largest players, the banking industry in China has documented an increase in total assets, reaching around 336 trillion RMB yuan in 2021. Figure 1.4 shows the leading banks by total assets in China in 2021.

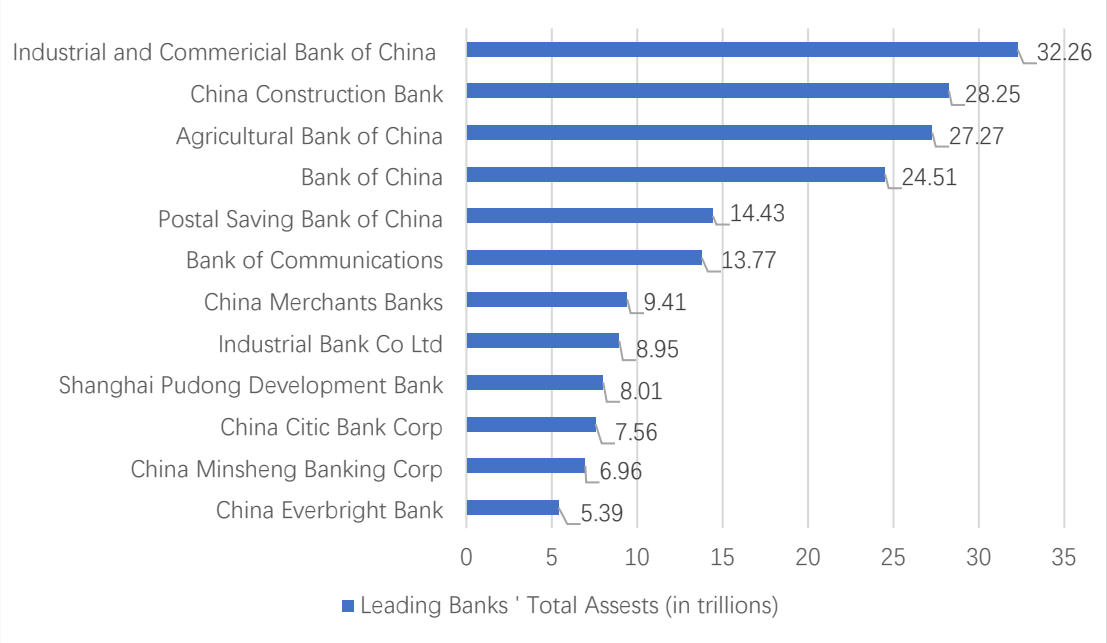


Figure 1.4: Leading banks in China, 2021, by total assets (in trillion RMB yuan)

1.2.2.3 A Thriving Yet Competitive Market

Although traditional banks still manifest dominating power, the companies with the most impressive market performance are the third-party service operators backed by internet giants such as Alipay and WeChat Pay. Both had over one billion users as of 2021 (PwC, 2021). These financial technology (FinTech) giants have brought substantial challenges and pressures for traditional banks. As a result of the escalating threat in the marketplace, the traditional banks are no longer seen as leaders, but as followers. Scholars have posited that it is not technology but innovation that helps the FinTech companies defeat the traditional banks. A highly competitive business landscape suggests that banks need to pay more attention to those unique and diverse needs of customers, and to encourage adaptiveness in service delivery, critical to this is creativity (Dong et al., 2015; Coelho, Lages, & Sousa, 2018; Martinaityte et al., 2019).

1.3 Research Problem and Objectives

Creativity is critical to service adaptiveness, which, in turn, leads to greater customer experience and organisation performance (e.g., Collier et al., 2018; Coelho et al., 2021; Peng et al., 2022). Although a stream of research has examined creativity in a service setting (e.g., Coelho et al., 2018; Martinaityte et al., 2019), this area still underexplored. In fact, prior studies primarily focus on explore the creativity phenomena in the manufacturing industry or product-oriented organisations, such as among engineering or research-development (R&D) teams (e.g., Tu et al., 2019). Given the significance of creativity in terms of customer outcomes (e.g., Agnihotri et al., 2014; Dong et al., 2015; Coelho et al., 2021) and organisational performance (Wang et

al., 2021), scholars may be overlooking an opportunity to help service-oriented organisations (e.g., banks) to achieve greater performance and, ultimately, sustain a competitive edge in the marketplace.

Empirical evidence has identified that leadership as a predictor of creativity in the workplace. For instance, research has found that leader-member exchange (LMX) (e.g., Martin et al., 2016), leader humility (e.g., Wang et al., 2017), transformational leadership (e.g., Lee et al., 2017), empowering, authentic, moral, and servant leadership, etc (e.g., Yoshida et al., 2014; Rego et al., 2014; Gu et al., 2015; Malingumu et al., 2016; Zhang et al., 2018) can foster creativity, whereas leader's controlling and self-serving behaviour impedes creativity(e.g., Peng et al., 2019). However, despite these encouraging findings, the effects of leadership on creativity of the entire team (hereafter, team creativity) remains understudied. Given the prevalence of flattened structures (team-based) in contemporary organisations, this lack of attention is unfortunate. Studies suggest that teams manifest greater creative performance when they have a considerable degree of autonomy (e.g., Li et al., 2018), which implies that empowering leadership can, by definition, be an effective approach to foster team creativity. However, the empowering leadership role in boosting team creativity remains underexplored (Ali et al., 2019; A. Lee et al., 2018).

Therefore, to address these concerns, this study aims to answer the following research questions:

1. Does empowering leadership influence team creativity in a frontline context?

2. What are the underlying mechanisms through which empowering leadership influences team creativity?
3. Are there any boundary conditions that influence the relationship between empowering leadership and team creativity?

The key objective of the study is to understand how, when, and why empowering leadership enhances frontline team creativity.

1.4 Importance of the Research

The prospective theoretical contribution and implications for practice are discussed in the sections below that might serve as a focal point for highlighting the importance of this research.

1.4.1 Prospective Theoretical Contributions

First, although the research area of leadership and employee creativity has been well-developed, however, studies on leadership and team creativity remain underexplored. In building a model linking leadership and team creativity, this research attempts to reveal the underlying mechanisms through which empowering leadership influences team creativity in a frontline service context. By doing so, this study aims to reveal how service organisations can bring about team creativity.

Second, the existing literature on leadership and creativity predominantly focuses on the motivation component of Amabile's componential theory of creativity (1996); in other words, most studies examine leadership and creativity through a motivational lens. This study proposes

and has tested a theoretical-driven model that places knowledge sharing as an important intermediate factor in the empowering leadership–team creativity linkage. Specifically, the study draws on social identity theory (Tajfel, 1979), with team identification and relationship conflict examined as two pathways along which empowering leadership influences knowledge sharing and, ultimately, team creativity. This dovetails with Hughes et al.'s (2018) suggestion to focus more on non-motivational mechanisms (e.g., intrinsic motivation and psychological empowerment).

Third, this study examines whether team efficacy can be a moderator for empowering leadership – team identification – knowledge sharing; empowering leadership – relationship conflict- knowledge sharing. In doing so, this study can add to the literature by not only clarifying the effectiveness of empowering leadership, but also by identifying those factors that have not been studied as boundary conditions before.

1.4.2 Prospective Managerial Contributions

In terms of managerial contributions, the findings of this study may have several implications for service organisations and team managers. Most organisations rely on some form of control (e.g., formal or informal) to ensure organisational performance (Coelho et al., 2021). However, frontline teams in a service environment are in direct touch with customers, suggesting that they may be more aware of the problems that worry customers the most and how to solve these problems creatively and practically. Accordingly, empowering the frontline workforce, instead of controlling and closely monitoring them, maybe a better means for them to manifest

creativity, which in turn, leads to greater service performance. Thus, for organisations wishing to promote frontline team creativity or that particularly require their frontline teams to be creative, the results of this study provide implications with respect to leader selection or training. Moreover, this study aims to understand the role of knowledge sharing in the leadership–creativity relation and the results could shed light on the types of intervention that facilitate knowledge sharing in organisations.

1.5 Structure of this Thesis

This research is structured into 7 chapters, including this **introduction chapter**. The chapters are organised as follows.

Chapter 2 provides a **literature review** of research into creativity, empowering leadership, knowledge sharing, team identification, relationship conflict, and team efficacy. Previous empirical studies for each construct are discussed.

Chapter 3 develops the **conceptual framework and research hypotheses** for direct effects, mediating effects, moderating effects, and sequential mediating effects in respect of the relationships examined in this thesis.

Chapter 4 presents the **methodology** followed for this study, starting with a discussion on the various philosophical paradigms, research approaches and designs in business and management research, based on which a suitable research approach and design were adopted that led to the

selection of the quantitative study. Finally, the sampling procedure, ethical considerations and data collection are discussed.

Chapter 5 this chapter presents the data analysis procedures and the results. This consists of a preliminary examination of the data, descriptive statistics and factor analyses of the latent constructs, and the results of the hypotheses analysis.

Chapter 6 is the main **discussion** chapter and illustrates the findings derived from the quantitative results. The theoretical contributions and practical implications were also discussed.

Chapter 7 outlines the **limitations** of the research and provides some **directions for future research**.

CHAPTER 2 LITERATURE REVIEW

2.1 Introduction

This chapter aims to identify and locate the research questions that were given in the previous chapter within the existing literature. To do so, the chapter first discusses the creativity literature and introducing the overarching theory of this study: the componential theory of creativity (Amabile, 1983). To elaborates the potential underlying mechanisms between empowering leadership and team creativity, the social identity theory (SIT) (Tajfel, 1979) was presented.

The literature review chapter has ten sections. Section 2.2 presents the construct of creativity, including its conceptualisation, types of creativity and the scope of creativity. Section 2.3 presents the leadership -creativity literature and outlines different approaches to the two areas of interest. Section 2.4 discusses the literature on empowering leadership and 2.5 focuses on knowledge sharing. Section 2.6 elaborates social identity theory and sections 2.7, 2.8 and 2.9 discuss the concepts of team identification, relationship conflict and team efficacy, respectively. Section 2.10 presents the research gaps identified in the literature and 2.11 forms the conclusion.

2.2 Creativity

2.2.1 Conceptualisation

Given the multiplicity of ways that the term ‘creativity’ is used, it is important to recognise the complexity of this concept to comprehend creativity in organisations (Amabile, 1988; 1996; Woodman et al., 1993). Creativity, essentially, has been examined through three perspectives

(Table 2.1): 1) creative person, 2) creative process, and 3) creative product/outcomes (Anderson, Potocnik, & Zhou, 2014). First, from the person standpoint, creativity is seen as a constellation of induvial personality types, traits, and talents (Findlay & Lumsden, 1988; Mumford & Gustafson, 1988), while the process perspective sees creativity as the processes through which creative ideas are proposed or developed (Rank et al., 2004). Apart from these is a product or outcome view of creativity, which commonly defines creativity as the generation of novel ideas concerning products, processes, services, or procedures that are useful/valuable to an organisation (e.g., Amabile, 1996; Oldham & Cummings, 1996; George, 2007; Boies Fiset, and Gill, 2015). This outcome view of creativity, instead of taking either a creative person or creative process, allows the construct to be quantified with relative ease and consensus (Amabile, 1988; Zhou & Hoever, 2013, 2014; Anderson, Potocnik, & Zhou, 2014). Accordingly, over the last two decades, it has become widely acknowledged and adapted by many creativity researchers (Zhou & Shalley, 2003, 2011; Henessey & Amabile, 2010; Anderson, Potocnik, & Zhou, 2014). For instance, prior studies have examined creative work methods, creative solutions to problems, and creative changes in workflows (Shalley & Gilson, 2004). For example, Martinaityte et al. (2019) adapted the outcome view of creativity to the service context and defined creativity as ‘‘the generation of novel and practical ideas by service personnel in their service delivery’’ (p. 729). A summary of definitions of creativity is provided in Table 2.1.

Table 2.1: Definitions of creativity

Definition(s) of creativity	
Author(s) (year)	**Definition(s)**
Person perspective	
Findlay & Lumsden (1988)	Creativity is the constellation of traits and personality shown by individuals who, when given a measure of free rein, will spend time and significant efforts engaged in creative process.
Martinsen (2001)	Creativity stems from several particular personality types, such as ambition, associative orientation, and need for originality, etc.
Process perspective	
Drazin et al. (1999)	Creativity refers to one's engagement (psychologically) in creative activities.
Mainemelis (2001)	Creativity refers to one's experience and timelessness by being fully engaged in work activities.
Rank et al. (2004)	Creativity concerns the processes that facilitate a person or group to be creative
Hughes et al. (2018)	Creativity concerns the processes (cognitive and behavioural) to generate novel ideas.
Product perspective	
Amabile (1983, 1996)	Creativity is the generation of ideas (novel and useful) by an individual (i.e., individual creativity) or by a group of people working jointly (i.e., team creativity).
Zhang & Bartol（2010）	Creativity concerns the extent to which novel and practical ideas are produced.
Boies et al. (2015)	Creativity is an outcome concerning the generation of ideas that are both novel and practical.

Hu et al. (2018)	Creativity refers to the production of ideas (novel and useful) concerning products, processes and services.
Anderson et al. (2014)	Creativity refers to the idea generation concerning products or outcomes and it will invariably (on almost every occasion) result in identifiable benefits.
Emich & Vincent (2020)	Creativity is generally defined as the generation of novel and practical/useful ideas and/or solutions.

2.2.2 'Novel' and 'Useful'

Implicit in the product view of creativity is the notion of 'novel' and 'useful' because novel ideas/behaviours are generated/performed because they are useful for an organisation. However, some scholars point out that it might be difficult to evaluate creativity based on such criteria (Perry-Smith & Shalley, 2003; Zhou & Shalley, 2011). Therefore, it is imperative to further clarify the novel and useful aspects of creativity. First, from the 'novel' aspect, Shalley and Gilson (2004) suggested that an idea is considered novel because it is unique in relation to other existing ideas within an organisation. In fact, 'novel' is considered to be a continuous concept with a focus on how relatively novel an idea, product, proposal, or solution is, rather than a discrete decision that is or is not new (Mumford & Gustafson, 1998; Perry-Smith & Shalley, 2003). Second, is the question of 'useful for whom'? An idea is considered useful and appropriate only if it is considered beneficial. In other words, it should has the potential to bring value - tangible or intangible, in short or long term (Zhou & Shalley, 2003, 2011). These arguments above demonstrate the domain-specific characteristics of creativity, and scholars agree that assessing the 'novel' and 'useful' of a creative idea or product is a contextualised and subjective judgment. This is in line with creativity researchers suggest that creativity is reliably

assessed by ‘appropriate judges or observers’ – those with advanced knowledge and expertise within the domain studied (Amabile, 1996; Zhou & Shalley, 2011; Shalley & Gilson, 2004; Anderson et al., 2014).

2.2.3 Creativity and Innovation

One concept closely related to creativity is innovation and scholars suggest that the boundaries between creativity and innovation are not that clear (Rank, Pace, & Frese, 2004; Shalley & Zhou, 2008). Therefore, it is necessary to clarify the difference between creativity and innovation. Creativity has been viewed as the first stage of innovation. Anderson et al. (2014), for example, put forward the notion that creativity concerns the idea-generation stage, whereas innovation concerns idea-implementation. Moreover, some scholars suggest that innovation is a broader concept that entails both idea generation and implementation (Hughes et al., 2018). Therefore, although there is some conceptual overlap between innovation and creativity, they are two different constructs (Anderson et al., 2014; Shalley, 2004; Woodman et al., 1993). This study is concerned exclusively with creativity.

2.2.4 The Scope of Creativity

It is important to discuss the scope of creativity (Figure 2.1), since some ideas or solutions are incremental (i.e., minor adaptions) and others are radical (i.e., breakthroughs). Creativity researchers have discussed the differences between incremental and radical, with incremental reflecting the modification of routine behaviours, whereas radical responses reflect more ground-breaking ideas or approaches (Hennessey & Amabile, 2010; Mumford & Gustafson,

1998). The scope of creativity is important because some jobs/situations (e.g., services) may prefer their employees to manifest more incremental creative performance, whereas in a different context (e.g., R&D) organisations may desire to have employees and teams that attempt breakthroughs that are considered more monumental (Zhou & Shalley, 2013).

Figure 2.1: Scope of creativity

2.2.5 Types of Creativity in the Workplace

Four types of creativity (Table 2.2) were identified by Unsworth (2001) and are categorised along two dimensions: 1) the driving force of engagement (internal vs. external), and 2) the type of problems (open vs. closed). Internal drivers concerns one's inner desire to be creative, whereas external drivers refers to the situation or job that requires creative performance. Open problems are those problems that are discovered by employees in an organisational setting, whereas closed problems are presented to and formulated for them. Moreover, four major categories were represented in Unsworth's (2001) model: 1) responsive (closed, external); 2) expected (open, external); 3) contributory (closed, internal), and 4) proactive (open, internal). More specifically, *responsive creativity* in organisational settings is driven by offered problems and external goals or outcomes - jobs or situations that, by definition, require creativity fall into this category. For example, the research and development (i.e., R&D) work requires creative solutions for specific formulated problems. In contrast, while *expected creativity* also reflects

job-required creativity, however, employees have the choice over the problems; that is, of a self-discovered solution. For example, practice in quality management is an illustration of the expected creativity. *Contributory creativity* is a self-determined (internally driven) response to closed problems as it entails voluntary behaviours, such as when an employee voluntarily assists his/her colleagues to solve a problem. Finally, *proactive creativity* refers to the internal urge to search for issues and come up with solutions – internally driven. For example, in customer contact jobs, a frontline employee can be personally motivated to engage in a creative way, propose a creative solution to meet unique customer needs or solve self-discovered shortcomings in a service encounter.

Table 2.2: Creativity type matrix – adapted from Unsworth (2001)

Problem type	**Driver for engagement**	
	Internal	***External***
Open	Proactive	Expected
Closed	Contributory	Responsive

2.2.6 Standardisation vs. Creativity in Service Context

Drawing upon the above discussions, it is worth clarifying standardisation versus creativity in service context as each has its own merit. For example, the requirement of creative performance for research and development (i.e., R&D) workforce is refers to radical approach, that is, ground-breaking ideas or approaches (Hennessey & Amabile, 2010; Mumford & Gustafson, 1998), whereas creativity in service context concerns with incremental reflecting the

modification of routine behaviours, such as service adaptation (Martinaityte, Sacramento, & Aryee, 2019; Coelho et al., 2021). More specifically, to respond to customers' increasingly diverse and unique needs, frontline service personnel need to be creative towards service adaptation and solve problems that existing protocol falls short of addressing (Wilder et al., 2014; Collier et al., 2018; Wang, Wen, Pasamehmetoglu, & Guchait, 2021; Chien, Yang, & Huang, 2021).

Moreover, it is also worth clarifying both the type and scope of creativity in a frontline service context. First, from the 'type' perspective, although it is conceivable for frontline or customer-facing service positions to demand creativity, it is typically not included in the job description. As such, creativity in this context is an output of an internal drive and constitutes a discretionary behaviour (Wilder, Collier, & Barnes, 2014; Li & Hsu, 2018). Frontline service personnel are also encouraged to find difficulties (i.e., open problems) since they regularly deal with the issues and obstacles that confront their clients. These problems then call for creative solutions. Moreover, in addition to simply finding or discovering problems by themselves, a frontline workforce is also asked to respond to those problems that management and/or customers have presented or articulated (i.e., closed problems). The contributory and proactive forms of creativity, which are internally motivated responses to issues that one has either encountered or been presented with, are applicable to creativity in a frontline service setting according to Unsworth's (2001) creativity taxonomy. Although most of the existing research on creativity has concentrated on radical creativity and externally driven creativity, as driven by industry

demands (e.g., manufacturing and technology) or job requirements (e.g., R&D), research on creativity in professions where it perhaps not be emphasised (e.g., customer service) has not received much research attention (Martinaityte, Sacramento, & Aryee, 2019). Given that creativity is important for developing good customer service (Dong et al., 2015; Coelho et al., 2018, 2021), it is vital to investigating creativity in a frontline service setting and figuring out how it may be boosted. Second, from the 'scope' perspective, creativity is concerned with adopting novel behaviours and modifications of routine behaviours while carrying out daily tasks in a frontline service setting. It can, therefore, be seen as an incremental creativity. Thus, examining creativity in such a setting can increase our understanding and knowledge on the cause of incremental creativity.

2.3 Creativity in Organisations

Creativity is not something that just happens in the workplace; it takes effort to be creative (Harvey & Kou, 2013; Shalley & Gilson, 2004; Zhou & Hoever, 2014). Accordingly, in the next section, Amabile's (1988) componential theory of creativity is discussed to explain how creativity occurs in organisations. Further, this section also discusses the three main approaches to creativity in the existing literature.

2.3.1 Componential Theory of Creativity

Amabile's (1988, 1996) componential theory of creativity postulates three components (Figure 2.2) that contribute to creativity: knowledge, motivation, and creativity-relevant process (originally called creativity-relevant skills). Although the componential theory was first put

forward to address the issue of individual creativity, the research has also shown its usefulness as a theoretical foundation for team creativity (e.g., Anderson et al., 2014; Jia et al., 2021; Wang et al., 2016).

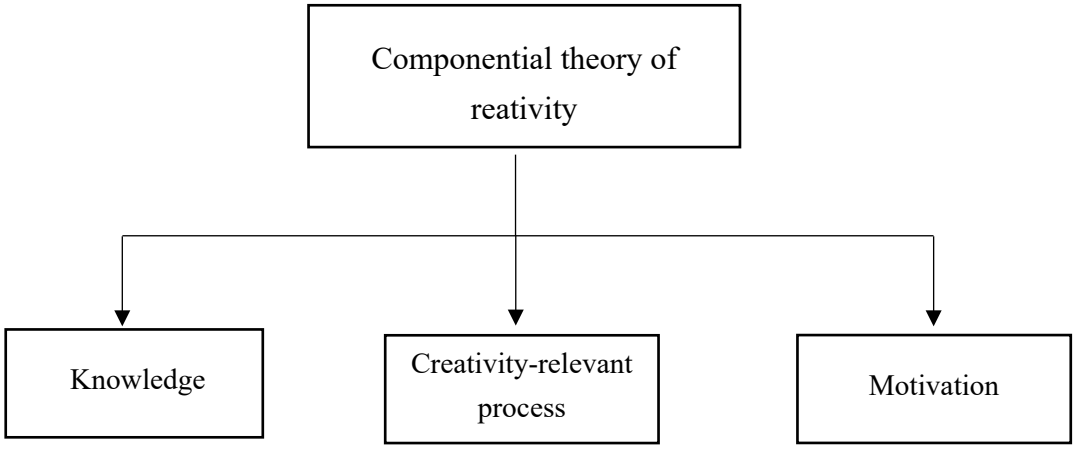


Figure 2.2: Componential theory of creativity (Amabile, 1996)

2.3.1.1 Knowledge

According to the componential theory of creativity (Amabile, 1983), knowledge is the "raw ingredient" from which any performance must be constructed (Amabile, 1983, 1996; Hennessey & Amabile, 2010). For instance, work-relevant knowledge and information have consistently been found to predict employee creativity (e.g., Ma et al., 2013; Mittal & Dhar, 2015). Further, the diverse knowledge in teams allows for the novel recombination of information, which is necessary for team creativity (Emich & Vincent, 2020). Prior research has shown that knowledge sharing enhances creativity by allowing a larger and more varied base to pull ideas (e.g., Hu et al., 2018; Luu, 2021). As such, to promote team creativity, it is critical for team leaders to create enabling conditions that induce team members to be open to

interacting with each other and raise their willingness to share knowledge (Peng, Wang, & Chen, 2019).

2.3.1.2 Creativity-Relevant Processes

For employees to perform creatively, they need to possess the necessary cognitive abilities and be able to participate in complex cognitive processes (Amabile, 1996). For instance, receptivity to new experiences has repeatedly been linked to creativity at the individual level (George & Zhou, 2011; Hammond et al., 2011). Scholars have suggested that certain personality qualities, such as openness and innovativeness, are advantageous for individual creativity because people with these traits challenge established paradigms and explore other approaches, which leads to the development of unique solutions (Anderson et al., 2014).

For teams to perform creatively, team members need to pay attention to problems and flaws to their work and be open to discussing and sharing ideas and learning from each other (e.g., Hu et al., 2018; Peng, Wang, & Chen, 2019). Previous research has found that certain team processes, for instance, open communication (Boies, Fiset, Gill, 2015) and information sharing (Hu et al., 2018), can boost team creativity.

2.3.1.3 Motivation

It is believed that intrinsic motivation is crucial for creativity because, in its absence, individuals will not consistently engage in or stick with creative activities, regardless of how good they are at thinking outside the box and generating creative ideas. Intrinsic motivation refers to “any incentive that originates from a favourable reaction of the work and/or tasks itself; this reaction

occurs from interest, participation, fulfilment curiosity, or positive challenge" (Hughes et al., 2018, p. 556). While the significance of motivation in facilitating creative behaviour has been widely acknowledged, Amabile (1983, 1996) argued that intrinsic motivation is important but not a sufficient condition for creativity. Specifically, engaging in creative-relevant processes has an equal, if not more important, influence on creative outcomes, especially for team creativity (Amabile, 1983, 1996; Boies, Fiest, & Gill, 2015; Liu et al., 2021).

2.3.2 Leadership and Creativity

The three above-mentioned components are crucial to any creative performance, but they are not, by themselves, sufficient. One premise of Amabile's (1988) theory is that the work environment impacts creativity by affecting these components and facilitating their manifestation. Accordingly, scholars began investigating the contextual factors that may function as antecedents of workplace creativity (Anderson et al., 2014; Shalley & Gilson, 2004). One prominent contextual factor is leadership, or the behaviour exhibited by employees' supervisors (Amabile et al., 1996; Hughes et al., 2018; Zhou & Hoever, 2014). Leaders shaping the work environment and critically influence subordinates' behaviour (Lee et al., 2020). Studies have investigated employee creativity from the perspective of leaders' support and summarised some essential leadership characteristics that stimulate creativity in the workplace, including being professional (Peng et al., 2019), ensuring open communication (Mainemelis et al., 2015), and providing multiple forms of support to subordinates, such as resources and information (Li et al., 2018; Mumford et al., 2012; Zhang et al., 2018). Focusing on the role of a specific leadership style, research has found that transformational leadership

(Zhang et al., 2011) empowering leadership (Amundsen & Martinsen, 2015; Byun et al., 2016), ethical leadership (Mo et al., 2019), servant leadership (Yang et al., 2017) and inclusive leadership (Jia et al., 2021) can promote employee creativity.

2.3.3 Approaches to Creativity

This section organises existing leadership–creativity studies into three broad categories: motivational-, cognitive-, and identification-based approaches (see Figure 2.3 towards the end of this section). Each approach is discussed in more detail below.

2.3.3.1 Motivational

Motivation can either increase or decrease an individual's creativity (Amabile, 1988; Collins & Amabile, 1999; Hennessey, 2019). Therefore, the componential theory lays the foundation for research on creativity through a motivational lens. Accordingly, a growing body of research has adopted a motivational lens to understand creativity (e.g., Zhang et al., 2015; Liu et al., 2016; Malik, Chio, & Butt, 2019; Shafi et al., 2020; Ruiz-Palomino & Zoghbi, 2020). More specific, rather than merely focusing on the impacts of motivation on creativity, scholars strive to identify those contextual factors that either enhance or diminish motivation, which, in turn, boosts or restricts employees' creative performance. The cognitive evaluation theory (Deci & Ryan, 1985) is especially useful here. The theory states that the ability of a contextual factor to increase or decrease motivation relies on whether it is informational or controlling. On the one hand, people are likely to feel competent and self-determining when a context is informational, consequently, they are intrinsically motivated to find creative ways of improvement (Zhang &

Bartol, 2010; Kim & Lee, 2011; Shin, 2015). On the other, when the context is more about controlling than informational, people are more likely to believe that they are under or restrained by outside forces or pressure rather than being self-determining. As a result, their internal drive is likely to be low. To summarise, the motivational approach underscores that informational will foster creativity, whereas controlling would inhibit creativity.

Leadership–Creativity, a Motivational Approach

Given the critical role of motivation in Amabile's (1988) model, it is not surprising that variables such as efficacy (both self-efficacy in general and creative self-efficacy in particular), psychological empowerment and intrinsic motivation are frequently examined in the leadership and creativity studies. For example, Yi and Xin (2019) found that ethical leadership influences employees' creative behaviour through their intrinsic motivation. Shafi et al (2020) point out that intrinsic motivation mediates the linkage between a leader's transformational behaviours and employee creativity, and empowering leaders have been found to fuel employee creativity through a sense of psychological empowerment (Zhang & Bartol, 2011). Moreover, self-efficacy mediates the relationships between ethical leadership (Ma et al., 2013), transformational leadership (Mittal & Dhar, 2015; Wang et al., 2014) and employee creativity. At the team level, team intrinsic motivation was found to mediate the relationship between inclusive leadership and team creativity and team psychological empowerment mediates the association between inclusive leadership and team creativity (Jia, Jiao, & Han, 2021).

Although efficacy is generally an individual phenomenon, when the focal unit is specifically on workgroup or teams, it (hereafter, team efficacy) represents the belief in team member's joint capability to organise and conduct the courses of action (Marks et al., 2001; Gully et al., 2002). Accordingly, the notion of efficacy has also been applied to team-level studies. Prior research has suggested that team efficacy is vital to creativity (Shalley et al., 2004; Zhou & Hoever, 2014). For instance, team efficacy sustains creativity by consistently instilling members with a sense of confidence in the group (Cai et al., 2019). Prior study has found that team efficacy mediates the effects of transformational leadership (Zhang, Tsui, & Wang, 2011), transactional leadership (Liu, Liu, & Zeng, 2011) and shared leadership (Gu, Liang, & Cooke, 2022) on team creativity.

Despite examining team efficacy as a motivational-based mechanism through which leadership influences team outcomes, research also suggests that team efficacy can function as a moderator that counts towards leadership effectiveness in terms of team members' attitudes and behaviours, which, in turn, influence team performance (Gully et al., 2002). This is based on the contention that teams with higher team efficacy are believed to raise consciousness of team effectiveness among the employees, which, in turn, sustains their motivation to achieve high performance and persevere in the face of adversity and obstacles (Gu et al., 2022; Gully et al., 2012; Kerr et al., 2015). For instance, Martin and colleagues (2022) found that team performance is a function of team efficacy and ethical leadership interaction.

2.3.3.2 Cognitive

In addition to motivation, studies on creativity also place emphasis upon cognition. Amabile's (1996) creativity theory highlighted cognitive skills and/or creativity-relevant processes as being essential for creativity. That is, creative performance necessitates employees and teams demonstrating pertinent cognitive skills and exerting effort to engage in creativity-relevant processes (Amabile, 1988, 1996; Woodman et al., 1993). Accordingly, a stream of research has studied creativity through a cognition lens. According to cognitive approach research, variations in the usage of cognitive skills and processes and the adaptability of stored cognitive structures are antecedents of the variances in creativity (e.g., Shin, 2015; Zhou & Shalley, 2011). The two constructs that have been researched most frequently through a cognitive lens are psychological safety and participation with the creative process.

Leadership–Creativity, a Cognitive Approach

Focusing on the cognitive approach, empirical evidence shows that transformational leadership (e.g., Henker et al., 2015), ethical leadership (e.g., Ma et al., 2013), servant leadership (e.g., Malingumu et al., 2016) and empowering leadership (Zhang & Bartol, 2010) can create an environment conducive to employees' psychological safety, which in turn, promotes their creative performance. Psychological safety has also been found to mediate various types of leadership styles in relation to team creativity, such as humble leadership (Hu et al., 2018), self-serving leadership (Peng et al., 2019) and ethical leadership (Tu et al., 2019). Moreover, Boies et al. (2015) found team communication mediates the relationship between transformational leadership and team creativity. Drawing on social learning theory, Peng and colleagues (2019)

demonstrated that team knowledge hiding, as a consequence of a leader's self-serving behaviour, stifles team creativity (Peng, Wang, & Chen, 2019).

2.3.3.3 Identification

Another theory-driven aspect that is gaining increasing research attention and interests is an identification-based approach, which can be viewed as an alternative form of the motivational approach (e.g., Hirst, Van Dick, & Van Knippenberg, 2009; Tierney, 2015). The contention is that leadership can induce employees' specific role identity and their relational identification, which, in turn, raise their intrinsic motivation, as a consequence, they are more likely to be creative (Farmer, Tierney, & Kung-Mcintyre, 2003; Tse & Chiu, 2014). Draws on role identity theories (Burke & Tully, 1978) and self-concept theory (Shamir, House, & Arthur, 1993), the constructs such as creative role identity (e.g., Wang & Zhu, 2011), employee identification with their leader (e.g., Wang & Rode, 2010; Yoshida et al., 2014; Tse & Chiu, 2014), as well as organisational identification (e.g., Liu et al., 2016) have been frequently investigated in this field.

Leadership–Creativity, an Identification Approach

Prior studies demonstrated that transformational leadership (Qu, Janssen, & Shi, 2015), and moral leadership (Gu, Tang & Jiang, 2015) can induce employees' identification with their leader, which in turn influences their creativity. In addition, organisational identification has been found to mediate the effects of abusive supervision on employee creativity (Liu et al.,

2016). Moreover, employees' creative role identity is another identification-related construct that is commonly examined. For instance, Wang et al. (2014) found that creative role identity mediates the transformational leadership – employee creativity linkage.

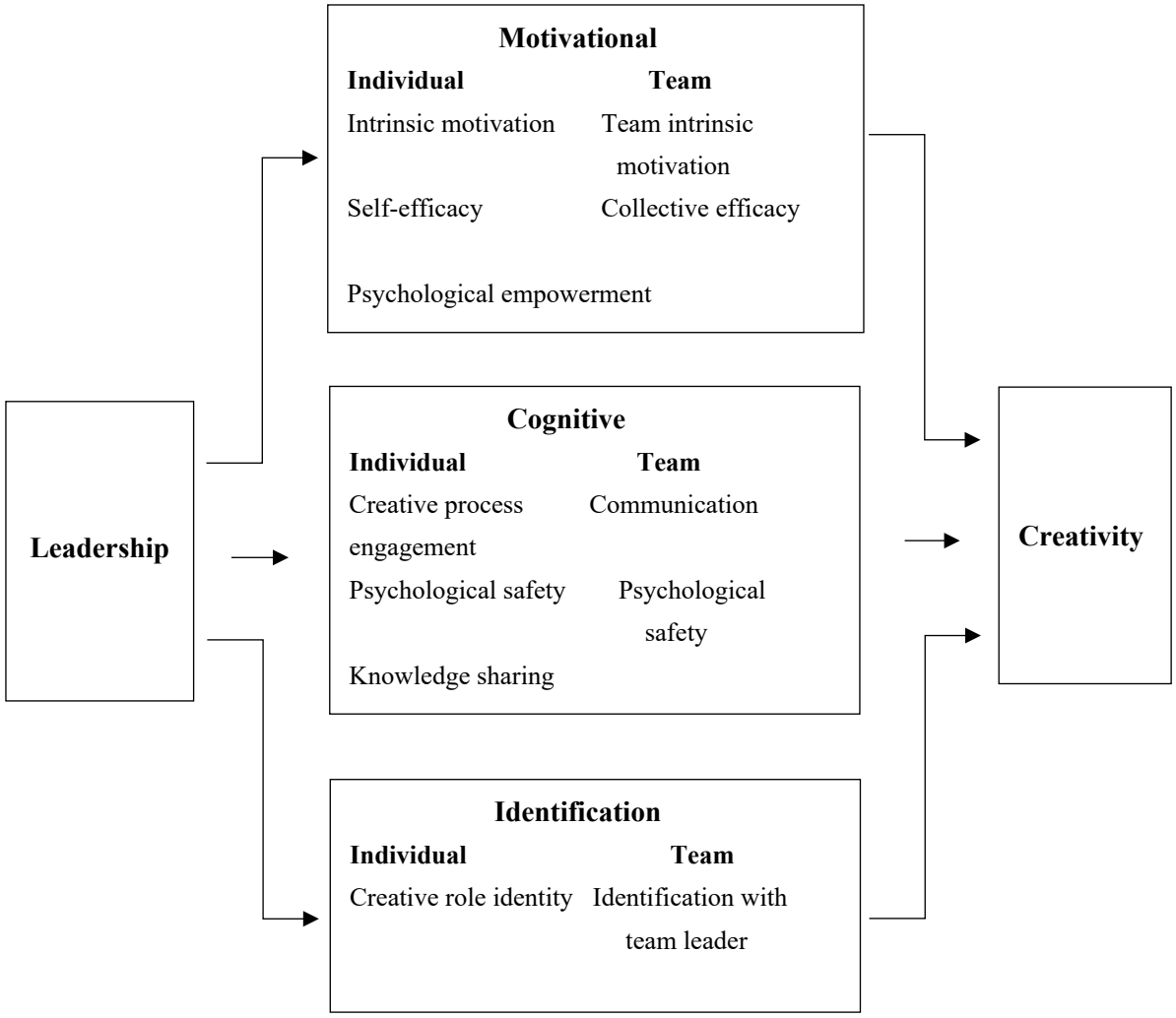


Figure 2.3: Three approaches and related variables within leadership–creativity studies

2.3.4 Summary

Leadership is critical to creativity in organisations (Amabile, 1988, 1996; Zhou & Hoever, 2014; Hughes et al., 2018; Lee et al., 2020) and prior research has demonstrated that leaders can influence creativity through more proximate mediating variables, such as employee motivation (e.g., Tu & Lu, 2013; Fischer, Dietz, & Antonakis, 2017; Hughes et al., 2018). As summarised

in Figure 2.3 above, mediators of leadership and creativity can be largely organised into three approaches: motivation-, identification-, and cognition-based approaches, and the identification approach can be viewed as a particular form of motivation. Although it appears to be well-developed, this field of study is somewhat limited. For example, research on the influence of leadership on creativity focuses predominantly on the motivational aspect of creativity. In other words, existing studies mostly examine the impacts of leadership impacts on creativity through a motivational lens. In her seminal works on creativity, Amabile (1983, 1996) argued that motivation is a necessary, but not sufficient condition, for creativity. For individuals and teams to be creative, domain knowledge and employees' participation and engagement in creativity-relevant processes, such as knowledge sharing, also play especially important roles (Amabile, 1983, 1996; Hulsheger, Anderson, & Salgado, 2009; Harvey & Kou, 2013; Aggrawal & Wolleyb, 2019). By ignoring the knowledge and process components within Amabile's (1983) model, the research created an imbalance in our current understanding.

Moreover, existing leadership and creativity studies primarily focused on leadership's influence on individual employees' creative performance. On the other hand, research on leadership with the entire team's creativity has been largely ignored. In their review of creativity literature, Anderson et al (2014) suggested that ''research on team creativity is particularly valuable as organisations have moved inexorably to more team-based structures and will often be reliant upon teams to develop and implement innovative solutions'' (p.1309). Prior research has identified several possible predictors of team creativity, such as membership diversity (e.g.,

Wang et al., 2019; Emich & Vincent, 2020), group climate (Liu et al., 2021), and communication among group members (Boies, Fiset, & Gill, 2015). Besides, team creativity is also influenced by various leadership styles, for instance, transformational leadership (Zhang, Tsui, & Wang, 2011), humble leadership (Hu et al., 2018), participative leadership (Li, Liu, & Luo, 2018), ethical leadership (Tu et al., 2019; Mo, Ling, & Xie, 2019) and inclusive leadership (Jia, Jiao, & Han, 2021). Scholars posit that empowering leadership is an effective style of team leadership (e.g., Sharma & Kirkman, 2015; Lee, Willis, & Tian, 2018; Cheong et al., 2019); however, despite a growing body of research has investigated the impacts of empowering leadership on employee creativity (e.g., Zhang et al., 2018; Audenaert & Decramer, 2018), research on empowering leadership and team creativity remains understudied (Lee, Willis, Tian, 2018). Given the prevalence of team-based structure and empowerment practice in many modern organisations, a study investigating the linkage between the two is warranted, as both constitute crucial business outcomes. Accordingly, the concept of empowering leadership and studies on it will be discussed in the following section.

2.4 Empowering Leadership

Increasing competition in the business landscape has brought change to organisations, not only in terms of structures, but also in the nature of work (Biemann et al., 2015). In addition to maximising efficiency, creating conditions that enable employee empowerment is deemed critical for organisational success (A. Lee et al., 2018; Tong et al., 2020), correspondingly, interest has grown within the literature in approaches to match these changes. This body of

research can be divided into two perspectives. The first perspective, termed psychological empowerment, focuses on employee cognitive states regarding empowerment (e.g., Maynard et al., 2013; Seibert et al., 2011; Spreitzer, 1995; Thomas & Velthouse, 1990). Psychological empowerment, is characterised as a four-dimensional psychological state consisting of (1) meaning, (2) self-determination, (3) competence, and (4) impact (Conger & Kanungo, 1988; Thomas & Velthouse, 1990; Spreitzer, 1995, 1996). The social information processing theory (Walther, 1992) is especially useful here as the theory states that the sense of feeling psychological empowered relies on the context. The second perspective, is labelled as a structural form of empowerment, concerns practices and interventions by organisations involving the delegation of decision-making authority and power down the hierarchy (Amundsen & Martinsen, 2015; Sharma & Kirkman, 2015).

One may argue that the ideal method for organisations to engender empowerment is to allow employees to be entirely self-managing, in other words, remove the leader role altogether,. However, the absence of leader or supervisor is not a realistic way of creating employee empowerment in organisations, as it may trigger employee a sense of been abandoned by organisations (Cheong et al., 2019). in employees and teams experiencing a sense of having been abandoned by their organisation (Kirkman & Rosen, 1999). Instead, scholars introduced the concept of empowering leadership (e.g., Arnold et al., 2000; Ahearne et al., 2005) which represents leader behaviours that strive to nurture an environment that employees perceive a sense of being empowered (Wallace et al., 2011; Lee, Willis, & Tian, 2018; Cheong et al., 2019). Although definitions of empowering leadership vary in different studies (Table 2.3), the

definition by Ahearne, Mathieu and Rapp (2005) appears to be the predominant one in extant literature (e.g., Zhang et al., 2018; Audenaert & Decramer, 2018; Zhang & Bartol, 2010; Cheng et al., 2019; Hoang et al., 2021). Ahearne et al. (2005) define empowering leadership as leadership behaviours comprised of four dimensions: 1) expanding autonomy and responsibility, 2) fostering employee engagement in decision-making, 3) enhancing work meaning and 4) expressing confidence in employees. This definition was adopted by this study. Definitions of empowering leadership are presented in Table 2.3.

Table 2.3: Definitions of empowering leadership

Definition(s) of empowering leadership	
Author (year)	**Definition(s)**
Manz & Sims (2001)	Empowering leadership concerns leader leading subordinates to lead themselves.
Ahearne et al. (2005)	Empowering leadership refers to leader's empowering leadership which comprised of four dimensions: expanding autonomy from bureaucratic constraints, 2) encouraging participation, 3) enhancing the work meaning and 4) expressing confidence in performance.
Yun et al. (2006)	Empowering leadership is defined as a team leader's behaviours intended to enhance follower self-leadership.
Vecchio et al. (2010)	Empowering leadership refers to leader behaviours that share responsibility and autonomy with employees.
Amundane& Martinsen (2014)	Empowering leadership consisted of two sub-dimensions: autonomy support and development towards subordinates.

2.4.2 Differentiating EL from other established leadership constructs

As the notion of empowering leadership was built on the related leader-supported principles (Arnold et al., 2000; Sharma & Kirkman, 2015), identifying the uniqueness of an empowering form of leadership is important. Accordingly, this section sets out the commonalities and differences between EL with other established leadership constructs in more detail.

2.4.2.1 Empowering Leadership vs Transformational Leadership

The concept of transformational leadership (TL) has been a dominant paradigm in the leadership literature. According to Bass (1999), transformational leadership has four dimensions: 1) intellectual stimulation, 2) individual consideration, 3) inspirational motivation, and 4) idealised influence. Transformational leaders focus on inspiring subordinates to pursue a shared goal/vision and strive to motivate them to work towards a common goal (Bass, 2008; Yukl, 2008). On the other hand, involving followers in decision-making and giving authority, responsibility, and providing autonomy are the main characteristics of empowering leadership. (e.g., Arnold et al., 2000; Amundsen & Martinsen, 2014). These unique characteristics are not included in transformational leadership (Table 2.4).

Table 2.4: Empowering vs transformational leadership according to Sharma and Kirkman (2015), (own depiction)

Empowering leadership	Transformational leadership
• Delegation of power and responsibility. • Granting autonomy and decision-making authority. • Sharing influence with subordinates	• Power and decision making still reside with the leader. • Encouraging subordinates work towards a common goal/vision • Having influence over subordinates

2.4.2.2 Empowering Leadership vs Self-Leadership

Self-leadership is an individualistically oriented concept that refers to a strategy or a set of strategies that employees use to hones themselves towards a better performance (Manz, 1986; Martinsen, 2009; Kern et al., 2017). These strategies include self-goal setting, self-reward, discovering enjoyable aspects of tasks, visualising successful performance, etc (Manz & Sims Jr., 1980; Manz & Sims, 2001; Houghton & Neck, 2002). Although both these two constructs are related to employee empowerment, self-leadership can be viewed as a consequence of empowerment, whereas EL is more about leading to empowerment. In this manner, a leader's empowering behaviours could work as a precursor that influences employees' self-leadership (Yun et al., 2006). In fact, prior research has indicated that empowering leadership can trigger employee self-leadership (Amundsen & Martinsen, 2014, 2015).

Table 2.5: Empowering leadership vs self-leadership according to Cheong et al (2019), (own depiction)

Empowering leadership	Self-leadership
• Is a Managerial/leadership practice • Focus on manager or supervisors	• Is more about an individual strategy that influence themselves • Self-leading

2.4.2.3 Empowering Leadership vs Participative Leadership

Participative leadership, as opposed to autocratic leadership, refers to leadership behaviour that involves employees in joint decision-making and sharing responsibilities and decision-making authority (van Knippenberg, 2014). Although both empowering and participative leaders

encourage followers' active involvement in decision making, EL reflects a broader concept and incorporates the notion of participative decision making as a sub-dimension (Ahearne et al., 2005; Amundsen & Martinsen, 2014; Sharma & Kirkman, 2015). In essence, participative leader behaviour is a necessary aspect of, but not a sufficient condition for, the empowering leadership construct (Table 2.6).

Table 2.6: Empowering vs participative leadership according to Lee et al., (2018), (own depiction)

Empowering leadership	Participative leadership
• Includes the notion of participation. • Is an antecedent of participative leadership	• Can be a result of empowering leadership. • Is a necessary, but not sufficient condition of empowering leadership

2.4.2.4 Empowering Leadership vs Leader–Member Exchange (LMX)

Leader-member exchange (LMX) is a dyadic construct which describes the relationship, statues, and/or distance between a leader with his/her follower (Gooty & Yammarino, 2016). More specifically, based on the role theory (Goffman, 1963) and social exchange theory, Leader-member exchange focuses on the differentiated relationships as well as the quality of those relationships among leaders and subordinates, ranging from no quality, low quality to high quality (Liden et al., 2006). Although prior research has shown correlations between empowering leadership with LMX (e.g., Hassen et al., 2013), these two styles are conceptually distinct. Specifically, empowering leadership is a certain set of leader behaviours that give followers liberty, distribute responsibility and authority, and boost their motivation for their job. (e.g., Burke et al., 2006). Empirical studies have clearly stated a distinction between

empowering leadership and LMX. For example, an empirical study by Amundsen and Martinsen (2014) found that empowering leadership and LMX are related but different constructs (Table 2.7).

Table 2.7: Empowering leadership vs LMX according to Tang et al., (2020), (own depiction)

Empowering leadership	Leader–member exchange (LMX)
• A set of specific leadership behaviours.	• Concerns the quality of the relationship between leader and subordinate.

Table 2.8 below summarises the conceptual differentiation between EL and the other established leadership constructs. By doing so, studying EL as an independent and unique leadership construct is warranted. In the next section, the consequences of empowering leadership are discussed in the following sections.

Table 2.8: Comparison between empowering leadership and related leadership constructs

Leadership construct	Central behavioural dimension
Empowering	Provision of autonomy
Transformational	Pursuing a shared vision
Self-leadership	Strategies that individuals use to influence their own behaviours
Participative	A necessary aspect of, but not a sufficient condition for, empowering leadership
LMX	Differentiated leader–member relationships

2.4.3 Consequences of Empowering Leadership

Given the notion of support for autonomy and delegation of power and responsibility, it is not surprising that empowering leadership has been associated with a wide array of employee and team outcomes (Cheong et al., 2016, as an exception). Taken together, empirical evidence

suggested that EL is an effective leadership style for many organisational settings. Accordingly, this section will discuss the empowering leadership literature and summarises important findings at both the employee and team levels.

2.4.3.1 Empowering Leadership – Employee Outcomes

Prior studies have examined empowering leadership with a wide array of employee motivation, attitudes, as well as behaviours. For instance, research found a strong association between empowering leadership and employee organisational commitment (Chen et al., 2011; Ou et al., 2014; Harris et al., 2014; Kim & Beehr, 2018, 2020), trust in leader (Kim & Beehr, 2021), and job satisfaction (Amundesen & Martinsen, 2014a; Biemann et al., 2015). Likewise, managers who promote subordinates'' autonomy contribute to their personal satisfaction and wellbeing (e.g., Vecchio et al., 2010). Moreover, previous empirical evidence has also indicated that leader's empowering behaviours could enhance employee intrinsic motivation (Dong et al., 2015), psychological empowerment (Zhang & Bartol, 2010; Lorinkova & Perry, 2017), efficacy (Cheong et al., 2016; Kim & Beehr, 2017), and self-esteem (Zhang et al., 2018). From a behaviour perspective, research demonstrated that EL can enhance employee's work engagement (Li et al., 2021), self-leadership (Amundsen & Martinsen, 2015), and organisational citizenship behaviour (e.g., Van Dijke et al., 2012; Lee, Willis, & Tian, 2018).

2.4.3.2 Empowering Leadership – Team Outcomes

Empowering leadership has also been linked with team effectiveness and performance. For example, scholars found that empowering leadership leads to greater team performance (Chen

et al., 2007). According to Lee et al. (2018), EL is positively associated with team task performance by enhancing team members' task effort and persistence. Moreover, scholars also indicated that empowering leadership affects team innovation capability (Tang et al., 2020). Moreover, research found that empowering leadership could stimulate team learning (e.g., Yun et al., 2015) and generate a strong sense of team efficacy (Srivata et al., 2006). In general, scholars support that EL is an effective form of team leadership (Sharma & Kirkman, 2015), however, empirical research on empowering leadership at the team level is still scarce (Lee, Wills, & Tian, 2018; Tang et al., 2020).

2.4.4 Empowering Leadership and Creativity

Despite the outcomes referred to in the previous section, a performance-based outcome that has been frequently studied with empowering leadership is creativity (Lee et al., 2018). For example, being intrinsically motivated, self-determination, having self-belief, and exploring alternatives have been highlighted as critical to creativity (Zhou & Shalley, 2010). A leader's empowering behaviour not only grants autonomy, but also elevates employees' self-reliance and, consequently, employees are more likely to be creative (Harris et al., 2014; Lee et al., 2018). In line with this theorising, scholars found that EL fosters employee creativity (e.g., Harris et al., 2014; Slatten et al., 2011; Zhang et al., 2019). Moreover, empowering leadership can foster employee creativity through a sense of empowerment (i.e., psychological empowerment), and, as a result, employees are motivated to explore alternatives and embrace novel and useful ideas (Cheing et al., 2019; Sharma & Kirkman, 2015). For example, in two different studies, empowering leadership was found to fuel employees' psychological empowerment, which, in

turn, fostered employee creativity (Amundsen & Martinsen, 2015; Zhang & Bartol, 2010). A summary of empirical studies on empowering leadership and creativity is presented in Table 2.9.

Table 2.9: Empirical studies on empowering leadership and creativity

Empowering leadership on creativity	
Authors (year)	Findings
Employee creativity	
Zhang & Bartol (2010)	Empowering leadership fosters employee creativity through *psychological empowerment, intrinsic motivation.*
Hon (2011)	A leader's empowering behaviours enhance employees' *self-concordance*, which in turn, influences their creative performance.
Zhang & Zhou (2014)	Empowering leadership promotes employee creativity through their *creative self-efficacy*. The impacts were stronger when employee *trust the leader* and have *a high level of uncertainty avoidance*.
Amundsen & Martinsen (2015)	Empowering leadership has a positive impact on both employee *self-leadership* and self-leadership can promote creativity.
Harris et al., (2014)	Leader empowering behaviours induce employee *engagement in creative process*. *Trust in leader and organisational support* for creativity moderate the influence from empowering leadership to employee creativity.

Audenaert & Decramer (2016)	Empowering leadership has a stronger effect with those employees with less creative potential and *high problem-solving demands.*
Chow (2017)	Empowering leadership had an indirect effect on employee creativity through *trust in leader* and *intrinsic motivation.*
Zhang et al., (2018)	*Access to resources, access to information, and organisational based self-esteem* mediate the relationship between empowering leadership and employee creativity.
Zhang et al., (2019)	*Employee taking charge,* as well as their *voice behaviours* mediate the empowering leadership – employee creativity linkage.
Peng, Yang & Huan (2022)	*Employees' role identity* as the intermediate variable through which empowering leadership influences creativity.
Team creativity	
Hon & Chan (2013)	*Team creative efficacy* and *team self-concordance* mediate the relationship between team leader's empowering behaviours and team creativity.
Batool & Adeel (2016)	Empowering leadership influences team creativity through *team psychological empowerment* and *team learning.*
Tang et al., (2020)	Empowering leadership drives team innovation (team creativity as integral to team innovation).
Lin et al., (2022)	Team leader's empowering behaviours promote team innovation (team creativity as a sub-component) through *team cooperative orientation.*

2.4.5 Summary

Prior empirical research has found a positive effects of empowering leadership on a wide array of employee and team attitudes, behaviours and outcomes. However, several pertinent limitations are evident. First, as is evident from Table 2.9, mediators have previously been examined primarily through a motivational lens, such as intrinsic motivation (e.g., Hon, 2011; Zhang & Bartol, 2010), psychological empowerment (e.g., Amundsen & Martinsen, 2015; Batool & Adeel, 2016), and creative efficacy (e.g., Hon & Chan, 2013; Zhang & Zhou, 2014). Predominantly focusing on motivational mechanisms limits our understanding of the leadership and creativity kinkage. Second, although research has addressed how empowering leadership influences employee creativity, only a few studies have focused on the effect of empowering leadership on team creativity. Thus far, the positive effect of empowering leadership on team creativity has been supported (e.g., Tang et al., 2020). However, the underlying mechanism between empowering leadership and team creativity has not been well understood. Studies found that employees led by an empowering team leader were intrinsically motivated; however, team creativity is not a simple aggregation of team members' intrinsic motivation towards creativity (Woodman et al., 1993). As discussed in section 2.3.1, both knowledge and participative in creativity-relevant process are crucial to creativity (Amabile, 1983, 1996). That is, for teams to be creative, team members need collectively to integrate and evaluate various perspectives and to engage in a team creativity-relevant process to escalate the team's potential to be creative (Amabile, 1988, 1996; Hoever, 2018; Woodman et al., 1993; Zhou & Hoever, 2014).

Research has also examined the role of communication and found that effective communication among team members can help enlarge teams' cognitive ability for creativity (e.g., Boies et al., 2015; Lu et al., 2017). There are also several studies on group brainstorming (e.g., Goncalo & Staw, 2006; Paulus, 2010). The contention is that brainstorming can expose team members to diverse and potentially new categories of knowledge and, therefore, a team's cognitive skills can arise through the brainstorming. Despite these findings, there has not been much research in this area. Knowledge is the foundation for all creative work (Amabile, 1988, 1996) and previous research has implied the importance of sharing knowledge in team creativity (e.g., Boies et al., 2015; Hu et al., 2018; Peng et al., 2019). However, despite a few researchers examining the part played by the knowledge-sharing role of leadership in employee creativity (e.g., Mittal & Dhar, 2015), studying knowledge sharing at the team level has been largely ignored.

2.5 Knowledge Sharing

In organisations, knowledge is one of the most valuable assets and a critical source for organisations to gain a competitive edge (e.g., Malik et al., 2020; Perotti et al., 2022). As one of the knowledge-centred activities, knowledge sharing refers to the act of sharing information, task-relevant ideas, and suggestions with others (Wang & Noe, 2010). Prior research has indicated that that knowledge sharing can reduce production costs (Pereira & Mohiya, 2021), enhance team effectiveness (Srivastava et al., 2006), and heightening and organisation innovation capabilities and performance (Singh et al., 2021; Wang et al., 2016). Some scholars point out that knowledge sharing behaviours are discretionary in nature. That is, in contrast to a formal task or in-role behaviours prescribed by formal requirements, sharing knowledge can be seen as an extra-role behaviour that cannot be directly or formally forced by contracts or formal job prescriptions (Mesmer-Magnus & DeChurch, 2009; Lin et al., 2021). Apart from the willingness to share, knowledge sharing has also been viewed as a risk-taking behaviour because it cannot be safeguarded by control (Cabrera & Cabrera, 2005; Schepers et al., 2019). For example, a knowledge provider may run the risk that their knowledge is exploited by those knowledge recipients for personal benefits, leaving no benefits for themselves; knowledge providers invest their knowledge in improving team outcomes while others feed on their effort (Cabrera & Cabrera, 2002; Rosendaal et al., 2015). In such circumstances, employees may not be willing to share their knowledge, consequently, the value of knowledge is undermined, and the collective benefits stay out of reach. Definitions of knowledge sharing are presented in Table 2.10.

Table 2.10. Definitions of knowledge sharing

Definition(s) of Knowledge Sharing	
Authors (year)	Definition(s)
Conceptualise as an extra-role behaviour	
Cumming (2004)	Knowledge sharing is a discretionary act refers to providing and acquiring knowledge from others.
Wang and Noe (2010)	KS is the provision of information to others and help others to solve problem, implement procedures and develop new ideas.
Xue, Bradely & Liang (2011)	Knowledge sharing is a matter of individual discretion that cannot be enforced by contract.
Conceptualise as a risk-taking behaviour	
Carbrera & Carbrera (2002)	Knowledge sharing may carry a cost for some individuals because there is a temptation for others to 'free-ride'.
Rosendaal et al., 2015	Knowledge sharing is a risk-taking behaviour that one's knowledge resources has been exploited and leaving no benefits to him/herself.

2.5.1 Antecedents of Knowledge Sharing

Knowledge sharing does not happen in a vacuum (Zhang et al., 2011); accordingly, researchers strive to explore the predictors of knowledge sharing in the workplace. Existing research has

revealed several factors that influence knowledge sharing, such as personal characteristics, motivation, organisational culture, etc (Wang & Noe, 2010; Liu & DeFrank, 2013; Burmeister et al., 2018a). This section discusses the predictors of knowledge sharing in the workplace.

Personal attribute

An employee's personal characteristics play a crucial role in his/her engagement in knowledge sharing activities. For example, an employee's work experience, skills with technology and expertise may influence his/her knowledge sharing behaviour (Nicely & Palakurthi, 2018). Moreover, a stream of research proposed that employee self-efficacy is also a potential predictor of knowledge sharing intention and actual behaviour (Chen & Cheng, 2012; Safdar, Batool, & Mahmood, 2020). In this case, self-efficacy is considered an employee's belief in his/her capability to achieve better performance. As such, the more an employee perceives him/herself as a capable worker, the more likely he/she will be to share knowledge with others.

Attitudes and motivation

Another influential factor that affects knowledge sharing lies in employees' attitudes and/or motivations. The research found that employees' attitudes towards acquiring, learning and storing knowledge resources had a significant influence on their knowledge sharing behaviour (Shamim et al., 2017; Lim, 2021). In a similar vein, Guan and colleagues (2018) discovered that another factor influencing employees' knowledge sharing behaviour is their incentive to adopt interpersonal behaviour.

Justice/Fairness

Prior studies demonstrated that employees' perceptions of justice and fairness influence their knowledge sharing intention (Tsai et al., 2015). For example, drawing on the social exchange theory, prior research demonstrated f that the fulfilment of psychological contracts was highly associated with employees' knowledge sharing and exchanging behaviour (Wu & Chen, 2015).

Organisational culture/climate

Scholars have emphasised the importance of organisational culture and climate in influencing knowledge sharing (Lee & Kim, 2017; Hu et al., 2019). A supportive culture or environment encourages employees to learn from each other, exchange information, and share knowledge and experiences with others (Hu et al., 2019). When employees perceive the work environment as supportive, they are more likely to collaborate with others and actively engage in knowledge sharing.

Leadership

Leaders plays a vital role in influencing employees' knowledge sharing behaviour (Bavik et al., 2018; Jiang & Chen, 2018; Liao et al., 2018). For example, previous studies found that support-oriented leadership can facilitate knowledge sharing, such as transformational leadership, humble leadership, ethical leadership, and servant leadership (Dong et al., 2017; Hu et al., 2018; Bavik et al., 2018; Jiang & Chen, 2018; Eva et al., 2019). On the other hand, negative leader'

self-serving and abusive behaviours, hurt knowledge sharing (e.g., Lee, Kim, & Yun, 2018; Peng, Wang, & Chen, 2019).

2.5.2 Empowering Leadership and Knowledge Sharing

There are several reasons to expect that empowering leadership will foster knowledge sharing. Empowering leadership refers to a set of behaviours aimed at expanding employees' motivation, competence and autonomy at work (Humborstad et al., 2014). Therefore, employees are motivated to express their ideas and thoughts and to recognise sharing knowledge and information as valuable. Moreover, empowering leaders encourages employees to solve problems together and coordinate efforts with each other and, as a consequence, knowledge sharing unfolds (Arnold et al., 2000; Cheong et al., 2019). An empowering leader expresses confidence in followers' capability and performance; therefore, employees perceive themselves as capable workers, which in turn, they are motivated to share their knowledge with others (Ahearne et al., 2005; Amundsen & Martinsen， 2015). Although a few empirical studies have examined the relationships between empowering leadership and knowledge sharing (e.g., Srivastava et al., 2006), empirical evidence for the role of empowering leadership in facilitating knowledge sharing is scarce and mixed. Previous research has failed to produce consistent evidence for the empowering leadership and knowledge sharing linkage, especially at the team level. For example, although Srivastava et al. (2006) suggested that empowering leadership can encourage followers to share their diverse knowledge, Lin and colleagues (2020) found that empowering leadership had no relationship with team members' propensity to share knowledge.

Moreover, scholars point out that empowering leadership might act as a barrier to knowledge sharing (e.g., Cheong et al., 2016). As such, understanding how empowering leaders facilitate team knowledge sharing effectively is of clear importance. One such approach is to understand the underpinning mechanisms between empowering leadership and knowledge sharing. The next section explains plausible mechanisms from the theoretical lens of social identity theory.

2.6 Social Identity Theory

Tajfel (1979) proposed that an important part of self-concept stems from the social groups to which an individual belongs, and this social identity has an impact on people's self-beliefs, attitudes, motivation and behaviours. Accordingly, social identity theory has been a major theoretical perspective for discussing how employees identify with, and connect themselves to, various referents in the workplace. A referent can be the immediate supervisor, team, and organisation that form the relational, team, and organisational identification, respectively (Van Dick et al., 2006; Greco et al., 2021). In essence, employees can have multiple referents in an organisation at the same time, which implies that they will have simultaneous multi-identifications (Epitopaki et al., 2017).

Research has highlighted that social identification at work significantly influences employee attitudes and behaviours. For example, organisational identification can increase job involvement and satisfaction (Cheng et al., 2016; Cassar, Bezzina, & Buttigieg, 2017). Arshad

et al. (2021) found that organisational identification positively correlates with employees' work engagement. From a behavioural perspective, research has shown that organisational identification is positively associated with employees' in-role and extra-role behaviours (Lee, Park, & Koo, 2015). To date, studies tended to focus on organisations as the social identity targets (i.e., organisational identification) as opposed to less attention to teams (Greco et al., 2022). In organisations, team might be a salient social identity target that the organisation since an employee's every experience, team task, team manager, and team member are more central to themselves; at the same time, organisation tends to be somewhat abstract (van Knippenberg et al., 2018).

2.7 Team Identification

Employees at work typically have two foci or targets of social identities: organisation and workgroup (Van Knippenberg & Van Schie, 2000; Stets & Burke, 2014). The term organisational identification describes the feeling of belongingness to or oneness with an organisation; the individual identifies themself in terms of the organisation where they work (Mael & Ashforth, 1992, p. 104). When the focus is on the team as a social entity to which an employee is assigned, this is referred to as team identification (Prayag et al., 2020). Team identification is defined as the perceived belongingness and oneness an employee feels with the workgroup or team where they conduct most of their daily activities (Tse & Chiu, 2014; Christiane et al., 2017). van Vugt and Hart (2004) posited team identification as "social glue"

for teams (p. 585) and as a motivating force to promotes employees' willingness and motivation to achieve a common goal. Prior research shown that when employees identify with their team, they are more inclined to cooperate and support others (Hutterermann et al., 2014; Hogg et al., 2017). Likewise, scholars found that team identification plays an important role in promoting collaboration in the team and cushioning the effects of dysfunctional team processes (e.g., Janssen & Xu, 2018; Schaeffner et al., 2015), thereby leading to, for instance, improved team performance (Huang & Lin, 2021; Schemla & Wegge, 2019; van Veelen & Ufkes, 2019). Against these, scholars have sought to identify factors that influence employees' team identification. For example, the characteristics of the team have been as one antecedent of employees' team identification, such as the level of communication and interaction in the team (Postmes et al., 2005), perceived team status (Chattopadhyay et al., 2014), and team psychological safety (Johnson & Avolio, 2019).

2.7.1 Empowering Leadership and Team Identification

The social identity theory (SIT) has been linked with leadership in a wide variety of ways, such as the social identity theory of leadership (Hogg, 2001), social identity approach to leadership processes (Hogg & van Knippenberg, 2003; Hirst, van Dick, & van Knippenberg, 2009) and the self-concept leadership theory (Shamir et al., 1993; Hogg, Abrams, & Brewer, 2017), suggesting a close linkage between leadership and employees' self-evaluation and self-concepts (Zhang et al., 2018). Moreover, some scholars referring leadership as ''entrepreneurs of identity'' (Reicher et al., 2015, p. 556). All these theories contend that leaders play a substantial

role in shaping and activating employees' self-concept (Wang, Tsai, & Tsai, 2014; Tierney, 2015; Buil, Martinez, & Matute, 2019).

Team identification indicates the extent to which team members believe themselves to be worthwhile, effectual, and meaningful individuals within their team (Greco et al., 2021). Self-concept-based leadership theory (Shamir et al., 1993) proposes that leadership behaviour profoundly impacts his/her followers' self-concepts and self-evaluation. Accordingly, Literature on the nexus of leadership has investigated the effectiveness of transformational leadership (e.g., Buil et al., 2019; Liu & Li, 2018), servant leadership (e.g., Yoshida et al., 2014), authoritarian leadership (Gu et al., 2018), LMX (Martin et al., 2018) and ethical leadership (Kia et al., 2019) in terms of followers' self-concepts towards the collective. While prior studies suggested that followers' organisation-based self-concept (e.g., OBSE) could be shaped by leaders' empowering behaviour (Zhang et al., 2018), it remains unclear whether empowering leadership is likely to influence followers' self-concept and self-evaluation within their team, i.e., team identification (Lee, Willis, & Tian, 2018). Given the prevalence of empowerment practice and team-based structure in contemporary organisations, this lack of attention is unfortunate. As a result, it is of theoretical importance to explore the effect of leaders' empowering behaviour on followers' team identification (Tang et al., 2020).

2.7.2 Team Identification and Knowledge Sharing

Based on social identity theory, organisational identification was found as an antecedent of knowledge sharing (e.g., Li et al., 2022), likewise, according to Lindsay et al. (2020) indicated

that knowledge sharing is a function of group identification. Besides, scholars argued that the sense of belongingness one attached to their group strengthens their motivation at work, which, in turn, promotes their acts of extra-role and citizenship behaviours (e.g., Ellemers et al., 2014; Song et al., 2018; van Dick et al., 2008). In line with this, prior research found that organisational identification positively relates to organisational citizenship behaviour (OCB) (e.g., van Dick, 2006). Likewise, Greco et al. (2021) revealed that both team identification and organisational identification are related to OCB. This is based on the contention that the sense of group membership motivates one to behave in concert with the group and show 'attraction' towards other in-group members, such as engaging in OCB. Knowledge sharing is a specific kind of OCB because it involves one's contribution to the group, support and sharing resources with others, in this sense, team identification can be viewed a driving force for knowledge sharing. However, although OCB and team identification has received ample research attention and a strong association between the two is often found (Teng et al., 2019; Buil et al., 2019), team identification and knowledge sharing is still lacking in the literature.

2.8 Relationship Conflict

Although team identification is more concerned with the individual employee as a 'central actor', SIT also emphasises the interaction between the 'central actor' and the 'co-actors' (i.e., team members). In this sense, relationship conflict can be interpreted from a social identity lens (Han & Harms, 2010). Relationship conflict in a team concerns team members' interpersonal

incompatibilities due to differences in beliefs, personality and personal values, etc (Janssen et al., 1999; De Dreu & van Vianen, 2001; Jehn & Bendersky, 2003). Relationship conflict is often a demotivating force in the workplace as it leads to mistrust, frustration, fear, dislike, other unpleasant emotions (Bai et al., 2016; McCarter et al., 2020; Li et al., 2020; O'Neill & McLarnon, 2018; Wang et al., 2019). Empirical evidence has indicated many negative impacts of relationship conflict, such as employee burnout and turnover (De Wit, Greer, & Jehn, 2012; Magnotta & Johnson, 2020), job dissatisfaction (Bai, Lin, & Li, 2016;). Moreover, relationship conflict within a team weakens the team affective climate (Camerro, Gonzalez, & Perio, 2018) and damage team performance (Manata et al., 2016). These findings have sparked an increasing interest in exploring the factors that may induce relationship conflict. In doing so, previous research has identified several predictors of relationship conflict. For example, from the individual perspective, factors such as personality traits and dissimilarity relative to other group members are lined with relationship conflict (e.g., Bono et al., 2002; Tepper et al., 2011). From the job and task perspective, scholars found that task structures (e.g., interdependence) are strongly associated with relationship conflict (Lee et al., 2015; Wong et al., 2017). From the team perspective, team diversity (e.g., De Wit & Freer, 2008; Seong & Choi, 2014; Jansen & Searle, 2021) and psychological safety climate (e.g., Bradely et al., 2012; Greco et al., 2022) significantly influence relationship conflict.

2.8.1 Empowering Leadership and Relationship Conflict

A growing number of research has posited that specific forms of leadership can raise or stifle relationship conflict among team members (McCarter et al., 2020). The contention is that

effective leadership can decrease tensions in the team and amplify members' bond with the team (Bedi, Alpaslan, & Green, 2016). For example, Yang (2020) found that high-quality, exchange-oriented relationships between leaders and subordinates are negatively associated with relationship conflict through organisational citizenship behaviour (OCB) and employees' commitment to their work units. Bedi et al. (2016) found that followers' perceptions of ethical leadership negatively influence relationship conflict. Moreover, Bai, Lin, and Li (2016) suggested that transformational leadership could stifle relationship conflict within the team. Li et al. (2020) revealed that leader humility could reduce relationship conflict among followers, and shared leadership can impede the occurrence of relationship conflict among employees (Sinha, Chiu, & Srinivas, 2021). Empowering leadership provides employees with a chance to feel joint pride in accomplishments (Srivastava et al., 2006), and prior research has shown that team cohesion and trust benefit from empowering leadership (Zhang & Zhou, 2014; Lee, Willis, & Tian, 2018). This body of theoretical and empirical research is essentially based on the idea that interpersonal peace and relational tension are less likely to be disturbed in teams. Moreover, empowering leadership shapes task structure, participation in decision-making, and task interdependence (Arnold et al., 2000; Ahearne et al., 2015), which has been identified as a key resource for relationship conflict (e.g., Lee et al., 2015; Wong et al., 2017). While previous research extols the enhanced cohesion of teams and the positive effects resulting from empowering leadership (Zhang & Bartol, 2010; Ahearne et al., 2005), a stream of research argued that empowerment practices exerted by a leader sometime could result in followers' strain level inhibiting the positive effects of empowering leadership, causing tensions among

team members (Cheong et al., 2016). Reflecting this notion, scholars cautioned about the potential induce effects of empowering leadership on relationship conflict among followers (Cheong et al., 2019); however, there has been a lack of empirical support for this issue. Given the scarce as well as mixed propositions for the role of empowering leadership in influencing relationship conflict, this research offers a logical connection to the study of the connection between empowering leadership and relationship conflict.

2.8.2 Relationship Conflict and Knowledge Sharing

An employee's knowledge sharing behaviour is social in nature; therefore, knowledge sharing behaviour is inevitably susceptible to the social influences from other group members (Cabrera & Cabrera, 2015; Rosendaal & Bjilsma, 2015). Relationship conflict in organisations is often inevitable and a salient barrier to team effectiveness and performance (O'Neill & McLarnon, 2018; Wang et al., 2019; Li et al., 2020). Scholars have suggested that relationship conflict can be a major barrier to knowledge sharing (e.g., Wang et al., 2019). Relationship conflict in teams lowers trust, damages exchange ties, and weakens relationships (Langfred, 2017). Relationship conflict between team members involves interpersonal tension, distrust, frustration and fear and is usually expressed with a lack of collaboration and negative communication (Lin et al., 2020; Sinha, Chiu, & Srinivas, 2021). Relationship conflict among team members tends to focus on interpersonal disputes, thereby leading to unpleasant states of mind such as hostility, dislike and cynicism (Jehn et al., 2010). As such, employees spend more time dealing with interpersonal incompatibility, which creates a vicious cycle (Chang et al., 2017). Moreover, from a social categorisation perspective (Tajfel, 1979), relationship conflict can divide team

members into sub-groups, thereby organising social interactions within coalitions. As a consequence, employees are less likely to share information with so-called other group members and, naturally, knowledge sharing suffers.

The discussion above implies that relationship conflict will impede knowledge sharing between team members; however, only a handful of empirical studies have investigated relationship conflict and knowledge sharing in a nomological model. Therefore, more study of relationship conflict and knowledge sharing in a team context is warranted.

2.9 Moderating Role of Team Efficacy

In this study, team efficacy is considered a moderating factor concerning the relationship between empowering leadership and team identification and relationship conflict. Team efficacy refers to the conviction of team members in their joint capacity to plan and carry out certain behaviours necessary to achieve a specified degree of achievement (Marks et al., 2001; Srivastava, Bartol, & Locke, 2006). Team efficacy differs from other team-level constructs such as climate (Li et al., 2017) because it refers to the cognitive and motivational states of the team (Martin et al., 2022). Team efficacy has been studied with leadership in several prior studies. For example, despite examining team efficacy as a motivational-based mechanism through which leadership affects team outcomes, research also suggests that team efficacy can function as a moderator that counts towards leadership effectiveness in terms of team members' attitudes and behaviours, which, in turn, influences team performance (Gully et al., 2002). This is based on the contention that teams with higher team efficacy are believed to raise the consciousness

of team effectiveness among the followers, which, in turn, sustains their motivation to achieve high performance and persevere in the face of adversity and obstacles (Gully et al., 2012; Kerr et al., 2015; Gu et al., 2022). For instance, Martin and colleagues (2022) found that team performance is a function of team efficacy and ethical leadership interaction. Given that team efficacy creates psychological momentum within the team, this study predicts that a high level of team efficacy should amplify the effects of empowering leadership on both team identification and relationship conflict. This proposition is based on two reasons. First, people identify more closely with a group when they believe they have self-control over their job. Research indicates that the degree of self-control over work is significantly predicted by employees' perceived competence or ability, i.e., efficacy (Zhang et al., 2022). Second, according to Arnold et al. (2010), empowered leaders foster a less structured team environment where team members are encouraged to take the initiative and break out of passive attitudes. (Li et al., 2015; Cheong et al., 2019). As such, the effectiveness of empowering leadership can be affected by collective competence. Team efficacy is an ideal proxy for this because it emphasises team members' confidence in their capability to work successfully in various contexts.

2.10 Research Gaps

Creativity is critical to customer satisfaction and service performance (Collier et al., 2018). However, research on creativity in frontline service has not received much attention relative to other settings (Martinaityte, Sacramento, & Ayree, 2019; Coelho et al., 2021). Most of the research on team creativity has been conducted in the manufacturing industry or product-oriented organisations, such as among research-development (R&D) teams (e.g., Tu et al., 2019; Jia et al., 2021). Given the significance of creativity in customer outcomes (e.g., Agnihotri et al., 2014; Dong et al., 2015; Coelho et al., 2021) and organisational performance (Wang et al., 2021), this lacking is unfortunate.

Research Gap 1: Empirical research on team creativity in service settings was neglected.

Leadership is a catalyst for creativity in organisations (Amabile, 1996; Zhou & Hoever, 2014; Hughes et al., 2018; Lee et al., 2020), and empirical evidence demonstrated that several leadership approaches could promote creativity, such as transformational leadership (Kim & Lee, 2011; Jaiswal & Dhar, 2015), authentic leadership (Rego et al., 2014), empowering leadership (Zhang et al., 2018), ethical leadership (Chen & Hou, 2016) and leader-member exchange (Fairhurst & Antonakis, 2012; Pundt, 2015). Although this field looks well-developed, it is still somewhat narrow. For example, research on leadership on creativity focuses predominantly on leadership's influence on employee creativity. On the other hand, the association between leadership and the entire team’s creative performance has not been considered sufficiently. Given the continuing flattening of organisations and more reliance on

teamwork, team creativity has become a means for organisations to achieve organisational innovation and sustain a completive edge (Hu et al., 2018; Wang et al., 2019; Ali, Wang, & Johnson, 2020). This lack of attention is unfortunate.

Research Gap 2: Extant research on leadership and creativity predominately focuses on the employee level, whereas creativity at the team level has been largely ignored.

In recent years, a stream of research on leadership and team creativity has supported the positive influence of transformational leadership (Boies, Fiset, & Gill, 2015), ethical leadership (Tu et al., 2019), participative leadership (Li, Liu, & Luo, 2018) and inclusive leadership (Jia, Jiao, & Han, 2021) on team creativity. While scholars theorised that empowering leadership is an effective form of team leadership and can be a driving force for team creativity (Sharma & Kirkman, 2015), empirical research on empowering leadership and team creativity is limited, and the underlying mechanism through which empowering leadership influence team creativity remains under-researched (Lee, Willis, & Tian, 2018). Scholars proposed that employees led by empowering leaders are intrinsically motivated (e.g., Sharma & Kirkman, 2015), and research found that empowering leadership can promote team creativity through team creative efficacy (Hon & Chan, 2013). However, team creativity is not a simple aggregation of team members' intrinsic motivation towards creativity, although the creative performance of the team is a function of the creativity of individuals in the team (Woodman, Sawyer, & Griffin, 1993).

Research Gap 3: How empowering leadership promotes team creativity is understudied.

Domain knowledge, motivation, and creativity-relevant process are precursors of creativity (Amabile, 1983). In line with this theorising, several research has investigated the effects form leadership on creativity; however, what is evident from the existing literature is that current studies focus predominantly on the motivational perspective (Hughes et al., 2018). For example, variables such as efficacy (both self-efficacy and collective efficacy), psychological empowerment and intrinsic motivation are frequently examined. Amabile (1983, 1996) argued that motivation is a necessary but not sufficient condition for creativity. For individuals and teams to be creative, knowledge and their participation and engagement in creativity-relevant processes, are also important. By over-emphasising the motivational perspective, research has created an imbalance in our current understanding.

Research Gap 4: There is an overemphasis on the motivational perspective in leadership and creativity studies.

Knowledge is the prerequisite for all creative performance (Amabile, 1983, 1996), and knowledge sharing can boost creativity. Prior research has been found knowledge sharing promote employee creativity (e.g., Carmeli, Gelbard & Reiter-Palmon, 2013; Mittal & Dhar, 2015). For teams to be creative, team members need to collectively integrate and evaluate various perspectives and exert efforts to engage in creativity-relevant processes to escalate team's creative potential (Amabile, 1988, 1996; Woodman, Sawyer, & Griffin, 1993; Zhou & Hoever, 2014; Hoever, 2018). Prior studies have implied the importance of knowledge sharing on team creativity (e.g., Hu et al., 2018; Peng, Wang, & Chen, 2019). However, empirical

research on knowledge sharing with team creativity is still lacking.

Research Gap 5: There is a lack of research on knowledge sharing and team creativity.

Encouraging knowledge sharing can be a means of empowering leaders to promote team creativity. However, research on empowering leadership and knowledge sharing is scarce and mixed. Prior studies fail to produce consistent evidence for a relationship between empowering leadership and knowledge sharing. Srivastava, Bartol, and Locke (2006) suggested that knowledge sharing is a function of empowering leadership, whereas other scholars posited leader empowering behaviour as a barrier to knowledge (e.g., Cheong et al., 2016; Lin et al., 2020). This suggests a proper investigation might be ignored in investigating the underlying mechanisms in the empowering leadership -knowledge sharing linkage. Therefore, understanding how empowering leaders facilitates knowledge sharing is of clear importance.

Research Gap 6: There are equivocal findings between empowering leadership and knowledge sharing.

Prior studies suggested that followers' self-concepts and self-evaluation could sometimes shaped by leadership behaviour (Shamir et al., 1993; Zhang et al., 2018). Scholars have posited that a leader's empowering leadership can shape followers' self-concept and self-evaluation, and, in theory, a team leader's empowering behaviour is expected to closely correlates with followers' team identification (Lee et al., 2018; Cheong et al., 2019). However, empirical evidence on empowering leadership and team identification is still lacking in the literature.

Given the prevalence of team-based structure and empowerment practice in contemporary organisations, a study investigating the linkage between the two is warranted.

Research Gap 7: There is a lack of research on empowering leadership and team identification.

Empowering leadership refers to a set of behaviours that leader(s) share power, encourage teamwork and allocate autonomy and responsibilities to followers (Ahearne et al., 2006). While previous research indicated the enhanced team cohesion resulting from empowering leadership (Sharma & Kirkman, 2015; Lee, Willis, & Tian, 2018), some scholars argued that empowerment practices sometime could result in followers' strain level inhibiting the positive effects of empowering leadership, causing tensions and relationship conflicts among team members (Cheong et al., 2016). However, there has been a lack of empirical support for this issue. Given the scarce as well as mixed propositions for the role of empowering leadership in influencing relationship conflict, a study investigates the role of empowering leadership in relationship (increase or decrease) is of clear importance.

Research Gap 8: There are equivocal propositions between empowering leadership and relationship conflict.

While prior research extols the benefits of empowering leadership and employee empowerment is prevailing in contemporary organisations (Biemann, Kearne, & Marggraf, 2015; Tang et al., 2020), it remains unclear when empowering leadership is most likely to benefit employees and teams (Sharma & Kirkman, 2015; Cheong et al., 2019). Prior studies have suggested that

followers' efficacy belief could sometimes shape the effectiveness and outcomes of empowering leadership (Gully et al., 2002; Hao, He, & Long, 2018). Given that the focal of this study is at the team-level, accordingly, this study introduces the construct of team efficacy and argues that team identification and relationship conflict mechanisms are contingent on the extent to which team members' collective belief in their group that it can be effective (Shamir, 1990; Ayoko & Chua, 2014; Stajkovic, Lee, & Nyberg, 2009; Martin et al., 2022).

Research Gap 9: It remains unclear when empowering leadership is most likely to benefit the whole team.

2.11 Conclusion

This chapter discusses the concept of creativity by specifying creativity type, scope and context of creativity. Moreover, literature on creativity and leadership in general and creativity and empowering leadership in specific were reviewed. Based on Amabie's (1983) theory, the concept of knowledge sharing was identified as an intermediate variable in the empowering leadership–team creativity linkage; accordingly, literature on knowledge sharing, as well as the association between leadership and knowledge sharing, were discussed. Drawing on social identity theory, this study proposed team identification and relationship conflict as intermediate variables between empowering leadership and knowledge sharing. Moreover, this study also suggested that team efficacy will moderate the effectiveness of empowering leadership on team identification and relationship conflict, respectively, and the indirect link between empowering

leadership and knowledge sharing. As such, a sequential mediation model was proposed (in Chapter 4). Finally, the gaps in existing literature were identified and discussed based on the literature.

In this next chapter, the theoretical rationale for the theoretical framework and the hypotheses relationship in the model will be discussed in detail.

CHAPTER 3 CONCEPTUAL FRAMEWORK AND RESEARCH HYPOTHESES

3.1 Introduction

This chapter first explicates the theoretical rationale of this research; more specifically, the componential model of creativity (Amabile, 1983) and social identity theory (SIT) were discussed to justify the relationships in the depicted research model. Following these, the proposed hypotheses were presented.

3.2 Theoretical Rationale

Amabile, in 1983, introduced the concept of creativity in organisations and proposed three factors that are critical for creativity: domain knowledge, motivation, and creativity-relevant process. Since then, the componential theory of creativity (Amabile, 1983) has been a foundation for most research on creativity in organisational behaviour and psychology. Although the componential theory was first put out to address the issue of individual creativity, recent research has also shown its usefulness as a theoretical foundation for team creativity (e.g., Wang, Kim, & Lee, 2016; Jia, Jiao, & Han, 2021). Moreover, it may be more important; while these three components are crucial for any creative performance, they are not sufficient. One most important premise of Amabile's (1983) theory is that the work environment has an impact on creativity by affecting these components and facilitating the manifestation of creativity; accordingly, scholars have identified that leadership plays a vital role in promoting creativity (Harvey & Kou, 2013; Zhou & Hoever, 2014; Hughes et al., 2018; Lee et al., 2019).

Knowledge sharing is a function of leadership behaviour (Liao et al., 2018; Eva et al., 2019). However, empirical study on empowering leadership and knowledge sharing was scarce. This brings the question of how, why, and when empowering leaders facilitates knowledge sharing. As knowledge sharing involve interpersonal interactions in teams, drawing on social identity theory, this study proposed team identification and relationship conflict as underlying mechanisms through which empowering leadership influences knowledge sharing. Social identity theory helps to understand social behaviours such as knowledge sharing that is primarily relevant at the collective level (Ellemers et al., 2004).

Team identification and relationship conflict in this study do not act as sequential mediators in tandem with each other but serve as parallel mechanisms between empowering leadership and knowledge sharing. There are several reasons for this parallel order. First, since co-workers and team are two primary targets for employees to deal with (Loi et al., 2014), team identification and healthy relationships are the required preconditions for knowledge sharing. Team identification acts as a catalyst, while relationship conflict is a barrier to knowledge sharing. Second, theoretically, team identification might reduce the occurrence of emotional or interpersonal incompatibilities between team members (e.g., Han & Harms, 2010). However, one of the primary purposes is to investigate the underlying mechanisms between empowering leadership and knowledge sharing from both the ‘intrapersonal’ and ‘interpersonal’ perspectives. Therefore, to compare the relative predicting effects from these two lenses on

knowledge sharing, this study examines the direct influence of empowering leadership on team identification and relationship conflict, respectively, rather than the other way around.

Scholars pointed out that empowering leadership creates a less prescribed work environment in which employees are encouraged to be proactive and break out of the inactive mindset (e.g., Lin et al., 2015). Accordingly, this study introduces the construct of team efficacy and argues that team identification and relationship conflict mechanisms are contingent on the extent to which team members' collective belief in their group can be effective (Srivastava & Bartol, 2016). Moreover, team efficacy creates psychological momentum within the group (Marks et al., 2001); with high levels of team efficacy, team members believe they can organise and execute the action required (Bandura, 1997). Such team characteristics enable members receptive to empowering initiatives, thus increasing the influence of empowering leadership on team identification and relationship conflict, and in turn, knowledge sharing. Figure 3.1 represents the conceptual model of this study.

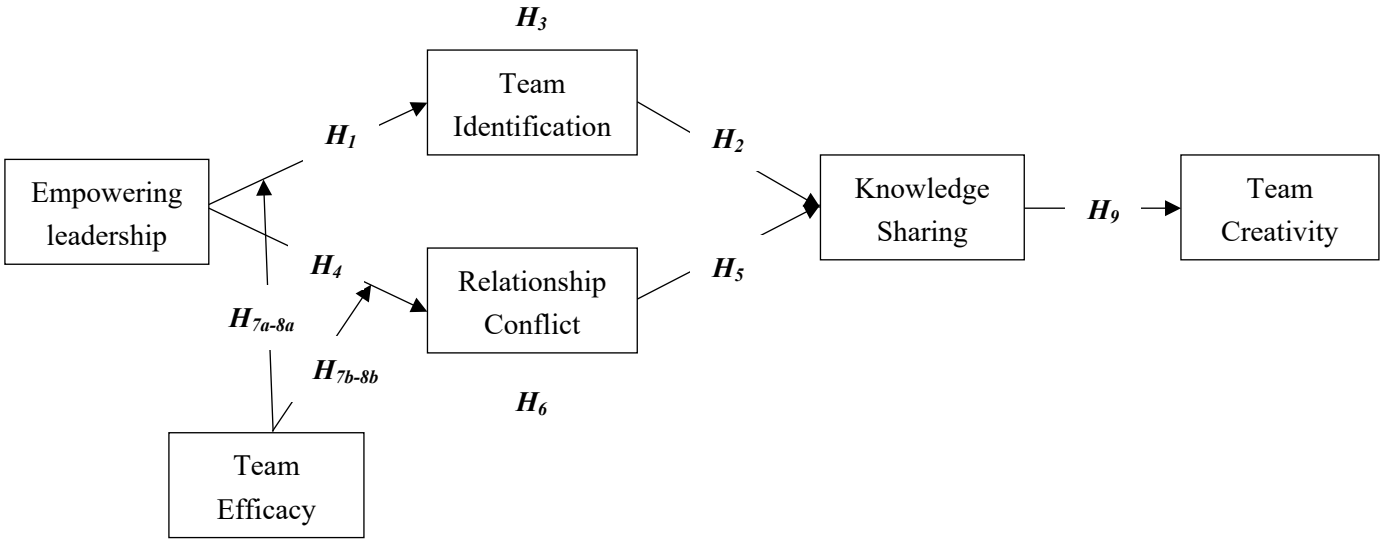


Figure 3.1: Schematic representation of the relationships examined in this study

3.3 Research Hypotheses

3.3.1 Mediation

3.3.1.1 Empowering Leadership and Team Identification

According to SIT (Tajfel, 1979), individuals identify with a group when they perceive (1) an awareness of their membership in the group and (2) a positive self-perceived worth, thinking of themselves in a positive light and (3) emotionally attached to the group (Hogg & Abrams, & Brewer, 2017; Ding et al., 2017). This study argues that empowering leadership can have a favourable consequence on team identification from all three perspectives.

Empowering leadership comprises behaviours that remove bureaucratic constraints (i.e., red tape) and provide subordinates with autonomy and opportunity for self-expression (Ahearne et al., 2005; Amundsen & Martinsen, 2015). As a result, employees receive a clear message in such an atmosphere created by empowering leaders that they are valued as capable and reliable team members (Tang et al., 2020). When employees perceive such messages and incorporate them into evaluation, they create a great sense of belonging; consequently, their team identification will be correspondingly higher. Another important theoretical account of organisation-based identities involves employees' evaluations of access and resources they received in the work setting (Bai, Lin, & Li, 2016). Employees' assessment of the level of access and resources an organisation offers to them has been considered a key social categorisation and identity-relevant information (Blader & Tyler, 2019; Zhang et al., 2018). This finding integrates the social identity and the social exchange perspectives by indicating

that, at least to some degree, employees evaluate their identity by the level of the resources that the team or team leader offers to them. Empowering leadership delegating authority and providing employees with responsibility (Sharma & Kirkman, 2015; Tang et al., 2020). To help followers handle additional responsibility, empowering leaders strive to offer the necessary support to bolster employees' work processes and efforts, including information and resources (Zhang et al., 2018; Tang et al., 2020; Hoang et al., 2021).

Second, a person's self-perceived worth is, in part, a social construction, implying that it is shaped by the response and feedback from significant others (Greco et al., 2021). A central tenet of social identity theory is that the motive for an individual to identify with a collective is through the enhancement of self-esteem (Abrams & Hogg, 1988). Empowering leadership behaviours, such as encouraging participation in decision-making and giving employees greater autonomy, allows employees to self-express (Ahearne, Mathieu, & Rapp, 2005; Amundsen & Martinsen, 2015). In contrast, leaders that constantly regulate followers' behaviours signalling that initiative taking is not desired. Moreover, empowering leadership goes beyond that just mere delegation of autonomy and focuses on a broader range of behaviours, for instance, expressing confidence in followers and developing their capabilities (Arnold et al., 2000; Ahearne et al., 2005; Martin et al., 2013; Sharma & Kirkman, 2015). Due to the encouragement from empowering team leaders, those employees are more likely to create positive self-worth and value. In this regard, Zhang et al. (2018) found that empowering leadership positively correlates with employees' organisation-based self-esteem.

Finally, it is suggested that empowering leadership is associated with employees' satisfaction and a sense of emotional attachment to the workgroup (Amundsen & Martinsen, 2015; Wong & Kuvaas, 2018). Specifically, empowering leaders encourages members to be more involved in decision-making and accountable for team outcomes; such behaviours make followers feel more responsible and emotionally engaged with work processes and outcomes, which in turn contribute to forming team identification. Additionally, through communication and coaching, empowering leadership help employees understand how their work contributes to the goal and success of the collective (Sharma & Kirkman, 2015; Kelemen, Matthews, & Breevaart, 2020). Such understanding enhances employees' emotional involvement with the team (Cheong et al., 2019). There is, indeed, empirical evidence showing that empowering leadership is positively associated with followers' affective commitment to their group, which is regarded either as conceptually identical with or an outcome of team identification (Harris et al., 2014; Chen et al., 2021).

Taken together, on the basis of these arguments, this study posits that empowering leadership positively influences team identification:

Hypothesis 1: Empowering leadership has a positive influence on team identification.

3.3.1.2 Team Identification and Knowledge Sharing

An employee who identifies him/herself with the team is more likely to collaborate with others and proactively share knowledge (Ellemers, Gilder, & Wieseke, 2006; Van Dick et al., 2006). Encompassing the notion of belongingness and commitment to the collective (Kreiner & Ashforth, 2004; Xenikou, 2014), team identification is expected to motivate employees to define their work in terms of team goals and perform in the interests of the group (Jo & Joo, 2011). Knowledge sharing serves team interest by facilitating team goals' achievement through collaboration and reducing the knowledge gap (e.g., Men et al., 2020; Lim et al., 2021). A highly committed member will contribute more personal resources for the collective's good (Gau et al., 2019). For example, research has shown that when employees identify with their workgroup or team, they are more likely to exhibit prosocial work behaviours that benefit the collective, such as OCB (Schaeffner et al., 2015; Hogg, Abrams, & Brewer, 2017). Accordingly, it implies that when co-workers are searching for help at work, employees who identify with the team will proactively engage in disseminating information and knowledge. Moreover, team identification is considered as one of the strongest motives for employees to adapt their behaviours to their team membership (Ellemers et al., 1999). An employee who identifies him/herself with the team is more likely to cooperate more and support others, such as knowledge sharing (Ellemers, Gilder, & Wieseke, 2006; Van Dick et al., 2006). This expectation is supported by a few prior studies that did suggest a positive association between identification and knowledge sharing. For example, Bai and colleagues (2016) argued that identification at work could be an essential catalyst for employees to share knowledge.

Rosendaal and Frankema (2015) found team identification to facilitate knowledge sharing in teams. In line with the above arguments, this research posited that team identification would have a positive effect on knowledge sharing. Thus, the following hypothesis was formulated:

Hypothesis 2: Team identification positively influences knowledge sharing

3.3.1.3 Mediating Role of Team Identification

Based on SIT, the positive effects of empowering leadership on knowledge sharing can be explicated through the ability of an empowering leader to boost employees' team identification. Scholars suggest that an individual's willingness to contribute to the group stems from the information (e.g., level of control and discretion) they received from the group (Tyler & Balder, 2003; Schaeffner et al., 2015; Hogg, Abrams, & Brewer, 2017). In accordance with this argument, this study infers that team identification mediates the relationship between empowering leadership and knowledge sharing. Led by an empowering leader, team members construe the team environment as a place in which they can gain autonomy and control at any time (e.g., Cheong et al., 2019). Such perceptions, in turn, reinforce their motivation and willingness to exert both in-role and extra-role behaviours (Ashforth & Mael, 1989; Dutton et al., 1994). This effort can be expected to lead to knowledge sharing, which is a critical means of maintaining high levels of team performance and standing (Srivastava et al., 2006; Lee, Wills, & Tian, 2018). Research has found that the extent to which employees derive a sense of autonomy and control boosts their social identification (Hoang et al., 2021) and, informs their

beliefs values, and regulates their interaction with others (Lee et al., 2015; Mesmer-Magnus et al., 2018; Greco et al., 2021). This has subsequently been linked to various work outcomes, such as employee attitude, behaviour, and team dynamics (e.g., Lee et al., 2015; Riketta & van Dick, 2005). For example, team identification has been linked with increased job satisfaction (Prayag et al., 2015), sustained effort on behalf of the group (Keem et al., 2022) team cohesion (e.g., Mesmer-Magnus et al., 2018; Schemla & Wegge, 2019), as well as extra role behaviours, such as OCB (Janssen & Huang 2008). Based on the above arguments, it stands to reason that empowering leadership can facilitate knowledge through team identification.

Hypothesis 3: Team identification mediates the relationship between empowering leadership and knowledge sharing.

3.3.1.4 Empowering Leadership and Relationship Conflict

The social categorisation perspective, embedded in social identity theory (Tajfel & Turner, 1987), concerns how group members identify themselves and how activated interpersonal processes influence group members' behaviours. Empowering leadership induces a sense of ownership and responsibility for the collective (Martin et al., 2013; Sharma & Kirkman, 2015). Research has found that empowering leadership results in high levels of mutual respect and harmonious interpersonal relationships among followers (Srivastava et al., 2006; Hong et al., 2016). A team leader’s empowering behaviours focus on actions to lead the whole team rather than individuals, emphasising teamwork and collaboration among employees (Lee, Willis, & Tian, 2018; Cheong et al., 2019). As such, employees are more likely to place less importance on surface-level differences, such as personality and values (Hogg & Terry, 2000; Bai, Lin, &

Li, 2016) that may cause relationship conflict (Jehn, Northcraft, & Neale, 1999; De Wit, Greer, & Jehn, 2012; Li et al., 2020). For example, previous research has found a positive association between empowering leadership and team cohesion (e.g., Tung & Chang, 2011; Xie et al., 2019; Hoang et al., 2021). Through expanding autonomy and responsibility, empowering leadership signalling that leaders are confident that employees can handle challenging interpersonal relationships and interactions effectively (Sharma & Kirkman, 2015). Moreover, empowering leadership induces employee trust and an affective bond with the leader (Adamovic et al., 2021). To reciprocate this trust, followers are likely to display similar behaviours and attitudes at work, it is possible that this reciprocation is not only towards the leader but may also across over co-workers, as such, relationship conflict reduced. Based on the above arguments and empirical evidence, this study posits a negative association between empowering leadership and relationship conflict.

H4: Empowering Leadership is negatively related with relationship conflict

3.3.1.5 Relationship Conflict and Knowledge Sharing

In light of social identity theory (Tajfel, 1979), relationship conflict can divide team members into subgroups, thereby organising social interactions within coalitions; employees are less willing to share their knowledge with those 'outgroup members', as a consequence, knowledge sharing suffers. Relationship conflict involves intense interpersonal conflicts and tensions between team members and are typically expressed through poor communication and a lack of cooperation (Li et al., 2020; Sinha, Chiu, & Srinivas et al., 2021). Further, relationship conflict in a team diminishes trust, damage exchange ties, weakens interpersonal relationships and

freeze up collaboration (Jehn, 1995, 1997; Langfred, 2017; Adamovic et al., 2020; Sinha, Chiu, & Srinivas, 2021). Moreover, relationship conflict can induce employees a sense of threatening, thereby they might withdraw their effort and persistence in work (Lu et al., 2018; Emich & Vincent, 2020). This contention is consistent with the threat rigidity theory, which suggests that individuals will narrow their input when they feel threatened (Staw, Sandelands, & Dutton, 1981). Relationship conflict threatens employees' self-worth (De Wit, Greer, & Jehn, 2012; Li et al., 2020) and in turn weakens employees' commitment to the team. For example, Seo, Barret and Bartunek (2014) shown that employees' unpleasant affective experiences are negatively associated with their work effort and commitment. In a similar vein, Magnota and Johnson (2020) found that relationship conflict decreases job satisfaction and raises turnover intentions. Further, relationship conflict consumes cognitive energy as employees are more likely to be distracted and preoccupied with managing interpersonal tension (Li et al., 2020). Therefore, energy and time were displaced from productively processing the diverse information within the team, which implies knowledge sharing might be impeded (e.g., Adamovic et al., 2020). In sum, the aversive experiences that result from high levels of relationship conflict is assumed to negatively influence knowledge sharing because such experiences likely lower team members' emotionally attachment to their team, and their intrinsic enjoyment of knowledge sharing. Based on the arguments above, this research posited a negative association between relationship conflict and knowledge sharing.

H5: Relationship Conflict is negatively related with knowledge sharing within the team.

3.3.1.6 Mediating Role of Relationship Conflict

Although team identification is more concerned with the individual employee as a 'central actor', SIT also emphasises the interaction between the 'central actor' and the 'co-actors' (i.e., team members). In this sense, relationship conflict can be interpreted from a social identity lens (Han & Harms, 2010). A team leader's empowering behaviour encourages teamwork by urging employees work together and coordinate efforts with each other (Lee, Willis, & Tian, 2018). This emphasis on collaboration, together with a rising sense of psychological empowerment, can explain the positive association between empowering leadership and OCB. Scholars suggests that teams led by an empowering leadership result in high levels of trust, mutual respect, and harmonious interpersonal relationships between members, which in turn, promotes team members interaction and effective communication (Srivastava et al., 2006; Hong et al., 2016). By encouraging collective decision-making and emphasising the importance of collaboration, empowering leaders pay close attention to those detrimental factors that might impede knowledge sharing (Cheong et al., 2019). As such, relationship conflict can be reduced and even avoided. Further, it is argued that empowering leadership induces not only a sense of ownership but also responsibility for the collective (Martin et al., 2013; Sharma & Kirkman, 2015); in such circumstances, employees are therefore less likely to engage in activities that are harmful to team effectiveness and performance. As such, empowering leadership establishes a condition to avoid relationship conflict, which in turn, helps employees to engage more in collective-oriented activities, such as knowledge sharing. On the basis of these theoretical propositions, empowering leadership can facilitate knowledge sharing through stifling the

occurrence of relationship conflict among employees. To reiterate, empowering leadership can alleviate relationship conflict that inhibits knowledge sharing (Turner, 1987). Taken together,

H6: Relationship Conflict mediates the relationship between empowering leadership and knowledge sharing.

3.3.2 Moderation

3.3.2.1 Team Efficacy x Empowering Leadership on Team Identification

Empowering leadership increases team identification by emphasizing team members' autonomous motivation for work. According to the self-determination theory (Gagne and Deci, 2005), motivation for work can be divided into two types, control motivation and autonomous motivation, based on the degree of perceived competence in the workplace. Team efficacy is likely to reduce team members' controlled motivation and magnify autonomous motivation associated with empowering leadership because it reflects employees' beliefs in their collective capability regarding the completion of a variety of work tasks. Moreover, according to Bandura (1997), efficacy belief is a key factor in how one enacts contextual information. The likelihood that the contextual component will be applied as informative rather than controlling depends on how competent the team members believe themselves to be. Thus, when team members share a high efficacy belief, they will feel capable to work in a less prescribed and structured environment initiated by empowering leaders. Team identity is likely to be reinforced as a result of the informative, autonomous, and supporting atmosphere of empowered leadership being put

into action. According to Mach, Ferreira, and Abrantes (2019), team members who have high perceived team competency are more likely to support the team's objectives and have a sense of belonging. Accordingly, there is expected a stronger link between empowering leadership and employees' sense of team identity when there is high level of team efficacy.

Hypothesis 7a: Team-efficacy moderates the relationship between empowering leadership and team identification in such a way that empowering leadership is more positively related to team identification when team-efficacy is high rather than low.

3.2.2.2 Team Efficacy x Empowering Leadership on Relationship Conflict

First, as discussed before, empowering leaders invest effort and time in followers (Sharma & Kirkman, 2015; Hao et al., 2018). In this way, empowering leadership elicits constructive conflict management among followers (e.g., minimizing relationship conflict). When team members feel more efficacious and confidence in the team increases, this lifts team members' expectations regarding empowering behaviour. The same is also true for the leader's willingness and ability to inspire and motivate the team (Amundsen & Martinsen, 2014a; Cheong et al., 2016). Conversely, if team efficacy is low, members may reduce their expectations and leader will only focus on team's weaknesses (Mach et al., 2019). This could have an impact on the social exchange relationships between team members. In this sense, this study suggest that it becomes incongruent for a leader's empowering behaviour to be inspirational or serve as part of a collective social exchange resource if the team has a low efficacy belief (Lorinkova & Perry, 2017). Moreover, faced with low team efficacy, the leader's empowering characteristics become less inspirational and valuable for the team. Therefore, this

study propose that team efficacy plays a moderation role on the relationship between empowering leadership and relationship conflict.

Hypothesis 7b: Team-efficacy moderates the association between empowering leadership and relationship conflict in such a way that empowering behaviour is more negatively related to relationship conflict when team-efficacy is high rather than low.

3.3.3 Moderated Mediation

As hypothesised above, team identification and relationship conflict are posited as two intermediating variables in the empowering leadership - knowledge sharing relationship, respectively (Hypotheses 3 and 6). Further, team-efficacy is proposed as a moderator in the association of empowering leadership - team identification (Hypothesis 7a) empowering leadership - relationship conflict (Hypothesis 7b). Taking together, this research proposed that team efficacy will moderates the indirect effect from empowering leadership to knowledge sharing through team identification and relationship conflict, respectively. More specific, in view of its role in strengthening the effectiveness of empowering leadership on team identification and relationship conflict, a higher level of efficacy belief about the team will amplifies the overall indirect effect. Which in contrast, a low-level team efficacy belief will diminish the indirect effect. Accordingly, the following hypotheses are proposed:

Hypothesis 8a: Team-efficacy moderates the indirect effect of empowering leadership on knowledge sharing through team identification, such that the indirect effect between empowering leadership and knowledge sharing is stronger when team efficacy is higher.

Hypothesis 8b: Team-efficacy moderates the indirect effect of empowering leadership on knowledge sharing through relationship conflict, such that the indirect effect between empowering leadership and knowledge sharing is stronger when team efficacy is higher.

3.3.4 Knowledge Sharing and Team Creativity

Team creativity requires a comprehensive exchange of information, perspectives and knowledge between team members (Amabile, 1988; 1996; Woodman et al., 1993; Hu et al., 2018; Peng, Wang, & Chen, 2019; Jia, Jiao, & Han, 2021). The foundation for a team to manifest creativity includes task-related and social interactions in a team context, rather than merely being imposed onto employees by upper management (Unsworth, 2001; Woodman, Sawyer, &Griffin, 1993; Anderson et al., 2014). In this sense, the exchange and sharing of information and knowledge is highly salient and imperative to team creativity because knowledge sharing can develop a team's domain-relevant knowledge and creative potential through integrating various ideas, information, and knowledge held by team members (Hu et al., 2018). In fact, a team's creative potential is often achieved by effective communication among team members, combining and sharing the diverse information, knowledge and ideas within the team (Boies, Fiset, & Gill, 2015). Additionally, by reducing the likelihood of "reinventing the wheel," knowledge sharing can effectively utilising and developing the knowledge-based resources within the team, which in turn, promotes team creativity.

Hypothesis 9: Knowledge sharing is positively associated with team creativity.

3.4 Conclusion

This chapter discussed the componential theory of creativity (Amabile, 1983) and social identity theory (Tajfel & Turner, 1979) to justify the proposed conceptual model of this research and the relationships illustrated within the conceptual model. More specifically, based on Amabile's (1983) theorising, this study proposed knowledge sharing as a mechanism through which empowering leadership facilitates team creativity. Drawing on social identity theory, this study hypothesised that team identification and relationship conflict are two intermediate variables in the empowering leadership - knowledge sharing association and team efficacy as a boundary condition of the empowering leadership effect. In the succeeding chapter, the methodology employed for this study is discussed.

CHAPTER 4 METHODOLOGY

4.1 Introduction

This chapter presents the methodological strategies and data collection procedures that were employed in this study. This chapter starts with an overview of the research philosophies in social sciences research. Second, different types of research approach along with their research designs are discussed in order to justify the most suitable research approach and design for achieving the research objectives and answering the research questions in this study. Then, the research strategy, sampling procedure and questionnaire development are discussed. Finally, the data collection process is presented. Figure 4.1 illustrates the road map of this chapter.

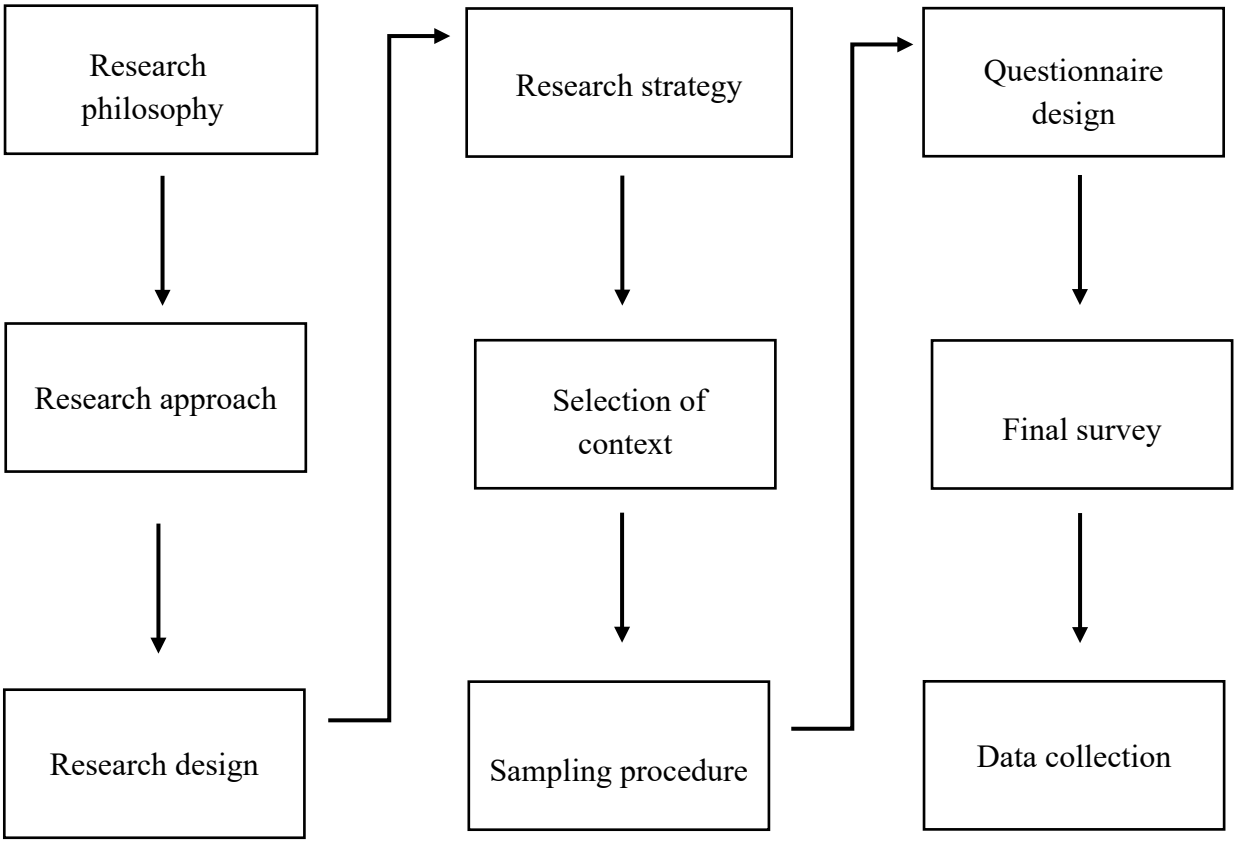


Figure 4.1: Road map of the methodology chapter

4.2 Research Philosophy

Research philosophy is an overarching term that refers to ‘‘a system of beliefs and assumptions about the development of knowledge’’ (Saunders et al., 2019, p. 130). Research philosophy guides the research design and process and plays a key role at every stage of conducting research, as it establishes the standards by which the researcher selects and defines problems of inquiry (Rudestam et al., 2015). Moreover, a research philosophy offers a set of common beliefs and understandings from which the theories and practices of research project operate, thereby laying the foundation for approaching the research problem theoretically and methodologically (Rudestam et al., 2015; Burrell & Morgan, 2017). As alluded to above, it is vital to clarify the philosophical concerns before conducting any piece of research. The current research is an interdisciplinary study, with a particular focus on leadership behaviour, team dynamics and team outcomes in a frontline service context. To display a clear philosophical framework of this study, this section discusses the following research paradigms - *ontology, epistemology,* and *methodology*, respectively. *Ontology* answers the question: ‘what is *reality?*’ whereas epistemology is the study of ‘knowledge’ (Blaikie & Priest, 2017). The assumption of ‘reality’ (i.e., ontology) substantially influences the view of ‘knowledge’ (i.e., epistemology), which, in turn, shapes the research methodology (Figure 4.2).

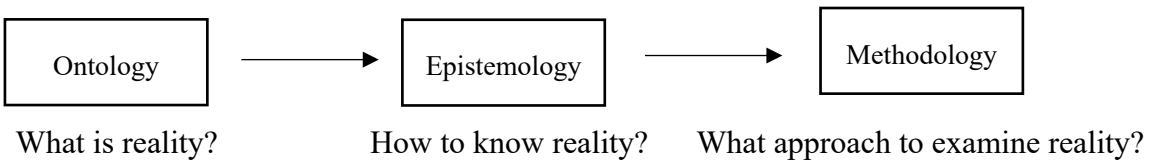


Figure 4.2: Research paradigms

4.2.1 Ontology

Ontology is a belief about the reality (Saunders et al., 2019) that concerns the following: 1) is there such a thing as a reality, and 2) is this reality external to the social actors - whether the 'reality' is an outcome of the actor's consciousness, or it is independent from the social actors (Rudestam & Newton, 2014). There are two opposing stances of ontological assumptions, namely: *realism* and *relativism*, sometimes also known as objectivism and subjectivism, respectively (Table 4.1) (Bryman, 2008; Rudestam et al., 2015). In a nutshell, realists hold that there is only one truth and that it never changes; moreover, the truth can be discovered through objective measurements (Collins, 2010). Relativism, on the other hand, holds an opposite view of reality, which refers to the belief that social phenomena continuously change therefore can only be interpreted through subjective measurements (Potter, 1987).

Table 4.1: Comparison between realism and relativism

Realism	**Relativism**
Single reality/truth exists	Multiple realities exist
It does not change	Truth evolves and changes
Objective measurement	Subjective measurement
Generalisable	Cannot be generalised

4.2.2 Epistemology

Epistemology is concerned with 'knowledge'. Specifically, epistemology refers to how people understand reality and communicate this as 'knowledge' to others (Rudestam et al., 2015). In a similar vein, there are two opposing views on epistemology: *positivism* and *interpretivism.*

Positivists suggest that the truth can be found and measured, therefore, apply a realist approach to ontology. Interpretivists, on the other hand, believe that the truth is created - as a relativistic concept and can only be understood through being involved in the activities to be studied. Moreover, interpretivists affirms that human beings are unique individuals and reject the generation whereas positivists view human beings as a group and predict what they have in common (Saunders et al., 2019). In sum, interpretivists stress human beings' subjective initiative, whereas positivists acknowledge the importance of subjective experience and objective reality. (Table 4.2).

Table 4.2: Comparison between positivism and interpretivism

Positivism	**Interpretivism**
Knowledge can be measured	Knowledge needs to be interpreted
Knowledge is discovered through objective measures	Knowledge is discovered through interaction with the social actors (i.e., participants)
An **etic** approach i.e., taking an *outsider's view* of the situation	An **emic** approach i.e., taking an *insider's view* of the situation

4.2.3 Methodology

Methodology refers to 'how knowledge is discovered and analysed' (Saunders et al., 2019). It is important to clarify that *methodology* differs from the term *'method'*. Although these two terms are closely related, however, the term methodology refers to the philosophies that guide how information should be acquired. Method, on the other hand, is more concerns with the techniques of data collection, such as interviews or surveys.

Based on the ontological and epistemological assumptions that underlie them, methodology can be split. Accordingly, there are two different approaches: idiographic and nomothetic. First, the term idiographic engenders from the Greek word ‘idios’ which means ‘private or unique’, focuses on individual cases and events, seeks to uncover detailed information about a narrower subject of study. Nomothetic approach, on the other hand, is about ‘similarities’, which seeks to make generalisations and understand larger-scale social patterns (Rudestam et al., 2015). Second, given different interests on ‘unique’ or ‘similar’, researchers interested in idiographic approach tends to discover ‘what makes each of us unique’, whereas the nomothetic aspect concerns the similarities between individuals, that is, ‘what we share with others’. Accordingly, the idiographic approach is qualitative in nature whereas nomothetic is quantitative in nature. As a consequence, idiographic approach normally using qualitative methods such as interviews, case study, and/or biographies whereas the nomothetic approach typically tends to obtain quantitative data, methods include survey, questionnaire, and/or experiments (Ruane, 2016).

Last but not least, is the contention that these two approaches support different sampling bases. More specific, because the idiographic approach tends to obtain detailed and in-depth information, thus, the sample size is relatively small. On the other hand, given the emphasises on ‘generalisation’, from the nomothetic aspect, this means the research must contain a larger sample size to provide information of sufficient quality.

Table 4.3: Comparison between the nomothetic and idiographic approaches

Nomothetic	**Idiographic**
Commonalities	Uniqueness
Generalised	Narrow
Quantitative in nature e.g., surveys, experiments	Qualitative in nature e.g., interviews, case study
Large sample size	Small sample size

To sum up, the discussion above follows the assumptions of Rudestam and colleagues (2015), is presented in Figure 4.3.

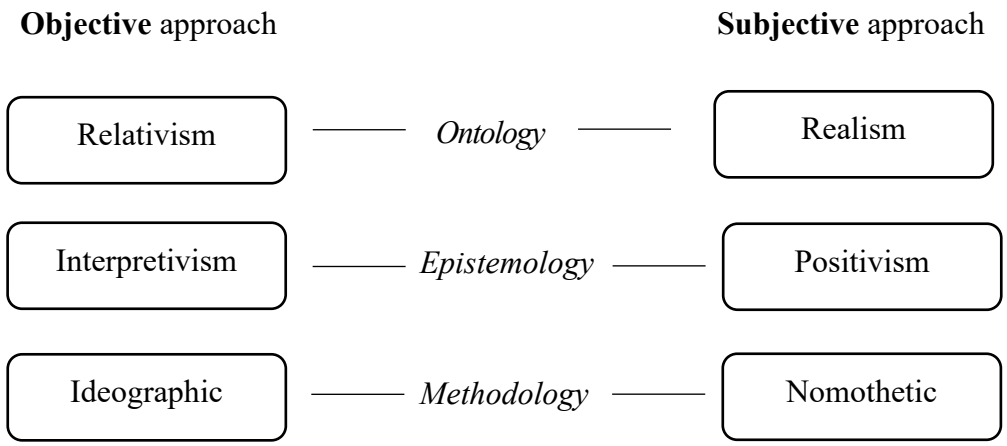


Figure 4.3: Comparison between subjective and objective philosophical perspectives

4.2.4 Research Philosophy Adopted

This study aim is to investigate the underlying mechanisms (i.e., team identification, relationship conflict) through which empowering leadership influences knowledge sharing, which in turn, lead to team creativity. Further, this research also aims to investigate the moderating role of team efficacy between empowering leadership and team identification, relationship conflict, respectively. At the ontological level, the social actors in this context are those frontline service employees led by empowering leaders. This concerns perceptions, rather

than how the social entities exist. Moreover, research tradition in the field of organisational behaviour recognises that the social world cannot be changed by participants' perceptions (Redestam et al., 2015). Accordingly, this research adopts realism at the ontological level. In addition, this research aims to investigating the proposed research questions with the help of objective measures rather than personally interacting with the respondents (i.e., an outsider's view), therefore, epistemologically, the current research follows the positivism assumption. Finally, as reflected in the research questions in Chapter 1, this research attempts to generate a general trend over the research area instead of gain an in-depth understanding of a small number of individuals. Therefore, methodologically, a large sample for testing the developed hypotheses is imperative.

Overall, the aforementioned discussion leads to a conclusion that the philosophical standpoint of this research is based on realism and positivism, thereby indicating a nomothetic research approach.

4.3 Research Approach

This section discusses the two mainstream research approaches based on the philosophical assumptions, namely: inductive approach and deductive approach.

4.3.1 Inductive Approach

An Inductive approach, also known as inductive reasoning, is based on learning from experience, ‘‘involves the search for pattern from observation and development of explanations for those patterns’’ (Bernard, 2011, P.7). Inductive approach does not employ theoretical

framework(s) as the foundation of study, instead, it is aims to generate meanings from the data to identify patterns to build a theory (Saunders, Lewis, & Thornhill, 2012; Saunders et al., 2019). Moreover, the respondents/participants in an inductive study are expected to assist the researcher(s) explain the nature of the issues, accordingly, researcher(s) develop their own theories (Lodico, Spaulding, & Voegtle, 2010). Figure 4.4 presented the flow of an inductive approach.

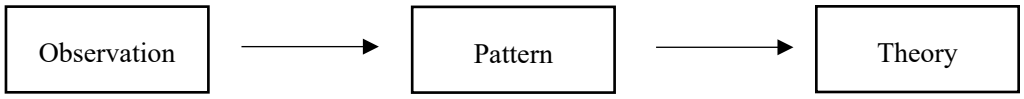


Figure 4.4: Inductive approach

4.3.2 Deductive Approach

A deductive approach, or deductive reasoning, is concerned with "formulating a set of hypotheses based on existing theory, and then employing a relevant research strategy to test the hypotheses" (Wilson, 2010, p. 7). Deductive reasoning can be explained as 'from a specific conclusion follows a general theory', whereas inductive reasoning is the opposite: 'specific observations – a general conclusion' (Saunders et al., 2019). Thus, the deductive differs from the inductive approach in that "deduction begins with an expected pattern, whereas induction begins with observations and seeks to find a pattern" (Babbie, 2010, p. 52) (Figure 4.5).

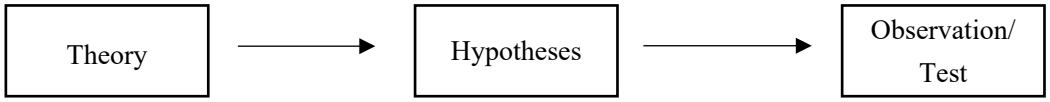


Figure 4.5: Deductive approach

The discussion above enabled a comparison between the inductive and deductive approaches, which is summarised in Figure 4.6 below.

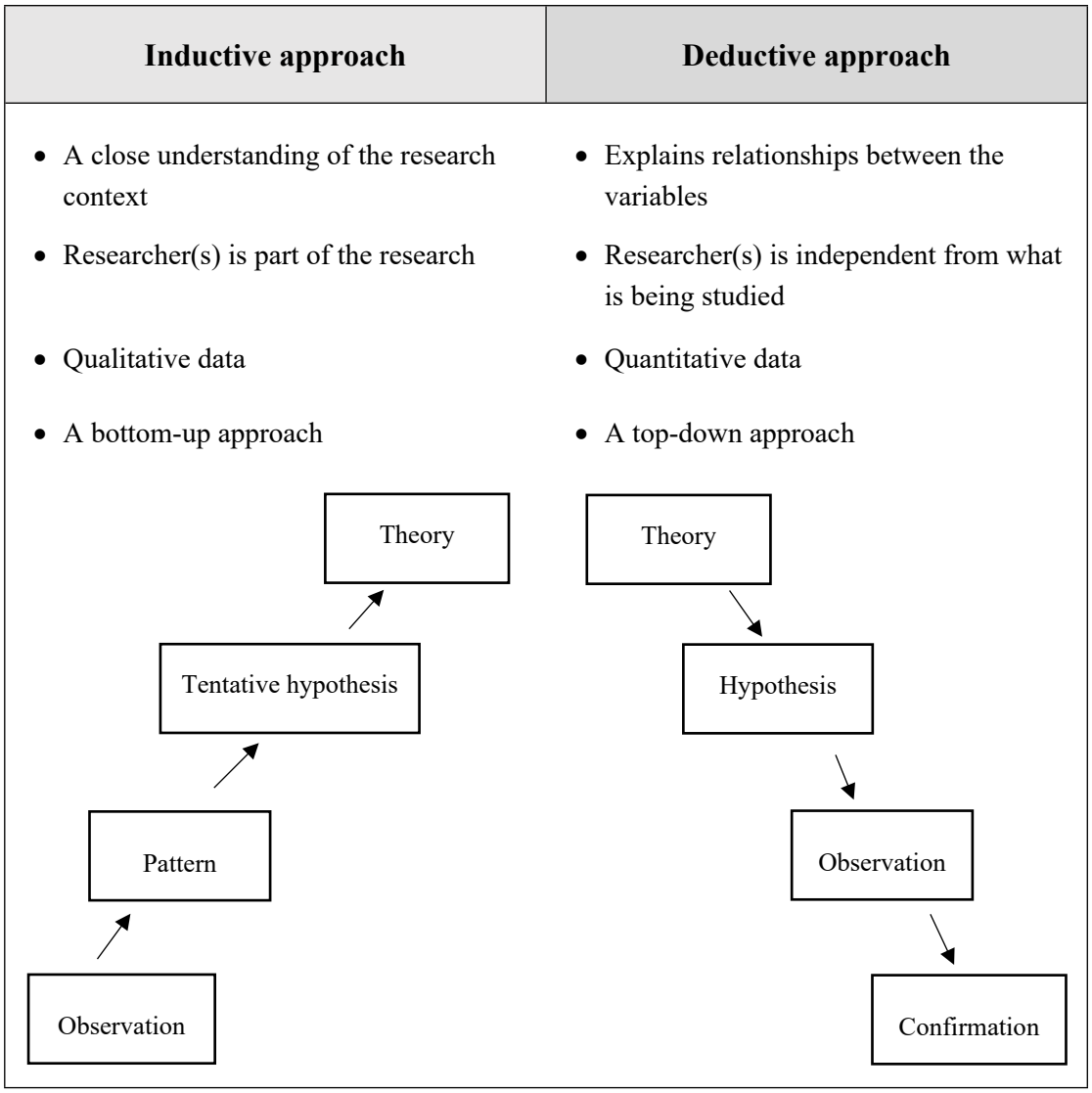


Figure 4.6: Comparison between inductive and deductive approaches

4.3.3 Research Approach Adopted

Through the above discussion of ontological, epistemological and methodological assumptions, it can be seen that the nature of this research supports realism and that positivism led to the

employment of a deductive approach for this research. That is, rather than developing a new theory, the proposed research aims to test a series of hypotheses generated from the existing literature. Therefore, the current research is not only expected to adopt a deductive approach from the philosophical perspective, but the whole research design also supports the employment of a deductive approach. The steps of the deductive approach in the design of this research were as follows: 1) reviewing relevant literature; 2) developing a theoretical model and hypotheses regarding the linkage between the variables; 3) collecting data by way of conducting questionnaires; and 4) examining the findings and confirming the validity of the results.

4.4 Research Design

The research design refers to the overall strategy that the researcher chooses in order to integrate the various components (e.g., measurement, data collection and analysis) of the research project in a logical and coherent way (Creswell et al., 2018). A well-defined research design can ensure that the researcher addresses the research problem as effectively and unambiguously as possible (De Vaus, 2011). On the other hand, if researchers begin their investigation before having thought critically, the research problem will not be adequately addressed and the conclusion and validity of the research will be undermined (Paul et al., 2012; Paul & Ormrod, 2013; Stephen, 2013). Based on the purpose to be fulfilled by a piece of research, a research design can be categorised into three types (Figure 4.7): *exploratory, descriptive*, and *explanatory* (Derek & Pedersen, 2016).

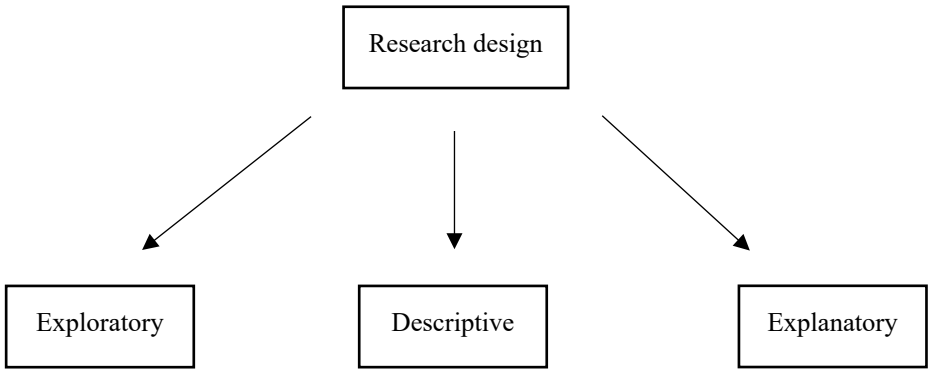


Figure 4.7: Categorisation of research designs

4.4.1 Exploratory Design

As implied by its name, exploratory research "tends to tackle new problems on which little or no previous research has been done" (Brown, 2006, p. 43). More specifically, exploratory research is not intended to offer conclusive evidence but explores the research topic with varying levels of depth (Nargundkar, 2008; Singh, 2007). Therefore, exploratory studies are flexible and often conducted using an interpretive approach (e.g., interviews) and respondents answer open questions, such as 'what' and/or 'how' (Saunders et al., 2012). As such, exploratory research can also be an initial step towards more conclusive research, such as descriptive and explanatory studies (Saunders et al., 2019). Table 4.4 summarises the characteristics of an exploratory research design.

Table 4.4: Characteristics of exploratory research design

Exploratory design	• Asks open questions • Seeks new insights • Loose structure • Interpretive approach • Instruments such as interviews

4.4.2 Descriptive Design

As the name suggests, a descriptive research design attempts to describe the characteristics of a sample population, event, or situation (Ethridge, 2004; Nassaji, 2015; Siedlecki, 2020). Descriptive research is characterised as highly structured and constructed of formulated research questions and hypotheses based on existing theories (Fox & Bayat, 2017). Therefore, a descriptive design is an effective method for testing the relationships between the variables within a predefined framework (Saunders et al., 2019). Table 4.5 provides a summary of the characteristics of a descriptive research design.

Table 4.5: Characteristics of descriptive research design

Descriptive design	• Prior formulated questions • Highly structured • Deductive approach • Instruments such as questionnaires

4.4.3 Explanatory Design

An explanatory design, also known as a causal research design, attempts to explain 'why it is that way' and/or 'how it came to be' (Hair et al., 2013). More specifically, explanatory research is conducted to identify and interpret causality and the extent and nature of cause-and-effect relationships among variables (i.e., causality). In addition, as with descriptive research, an explanatory design is also a highly structured and pre-planned approach (Edmonds et al., 2016; Zikmund et al., 2012). For the purpose of identifying causality, experiments are the most popular method in studies with a causal/explanatory research design. Table 4.6 summarises the characteristics of an explanatory research design.

Table 4.6: Characteristics of explanatory research design

Explanatory design	• Previously formulated questions • Highly structured • Pays particular attention to causality • Instruments – experiments

4.4.4 Time Horizon

It is important to clarifying the time horizons at the very beginning stage of conducting any research. In social science studies, cross-sectional and longitudinal are the two main designs of research. Cross-sectional research has been considered as a 'snapshot' study given the fact that cross-sectional research is about study of a phenomena at a particular time (Sekaran & Bougie, 2010; Saunders et al., 2009). On the other hand, longitudinal research is about "*study of a*

phenomena over an extended period of time" (Saunders et al., 2009:594). While we acknowledge that both designs have their own advantages, cross-sectional is often used in the quantitative research, whereas longitudinal is commonly used by the qualitative studies. In comparison, cross-sectional is appropriate for studies with limited access, resource, and time, on the other hand, longitudinal present a more through picture if the research events and has a higher possibility of removing confounding variables. In essence, the key to select either a cross-sectional or longitudinal design depends on the practical circumstances and necessity.

4.4.5 Research Design Adopted

This study does not aim to fully comprehend any specific event or phenomena, but the application of existing theories led to the developed conceptual framework and series of hypotheses which presented in Chapter 3. Therefore, firstly, the exploratory research design is eliminated because this research design misaligns with the research objectives. More specific, exploratory design attempts to seek deep and new insights through interviews, thereby, this type of research design is not suitable for current research. Moreover, while both descriptive and explanatory/causal research designs can be applied to verifying and testing the hypotheses, explanatory research design is particularly focus on identifying and interpreting causality (Edmonds, Thomas, & Kennedy, 2016). Keeping in mind that the current research is not attempts to identify and interpret causality but examine the direct, mediating, and moderating relationships among variables of interest, accordingly, descriptive design is more appropriate than explanatory research design, as such, descriptive design is employed. Due to the time and

financial restrictions, this study's temporal horizon is cross-section in nature, meanwhile, the research questions do not propose any factors that need to be acquired over a long period of time.

4.5 Research Strategy

Research strategy refers to *''the plan of how the research will go about answering the research questions''* (Saunders et al., 2009; P. 600). When selecting the research strategy, researcher(s) should keep in mind that 1) the research strategy needs to be aligned with the philosophical assumptions, research approach, and research design; and 2) the best suitable to respond to research questions. In social science, the most common used strategies are: 1) ground theory; 2) action research; 3) ethnography; 4) case study; 5) archival research; 6) survey; and 7) experiment. Following the deductive approach and descriptive research design, as well as the research objectives (i.e., to empirically test hypotheses and investigate the relationships among variables), accordingly, survey is deemed to the most appropriate research strategy for the current research.

4.6 Rationale for the Selection of the Context of the Study

Although the context was discussed in Chapter 1, this subsection will further elaborate the rationale to choose the research context in which this study is carried out. As illustrated in Figure 4.7, the literature review covered in Chapter 2 contributed to the formulation of the research objective. The research objective then guided the selection of the particular context in

which the current study is conducted. Two criteria were proposed for the consideration of sector selection:

1. Responses were required from the service sector.
2. Participants who work in a frontline service team.

Keeping the above criteria in mind, the chosen context (i.e., frontline service teams in the banking sector) was finalised after discussion with experts.

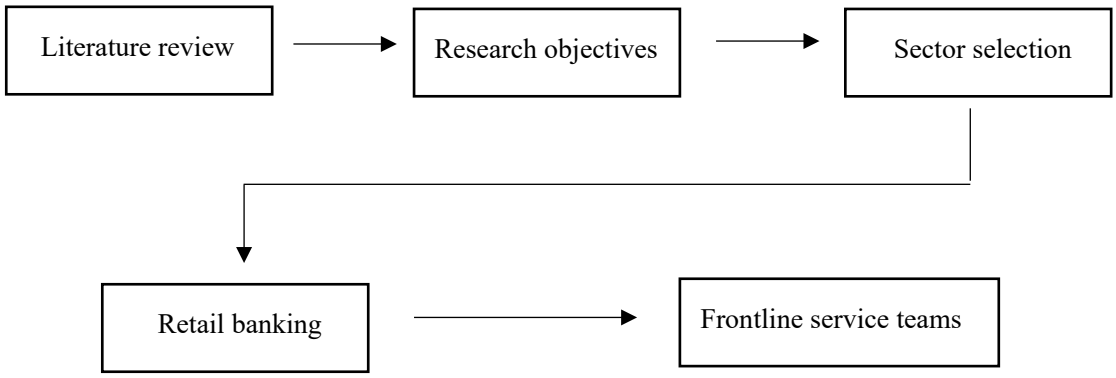


Figure 4.8: Process for selecting the research context

First, the literature reveals that prior team creativity research is primarily concentrated on areas like manufacturing (e.g., Jia, Jiao, & Han, 2021), and research and development (R&D) teams (e.g., Mo, Ling, & Xie, 2019; Ali, Wang, & Johnson, 2020). However, empirical research on creative performance in services sector has not received much research attention (Martinaityte, Sacramento, & Aryee, 2019). In recent years, the importance of creativity has been increasingly recognised in the services sector in general and in frontline service in specific (e.g., Peng, Yang, & Huan, 2022). This argument is founded on the idea that the nature of service exchanges

presents the frontline staff with a real-time challenge that frequently necessitates unconventional thinking to come up with innovative solutions to fulfil customer requirements (Collier et al., 2018). For example, Martinaityte, Sacramento and Aryee (2019) suggest that the creative performance of frontline service roles has the potential leads to greater customer satisfaction. Scholars proposed that creativity in frontline service is a key requirement for service organisational success (Coelho et al., 2021). Given the potential benefits of creativity on both customer outcomes (e.g., Dong et al., 2015) and organisational performance (Coelho et al., 2021), therefore, research that investigating how to promote team creativity in a frontline service context is vital.

Second, the frontline service teams from the retail banking were finally chosen because banks are playing an important role in channelling the financial resources to both individual customers and enterprises. More specific, the four large state-owned retail banks (i.e., Agricultural Bank of China; Industrial & Commercial Bank of China; China Construction Bank; and Bank of Communications, namely the "Big Four") in general and the Agricultural Bank of China in specific, dominate the Chinese retail banking industry. However, since 2010, the industry has become more dynamic and highly competitive, marked by the entries of the third-party financial service institutions (KMMG annual report, 2021). While state-owned banks still manifest dominating power, the companies with the most impressive performance in the marketplace are the Fintech institutions backed by internet giants such as Alibaba and Tencent. Both had over one billion users as of 2021 (PwC, 2022, second quarter). These FinTech giants have brought

substantial challenges and pressures on traditional retail banks. As a result of the escalating threat in the marketplace, these traditional banks are no longer seen as leaders, but as followers. In recent years, a stream of scholars suggest that it is not the technology but innovation that helps the Fintechs defeat traditional state-owned retail banks (e.g., Wang, Liu, & Luo, 2021; Cheng, You, Chang, 2021; Chorzempa & Huang, 2022). A dynamic and highly competitive marketplace in which customers have unique and diverse needs suggests that traditional banks need to shift their focus on those scripted or prescribed behaviours, with a focus on more adaptive behaviours, critical to this is frontline workforce's creativity (Collier et al., 2018). Therefore, frontline team's creativity in the retail banking industry should not be ignored from an applied perspective.

4.7 Sampling Procedure

Sampling refers to the selection of a segment or subset of the population of interest (Turner, 2020). In most research endeavours, the participation of an entire population of interest is not possible; therefore, a smaller group is relied upon for data collection and for drawing inferences (Elfil & Negida, 2017). Once the context of this study was finalised, the sampling procedure to be employed to obtain the sample for the research was considered, as outlined below.

4.7.1 Selection of the Participating Organisation(s)

Using statistical reports such as KPMG as well as PwC on the banking industry in China, a preliminary list of possible participating organisations was created, including a number of banks thought to be eligible for this research. At these stage, three criteria were developed for selection:

1. State-owned banks
2. Retail banking as major business
3. Needs to be in top tier, in other words, should be one of the leading banks in China, therefore, the participating organisations could see as a representative.

Keeping these criteria in mind, a list was prepared as a tool for selection of the banks from the Chinese banking industry to form the sample, therefore, four state-owned banks were identified (see Table 4.10). Following informal discussions with CBA (China Banking Association) specialists and other important subject-matter experts who hold chairs at government research institutions and universities, these four banks were identified. Additionally, a thorough online search was also conducted.

Table 4.7: List of potential participating banks

Potential participating banks	Characteristics
Bank A	No.1 - retail banking customers in 2021. No.3 by total assets (27.27 trillion, yuan, in 2021).
Bank B	No.3 - retail banking customers in 2021. No.1 by total assets (32.26 trillion, yuan, in 2021).
Bank C	No.2 - retail banking customers in 2021. No.2 by total assets (28.25 trillion, yuan, in 2021).
Bank D	No.4 - retail banking customers in 2021. No.4 by total assets (13.77 trillion, yuan, 2021).

After the list of potential participating banks was finalised, the researcher sought access to the banks. First, an initial telephone call was made to the human resources (HR) department of each bank, in order to talk to the relevant person in the department about the purpose of the research. Following an explanation of the nature and aim of the research, as well as the research process, and, more importantly, with the support of connections within the banking industry, the HR Manager of the Bank B expressed potential acceptance and interest in further discussing the implications of the study for their organisation. The Bank A, C, and D all declined to participate in the study.

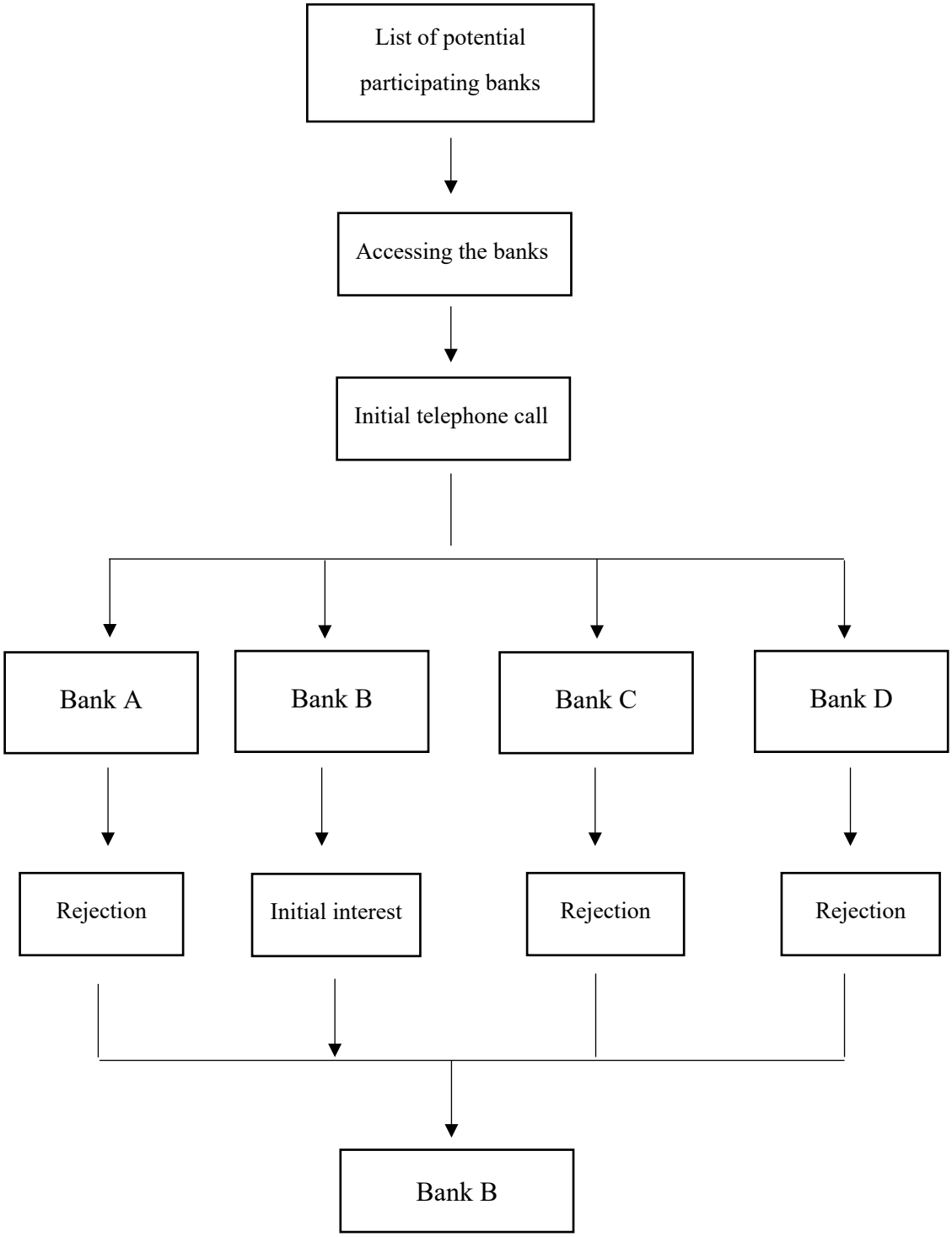


Figure 4.9: Sampling procedure

4.7.2 Sampled Bank

The participating bank (i.e., Bank B) is one of the big-four state-owned banks in China and is known in the industry by its superior services. It is the top one in terms of retail banking customers in 2021, and the second by total assets, 27.27 trillion in 2021 (KPMG, 2022). 89% of the bank's revenue comes from personal banking, with the main segments being investments, insurance, mortgages, and personal savings. Moreover, compared to the other state-owned banks, the way this bank operates is relatively similar, therefore, it may be viewed as an example of the other significant state-owned retail banks in China. The management disclosed during the exploratory discussion that the bank has 89 branches in the local area where the research has access to, and around 950 employees working there.

For this purpose of this study, the frontline service/customer contact teams working in the branches of the bank was chosen as the research target. Customer contact teams were chosen because, in retail banks, it is often the case that customer contact teams frequently face customers with quite diverse needs and often hold unstructured jobs, implying that they need to be creative. Accordingly, a meeting was conducted with the head of the local bank in order to get preliminary information about the branch size, and number of employees. During discussions with the mangers, it was found that those employees working in the branches of the bank could be grouped into two different teams: the frontline (i.e., customer contact) and the back-office teams. The role of frontline teams is different from those back-office teams, they are responsible for service delivery, dealing with retail banking business, such as saving, insurance, and/or mortgage. The back-office teams, on the other hand, are not maintain contact

with customers, therefore, such teams were excluded from the study. Moreover, during discussion with the manager, a minimum sample size of 200 frontline employees was targeted based on the contention that a fairly large sample could improve the generalisability of the results, as well as the consideration from the desired level of alpha, i.e., 80 per cent power (Saunders, Lewis, & Thornhill, 2012; Hair, 2015). While the participating sample and unit of analysis were finalised, the design and development of the survey instrument—the questionnaire used to gather data—will be discussed in the next section.

4.8 Designing the Questionnaire

"Designing a questionnaire is an art" (Churchill & Iacobucci, 2002, p. 59). Many authors provide different methods for designing a questionnaire (e.g., Churchill & Iacobucci, 2012; Hair et al., 2015; Saunders et al., 2019). A well-designed questionnaire should align with the research objective(s) and there are many important elements that the researcher should take into consideration, such as items, formatting, wording, layout, the flow of the questions, the length of the questions in the questionnaire, and how to order them (Dunaetz, 2020). Observance of these considerations is necessary in order to have a high response rate and ensure the reliability of the questionnaire and the outcomes of the data collected (Saunders et al., 2019). When designing the questionnaire for this study, the research objective was kept in mind and the five-step guidelines recommended by Dunaetz and colleagues (2020) were also followed (Figure 4.10).

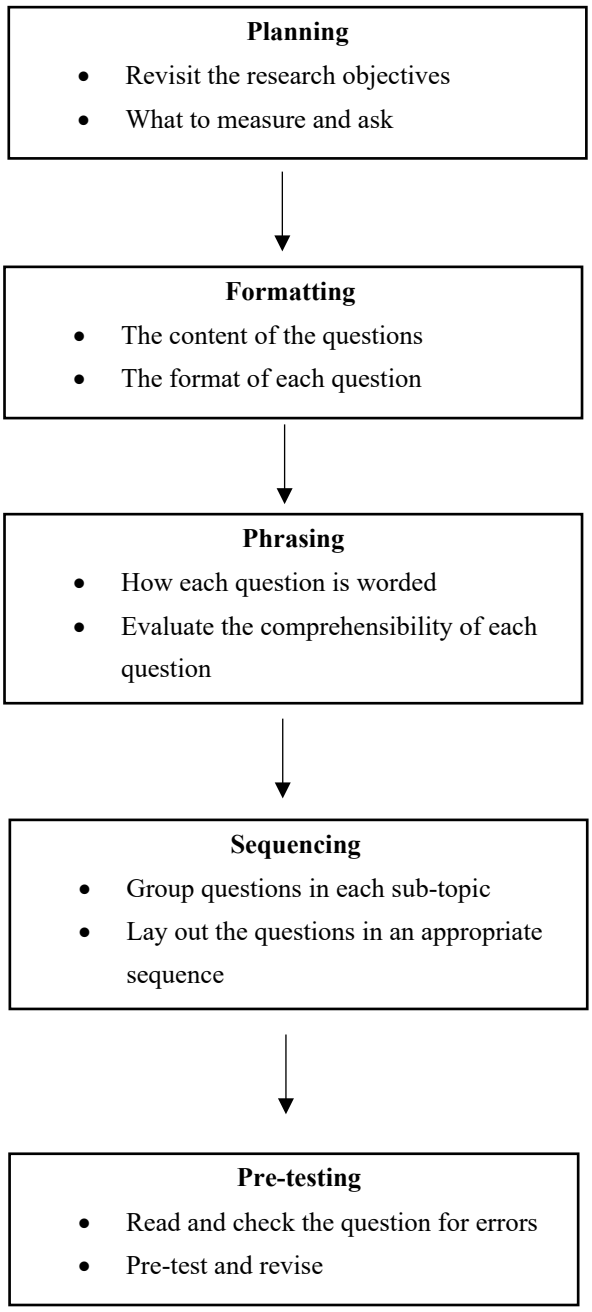


Figure 4.10: Stages of the questionnaire design

4.8.1 Measuring Instrument

The measuring instrument used to measure each construct within the conceptual model of this study (Figure 3.1) was derived from the literature review. That is, the conceptual definitions of each construct guided the development of the measuring scales. Moreover, while designing the

measuring scales, this study also following the guidelines suggested by prior scholars (e.g., Hair, 2015; Saunders et al., 2019). Figure 4.10 illustrates the steps in scale development.

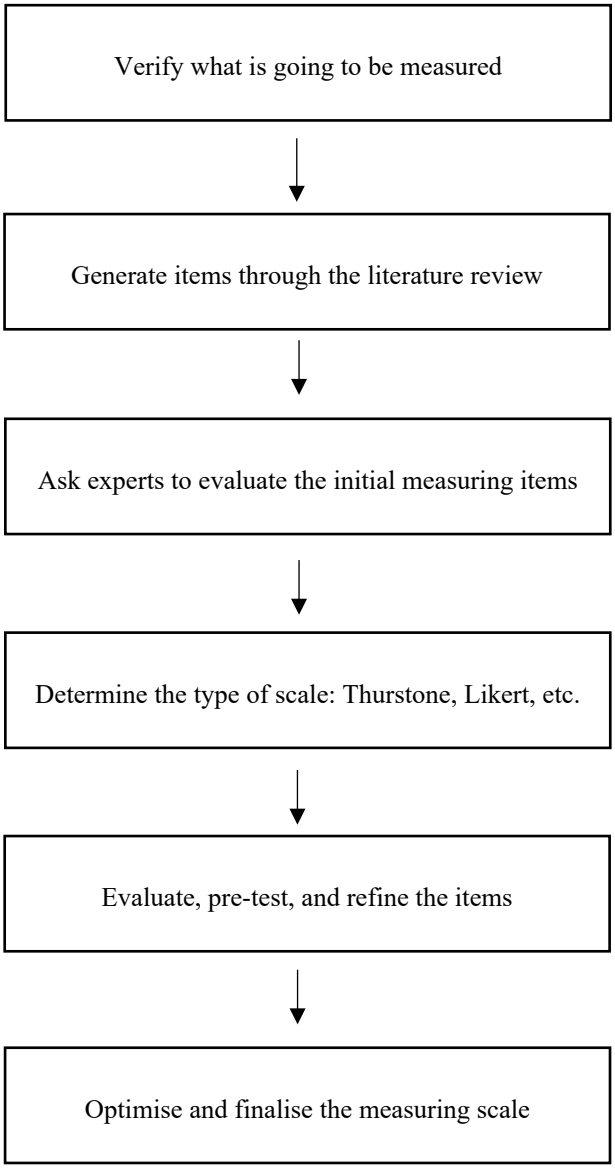


Figure 4.11: Steps in the measuring scale development

4.8.2 Pre-Testing

A pilot study was conducted in order to evaluate the quality and comprehensibility of the measuring items (Pittman et al., 2003; Neff & Germer, 2013). After a discussion with the Head of the HR Management Department in the local bank, 20 draft questionnaires were given to the

managers in two of the local branches (10 questionnaires for each) and they further distributed the questionnaires to both the customer contact team employees and managers. The respondents were assured of both confidentiality and anonymity. This pilot study took place over a one-week period. The researcher analysed the replies and a few items/questions once the surveys were returned in order to pinpoint potential problem areas. The researcher also spoke with a couple of the pilot study participants, with the branch manager's permission, to learn more about their reactions to and opinions about the measuring questions in the questionnaire. These participants were also asked to comment on how user-friendly and clear they found the questionnaire's instructions to be. More importantly, talks were started to make sure that everyone knew what was being measured. Drafts of the survey were also given to academics and colleagues and reviewed with professionals in the sector to get their feedback.

Following the pilot study, the researcher compiled the key findings and adjusted the questionnaire as necessary. Some of the established scales were adjusted and modified to fit the situation, and some of the measuring items and some questions with unfavourable wording were changed for clarity. Items that were deemed to be redundant or inappropriate for the context were removed. To get the highest response rate possible, the length of the questionnaire was also taken into consideration.

The questionnaire was adjusted and improved at each level before new measurement items were created. The new version of the survey was once again piloted with a customer contact team comprising six employees. The researcher discussed the survey with them regarding layout,

item clarity, comprehensibility, user-friendliness, and ease of completion. The questionnaire design was finalised after being approved by the pilot participants and experts in the field. The final version of the survey is discussed in detail in a later section.

4.8.3 Ethical Considerations

Social science research normally involves human participants, which raises ethical concerns (Hair, 2015). Accordingly, in order to commence research in an ethically responsible manner, the researcher is required to adhere to several ethical codes or principles:

- ***Respect for others*:** while conducting research, the researcher is required to respect the rights of the participants as well as their dignity.
- ***Participant information and informed consent*:** the researcher is required to provide the participants with sufficient information about the study (e.g., why the study is being conducted) and allow them to understand the implications of participation (e.g., what their participation will involve). Moreover, all participants need to be fully informed about what data will be collected and, at the same time, researcher is not allowed to widen the research scope without further consent.
- ***Voluntary participation and right to withdraw at any time*:** no respondents should be forced to participate in the study, either by their line managers or by the researcher. Moreover, they have the right to determine whether to answer the questions, to modify their consent, and to withdraw at any time.

- ***Avoiding harm and risk*:** any kind of harm (e.g., to physical health or well-being) towards the participants must be avoided. Moreover, harm in terms of pressure, stress, and/or anxiety should also be avoided before, during, and after conducting the research.
- ***Confidentiality and anonymity*:** the researcher should inform and reassure all participants of the confidentiality and anonymity of their participation. Confidentiality also needs to be maintained during the data analysis process as well as in the data reporting.
- ***Security and retention of data:*** the researcher needs to take the necessary precautions for secure data management and keep a planned disposal date in mind.

The principles listed above were adhered to before conducting the data collection and in both the pre-test and the final survey.

4.9 Final Survey Design

Following the pre-tests, the survey/questionnaire was amended and adjusted. This section presented a detailed discussion of the scales and items used to measure each component in the final survey.

Based on the conceptual model, as well as a consideration of common method bias, two surveys were developed in accordance with the theoretical framework. This also followed recommendations by creativity researchers and the majority of the research in the field (e.g., Ali et al., 2020; Hughes et al., 2018; Jia et al., 2021; Peng et al., 2019). The first survey was intended for employees and contains three sections. The first section concerns general information (age, gender, educational level, tenure, etc.); the second section is concerned with

the empowering leadership behaviour of the manager; and the third section contains questions regarding perceptions of team identification, relationship conflict, team efficacy and knowledge-sharing behaviour within the team. The second survey was developed for managers to rate the creative performance of their frontline service team.

4.9.1 Questionnaire Translation

The constructs and measurement items within the conceptual model of this study were developed by previous studies in a Western context. Accordingly, for data collection, it was required to translate the items of the questionnaire into Chinese, as this study would be conducted in China. Translation should be undertaken properly in order to ensure construct equivalence. Saunders and colleagues (2019) define construct equivalence as a main construct that researchers can utilise for different cultural groups and obtain approximate results. Usunier (1998) outlines four types of translation techniques, with their different advantages and disadvantages: direct translation, back-translation, parallel translation, and mixed techniques. Here, direct translation and mixed techniques were not practicable due to potential discrepancies, costliness and potential changes to the source questionnaire. Thus, this research planned to employ parallel translation followed by back-translation. All English-based measures used in this study were translated from English into Chinese and then translated back into English – a ‘translation/back-translation’ procedure to ensure equivalency of meaning (Brislin, 1980, 1986).

4.9.2 Measurement Scale

Another issue the researcher should consider is the rating approach to questioning. Researchers mostly employ a Likert scale rating when constructing a questionnaire, whereby respondents will be asked how strongly they agree or disagree with a certain statement (Lee et al., 2008). The scale ratings can vary from a 3- to a 15-point format (Pearse, 2011). However, according to Hair et al. (2010), a 5-point Likert scale is the most appropriate scale because lengthier Likert scales (such as 7- or 9-point scales) have options such as 'more likely' or 'most likely' and respondents tend to be troubled by this (Lantz, 2013). Respondents to a 5-point Likert scale rating can easily read the whole list and respond accordingly. In addition, while reviewing previous research that had employed the same scales (e.g., for assessing empowering leadership, knowledge sharing, and creativity), it was noticed that most of these studies adopted a response scale rate with 5 points (Ahearne et al., 2005; Amabile et al., 1996, 2004; Zhang & Bartol, 2010). This study thus adopted the same approach – a 5-point Likert scale – in its response format in order to be consistent with previous studies.

4.9.3 Constructs

4.9.3.1 Empowering Leadership

The four multiple subscales of the empowering leadership measure from Ahearne and colleagues' (2005) study were adopted in this research to evaluate empowering leadership The measure is comprised of four sub-dimensions: (*a) enhancing the meaningfulness of work, (b) fostering participation indecision making, (c) expressing confidence in high performance, and*

(d) providing autonomy from bureaucratic constraints. Several recent studies have used the same scale and have demonstrated the reliability of this scale (e.g., Zhang et al., 2018; Lee et al., 2019). Table 4.8 details the empowering leadership measuring items.

Table 4.8: Measuring items – empowering leadership

Empowering leadership (Ahearne et al., 2005)
Enhancing the meaningfulness of work
1. My manager helps me understand how my objectives and goals relate to that of the company.
2. My manager helps me understand the importance of my work to the overall effectiveness of the company.
3. My manager helps me understand how my job fits into the bigger picture.
Fostering participation in decision making
4. My manager makes many decisions together with me.
5. My manager often consults me on strategic decisions.
6. My manager solicits my opinion on decisions that may affect me.
Expressing confidence in high performance
7. My manager believes that I can handle demanding tasks.
8. My manager believes in my ability to improve even when I make mistakes.
9. My manager expresses confidence in my ability to perform at a high level.
Providing autonomy from bureaucratic constraints
10. My manager allows me to do my job my way.
11. My manager makes it more efficient for me to do my job by keeping the rules and regulations simple.
12. My manager allows me to make important decisions quickly to satisfy customer needs.

4.9.3.2 Team Identification

Team identification was assessed using a four-item scale (Table 4.9) developed by Doosje et al. (1995), which has been used in many previous studies (e.g., Hirst et al., 2019).

Table 4.9: Measuring items – team identification

Team identification (Doosie et al., 1995)
1. I see myself as a member of this team. 2. I am pleased to be a member of my team. 3. I feel strong ties with members of my team. 4. I identify with other members of my team.

4.9.3.3 Relationship Conflict

To assess intragroup relationship conflict, this study used the four-item scale developed by Jehn (1994, 1995). Jehn's (1995) scale has been adapted by many empirical studies (e.g., Somech et al., 2019). Table 4.10 presents the relationship conflict measuring items.

Table 4.10: Measuring items – relationship conflict

Relationship conflict (Jehn, 1994, 1995)
1. There are many frictions among members in this team. 2. There are many personal conflicts evident in this team. 3. There are many tensions among members in this team. 4. There is much emotional conflict among members in this team.

4.9.3.4 Knowledge Sharing

Knowledge sharing was assessed using Faraj and Sproull's (2000) four-item scale, which measures individual perceptions of the extent of the knowledge sharing by team members. This measuring scale has been used by previous empirical studies (e.g., Bai et al., 2016). Table 4.11 lists the items used to measure knowledge sharing.

Table 4.11: Measuring items – knowledge sharing

Knowledge sharing (Faraj & Sproull, 2000)
1. People in our team share their special knowledge and expertise with one another. 2. If someone in our team has some special knowledge about how to perform the team task, he or she is not likely to tell the other member about it (R). 3. There is virtually no exchange of information, knowledge, or sharing of skills among members (R). 4. More knowledgeable team members freely provide other members with hard-to-find knowledge or specialised skills.

4.9.3.5 Team Efficacy

Team efficacy was measured through the aggregation of individual perceptions of team efficacy (Jung & Sosik, 2003). This study used the four-item scale developed by Edmondson (1999), which has been adapted by many recent studies (e.g., Zhang et al., 2011). Table 4.12 presents the items for measuring team efficacy.

Table 4.12: Measuring items – team efficacy

Team efficacy (Edmondson, 1999)
1. Achieving this team's goals is well within our reach. 2. This team can achieve its task without requiring us to put in unreasonable time or effort. 3. With focus and effort, this team can do anything we set out to accomplish. 4. This team is capable of managing unexpected problems effectively.

4.9.3.6 Team Creativity

Team creativity was measured using 13 items (Table 4.13) adapted from Zhou and George (2001), which focus on new idea generation.

Table 4.13: Measuring items – team creativity

Team creativity (Zhou & George, 2001)
1. This team always suggests new ways to achieve goals or objectives. 2. This team comes up with new and practical ideas to improve performance. 3. This team searches out new technologies, processes, techniques, and/or product ideas. 4. This team suggests new ways to increase quality. 5. This team is a good source of creative ideas. 6. This team is not afraid to take risks. 7. This team promotes and champions ideas to others. 8. This team exhibits creativity on the job when given the opportunity to. 9. This team develops adequate plans and schedules for the implementation of new ideas. 10. This team often has new and innovative ideas. 11. This team comes up with creative solutions to problems. 12. This team often has a fresh approach to problems. 13. This team suggests new ways of performing work tasks.

4.10 Data Collection

This section details the data collection procedure and elaborates the characteristics of the sample.

4.10.1 Survey Administration

As discussed in section 4.6, Bank B was considered suitable for the study. Accordingly, this study was conducted in 89 branches of the Bank B in China. Moreover, keeping in mind that the unit of analysis is the teams working in these branches, only those frontline service teams who maintain direct contact with customers were chosen.

The researcher first contacted one of the bank's directors and explained the objectives of the study. After obtaining the director's permission, the researcher asked the director to provide a list of local branches. The researcher was informed that the average number of customer contact employees in each branch is 6–10, depending on the size of the branch. Moreover, to reduce concerns in terms of common method variance, this study followed mainstream creativity scholars' recommendations: to survey employees and their managers separately (Anderson et al., 2014; Zhang et al., 2018; Lee et al., 2020). More specifically, team members were given the questionnaire regarding empowering leadership, team identification, knowledge sharing, relationship conflict and team efficacy; team leaders were asked to complete the questionnaire regarding basic team information and team creativity.

Self-administered anonymous survey forms were sent in person to the directors, who then made arrangements for the distribution to the relevant branches. Each package of questionnaires was

accompanied by a letter sent to those branch managers that explained the goal of our study, the right methods of data collection, the precautions to be taken during the survey, and the deadline for returning the surveys. For completing the questionnaire, each one came with detailed instructions. More importantly, it was made very clear to the responders that the information gathered would be private, anonymous, and that their identity would not be revealed. In the instructions, the participants were asked to return the completed questionnaire in sealable return envelopes, and the hr manager in each branch assisted the researcher in collecting the questionnaires. Table 4.14 summarise the techniques used for questionnaire survey.

Table 4.14: Techniques used for the questionnaire survey

Technique	**Used**
Organisational sponsorship	√
Cover letter	√
Envelope	√
Confidentiality	√
Anonymity	√
Reminder and deadline	√
Report of findings to participating organisation	√

4.10.2 Time-Lagged Survey

To reduce the influence of common method variance and to maximise the accuracy of the data, this study adopted a time-lagged approach (Hu et al., 2018; Peng et al., 2019). In other words, this research obtained data from multi-source and multi-wave data.

At time 1, the questionnaires (693 for employees) were distributed to 63 branches of the participating Bank. The questionnaires for each branch were differentiated by using a unique code along with distinguishing coloured printing ink so that it would be possible to identify and match different teams. The questionnaires for each participant were differentiated by using different Arabic numerals to ensure the time 2 survey will be completed by the same participant. More specifically, At Time 1, the researcher asked employees to report their basic personal information and complete questionnaires on empowering leadership and team identification. For the time 1 survey, this study obtained data from 587 employees and in 57 teams.

At Time 2 (2 weeks after the Time 1 survey), the researcher mailed the surveys to those employees who participated and finished the Time 1 survey and invited them to report on relationship conflict, team efficacy, and knowledge sharing. In the meantime, the team managers were asked to report on the basic information of the team (e.g., number of employees, etc.) and the designed questions regarding team creativity. To ensure that the employees and the mangers are from a same branch, different Arabic numbers were used for each branch, for

example, branch 1, branch 2, etc. In time 2, this study obtained data from 513 employees and 55 team managers for the time 2 - survey.

Of the total number of questionnaires distributed in Time 1 and Time 2, 476 were matched, giving an overall response rate of 68.7%. These in turn yielded 400 useable questionnaires (51 teams comprising 349 employees and 51 managers).

4.10.3 Sample

The sample in those branches comprised 35.6 % males and 64.4% females. The fact that most respondents were female was to be expected. In occupations involving direct contact with customers and frontline service in general, as well as in the financial services sector, female tend to be overrepresented (i.e., banks) in because they are more patient to customers, as well as their advantage in empathy (Richards & Roberts, 2020). The average age was discovered to be roughly 30 years old, and about 95 % were permanent staff in the bank. The average tenure was around 5.5 years. Table 4.15 provides the characteristics of the data.

Table 4.15: Characteristics of the data

Gender	Male: 35.6%; Female 64.4%
Mean age	30 years
Employment status	95% permanent
Average tenure	5.5 years

4.11 Conclusion

This chapter elaborated the methodological strategies that were employed in this study. First, the research philosophy and research approach adopted were discussed. Second, the research design and strategy adopted were outlined. Third, the rationale and process for selecting the context of the study were presented. Further, this chapter also elaborated upon the development of the survey instrument, such as its translation, the scale and items used to measure the constructs, along with the pilot study. Finally, the chapter presented the survey administration procedure and described the characteristics of the data. The data analysis process is discussed in detail in the next chapter.

CHAPTER 5 DATA ANALYSIS

5.1 Introduction

A range of statistical techniques were employed to analyse the data. In doing so, the researcher took into consideration the nature of the research, the objectives of the study and the relationship between the variables. The researcher used the Statistical Package for the Social Sciences (SPSS) as the software for the data analysis in this study. Descriptive analysis of the collected data was conducted to provide an understanding of the demographic characteristics of the participants (e.g., gender, age, education level and tenure). Descriptive analysis was also conducted of the results for each item of the constructs of the study (empowering leadership, team identification, intragroup relationship conflict, team efficacy, knowledge sharing, and team creativity), utilising several statistical techniques (e.g., means and standard deviations). Second, the data were assessed through exploratory factor analysis (EFA) and reliability tests were conducted using Cronbach's alpha in order to support the construct validity and internal reliability. Third, confirmatory factor analysis (CFA) was conducted via SPSS AMOS to assess the measurement model fit and construct validity. Regression tests were carried out to examine the relationships between the variables of the study and to assess support for the hypotheses. Moreover, the Hayes Process macro with SPSS was used to test for simple and sequential mediation in the study.

The proposed research questions frame the goal of data analysis, which is to derive generalisations from the data collected. From the beginning of this study, statistical approaches (i.e., quantitative methods) have been prioritised above qualitative methods for analysing the

data. As a result, starting with the creation of the questionnaire for data configuration and processing, every stage of the research was planned in accordance with this objective. Statistical analysis method was chosen because it can produce more solid and dependable findings, whereas qualitative method tends to yield results that considerable subjectively. In addition, using statistical methods and analysis approach would be better for deriving generalisations for the industry.

5.2 Data Coding

The collected data were transferred to SPSS statistical software for preliminary analysis. Coding of the study variables was carried out by providing labels, names, and scale types in the SPSS software.

5.3 Preliminary Examination of the Data

The following preliminary data examinations were conducted before starting the data analysis:

1) Missing data evaluation.
2) Identification of outliers.
3) Testing the assumption of multivariate analysis.

5.3.1 Evaluation of Missing Data

Missing data are the values of variable(s) that are not available for further analysis. Hair et al. (2014) suggested a 4-step process for identifying missing data and the application of appropriate

remedies. The collected data revealed no missing data, indicating that no intervention was required and that the four-step process was not applied.

5.3.2 Outlier Detection

Outliers are those low or high values of the variables that stand out from the other observations (Fawcett, 2013). Box plots were plotted in SPSS for each variable and resulted in a final sample of n = 349 for further analysis.

5.3.3 Assumption Testing

Four assumptions were emphasised by Hair et al. (2014) as having the ability to influence following multivariate approaches,

1) Normality
2) Homoscedasticity
3) Linearity
4) Multicollinearity

All the above assumptions were tested for all the individual constructs in this study.

5.3.3.1 Normality

Normality concerns the data distribution shape of each variable in the study representing a normal distribution. However, scholar suggests that the violation of non-normality can be judged based on two dimensions: that is, sample size and distribution shape (Hair et al., 2014). Regarding distribution shape, it can be measured by the *kurtosis* and *skewness* values. A normal

distribution indicates the values of kurtosis and skewness should be zero, any values other than zero implies non-normality presenting a non-normal distribution (Hair et al., 2014). Moreover, the Kolmogorov-Smirnov test in SPSS (KS test) - a significant KS test indicates variation from normality, was conducted to further examining the normality.

5.3.3.2 Homoscedasticity

According to the notion of homoscedasticity, the dependent variable should have identical variation across independent variables (Hair et al., 2014). Graphical tests of equal variance dispersion were assessed in SPSS to test the homoscedasticity assumption, results revealed uniform dispersion of dependent variable across independent variables, hence satisfying the homoscedasticity assumption.

5.3.3.3 Linearity

Multivariate techniques based on correlational measures of association requires to meet the assumption of linearity because correlations present only linear relationship between the independent and dependent variables(s). Scatterplots among the dependent and independent variables(s) have been plotted, results revealed most of the plots fall along a straight line representing a linear relationship with minor deviations from the straight. Thus, this indicated that the assumption of linearity to be satisfied.

5.3.3.4 Multicollinearity

Multicollinearity is the occurrence of high interrelations between two or more independent variables in a regression model. The tolerance and variance inflation factor (VIF) were calculated in SPSS. The results revealed that the collinearity statistics for each independent variable showed acceptable values for both tolerance and VIF.

Exploratory factor analysis and Confirmatory factor analysis

This section discusses the differences between exploratory factor analysis (EFA) and confirmatory factor analysis (CFA).

Aim

Finding common components in order to reduce dimensionality is the fundamental tenet of factor analysis. By counting the number of factors that affect the observed variables and calculating the strength of the correlation between each factor and each observed variable, exploratory factor analysis seeks to understand the underlying structure of a large set of variables. According to the researchers, factor loadings are the only way to perceptually infer the data's factor structure since each indicator variable is assumed to be matched to a certain factor.

In contrast, confirmatory factor analysis is primarily used to evaluate a model's capacity to fit real data, as well as to see if the variables being observed have the expected number of components and factor loadings based on existing theories. A priori theory is utilised to choose the indicator variables, and component analysis is performed to determine whether they are as

predicted. It is assumed that each component corresponds to a distinct subset of indicator variables. This necessitates at the very least a priori knowledge of the number of factors in the model, but it is occasionally also expected to know which variables rely on which factor.

Different application premise

Confirmatory factor analysis uses knowledge from the past, whereas exploratory factor analysis does not. Exploratory factor analysis (EFA) is a method of factor analysis that relies on sample data and uses statistical software with specific rules on the premise of not knowing the influencing variables in advance and ultimately discovering the factors. It is not required to know how many factors to utilise or the connection between each component and the observed variable prior to conducting an exploratory factor analysis. Since there is no pre-existing theory, exploratory factor analysis can only infer the factor structure of the data perceptually through factor loadings. Each common factor is evenly stated to affect each observable variable, and the number of common factors is not determined before the analysis but rather according to the intermediate findings obtained throughout the analysis process. When conducting management research, it can be challenging to arrive at scientific conclusions that do not consider prior beliefs or experience. As a result, exploratory factor analysis is better suited for data analysis without theoretical underpinning. Confirmatory factor analysis testing is necessary for future investigation.

On the other hand, confirmatory factor analysis is based on pre-existing theories and requires prior assumptions regarding the factor structure, to test if this structure is compatible with the

observed data, each component is assumed to correspond to a particular subset of the indicator variables.

Different theoretical assumptions

The assumptions of exploratory factor analysis include:

1) The correlation of all shared components

2) All common variables have a direct impact on all observable variables.

3) Special (individual) elements 4) Each observable variable is unrelated to the others and is only impacted by one unique (special) component

5) The special factor (uniqueness) and the common factor are independent of one another.

The flaw that exploratory factor analysis assumptions are overly restricted is fixed by confirmatory factor analysis. Its presumptions consist of:

1) Common factors may or may not be connected
2) Observed variables need not be impacted by all common factors; they might be impacted by just one or a few of them.
3) It is possible for observed variables to exist without error factors and for special factors to be associated.
4) The common and unique elements are unrelated to one another.

Different analysis steps

The seven steps in exploratory factor analysis are as follows:

1) Gathering data on observed variables: Typically, sampling techniques are employed to gather data on observed variables in accordance with the scenario at hand.

2) Creating the correlation matrix: The correlation matrix may be used to assess whether the data is appropriate for factor analysis.

3) Determine the number of factors: The number of factors can be presumptively estimated based on the real scenario, or it can be determined based on the gravel criteria or the criterion that the characteristic root is more than 1.

4) Extraction factor: based on demands, select the best factor extraction technique, such as the main component approach, weighted least squares method, maximum likelihood method, etc.

5) Factor rotation: in order to effectively describe the component structure, it is usually essential to rotate the factors (common rotation methods include orthogonal rotation, oblique rotation, etc.), as the original factors are too comprehensive and make it difficult to determine their true meaning.

6) Factor structure explanation: Depending on the circumstances and the weight of the load, the factors can be described in depth.

7) Factor scores calculation: Common factors can be used for assessment, cluster analysis, and other types of research.

The six steps in a confirmatory factor analysis are as follows:

1) Establish the factor model, which includes deciding on the number of components and factor loadings. Factor loadings may be fixed at 0, another freely fluctuating constant, or a quantity that fluctuates under certain restrictions.
2) Observation gathering: Gather observations in accordance with the goal of the study.
3) Compute the variable covariance matrix using the original data, then compute the correlation coefficient matrix.
4) Model fitting: To estimate the freely variable factor loadings, one must select a method (such as maximum likelihood estimation, asymptotic distribution free estimation, etc.).
5) Evaluation model: When the factor model can match the data, the factor loadings should be chosen so that the discrepancy between the inferred correlation matrix and the actual observation matrix is as little as possible. The chi-square fit index (x), comparative fit index (CFI), goodness-of-fit index (GFI), and root mean square estimate error are often used statistical measures (RMSEA). x/DF 3.0, CFI 0.90, GFI 0.85, and RMSE 0.05 suggest that the model's fitting degree is satisfactory per Bentler's (1990) recommended standards.
6) Model revision: If the constraint relationship needs to be changed or redefined in order to get the best model, this should be done if the model fitting impact is poor.

The main scope of the application is different. Three key applications of exploratory factor analysis are (1) finding fundamental structure and addressing the issue of high correlations between variables in multivariate statistical analysis, (2) data reduction, and (3) creating measurement scales (Watkins, 2018). Confirmatory factor analysis enables researchers to create a measurement model of observed variables based on theory or prior hypotheses, and then assess the level of agreement between this component structure and the sample data specified by the theory (Harrington, 2009; Brown & Moore, 2012). Consequently, it is mostly utilised in the following three areas: The most efficient factor structure is determined by (1) confirming the dimension or dimensionality of the scale, (2) confirming the hierarchical connection of the components, and (3) assessing the validity and reliability of the scale Spend.

Correct usage of exploratory factor analysis and confirmatory factor analysis

As discussed above, confirmatory factor analysis and exploratory factor analysis are two crucial and interdependent components of factor analysis that are used in the real-world application of management research. These two components can only work together to complement one another and deepen the research. Exploratory factor analysis should be used to construct the model early in the theory-development process. Concepts and computational tools are then provided for identifying the model, which can subsequently be verified and revised. The offered results serve as a crucial foundation and guarantee for developing hypotheses for confirmatory factor analysis. The factor analysis will be incomplete if neither of the two factor analyses is

performed. The internal structure of the observed variables is often first analysed using exploratory factor analysis to produce a theory about the internal structure, and then confirmatory factor analysis is utilised on this basis if the researcher does not have a strong theoretical foundation to support them.

5.4 Exploratory Factor Analysis

The basic assumption of factor analysis is to know whether the measured items/observed variables in the survey share similar patterns of response, do these items ‘‘hang together’’ to reflect only one or a few number of underlying constructs (Fabrigar & Wegener, 2010). Accordingly, the purpose to do exploratory factor analysis (EFA) is to purify the measures by keep only those items that are highly intercorrelated and omitting the ‘‘garbage items’’ (Reio & Shuck, 2015).

The purpose of the EFA is to clarify:

a) The set of measurements is supported by a number of common variables.
b) The association between items and factors.
c) correlation of factors.
d) identify needed and problematic items for the following CFA.

Before conducting the EFA, few steps have been carried out:

5.4.1 Sample-to-Item Ratio

According to Nunnally (1978), the subject to item ratio in EFA should be 10:1. Moreover, Gorsuch (1983) suggested that the subject to item ratio in EFA be at least 5:1, and researchers

agree that greater ratios are normally preferable. In this study, the sample to item ratio was above 10:1 since 28 items in a sample size of 349, accordingly, the 5:1 criterion was met.

5.4.2 Data Appropriateness for Factor Analysis

To ascertain whether the variables were suitable for factor analysis, the *Bartlett* test of *sphericity* and the Kaiser-Meyer-Olkin measure (KMO) were used. Bartlett's test provides the statistical analysis of the correlations among the items (Snedecor et al., 1989; Hair et al., 2006). As a rule of thumb, a significant Bartlett's test (i.e., sig. < .05) indicates the items are intercorrelated, thus, the data is appropriateness for factor analysis. Kaiser-Meyer-Olkin (KMO) measure, is a statistic that measuring the homogeneity of the items, indicate the extent of which items of a construct are interrelated to each other. suitability of data for structure detection. High values (close to 1.0) generally indicate that a factor analysis is appropriate for the data. On the other hand, if the value is less than 0.50, the results of the factor analysis probably won't be very useful (Sharma 1996).

5.4.3 Factor Extraction and Rotation Method

Once the data seen as appropriate for factor analysis, there are 3 decisions that need to be formulated before conducting the analysis:

1) Selection of a factor extraction method (e.g., principal axis vs principal component).
2) Selection of a rotation method.
3) Threshold setting when calculating factor scores.

5.4.3.1 Selecting a Factor Extraction Method

The selection of a factor extraction method depends on the objective of the factor analysis and prior knowledge of the characteristics of the relationship(s) between the items. The approach to factor extraction can be chosen from between two methods: component and common factor analysis. Component (i.e., principal component) analysis is used for data reduction purposes and accounts for the total variance of the variables to derive the factors containing proportions of unique variance. In contrast, common factor analysis only considers the shared variance in order to identify latent constructs; there is little knowledge of the amount of variance of the items (Hair et al., 2014). In this study, the principal component analysis (PCA) was chosen as the extraction method because the latent constructs are already known and the objective was data reduction by identifying and eliminating problematic items.

5.4.3.2 Selecting a Factor Rotation Method

Factor rotations can be oblique or orthogonal. Oblique factor rotation assumes the theoretically underlying dimensions are correlated, whereas orthogonal rotation assumes these are uncorrelated. There are three major orthogonal approaches: Varimax, Quartimax and Eqimax. Oblique rotation approaches are Promax, Doblimin, Promax, Oblimin and Dquart. Orthogonal rotation methods are the most widely used (Hair et al., 2014) and Varimax is the rotation method predominantly applied in management and marketing research (Lee & Hooley, 2005). Thus, orthogonal rotation – Varimax – was used in this study.

5.4.3.3 Factor Loadings

Factor loadings are the correlation coefficients between latent common factors and observable variables. According to Hair et al (2006), a minimal loading of 0.4 represented a significant factor loading and any loading below 0.4 should be considered as the criteria for cut-offs. This is consistent with Stevens (1992), who recommends a cut-off of 0.4 for interpretive purposes regardless of sample size. This is illustrated in Table 5.1.

Table 5.1: Factor loading criteria (Hair et al., 2006)

Factor loading	Sample size needed for significance
.30	350
.35	250
.40	200
.45	150
.50	120
.55	100
.60	85
.65	70
.70	60
.75	50

However, other writers support more stringent cut-off values (Guadagnoli & Velicer, 1988; Tabachnick & Fidell, 2007). For instance, Guadagnoli & Velicer (1988) and Field (2005) advocate considering a factor to be trustworthy regardless of the sample size if it has four or more loadings of at least 0.6 when the frequency distributions of the items diverge. More rigorous cutoffs, such as 0.32 (poor), 0.45 (fair), 0.55 (good), 0.63 (very good), and 0.71, are

suggested by Tabachnick and Fidell (2007). (excellent). Despite these different strategies, the 0.4 minimum loading is frequently used (Spector, 1992), Thus, the 0.4 minimum loading was adopted by this study and a target of 0.6 minimal loading were aimed for in the analysis. Additionally, while running the CFA, any items with factor loadings near 0.4 will be noted and given extra consideration.

5.4.3.4 Reliability/Testing for Internal Consistency

How effectively a survey truly measures what the author intends it to measure may be determined by looking at its internal consistency dependability (Salkind, 2005). One of the most widely statistical method for testing internal consistency is Cronbach's Alpha test (Lavrakas, 2008). The quantity of test items and their average intercorrelation affect Cronbach's alpha (see formula for Cronbach's alpha below):

$$\alpha = \frac{N \cdot \bar{c}}{\bar{v} + (N-1) \cdot \bar{c}}$$

Where:

- N = number of items
- $\bar{c}$ = average covariance between item-pairs
- $\bar{v}$ = average variance

5.4.3.5 Rule of Thumb for Results

A rule of thumb for interpreting Cronbach's alpha is presented in Table 5.2.

Table 5.2: Rule of thumb for results

Cronbach's alpha	Internal consistency
a ≥ .9	Excellent
.8 ≤ a < .9	Good
.7 ≤ a < .8	Acceptable
.6 ≤ a < .7	Questionable
.5 ≤ a < .6	Poor
a < .5	Unacceptable

In general, a score above .7 is usually acceptable. However, some authors suggest higher values of .90 to .95.

5.4.4 Avoiding Issues with Cronbach's Alpha

5.4.4.1 Number of Items

If the alpha value is high, the items may be highly connected. However, the quantity of objects has an impact on Cronbach's alpha as well. A higher value can be achieved with a larger number of elements, whereas a lower value can be achieved with a fewer number of pieces. If alpha is high, it could have been a redundant query. (i.e., they're asking the same thing). A low alpha score, on the other side, can mean that there aren't enough questions.

5.4.4.2 Unidimensionality

Cronbach's alpha's uni-dimensionality presupposes that the questions are only assessing one latent variable or dimension, when measuring more than one dimension, the test results might be meaningless. Breaking the tests into sections and assessing a different latent variable or

dimension with each part is one approach to the problem. In the scenario that not sure about the unidimensional, factor analysis is the procedure to identity the dimensions.

As previously mentioned, these problems or restrictions were considered when performing and analysing the Cronbach's alpha test.

5.4.5 EFA and Reliability Results

For each of the multi-item reflective measures, EFA and internal consistency evaluations were conducted. The following present the individual factor analyses results for empowering leadership, team identification, relationship conflict and knowledge sharing.

5.4.5.1 Empowering Leadership

Principal components factor analysis with orthogonal rotation (i.e., varimax) was conducted on twelve items which should conceptually represent the construct empowering leadership. The sample for the analysis was confirmed by the KMO measure and Bartlett's tests, with a value for KMO = 0.894 suggesting homogeneous variables. The Eigenvalues were analysed in relation to Kaiser's criteria of 1, which, taken together, accounted for 77.3% of the variance.

Table 5.3 presented the factor loadings after rotation. The items' loadings on the respective factors were.738 or higher, which is much greater than the threshold value of 0.4. Besides, the Cronbach's alpha value was shown as 0.908, above the 0.7 criterion and indicating a likely internal reliability. In addition, the Cronbach's alpha output in which under "if the item is removed" showed that doing so would not cause the Cronbach's alpha to increase, for example, internal reliability is 0.901 after removing the lowest loading item, EL 01.

Table 5.3: EFA and internal reliability analysis – empowering leadership

EFA and Cronbach's alpha					
Factor	KMO and Bartlett's test KMO > .5 BT sig. < .05	Factor loadings > .6	Cronbach's alpha > .7	Eigenvalue > 1	% of Variance
Empowering leadership	KMO: .894 Bartlett's test: x^2: 894 df: 66 sig.: .000	EL_01 .738 EL_02 .843 EL_03 .771 EL_04 .754 EL_05 .791 EL_06 .853 EL_07 .749 EL_08 .807 EL_09 .838 EL_10 .784 EL_11 .833 EL_12 .841	.908	8.3	77.2

5.4.5.2 Team Identification

The analysis consisted of four scale items, which resulted in a KMO value of .825 (i.e., > .50) with a significant Bartlett's test of sphericity (< .001). The total variance explained by the item combination is 73.167%. The factor loadings of all the items were above the minimum level of .40, even above .60, indicating intercorrelation of the items, with a highest value of .888. The reliability statistics revealed a Cronbach's alpha of .877, which is above the minimum value of

.70, indicating internal consistency. The item total statistics did not reveal any increase in Cronbach's alpha if any of the items was deleted. Table 5.4 presents detailed results of the EFA and reliability tests.

Table 5.4: EFA and internal reliability analysis – team identification

EFA and Cronbach's alpha					
Factor	KMO and Bartlett's test KMO > .5 BT sig. < .05	Factor loadings > .6	Cronbach's alpha > .7	Eigenvalue > 1	% of Variance
Team identification	KMO: .825 Bartlett's test: x^2: 711 df: 61 sig.: < .001	TI_01 .863 TI_02 .852 TI_03 .888 TI_04 .813	.877	7.4	73.167

5.4.5.3 Relationship Conflict

The analysis consisted of four scale items, which resulted in a KMO value of .755 (i.e., > .50) with a significant Bartlett's test of sphericity (< .001). The total variance explained by the item combination is 63.155%. The factor loadings of all the items were above the minimum level of .40, even above .60, indicating intercorrelation of the items, with the highest value of .823. The reliability statistics revealed a Cronbach's alpha of .805, which is above the minimum value of .70, indicating internal consistency. The item total statistics did not reveal any increase in Cronbach's alpha if any of the items was deleted. Table 5.5 shows the results of the EFA and reliability tests for relationship conflict.

Table 5.5: EFA and internal reliability analysis – relationship conflict

EFA and Cronbach's alpha					
Factor	KMO and Bartlett's test KMO > .5 BT sig. < .05	Factor loadings > .6	Cronbach's alpha > .7	Eigenvalue > 1	% of Variance
Relationship conflict	KMO: .755 Bartlett's test: x^2: 452 df: 6 sig.: < .0001	RC_01 .780 RC_02 .808 RC_03 .823 RC_04 .770	.805	8.7	63.155

5.4.5.4 Knowledge Sharing

The analysis consisted of four scale items, which resulted in a KMO value of .794 (i.e., > .50) with a significant Bartlett's test of sphericity (< .001). The total variance explained by the item combination is 66.334%. The factor loadings of all the items were above the minimum level of .40, even above .60, indicating intercorrelation of the items, with the highest value of .855. The reliability statistics revealed a Cronbach's alpha of .828, which is above the minimum value of .70, indicating internal consistency. The item total statistics did not reveal any increase in Cronbach's alpha if any of the items was deleted. Table 5.6 shows the EFA and reliability results for knowledge sharing.

Table 5.6: EFA and internal reliability analysis – knowledge sharing

EFA and Cronbach's alpha					
Factor	KMO and Bartlett's test KMO > .5 BT sig. < .05	Factor loadings > .6	Cronbach's alpha > .7	Eigenvalue > 1	% of Variance
Knowledge sharing	KMO: .794 Bartlett's test: x^2: 511 df: 6 sig.: < .001	KS_01 .785 KS_02 .782 KS_03 .827 KS_04 .855	.828	8.2	66.334

5.4.5.5 Team Efficacy

The analysis consisted of four scale items, which resulted in a KMO value of .723 (i.e., > .50) with a significant Bartlett's test of sphericity (< .001). The total variance explained by the item combination is 55.936%. The factor loadings of all the items were above the minimum level of .40, indicating intercorrelation of the items, with the highest value of .854. The reliability statistics revealed a Cronbach's alpha of .729, which is above the minimum value of .70, indicating internal consistency. The item total statistics revealed an increase in Cronbach's alpha if item_04 were deleted (from .729 to .798). Table 5.7 presents the EFA and reliability results for team efficacy.

Table 5.7: EFA and internal reliability analysis – team efficacy

EFA and Cronbach's alpha					
Factor	KMO and Bartlett's test KMO > .5 BT sig. < .05	Factor loadings > .6	Cronbach's alpha > .7	Eigenvalue > 1	% of Variance
Team efficacy	KMO: .723 Bartlett's test: x^2: 377 df: 6 sig.: < .001	TE_01 .766 TE_02 .854 TE_03 .824 TE_04 .554	.729	7.8	55.936

5.4.5.6 Team Creativity

The analysis consisted of 13 scale items, which resulted in a KMO value of .763 (i.e., > .50) with a significant Bartlett's test of sphericity (< .001). The total variance explained by the item combination is 69.059%. The factor loadings of all the items were above the minimum level of .40, indicating intercorrelation of the items, with the highest value of .859. The reliability statistics revealed a Cronbach's alpha value of .789, which is above the minimum value of .70, indicating internal consistency. The item total statistics did not reveal any increase in Cronbach's alpha if any of the items was deleted. Table 5.8 shows the EFA and reliability results for team creativity.

Table 5.8: EFA and internal reliability analysis – team creativity

EFA and Cronbach's alpha					
Factor	KMO and Bartlett's test KMO > .5 BT sig. < .05	Factor loadings > .6	Cronbach's alpha > .7	Eigenvalue > 1	% of Variance
Team creativity	KMO: .763 Bartlett's test: x^2: 759 df: 66 sig.: .000	TC_01 .807 TC_02 .720 TC_03 .753 TC_04 .722 TC_05 .751 TC_06 .812 TC_07 .782 TC_08 .813 TC_09 .816 TC_10 .771 TC_11 .799 TC_12 .796 TC_13 .732	.789	7.9	69.059

5.4.6 EFA Analysis

After the EFA for individual construct, a principal component analysis with orthogonal rotation (i.e., varimax) was conducted on all constructs, n=27 items. The sample's suitability for the analysis was confirmed by KMO measure. Hair et al., 2006 described KMO = 0.909 as "marvellous" and a significant Bartlett's test of sphericity: $x^2 = 5019.23$; df = 351; sig. 0.000. A seven-component solution was identified by analysing the factor loadings upon rotation and

extracting the factors with Eigenvalues larger than 1. The loadings of the items on each factor were all more than 0.4. The items that cluster on the same factor suggest that factor one represents team identification, factor two represents relationship conflict, factor three represents knowledge sharing and enhancing meaningfulness of work (one of the four dimension of empowering leadership), factor four represents autonomy (EL-dimension), factor five represents participation in decision making(EL- dimension), factor six represents expressing confidence in high performance (EL -dimension), factor seven represents team efficacy, items on factors two and three were cross-loaded.. Hair et al (2006) proposed that specifying the number of components as theoretically anticipated would be one way to address variables that have cross-loadings. Following this, the number of components to be extracted is fixed at eight, consequently, revealed that knowledge sharing and enhancing meaningfulness of workload on separate factors. Each item loads on a different factor as is conceptually intended, the item TE_04 appears to be a problematic item, as this item is theorised to linked with team efficacy but load on one factor instead. The factor loading for all other elements was greater than the permitted upper maximum of 0.4., more specifically, all items showed above the stringent cut-off of .6 as suggested by Field (2005). Table 5.9 presented the KMO and Bartlett's Test results, and Table 5.10 illustrates the Factor loadings.

Table 5.9: KMO and Bartlett's test results

KMO and Bartlett's test		
Kaiser–Meyer–Olkin measure of sampling adequacy		.909
Bartlett's test of sphericity	Approx. x^2	5019.234
	df	351
	Sig.	.000
Extraction method: Principal component Rotation method: Varimax with Kaiser normalisation		

Table 5.10: Factor loadings

	Rescaled Component							
	1	2	3	4	5	6	7	8
EL1							.683	
EL2							.814	
EL3							.744	
EL4					.754			
EL5					.767			
EL6					.784			
EL7						.707		
EL8						.772		
EL9						.818		
EL10				.752				
EL11				.837				
EL12				.786				
teamidentification_1	.787							
teamidentification_2	.771							
teamidentification_3	.839							
teamidentification_4	.759							
knowledgeshaing_3		.717						
knowledgesharing_4		.754						

knowledgesharing_1		.779					
knowledgesharing_2		.783					
relationshipconflict_1			-.776				
relationshipconflict_2			-.744				
relationshipconflict_3			-.724				
relationshipconflict_4			-.675				
teamefficacy_1							.801
teamefficacy_2							.804
teamefficacy_3							.721

5.5 Confirmatory Factor Analysis

Exploratory factor analysis provides the researcher with information about the number of factors (i.e., how many) are appropriate to represent the collected data that are derived from the statistical data based on the factor loadings. Confirmatory factor analysis is different from EFA in that the researcher specifies the number of factors and items that will load onto a particular factor based on theory (Hair et al., 2014). Furthermore, CFA assists the researcher to confirm or reject a theory by establishing how the theoretically specified factors match the actual data (Hair et al., 2014). Thus, CFA is based on measurement theory, whereby predefined factors or conceptual constructs are specified in the measurement model (Hair et al., 2014). According to Hair et al. (2014), CFA is a stepwise process that includes the following:

1) measurement model development;
2) measurement model specification and identification;
3) measurement model fit assessment; and
4) measurement model validity assessment.

5.5.1 Development of the Measurement Model

For developing an overall measurement model for CFA, unidimensionality is important when there are more than two constructs involved in the analysis. This term refers to the suggestion that a set of measured items should explain only one construct (Hair et al., 2014). Moreover, the constructs should be defined as reflective or formative (Edwards & Bagozzi, 2000). Reflective measurement theory assumes that the measured items is caused by constructs. In contrast, formative measurement theory assumes that constructs are not latent, and measurement error is an inability to define the constructs (Edwards & Bagozzi, 2000). In this study, the constructs used in the VFA are reflective or latent and thus arrows in the CFA are drawn from the latent constructs towards the measured items.

5.5.2 Measurement Model Specification

To create a theoretical model, one must "use available theory and research" and "determine relationship(s) and parameter(s) in the model that are of interest to the researcher." (Schumacker & Lomax 2010). As CFA tests the measurement theory, the measurement model was defined based on theoretical ground. The proposed model of this study included four first-order constructs (i.e., team identification, relationship conflict, knowledge sharing, and team efficacy) as well as a second-order construct (i.e., empowering leadership with four dimensions), 31 indicators in total. Sample size is 349.

5.5.3 Model Identification

The degrees of freedom of the measurement model are referred to as model identification, and they are used to assess whether the measurement model is over-identified, just identified, and/or under-identified (Schumacker & Lomax, 2010). Byrne (1998) advises using the covariances and variances of the observed variables along with the p variables to determine the model's identification (equation below):

$$p\,(p + 1) / 2$$

Where ***p*** is the total number of measured items.

When conducting CFA, it is recommended to have an overidentified model that consists of positive degrees of freedom (Hair et al., 2014).

5.5.4 Assessing Measurement Model Fit

After the measurement model is specified, the Goodness-of-fit (GOF) of the model was interpreted. GOF concerns how accurately the theoretically described measurement model reproduces the covariance matrix produced from the observed data. Moreover, a number of GOF indices have been created to evaluate a measurement model's reliability which includes absolute, incremental and parsimony fit indices (Marsh, Hau & Wen, 2004; Hair et al., 2004; 2006).

5.5.4.1 Absolute Fit Indices

The chi square (x2) is one of the most basic fit statistics in the category of absolute fit indices, measuring the degree to which the stated model fits the sample data that were gathered

(Joreskog & Sorbom, 1993). If there is a relationship between the measures and, the x2 depends on the sample size (N) and the difference between the observed and estimated covariances. A low x2 value indicates that there is little variation between the fitted and sample covariance matrices, which leads to a better model fit. (1999; Hu and Bentler). Additionally, it has been suggested that a ratio of less than 3:1 for normed chi-square, which measures the relationship between x2 and degrees of freedom (x2:df), indicates a better fit (Hair et al., 2016). Additionally, the root mean square error of approximation (RMSEA), which originates from Seiger and Lind (1980), is regarded as one of the most useful metrics for demonstrating how well a model fits the population as opposed to merely the sample. A strict upper limit of.07 denotes an excellent match (Hair et al., 2004, 2006; Hooper et al., 2008; Steiger, 2007).

5.5.4.2 Incremental Fit Indices

Incremental fit indices are used to compare model fit in relation to an alternative baseline model. The comparative fit index (CFI) and Tucker–Lewis index (TLI) were assessed for the measurement model in this study. CFI is insensitive to model complexity, and a better fitting model should have a CFI value above .90. Moreover, a TLI value approaching 1 indicates a good model fit.

5.5.4.3 Construct Validity

Construct validity refers to the accuracy of the measurement; that is, that the observed items only reflect those latent constructs that they were designed to measure. Construct validity is measured by convergent and discriminant validity.

5.5.4.3.1 Convergent Validity

As per the rule of thumb, convergent validity (i.e., factor loadings) should be above .50 and, ideally, above .70 (Hair, 2015; Saunders et al., 2019). Another measure that indicates convergent validity is the average variance extracted (AVE), which refers to the measure of mean variance extracted for the item(s) loading on a latent construct. An AVE value above .50 indicates sufficient convergence. A final measure of convergent validity is construct reliability (CR). A CR value above .70 indicates good reliability.

5.5.4.3.2 Discriminant Validity

Discriminant validity indicates the uniqueness of a construct, which means that the individual measured items should represent only one latent construct. To test discriminant validity, the AVE value of each construct should be greater than the squared correlation estimates with other constructs.

5.5.4.4 The Higher-Order Factors

The construct empowering leadership is suggested by theory and prior empirical research to be a multidimensional construct (Cheong et al., 2019). The associated constructs are evaluated by the empowered leadership four sub-dimensions as mentioned above, each of these sub-dimensions were measured by three items. The second-order model illustrates the idea that these four dimensions, although appearing to be different, are actually related and can be explained by a single fundamental concept (Ahearne et al., 2005). According to Bryne (1998), extra

restrictions have to be put in place in order to test this model, For example, the first regression route of each first-order component and the higher-order factor has constrained to 1.0.

5.5.5 Confirmatory Factor Analysis Results

5.5.5.1 Model Specification

The measurement model is specified with five factors; that is, empowering leadership (second order), and four first-order factors: team identification, relationship conflict, knowledge sharing, and team efficacy. The second-order factor empowering leadership is reflected by the constructs of enhancing meaningfulness of work (EL_01 to EL_03); expressing confidence in high performance (EL_04 to EL_06); fostering participation in decision making (EL_07 to EL_09); and providing autonomy from bureaucratic constraints (EL_10 to EL_12). The four first-order factors are team identification, reflected by four items (TI_01 to TI_04); relationship conflict, reflected by four items (RC_01 to RC_04); knowledge sharing, reflected by four items (KS_01 to KS_04); and team efficacy, reflected by four items (TE_01 to TE_04). Measurement errors connected to each observed variable were designated as uncorrelated.

5.5.5.2 Model Identification

For identification of the measurement model, the t-rule was applied (see equation below):

Equation:

$$p(p+1)/2-k$$

The measurement model showed that there were a total of 28 observed items and a total of 70 different parameters that needed to be estimated, which resulted in 28(28+1)/2 – 70 (i.e., 406 - 70) = 336, indicated the measurement model is overidentified. Figure 5.1 below presented the graphical specification of the initial measurement model consisting of all 28 measured items.

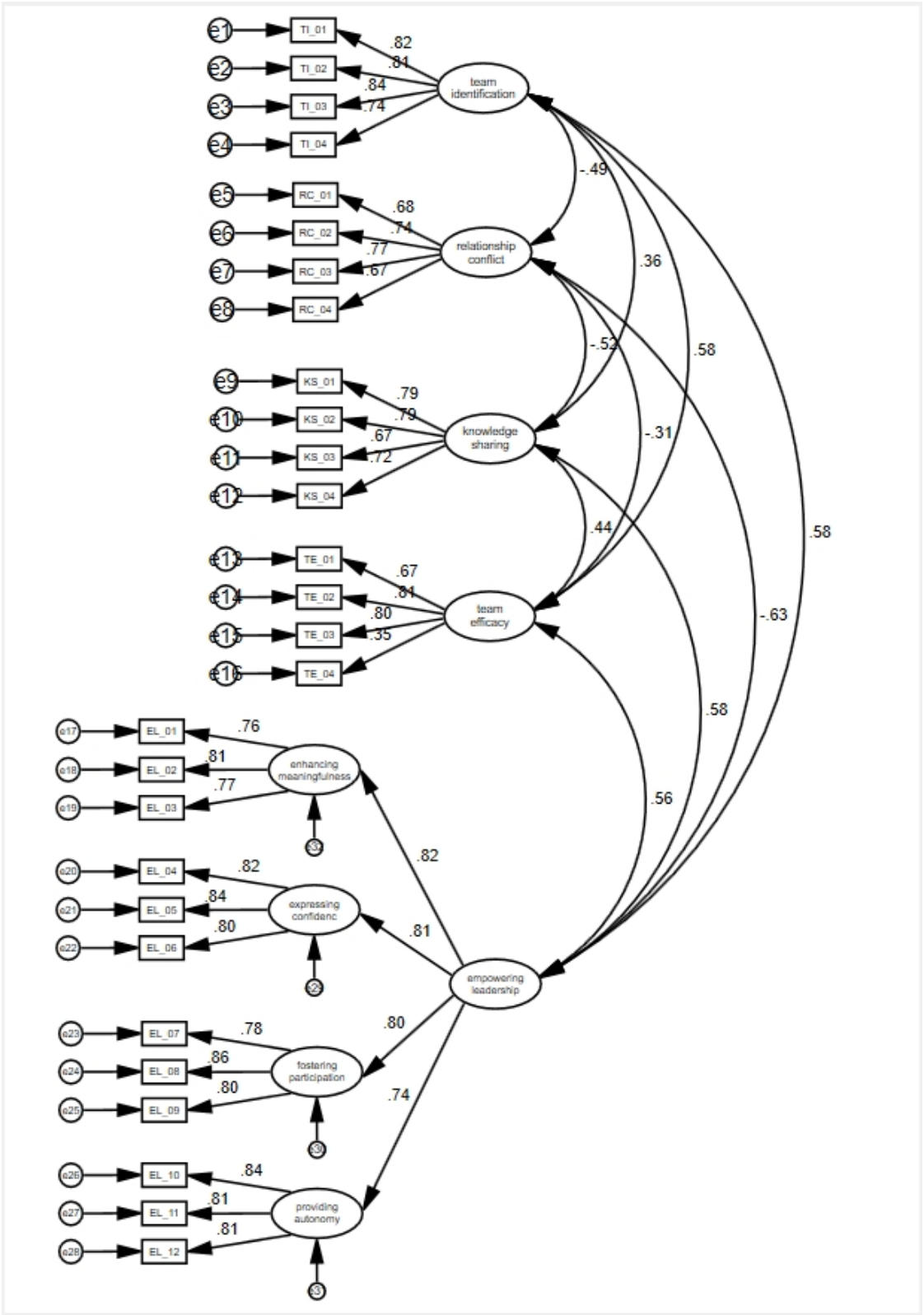


Figure 5.1: Initial measurement model

5.5.6 Model Fit and Construct Validity Assessment

The initial measurement model was analysed for model and construct validity. Moreover, based on the EFA, initial model fit and initial construct validity values, problematic items were removed to achieve the best possible model fit and construct validity.

5.5.6.1 Model Fit

The AFI (x^2/df, RMSEA) and incremental fit indices (CFI, TFL) were analysed for the initial model. Table 5.11 illustrates the fit statistics from the initial CFA output and the results showed that model fit could be improved.

Table 5.11: Initial measurement model fit

Model fit indices	x^2, df	x^2/df < 3	RMSEA < .07	CFI > .90	TLI > .90
All items	508 (336)	1.513	.038	.965	.960

5.5.6.2 Construct Validity

The values of construct validity measures were also analysed. Factor loadings were interpreted in the Amos output figure. Results revealed that factor loadings of the items are above the ideal threshold value of .70, except the item TE_04 showed factor loading (.35) less than the minimum threshold level of .50. accordingly, this item was removed due to poor factor loading. Average variance extracted (AVE) of all 5 latent constructs were calculated, the results revealed that the AVE of all latent constructs were above the acceptable value .50 except for the construct 'team efficacy', AVE = .464. Moreover, the construct reliability (CR) was assessed for all latent

constructs. The results revealed that all constructs above the minimum value of .70. Table 5.12 presented the AVE and CR values of every latent constructs in the measurement model.

Table 5.12: Convergent validity results of the initial measurement model

Latent constructs	**EL**	**TI**	**RC**	**KS**	**TE**
CR	.825	.878	.807	.831	.762
AVE	.612	.643	.513	.553	.464

EL = empowering leadership; TI = team identification; RC = relationship conflict; KS = knowledge sharing; TE = team efficacy.

5.5.6.3 Discriminant Validity

The discriminant validity of all latent constructs was also examined. The AVE value of each latent construct was compared against its squared correlation value with the other constructs. The results satisfied the discriminant validity for all constructs.

5.5.6.4 Improving Measurement Model Fit and Construct Validity

Firstly, the evaluative Team efficacy item, TE_04 was removed since it has also been noted as a problematic item in the exploratory factor analysis (EFA). The removal of this item improved all the model fit indices, and the AVE from .464 to .579. Table 5.13 below presented the model fit metrics.

Table 5.13: Overall model fit and modification – measurement model

Model fit indices	x^2, df	$x^2/df < 3$	RMSEA < .07	CFI > .90	TLI > .90
All items	508 (336)	1.513	.038	.965	.960
TE_04 removed	466 (310)	1.504	.038	.968	.963

The final model fit statistics, $x^2 = 466.091$; df = 310; RMSEA = .038; CFI = .968 and TLI = .963 indicate adequate measurement model fit. Table 5.14 below shows the outcomes for the whole measurement model, which also contains the standardised factor loadings, AVE, and CR.

Table 5.14: Factor loadings, AVE and CR of the final measurement model

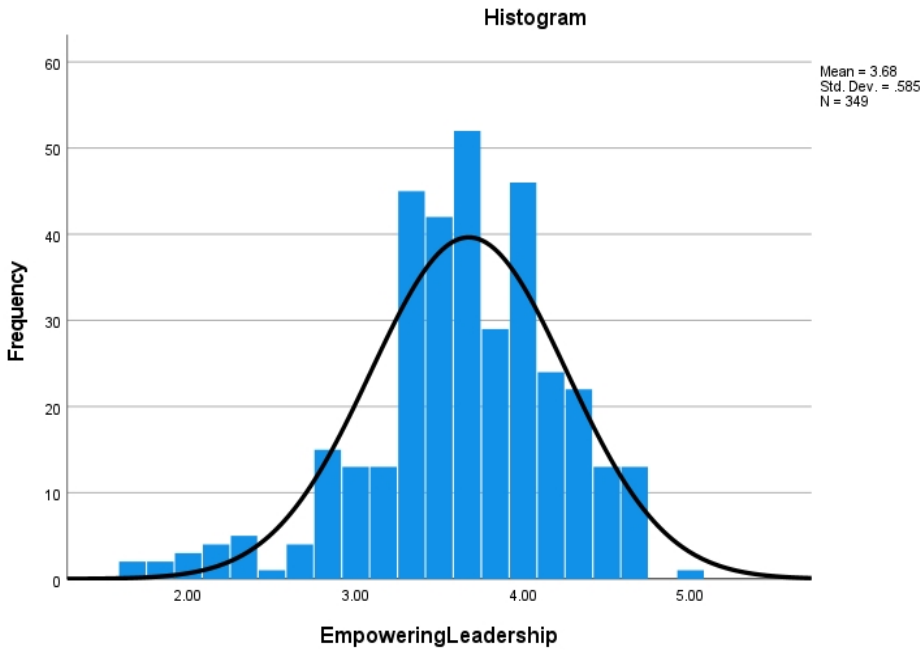
Latent construct	Items	Factor loadings	AVE	CR
Empowering leadership	*EL_01*	*.762*	*.611*	*.825*
	EL_02	*.809*		
	EL_03	*.773*		
	EL_04	*.815*		
	EL_05	*.838*		
	EL_06	*.797*		
	EL_07	*.775*		
	EL_08	*.860*		
	EL_09	*.797*		
	EL_10	*.839*		
	EL_11	*.810*		
	EL_12	*.808*		
Team identification	*TI_01*	*.822*	*.623*	*.868*
	TI_02	*.809*		
	TI_03	*.837*		
	TI_04	*.735*		
Relationship conflict	*RC_01*	*.678*	*.513*	*.808*
	RC_02	*.742*		
	RC_03	*.773*		
	RC_04	*.667*		

Knowledge sharing	*KS_01*	*.792*	*.553*	*.831*
	KS_02	*.789*		
	KS_03	*.665*		
	KS_04	*.721*		
Team efficacy	*TE_01*	*.670*	*.643*	*.878*
	TE_02	*.821*		
	TE_03	*.783*		
Team creativity	*TC_01*	*.807*	*.531*	*.811*
	TC_02	*.720*		
	TC_03	*.753*		
	TC_04	*.722*		
	TC_05	*.751*		
	TC_06	*.812*		
	TC_07	*.782*		
	TC_08	*.813*		
	TC_09	*.816*		
	TC_10	*.771*		
	TC_11	*.799*		
	TC_12	*.796*		
	TC_13	*.732*		

5.6 Results of Descriptive Analysis of Final Latent Constructs

5.6.1 Empowering Leadership

The construct is reflected by twelve items (i.e., from EL_01 to EL_12). The scale has a minimum value of 1.67, maximum value of 5 and mean values of 3.67. A histogram was plotted to depict the normal distribution of the construct along with the kurtosis and skewness values. For statistical significance analysis, the Kolmogorov-Smirnov test (KS test) was also applied. The outcomes demonstrated that the KS test is significant with a value of .080 (sig <.001) indicating non-normality. However, the kurtosis value .963 and skewness value - .700 within the threshold value of -7 to +7 (Byrne, 2016) and -1 to +1 (Hair et al., 2016) respectively,



depicting minor departures from normal distribution. Figure 5.2 shows the distribution of the empowering leadership construct.

Figure 5.2: Distribution of empowering leadership

5.6.2 Team Identification

The construct is reflected by four items (i.e., from TI_01 to TI_04). The scale has a minimum value of 1.25, a maximum value of 5, and a mean value of 3.81. A histogram was plotted to depict the distribution of the construct, and the kurtosis and skewness values were obtained. The K–S test was also applied for statistical significance analysis. The results revealed that the K–S test was significant with a value of .143 (sig. < .001), indicating non-normality. However, the kurtosis value 0.602 and skewness value of -.420 are within the threshold value ranges of -7 to +7 (Byrne, 2016) and -1 to +1 (Hair et al., 2016), respectively, depicting minor departures from a normal distribution. Figure 5.3 shows the distribution of the team identification construct.

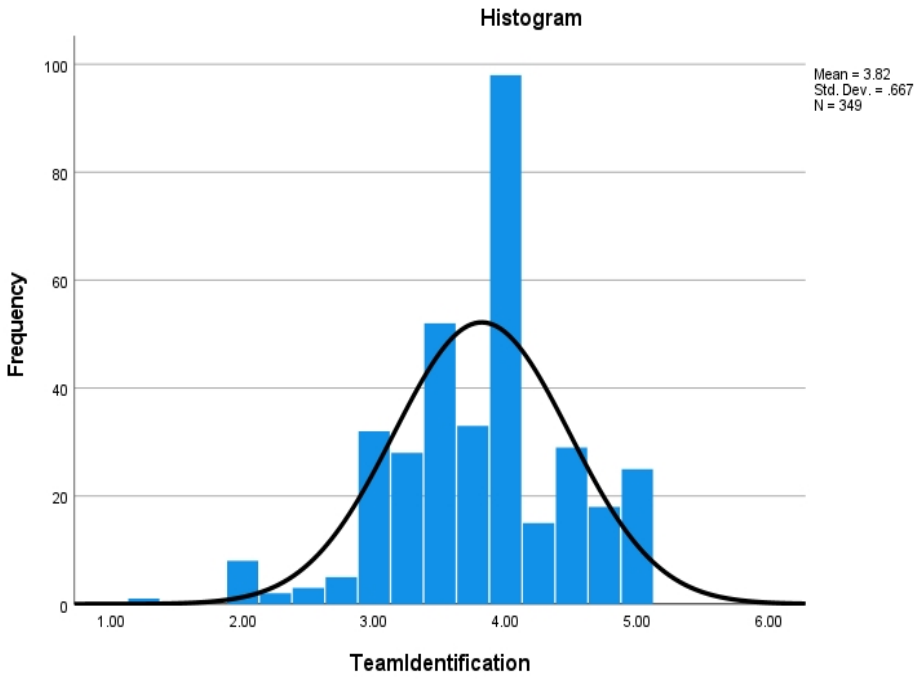


Figure 5.3: Distribution of team identification

5.6.3 Relationship Conflict

The construct is reflected by four items (i.e., from RC_01 to RC_04). The scale has a minimum value of 1, maximum value of 4.25 and mean values of 2.36. A histogram was plotted to depict the normal distribution of the construct along with the kurtosis and skewness values, and KS test. The results revealed that the KS test is significant with a value of .110 (sig <.001) indicating non-normality. However, the kurtosis value .472 and skewness value .306 within the threshold value of -7 to +7 (Byrne, 2016) and -1 to +1 (Hair et al., 2016) respectively, depicting minor departures from normal distribution. Figure 5.4 below presented the distribution of the relationship conflict construct.

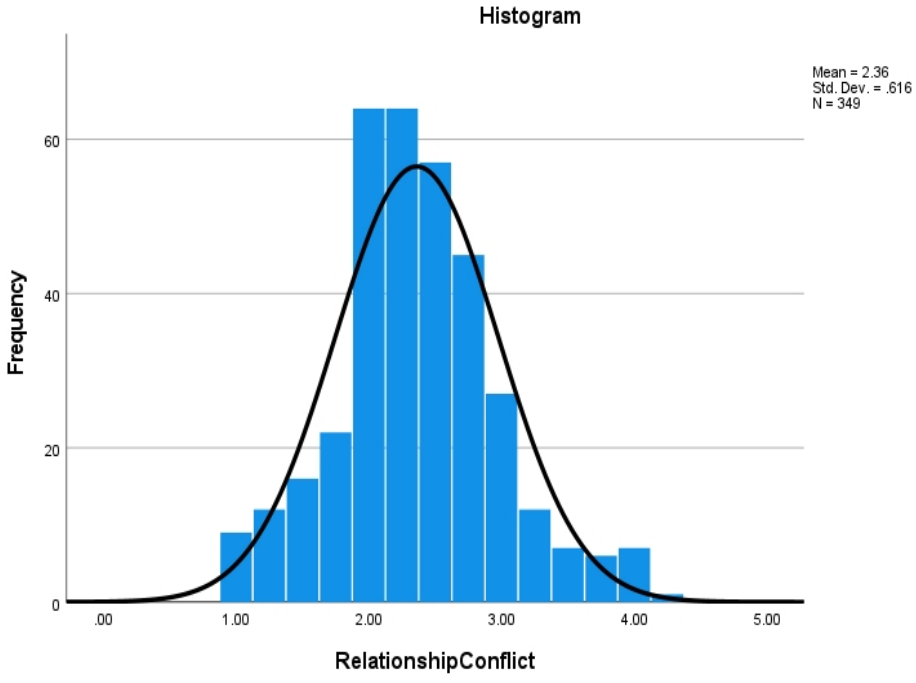


Figure 5.4: Distribution of relationship conflict

5.6.4 Knowledge Sharing

The construct is reflected by four items (i.e., from KS_01 to KS_04). The scale has a minimum value of 2, maximum value of 5 and mean values of 3.76. A histogram was plotted to depict the normal distribution of the construct along with the kurtosis and skewness values. The KS test is significant with a value of .200 (sig <.001) indicating non-normality. However, the kurtosis value 1.464 and skewness value -.853 within the threshold value of -7 to +7 (Byrne, 2016) and -1 to +1 (Hair et al., 2016) respectively, depicting minor departures from normal distribution. Figure 5.5 below shows the distribution of the knowledge sharing construct.

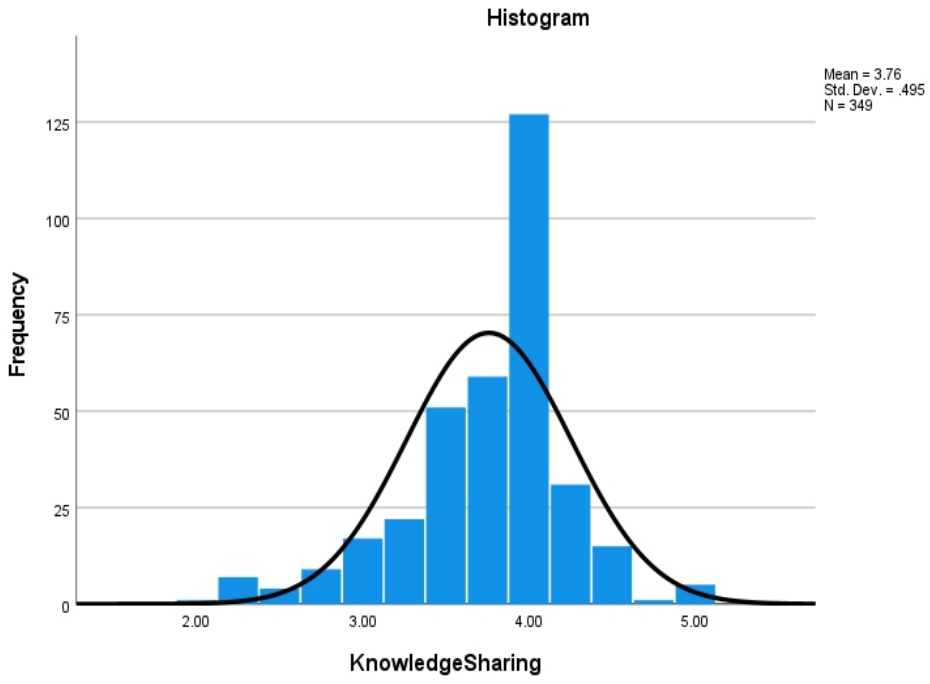
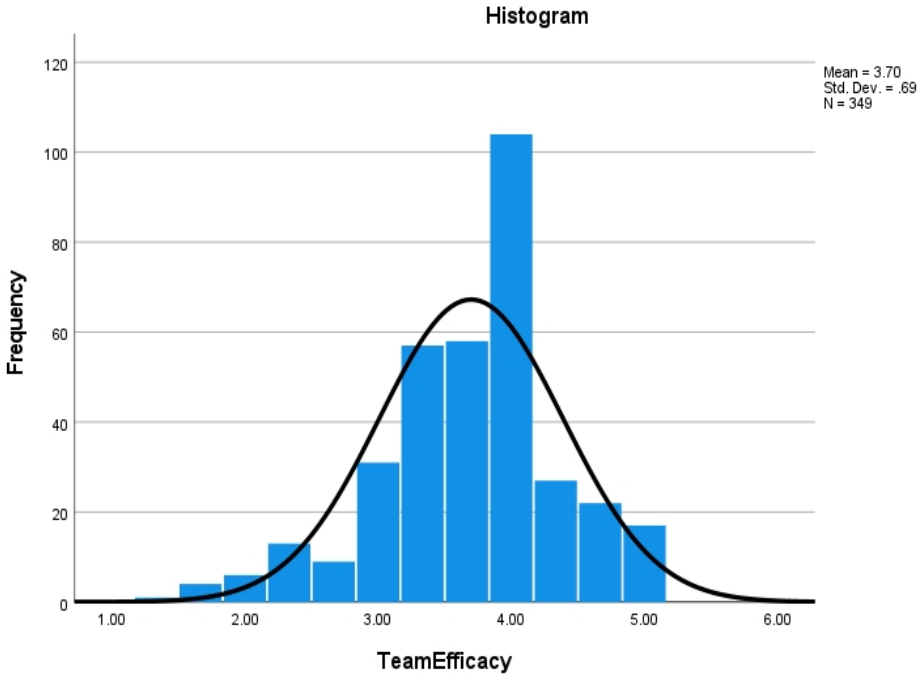


Figure 5.5: Distribution of knowledge sharing

5.6.5 Team Efficacy

The construct is reflected by three items (i.e., from TE_01 to TE_03). The scale has a minimum value of 1.33, maximum value of 5 and mean values of 3.70. A histogram was plotted to depict

the normal distribution of the construct along with the kurtosis and skewness values. KS test: significant, value of .156 (sig <.001) indicating non-normality. However, the kurtosis



value .664 and skewness value -.573 within the threshold value of -7 to +7 (Byrne, 2016) and -1 to +1 (Hair et al., 2016) respectively, depicting minor departures from normal distribution. Figure 5.6 shows the distribution of the team efficacy construct.

Figure 5.6: Distribution of team efficacy

5.7 Data Aggregation

Since the unit of analysis is at the team-level, this study aggregated team members' ratings of empowering leadership, team identification, relationship conflict, knowledge sharing, and team efficacy to the team level in the analyses. Accordingly, this study following the method used by James et al. (1984) to calculate the inter-rater reliability (rwg). To support aggregation, all median rwg values over the.70 acceptable limit were considered. Moreover, the ICC1 (i.e., intra-class correlation) and ICC2 (i.e., inter-class correlation) were also employed to support

the aggregation of measurements to the appropriate team levels. Desirable scores were those with ICC1 values more than.12 and ICC2 values greater than.60 (Glick, 1985). The five variables' median values for rwg, ICC1, and ICC2 are: empowering leadership (ICC1 = .46, ICC2 = .85, Median rwg = .97), team identification (ICC1 = .21, ICC2 = .65, median rwg = .90), relationship conflict (ICC1 = .26, ICC2 = .70, median rwg = .91), knowledge sharing (ICC1 = .16, ICC2 = .67, median rwg = .95) and team efficacy (ICC1 = .26, ICC2 = .71, median rwg = .87), the decision for aggregation therefore well supported by the results above.

5.8 Control Variables

The control variables included in the current study were the demographic variables of the respondents: age, gender, education level and tenure. Gender was captured in terms of *male* and *female*. Age was captured in five categories (i.e., 18–25; 26–35; 36–45; 46–55; and above 55). Education level was captured in terms of three levels (i.e., less than high school, college, graduate, postgraduate, and above). Tenure was captured in four levels (less than six months; six months to one year; between one and three years; and more than three years).

5.9 Hypothesis Testing

To test the hypotheses developed in Chapter 3, this study used hierarchical regression to assess the direct effects and moderation effects. The bootstrapping method in SPSS Macro was utilised to test the mediation and serial mediation effects (Preacher & Hayes, 2008). The results are presented in the following sections.

5.9.1 Direct Effects

Hypothesis 1: *Empowering leadership has a positive influence on team identification.*

Model 2 results (Figure 5.7) show that empowering leadership was positively related to team identification ($b = .40$, $p < .01$). This indicates that Hypothesis 1 is supported.

Hierarchical regression with dependent variables team identification and relationship conflict

	Team identification			Relationship conflict		
Variable	Model 1	Model 2	Model 3	Model 4	Model 5	Model 6
Constant	3.75 (.16)	2.41 (.38)	1.41 (.38)	2.05 (.16)	4.18 (.36)	4.26 (.37)
Control variable						
Team size	.04 (.13)	- .05 (.12)	- .03 (.10)	.20 (.13)	.09 (.07)	.33** (.09)
Independent variable						
Empowering leadership		.40** (.11)	.43* (.12)		-.54** (.11).	-.42* (.12)
Moderator						
Team efficacy			.21* (.12)			-.15 (. 12)
Interaction						
Empowering leadership X Team efficacy			.51** (.12)			.007 (.13)
R^2	.002	.23	.46	.05	.47	.45
F	.105	7.28**	9.89**	2.36	22.06**	9.21**

Notes. $n = 51$ teams. Estimates are unstandardized regression coefficients. Values in the brackets are standard errors (*SEs*).
*$p < .05$; **$p < .01$

Figure 5.7: Hierarchical regression results 1

Hypothesis 2: *Team identification has a positive influence on knowledge sharing.*

This research predicted that team identification (*Hypothesis 3*) would mediate the relationship between empowering leadership and knowledge sharing. The researcher conducted *hierarchical regression analysis* to test the direct effects. The results in Figure 5.7 demonstrate that after controlling for team size, empowering leadership was positively

related to team identification (b = .40, SE = .11, p < .01; *see Model 2 in Figure 5.7*). As expected, team identification had a positive effect on knowledge sharing (b = .20, SE = .09, p < .05; *Model 8 in Figure 5.8*) after controlling for all relevant variables. These results are consistent with the prediction (*Hypothesis 2*).

Hierarchical regression with dependent variables knowledge sharing and team creativity

	Knowledge Sharing			Team Creativity		
Variable	Model 7	Model 8	Model 9	Model 10	Model 11	Model 12
Constant	3.70 (.13)	3.00 (.63)	2.866(.70)	3.95 (.23)	3.30 (.59)	0.69 (1.78)
Control variable						
Team size	.043 (.05)	.053 (.08)	.043(.09)	-.07 (.18)	-.11 (.19)	-.07 (.19)
Independent variable						
Empowering leadership	.35** (.07)	.02 (.10)	.10(.11)		.19 (.16)	-.18 (.21)
Mediator(s)						
Team identification		.20* (.09)	.25*(.12)		.20*(.10)	.19 (.23)
Relationship conflict		-.34* (.12)	-.22(.13)			.001 (.27)
Knowledge sharing						.85* (.34)
Moderator						
Team efficacy						
Interaction						
Empowering leadership X Team efficacy			-.08(.11)			
R^2	.004	.45	.50	.003	.032	.23
F	0.191	11.21**	7.30**	0.13	0.78	2.71*

Notes. n = 51 teams. Estimates are unstandardized regression coefficients. Values in the brackets are standard errors (*SEs*). *p < .05; **p < .01

Figure 5.8: Hierarchical regression results 2

5.9.2 Mediation

Mediation is hypothesised when an independent variable affects a dependent variable through an intervening variable, known as a mediating variable or mediator. A mediation process involving only one mediating variable is known as simple mediation, whereas the presence of more than one mediating variable is known as multiple mediation (Preacher & Hayes, 2008).

In this research, following Preacher and Hayes (2008), the results of the hypothesised mediating effect of team identification between empowering leadership and knowledge sharing (*Hypothesis 3*) are presented below.

> ***Hypothesis 3****: Team identification mediates the relationship between empowering leadership and knowledge sharing.*

To further test the hypothesis that team identification mediates the relationship between empowering leadership and knowledge sharing, this study applied the bootstrapping method introduced by Preacher and Hayes (2008). When adding team identification as a mediator, the results indicate that the indirect effect between empowering leadership and knowledge sharing through team identification is significant (indirect effect = .13, 95% confidence interval [CI] = [.03, .33] excludes zero; see *Figure 5.9*) Hence, team identification was shown to play a mediating role in the relationship between empowering leadership and knowledge sharing. Thus, Hypothesis 3 is supported.

Results of indirect effects

Model	Indirect effect [95% CI]
Empowering leadership - team Identification - knowledge sharing	.1342 [.0291 .3329]
Empowering leadership - Relationship conflict - Knowledge sharing	.1479 [.0181 .2668]

*p < .05; **p < .01

Figure 5.9: Mediation analysis results

***Hypothesis 4**: Empowering leadership is negatively related to relationship conflict.*

As shown in Figure 5.7 above, empowering leadership is negatively related to relationship conflict (b = -.54, p < .01; *see Model 5 in Figure 5.7*). Thus, Hypothesis 4 is supported.

***Hypothesis 5**: Relationship conflict is negatively related to knowledge sharing.*

The current study predicted that relationship conflict (*Hypothesis 6*) would mediate the relationship between empowering leadership and knowledge sharing. The results in Figure 5.7 above demonstrate that after controlling for team size, empowering leadership was negatively related to relationship conflict (b = - .54, SE = .11, p < .01; *see Model 5 in Figure* 5.7). As expected, relationship conflict was negatively associated with knowledge sharing (b = -.34, se = .12, p < .05; *see Model 8 in Figure 5.8*) after controlling for all relevant variables. These results are consistent with the prediction (i.e., *Hypothesis 5*).

***Hypothesis 6**: Relationship conflict mediates the relationship between empowering leadership and knowledge sharing.*

To further test the hypothesis that relationship conflict mediates the relationship between empowering leadership and knowledge sharing, this research used a bootstrapping method (Preacher & Hayes, 2008). When adding relationship conflict as a mediator, the results indicated that the indirect effect between empowering leadership and knowledge sharing through relationship conflict was significant (indirect effect = .14, 95% CI = [.02, .27] excludes zero; *see Figure 5.9*). In line with expectations, relationship conflict played a

mediating role in the relationship between empowering leadership and knowledge sharing. Thus, Hypothesis 6 is supported.

5.9.3 Moderation

> ***Hypothesis 7a****: Team efficacy moderates the relationship between empowering leadership and team identification, such that empowering leadership is more positively related to team identification when team efficacy is high rather than low.*

> ***Hypothesis 7b****: Team efficacy moderates the relationship between empowering leadership and relationship conflict, such that empowering leadership is more negatively related to relationship conflict when team efficacy is high rather than low.*

To test Hypotheses 7a and 7b, this study conducted a hierarchical regression analysis with mean-centred predictor variables. Team size was entered as the control variable in the first stage, empowering leadership and team efficacy in the second step, and the interaction of empowering leadership with team efficacy in the third step. As shown in Figure 5.7, the coefficient of the interaction term 'empowering leadership X team efficacy' was positive and significant (b = .51, p < .01; *see Model 3 in* Figure 5.7). The coefficient of the interaction term 'empowering leadership X team efficacy' on the relationship between empowering leadership and relationship conflict was not significant (b = .007, p = n.s.; *see Model 6 in* Figure 5.7).

This study also tested the two moderation hypotheses using the PROCESS model 1 suggested by Hayes (2018). The results showed that the moderated effect was significant for team identification when team efficacy was high (moderating effect = .51, 95% CI =

[.27, .75]; see Figure 5.7 below), but insignificant for intragroup conflict (moderating effect = .007, 95% CI = [-.21, .25]). Therefore, H7a is supported, but 7b is not supported.

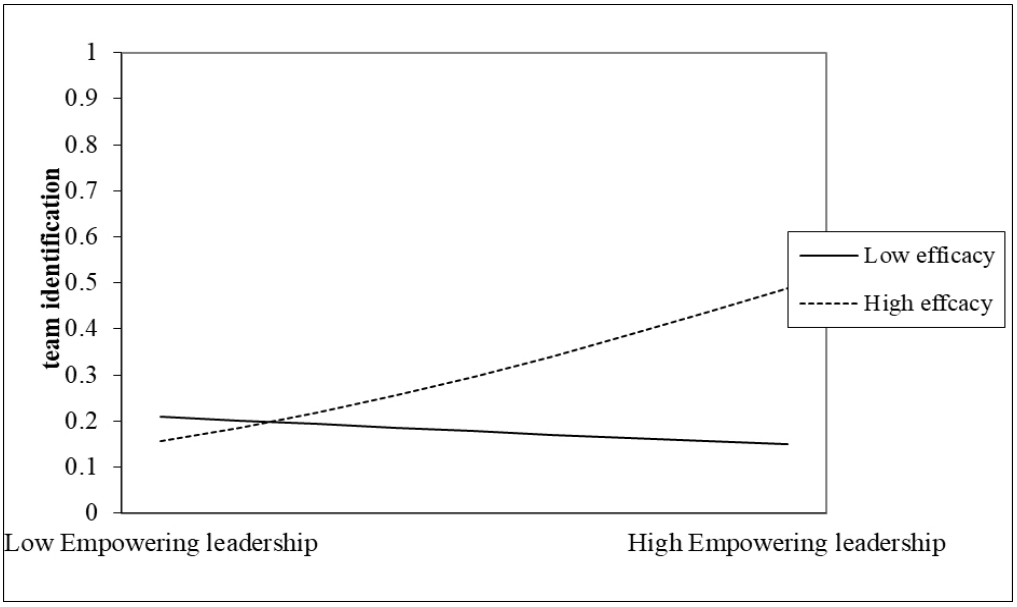


Figure 5.10: Moderation test by SPSS PROCESS macro

5.9.4 Moderated Mediation

> ***Hypothesis 8a****: Team efficacy moderates the positive indirect effect of empowering leadership on knowledge sharing through team identification, such that the indirect effect is stronger when team efficacy is high.*

> ***Hypothesis 8b****: Team efficacy moderates the indirect effect of empowering leadership on knowledge sharing through relationship conflict, such that the indirect effect is stronger when team efficacy is high.*

To test the moderated mediation hypothesis (Hypotheses 8a and 8b), the researcher used the procedure outlined by Preacher et al. (2007) and bootstrapped the indirect effect of empowering leadership on knowledge sharing at different levels of team efficacy, using a 95% CI. The results showed that the conditional indirect effect of empowering leadership on knowledge

sharing via team identification was positive and significant when team efficacy was high (indirect effect = .15, 95% CI = [.04, .27]; see Figure 5.8); however, it was not significant when team efficacy was low (indirect effect = .03, 95% CI = [-.04, .15]; see Figure 5.8). Team identification (indirect effect = .15, p <.01) only exerted significant mediating effects on the relation of empowering leadership on knowledge sharing for teams in high levels of team efficacy. Thus, Hypothesis 8a was supported. On the other hand, the conditional indirect effect of empowering leadership on knowledge sharing through relationship conflict path was not significant; therefore, Hypothesis 8b was not supported.

Conditional Indirect Effects of Empowering leadership on Knowledge Sharing at High and Low Levels of Team Efficacy [a].

	Knowledge sharing		
	High team efficacy	Low team efficacy	Moderated mediation [b]
	b_e and CI	b_i and CI	Index and CI
Team identification	0.19	0.03	0.17
	[0.05, 0.32]	[−0.04, 0.18]	[0.01, 0.30]
Relationship conflict	0.13	0.12	0.01
	[−0.04, 0.27]	[−0.04, 0.22]	[−0.07, 0.24]

[a] $n = 51$, b_e=indirect effect of empowering leadership at 1SD above the mean of team efficacy. b_i=indirect effect of empowering leadership at 1SD below the mean of team efficacy. CI=confidence interval, Index=index of moderated mediation.

[b] Moderated mediation effects are statistically significant when confidence intervals for index of moderated mediation exclude 0.

Figure 5.11: Moderated mediation results

5.9.5 Serial Mediation

Moreover, to examine the linkage between empowering leadership and team creativity, a serial mediation analysis was conducted using the PROCESS macros bootstrapping. As shown in Figure 5.9, the results indicate that the indirect effect between empowering leadership and team creativity through team identification and knowledge sharing was significant (indirect effect = .09, 95% CI = [0.06, 0.37] excludes zero; see Table 5.18) The association between empowering leadership and team creativity was therefore mediated by team identification and knowledge sharing. Additionally, a connection between relationship conflict and knowledge sharing and the indirect impact of empowering leadership on team creativity was also established (indirect effect = .13, 95% CI = [0.02, 0.33] excludes zero; Table 5.18) In line with expectations, empowering leadership had a positive indirect effect on team creativity through intragroup conflict and knowledge sharing. Therefore, the proposed serial mediation is supported.

Figure 5.12: Serial Mediation results

Serial Mediation

Model	Indirect effect [95% CI]
Empowering leadership – team identification – knowledge sharing - team creativity	.0977 [.0068 .3761]
Empowering leadership – relationship conflict – knowledge sharing – team creativity	.1397 [.0212 .3323]

*$p < .05$; **$p < .01$

5.10 Conclusion

This chapter elaborates the data analysis strategies and processes that have been employed in this study and presented the results for the hypotheses. First, the data coding and purifying were discussed. Second, the exploratory factor analysis for each construct were presented alongside with the confirmatory factor analysis and the model fit. Further, data aggregation and control variables were elaborated. Finally, this chapter presented the hypotheses test results. According, research findings, theoretical contribution and managerial implications of this study will be discussed in the next chapter.

CHAPTER 6 DISCUSSION

6.1 Introduction

Creativity drives innovation and allows organisations to sustain a competitive edge (Anderson, Potocnik, & Zhou, 2014). Accordingly, growing research interest has explored the creativity phenomena in organisations, especially in the manufacturing and high-tech industry - based on the contention that creativity leads to improved productivity. Creative performance in customer service can enhance service adaption, which, in turn, generates excellent customer experience and organisational performance. However, creativity in a service setting has not received much attention (e.g., Martinaityte, Sacramento & Aryee, 2019; Peng, Yang, & Huan, 2022).

Leadership plays a vital role in influencing creativity. Prior research has shown some supportive-oriented leadership, such as transformational leadership (Tse, To, & Chiu, 2018), ethical leadership (Feng et al., 2018), and humble leadership (Ye et al., 2020) can promote creativity. In contrast, leader's abusive behaviour impedes employee creative performance (e.g., Liu et al., 2016). However, most studies predominately focus on the relationship between leadership and creativity at the team level, that is, leadership with employee creativity. On the other hand, research on the relationship between leadership and the entire team's creative performance (i.e., team creativity) has been largely neglected. Given the prevalence of team-based structure in contemporary organisations, this lack of attention is unfortunate.

Similarly, prior research supports empowering leadership as a catalyst for employees to manifest creativity (Zhang et al., 2018;). While empowering has been considered an effective form of team leadership and prior research has shown its positive influence on team performance (e.g., Sharma & Kirkman, 2015), empirical research on empowering leadership and team creativity is surprisingly lacking. Few studies examined mechanisms that link empowering leadership and team creativity (Lee et al., 2020). To fulfill this gap, this study proposed two underlying mechanisms through which empowering leadership influences team creativity. In light of the componential theory of creativity (Amabile 1983), this study considers the role of knowledge sharing in the empowering leadership–team creativity relationship. Drawing on social identity theory (Tajfel, 1979), team identification and relationship conflict were proposed as two intermediate variables between empowering leadership and knowledge sharing. Moreover, as empowering leadership creates a less prescribed work environment in which employees are encouraged to be proactive and break out the inactive mindset, thus, it is assumed that a higher level of collective belief may magnify the effectiveness of empowering leadership. As such, team efficacy was proposed as a moderator for the effectiveness of empowering leadership.

As alluded to above, a theoretically driven model was developed and tested based on a sample from the customer contact teams in retail banking sector in China to meet the research objectives.

This chapter the findings of this research will be presented. Following this, the theoretical contributions and managerial implications are discussed. Figure 6.1 presents a summary of the hypotheses in respect of the proposed conceptual framework of this study.

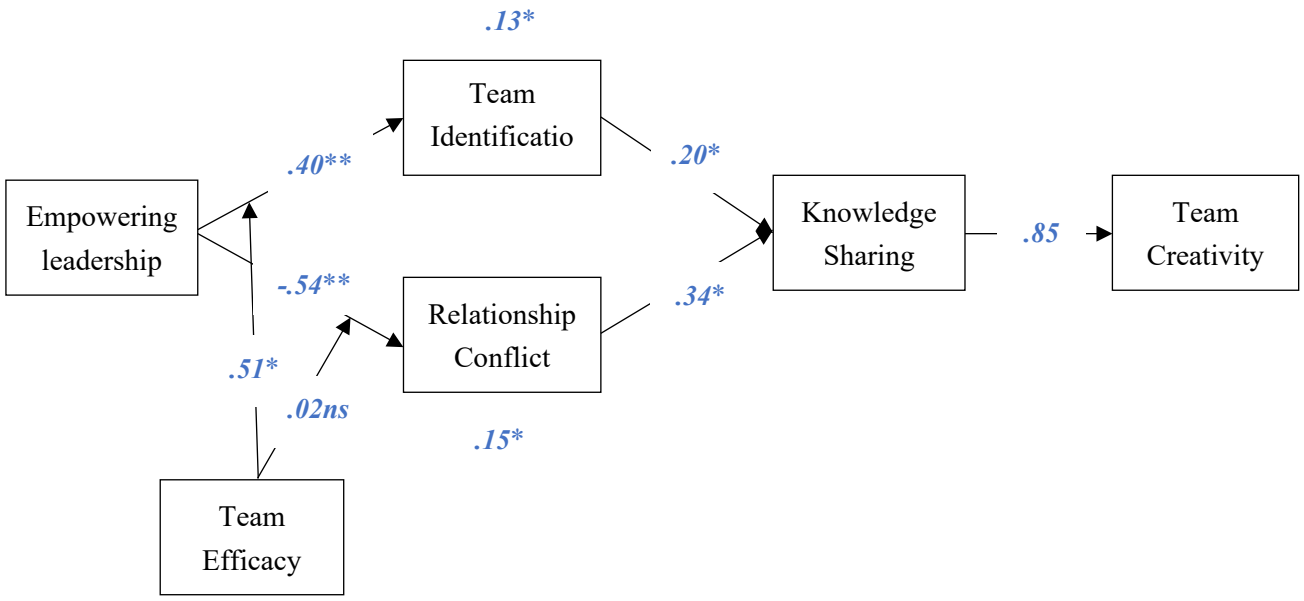


Figure 6.1: Hypotheses results summary

6.2 Summary of Study Findings

6.2.1 Empowering Leadership and Team Creativity

The first aim of this study sought to examine whether empowering leadership promotes team creativity in a frontline service context. Based on data obtained from 51 frontline service teams (comprised of 349 frontline service employees and 51 managers) in the retail banking sector in China, this study revealed that empowering leadership indirectly affects frontline service teams' creativity. More specifically, empowering leadership can promote team creativity through team

identification – knowledge sharing (indirect effect = .09, 95% CI = [0.06, 0.37] excludes zero); relationship conflict – knowledge sharing (indirect effect = .13, 95% CI = [0.02, 0.33] excludes zero), respectively. Hughes et al. (2018) suggested that leadership can influence creativity through more proximal variables (e.g., employee motivation). The finding of this study is not only congruence with this contention but also consistent with prior leadership – creativity studies which demonstrated leadership as a distal antecedent of creativity. The finding of this research also agrees with prior empirical studies on leadership and team creativity which demonstrated that supportive-oriented leadership, such as leader humility (Hu et al., 2018), and inclusive leadership (Jia, Jiao, & Han, 2021) could boost team creativity. In contrast, self-serving leadership impedes the team to be creative (Peng, Wang, & Chen, 2019).

Key finding 1: Empowering leadership is a catalyst for team creativity in the frontline service context

6.2.2 Knowledge Sharing and Team Creativity

Knowledge is the foundation for any creative performance. Amabile (1983), in her componential theory of creativity, highlighted knowledge's vital role in creativity. Prior research has indicated that knowledge sharing leads to the manifestation of employee creativity (e.g., Ma et al., 2013; Zeb et al., 2020). For teams to be creative, team members need to integrate diverse ideas, information, and knowledge within the team (Hu et al., 2018). As shown in Figure 6.1, knowledge sharing has a substantial positive effect (.85*) on team creativity. This finding is consistent with prior team creativity studies which demonstrated that sharing information among team members can promote the manifestation of team creativity, whereas

team members' knowledge hiding behaviour is a barrier for teams to be creative (Hu et al., 2018; Peng, Wang, & Chen, 2019). Frontline service teams have precise knowledge, information, and first-hand experience of customer needs; accordingly, the knowledge sharing, however, knowledge has no value until it is shared. The results of this study demonstrated that knowledge sharing in frontline service teams could promote their creativity, which, in turn, may lead to excellent customer experience.

Key finding 2: Knowledge sharing can substantially promote the creative performance of customer contact teams.

6.2.3 Empowering Leadership and Knowledge Sharing

Since empirical evidence for the role of empowering leadership in fostering knowledge sharing is scarce and mixed, one aim of this study was to understand the underpinning mediating and moderating mechanisms in the relationship between empowering leadership and knowledge sharing. In accordance with the contention of SIT, this study revealed that team identification and relationship conflict play vital roles in making knowledge sharing come about. Although empowering leadership is theorised to be a driving force for knowledge sharing, the mechanism through which empowering leadership influences knowledge sharing has not been considered sufficiently. Drawing on social identity theory (Tajfel, 1979), this study posited team identification and relationship conflict as two potential intermediate variables in the empowering leadership – knowledge sharing relationship. As shown in Figure 6.1, the effect of empowering leadership on knowledge sharing was found to be mediated by team identification and relationship conflict, respectively.

Key finding 3: Team identification mediates the relationship between empowering leadership and knowledge sharing.

Key finding 4: Relationship conflict mediates the relationship between empowering leadership and knowledge sharing.

6.2.4 The Moderating role of Team Efficacy

As shown in Figure 6.1, team efficacy has a significant moderating effect on the empowering leadership–team identification relationship. More specifically, the influence of empowering leadership on team identification is stronger when team efficacy is higher. Team efficacy has been documented to influence how employees perceive, interpret, and react to certain leadership behaviours (e.g., Srivastava et al., 2006). This finding is consistent with prior research, which demonstrated efficacy belief as a boundary condition for leadership effectiveness. This finding implies that when employees hold a strong belief about their team competence, they expect to have more autonomy and decision-making authority. A less directive leadership style, such as empowering leadership, is conducive to this circumstance. Notwithstanding the revealed moderating effect on the relationship between empowering leadership and team identification, it was found that team efficacy has no impact on the empowering leadership – relationship conflict path. One possible explanation for this finding may be related to the possibility that team efficacy generate some risks, such as inadequate leadership direction, a lack of management control, higher workload and uncertainty for team members (Cheong et al., 2016).

The potential impact of empowering leadership on relationship conflict may be countered by this.

Key finding 5: Team efficacy moderates the empowering leadership-team identification relationship, moreover, team efficacy moderates the indirect effect from empowering leadership on knowledge sharing through the team identification path.

Key finding 6: The moderating effect of team efficacy on empowering leadership – relationship conflict, as well as the empowering leadership – relationship conflict – knowledge sharing path was non-significant.

6.3 Theoretical Contributions

This research makes six distinct contributions according to the research gaps which identified in the literature. Each of these will be discussed in detail below.

Research Gap 1: Empirical research on creativity in service setting has been largely ignored.

Although a number of studies have investigated creativity in the workplace, however, majority of these studies was conducted in either high-tech or manufacturing settings (e.g., Hughes et al., 2018; Chen et al., 2019; Lee et al., 2020). Frontline creativity is critical to service adaptation, customer satisfaction and a service organisation's competitive advantage (Martinaityte, Sacramento, & Aryee, 2019; Tuan, 2020; Coelho et al., 2021), however, empirical research on

creativity in service setting has been largely ignored. To response to this research gaps, this study collected and tested data from customer contact team working in the retail banking sector in China. To doing so, this research response the recent call from scholars that paying more attention on the creativity in frontline service settings.

Research Gap 2: Existing research on leadership and creativity predominately focuses on employee level, whereas creativity at the team level has been largely ignored.

Research Gap 3: How empowering leadership promotes team creativity is understudied.

Prior research has examined the relationships between leadership and creativity, with a particular focus on employee creativity, on the other hand, team creativity has been largely neglected (Research Gap 1). Likewise, research on leadership and team creativity remains understudied (Research Gap 2). Empowering leadership is theorised to be particularly relevant to creating precondition that nurture team creativity, however, the underlying mechanism through which empowering leadership influence team creativity has not been well-understood (Research Gap 3). In response to these two gaps identified in the literature, this study built and tested a conceptual model that integrates leadership behaviour and team creativity and revealed two underlying mechanisms that help explain the linkage between empowering leadership and team creativity: team identification – knowledge sharing, and relationship conflict – knowledge sharing, respectively. More specifically, this study revealed that empowering leadership could raise followers' social identity towards their team, as a consequence, knowledge sharing within the team boosted, ultimately, team creativity boosted. On the other hand, the occurrence of

relationship conflict among team members can be reduced or avoided as a result of the team leader's empowering behaviour, knowledge sharing therefore would not suffer, which in turn, leads to team creativity. As such, this research not only contributes to the creativity literature by demonstrate empowering leadership as an effective team leadership that promotes teams' creative performance, but also make contribution to the empowering leadership literature by revealed the underlying mechanisms through which empowering leadership influences team creativity. In doing so, our understandings on both 'leadership-creativity' in general and 'empowering leadership-team creativity' in specific can be boosted.

Research Gap 4: There is an overemphasis on the motivational perspective in leadership and creativity studies.

Domain knowledge, motivation, and creativity-relevant process are precursors of creativity (Amabile, 1983). While a number of research has investigated the effects form leadership on creativity, however, what is evident from existing literature is that existing studies primarily investigating the leadership – creativity linkage through a motivation lens (Hughes et al., 2018). For individual and/or teams to be creative, employees' knowledge as well as their participation and engagement in creativity-relevant processes are also important. By over-emphasised on the motivational perspective, research has somewhat created an imbalance in our current understanding. In a similar vein, scholars argued that leadership can influence creativity through two paths: 1) 'a leveraging path' and 2) 'a developing path' (Fischer, Dietz, & Antonakis, 2017). The leveraging path describes the leader can leverage or utilise followers'

motivation to achieve a creative outcome. On the other hand, leaders can develop employee and teams' creative potential through resource-enlarging activities, such as knowledge sharing. However, what is evident from existing literature primarily focus on the 'leveraging path', variables such as intrinsic motivation were frequently examined (e.g., Zhang et al., 2018). By predominately focusing on the 'leveraging' perspective, research created an imbalance in our understanding.

In response to the above discussed research limitations, this research posit knowledge sharing as a promising intermediate variable in the empowering leadership and team creativity linkage. Knowledge sharing not only covers the knowledge perspective in Amabile's (1983) model, but also viewed as a team process that relevant to creativity (e.g., Hu et al., 2018; Peng, Wang, & Chen, 2019). That is, knowledge sharing can represent both these two components simultaneously. As shown in Figure 6.1, this study revealed that knowledge sharing plays a vital role in the relationship between empowering leadership and team creativity. therefore, this study not only fills this research gap by revealing that empowering leadership can develop team creativity through knowledge sharing, also echo recent call for allocating more research attention on the developing path in leadership and creativity (e.g., Hughes et al., 2018).

Research Gap 5: There is a lack of research on knowledge sharing and team creativity.

Prior studies have indicated the vital role of knowledge sharing on employee creativity and a few studies support knowledge sharing mediates the relationship between leadership and creativity (e.g., Ma et al., 2013; Mittal & Dhar, 2015; Liao et al., 2018). While some scholars

highlighted the importance of knowledge sharing on team creativity (e.g., Hu et al., 2018), research on knowledge sharing and team creativity remains understudied. In response to this, this research investigated the role of knowledge sharing on team creativity and found a strong association between the two (.85*, Figure 6.1). in doing so, this study contributes to both the knowledge sharing and creativity literature.

Research Gap 6: There are equivocal findings between empowering leadership and team knowledge sharing.

Knowledge sharing has been considered as a function of leadership behaviour and empowering leadership is theorised to be a driving force for knowledge sharing (e.g., Sharma & Kirkman, 2015; Lee et al., 2018). However, empirical research on empowering leadership and knowledge sharing is scarce. While Srivastava, Bartol and Locke (2006) found that empowering leadership can facilitate knowledge sharing among team members, Cheong and colleagues (2016) point out that empowering leadership can induce employee job tension, which may impedes knowledge sharing. In addition, Lin et al. (2020) found that empowering leadership has no relation to knowledge sharing at the team level. These mixed results imply that the underlying mechanisms through which empowering leadership influences knowledge sharing have not been well-understood.

Drawing on social identity theory, this study investigated the role of team identification and relationship conflict in the empowering leadership - knowledge sharing relationship. Results

revealed that empowering leadership can influence knowledge sharing through team identification and relationship conflict, respectively. More specifically, empowering leadership could raise followers' social identity towards their team; as such, team members are more willing to share their knowledge. On the other hand, relationship conflict can be reduced or avoided as a result of the team leader's empowering behaviour, knowledge sharing therefore would not suffer. Instead of focus on a direct relationship between empowering leadership and knowledge sharing (e.f., Srivastava, Bartol, & Locke, 2006; Lee, Willis, & Tian, 2018), this research has further opened the black box by identified team identification and relationship conflict as two important mechanisms that explain the influence of empowering leadership on knowledge sharing. Table 6.1 below summarised the theoretical contributions of this study.

Table 6.1: Summary of theoretical contributions

	Contributions to the literature
Research context	Existing creativity studies were mostly conducted in either high-tech or manufacturing industries, scholars underscored the significance of frontline service creativity to customer satisfaction and organisational performance, however, research on creativity in service settings remains understudied, to address this research gap, this study investigates creativity in a frontline service context.
Creativity at the team-level	Research attention on creativity in the workplace predominately focusing on employee creativity, on the other hand, studies on entire team's creative performance has been largely neglected. Given the prevalence of team-based structure in contemporary organisations, this lack of attention is unfortunate. Instead of replicating previous studies on employee creativity, the foci of this study is team creativity.
Empowering leadership	Empowering leadership is an effective team leadership for team performance, however, empowering leadership and team creativity, as well as its underlying mechanisms remains understudied. understudied. To fulfil this research gap, this study investigated the mechanisms in the empowering leadership – team creativity linkage.

Knowledge sharing	Knowledge is the foundation for any creative performance, and knowledge sharing has been found promotes employee creativity. However, research on knowledge sharing and team creativity is still lacking, to addresses this limitation and validate the effects of knowledge sharing on team creativity, this study investigated relationship between knowledge sharing and team creativity.
Empowering leadership and knowledge sharing	Given the in scare and mixed results on the relationship between empowering leadership and knowledge sharing, this study identified the mechanisms between the two, i.e., team identification and relationship conflict.

6.4 Managerial Implications

This study investigated the underlying mechanisms through which empowering leadership influences team creativity in a frontline service context. In doing so, this research contributes to our understanding of why novel and useful ideas are could generated in a service setting, thus, providing some important implications for the practice of boosting team creativity. The implications for both organisations and team leaders are discussed in this section.

Empowering leadership

This research revealed the importance of empowering leadership for team creativity – an outcome of great interest for many organisations. In other words, in boosting team creativity,

empowering leadership does matter. Although team managers' empowering behaviour did not have a direct effect on frontline service teams' creativity, its presence will pay off in terms of higher knowledge sharing, which is desirable for team creativity. Therefore, organisations may find it useful to emphasise empowerment practices in the frontline service setting, so that empowering behaviours are exhibited by the team leaders. It is important to keep in mind that moving from a manager-directed role to an empowered one presents a number of difficulties and challenges (Lin et al., 2020). Accordingly, organisations should pay more attention on leadership training, development, selection and comprehensive recruitment.

From the team leader's perspective, to empower employees and teams, instead of controlling or closely monitoring them, can bring team creativity about.

Knowledge sharing

This study suggested that team creativity is boosted if team members are willing to exchange and share multiple information, experiences, and ideas with each other, i.e., knowledge sharing. Fortunately, the result of this research indicated that knowledge sharing significantly promotes team creativity. Accordingly, encouraging knowledge sharing in teams can be an effective means for teams to be creative. In practice, when employees lack confidence in their ability to share knowledge, managers can provide them access to resources and information (Zhang et al., 2018) and implement corresponding practices that are helpful for employees to gain experience and knowledge, whereas when employees are not willing to share knowledge, managers can adopt performance appraisal and compensation accordingly.

For organisations, organisations can pay more attention to personnel and training systems that prioritise choosing people with certain knowledge, skills, talents, or competencies or assisting employees in acquiring work experience and knowledge (e.g., Liu, Tsui, & Kianto, 2021). Organizations need also to take into account how to transmit knowledge, information and experience from professionals who already possess it to these new staff (Pereira & Mohiya, 2021). In other words, organisations need to highlight and use their existing knowledge-based resources more effectively.

Social identification at work and relationship conflict

The importance of social identification at work cannot be ignored. This study suggests team identification and relationship conflict as antecedents of knowledge sharing, and both team identification and relationship conflict are a function of empowering leadership. Fortunately, results indicated that team identification stimulates knowledge sharing whereas relationship conflict impedes knowledge sharing. Accordingly, in terms of team building, and specifically when managers trying to facilitate knowledge sharing within the team, managers should involve them in decision-making and support their ideas to enhance their team identification (Ahearne et al., 2005; Cheong et al., 2019). By setting reasonable goals and showing confidence in employee performance, thereby enhancing their identification with the team. They can interact with team members, emphasize the importance of teamwork, and help them build better relationships with each other.

Finally, this study also provides managers with a deeper understanding of the contextual conditions that regulate the effects of empowering leadership. While organisations benefit from an empowering leadership practice that enhances employees' team identification and facilitates knowledge sharing, these benefits vary on teams with different levels of efficacy. More specifically, the findings of this study demonstrate that the indirect effects of empowering leadership and direct effects of team identification on knowledge sharing are likely to be much stronger for those teams with high levels of team efficacy. As such, organisations should be aware that empowering behaviour makes a big difference in teams with low efficacy beliefs, suggesting that they should pay particular attention to expressing empowering behaviour in such contexts. In other words, leaders need to avoid a ''one-size-fits-all'' approach when seeking to empower employees and teams (Cheong et al., 2016). Instead, they should pay attention to individual and/or team differences (e.g., efficacy) to maximize the effectiveness of empowerment. Table 6.2 summarise the managerial implications of this study.

Table 6.2: Summary of managerial implications

Managerial implications
To Organisations
Emphasise employee and team empowerment, and pay attention to leader training, development and selection.
Pay attention to personnel and training systems that prioritise choosing people with certain knowledge, skills, talents, or competencies or assisting employees in acquiring work experience and knowledge
Organisations can build reward systems for knowledge sharing.
Consider how to transmit knowledge, information and experience from professionals who already possess it to these new staff.
To Managers/Team leaders
To empower, instead of controlling or closely monitoring
Adopt performance appraisal and compensation.
Involve employee in decision-making and support their ideas. Setting reasonable goals and showing confidence in employee performance.
Emphasise the importance of teamwork Help team members build better relationships with each other.
Leaders should avoid a ‘one-size-fits-all’ approach when seeking to empower.

CHAPTER 7 LIMITATIONS AND FUTURE DIRECTIONS

There is room in almost any study to improve, that is, this study is not without limitations. As such, this chapter discusses the limitations of this research and

7.1 Limitations and Directions for Future Study

First, although this study used a time-lagged approach in the data collection, however, this research is still a cross-sectional study in nature, and, therefore, it is difficult to infer causality. Reverse causality may be a possibility. For example, teams with previously high creative performance may become more engaged in knowledge sharing. Therefore, a longitudinal or experimental research design is warranted.

Second, it is worth considering that the findings of this research are somewhat culturally specific. That is, guided by the traditional Confucian value and an emphasis on interpersonal harmony in the society, as well as a strong sense of the collective, Chinese employees are more likely than a Western workforce to identify with their work units and avoid conflict. Accordingly, this study encourages future research to test the role played by societal and cultural differences in team identification and relationship conflict.

Third, this study supports empowering leadership as an effective leadership style that promotes team creativity. Given the importance of team creative towards organisational effectiveness (Anderson et al., 2014), therefore, future research could examine the effects of empowering leadership not only on creativity, but also linked with organisational performance.

Fourth, this study included two theoretically chosen mediators (i.e., team identification and relationship conflict). There may be other processes (e.g., trust in the leader) that explain the empowering leadership–knowledge sharing relationship, necessitating future work.

Fifth, this study has investigated team efficacy as a moderator of the relationships between empowering leadership, team identification and knowledge sharing. There may be other contextual conditions, such team–task interdependence, that regulate the effects of empowering leadership.

Sixth, this study primarily focused on team creativity as a subjective-based outcome. Future research could expand the model by incorporating objective-based outcomes, such as profit performance, to fully comprehend the effects of empowering leadership on team creativity.

Seventh, since the data was collected from just one bank brand, certain characteristics specific to the bank may have limited the generalisability of the results. Future research could address this issue by comparing findings from different banks' samples.

Last but not least, does empowering leadership always a desirable leadership style? Scholars point out that empowering leadership raise followers' job-induced tension (Cheong et al., 2016); future research could investigate whether empowering leadership leads to employee satisfaction, for example, form the path-goal theory perspective.

7.2 Overall Conclusion

Creativity is on the radar of service organisations since responding to the increasingly diverse and unique needs of customers requires frontline service personnel to be creative (Martinaityte et al., 2019; Peng, Yang & Huan, 2020). Yet, the question of how service organisations promote creativity remains unanswered. Scholars suggested that employee and team empowerment practices in service organisations may be a driving force of creativity (Coelho et al., 2021), this raises the question of whether empowering leadership can bring up frontline teams' creativity. Therefore, the purpose of this research is to investigate the relationship between empowering leadership and team creativity in a frontline service context. To do so, a theoretical-driven model was developed wherein empowering leadership could influence team creativity through team identification - knowledge sharing; relationship conflict – knowledge sharing, respectively.

Based on a sample of 51 frontline service teams from China's banking sector, this study revealed that empowering leadership can, indeed, promote frontline service teams to be creative. Accordingly, for organisations wishing to promote frontline team creativity or that particularly require their frontline teams to be creative, empowering the frontline workforce, instead of controlling and closely monitoring them, can be one of the answers.

In a nutshell, it is hoped that future studies will build on some findings of this study to investigate further how to bring about creativity in the workplace, not only in frontline service, but also in other settings.

REFERENCES

Abutabenjeh, S., & Jaradat, R. (2018). Clarification of research design, research methods, and research methodology: A guide for public administration researchers and practitioners. *Teaching Public Administration*, *36*(3), 237-258.

Adeel, A., Batool, S., & Ali, R. (2018). Empowering leadership and team creativity: Understanding the direct-indirect path. *Business: Theory and Practice*, *19*, 242–254.

Aggarwal, I., & Woolleyb, A. W. (2019). Team creativity, cognition, and cognitive style diversity. *Management Science*, *65*(4), 1586–1599.

Agnihotri, R., Rapp, A. A., Andzulis, J. M., & Gabler, C. B. (2014). Examining the drivers and performance implications of boundary spanner creativity. *Journal of Service Research*, *17*(2), 164-181.

Ahearne, M., Mathieu, J., & Rapp, A. (2005). To empower or not to empower your sales force? An empirical examination of the influence of leadership empowerment behavior on customer satisfaction and performance. *Journal of Applied Psychology*, *90*(5), 945–955.

Ali, A., Wang, H., & Johnson, R. E. (2020). Empirical analysis of shared leadership promotion and team creativity: An adaptive leadership perspective. *Journal of Organizational Behavior*, *41*(5), 405–423.

Ali, I., Ali, M., Leal-Rodríguez, A. L., & Albort-Morant, G. (2019). The role of knowledge spillovers and cultural intelligence in enhancing expatriate employees' individual and team creativity. *Journal of Business Research*, *101*, 561-573.

Amabile, T. M. (1983). The social psychology of creativity: A componential conceptualization. *Journal of Personality and Social Psychology*, 45(2), 357-377.

Amabile, T. M. (1988). A model of creativity and innovation in organizations. *Research in organizational behavior*, *10*(1), 123-167.

Amabile, T. M. (1996). *Creativity in context*. Boulder, CO: Westview.

Amabile, T. M. (1998). How to kill creativity. *Harvard Business Review*, 76 (5), 76-87.

Amundsen, S., & Martinsen, Ø. L. (2014). Empowering leadership: Construct clarification, conceptualization, and validation of a new scale. *The leadership quarterly*, *25*(3), 487-511.

Amundsen, S., & Martinsen, Ø. L. (2015). Linking Empowering Leadership to Job Satisfaction, Work Effort, and Creativity: The Role of Self-Leadership and Psychological Empowerment. *Journal of Leadership and Organizational Studies*, *22*(3), 304–323.

Anderson, N., Potočnik, K., & Zhou, J. (2014). Innovation and Creativity in Organizations: A State-of-the-Science Review, Prospective Commentary, and Guiding Framework. In *Journal of Management* 40 (5), 1297–1333.

Arnold, J. A., Arad, S., Rhoades, J. A., & Drasgow, F. (2000). The empowering leadership questionnaire: The construction and validation of a new scale for measuring leader behaviors. *Journal of organizational behavior*, *21*(3), 249-269.

Atwater, L., & Carmeli, A. (2009). Leader-member exchange, feelings of energy, and involvement in creative work. *The Leadership Quarterly*, 20(3), 264-275.

Audenaert, M., & Decramer, A. (2018). When empowering leadership fosters creative performance: The role of problem-solving demands and creative personality. *Journal of Management and Organization*, *24*(1), 4–18.

Auh, S., Menguc, B., & Jung, Y. S. (2014). Unpacking the relationship between empowering leadership and service-oriented citizenship behaviors: A multilevel approach. *Journal of the Academy of Marketing Science*, *42*(5), 558–579.

Aw, V. K. J., & Ayoko, O. B. (2017). The impact of followers' conflict behaviors on teams' transformational leadership, team member exchange and engagement. *International Journal of Conflict Management (Emerald)*, *28*(4), 509–532.

Babbie, E. (2010). Research design. *The practice of social research*, *12*.

Bai, Y., Lin, L., & Li, P. P. (2016). How to enable employee creativity in a team context: A cross-level mediating process of transformational leadership. *Journal of Business Research*, *69*(9), 3240–3250.

Bandura, A. (1997). Self-efficacy: The exercise of control. New York: W.H. Freeman. Carey,

Bass, B. M. (1999). Two decades of research and development in transformational leadership. *European journal of work and organizational psychology*, *8*(1), 9-32.

Beach, D., & Pedersen, R. B. (2016). *Causal case study methods: Foundations and guidelines for comparing, matching, and tracing*. University of Michigan Press.

Bedi, A., Alpaslan, C. M., & Green, S. (2016). A meta-analytic review of ethical leadership outcomes and moderators. *Journal of Business Ethics*, *139*(3), 517-536.

Bell, S. T., Brown, S. G., & Mitchell, T. (2019). What we know about team dynamics for long-distance space missions: A systematic review of analog research. *Frontiers in Psychology*, *10*.

Biemann, T., Kearney, E., & Marggraf, K. (2015). Empowering leadership and managers' career perceptions: Examining effects at both the individual and the team level. *The Leadership Quarterly, 26*(5), 775–789.

Blaikie, N., & Priest, J. (2017). *Social research: Paradigms in action*. John Wiley & Sons.

Boies, K., Fiset, J., & Gill, H. (2015). Communication and trust are key: Unlocking the relationship between leadership and team performance and creativity. *Leadership Quarterly*, *26*(6), 1080–1094.

Bono, J. E., Boles, T. L., Judge, T. A., & Lauver, K. J. (2002). The role of personality in task and relationship conflict. *Journal of personality*, *70*(3), 311-344.

Bradley, B. H., Postlethwaite, B. E., Klotz, A. C., Hamdani, M. R., & Brown, K. G. (2012). Reaping the benefits of task conflict in teams: the critical role of team psychological safety climate. *Journal of Applied Psychology*, *97*(1), 151.

Brislin, R. W., & Freimanis, C. (2001). Back-translation. *An Encyclopaedia of Translation: Chinese-English, English-Chinese*, *22*.

Bryman, A. (2008). Why do researchers integrate/combine/mesh/blend/mix/merge/fuse quantitative and qualitative research. *Advances in mixed methods research*, *21*(8), 87-100.

Bryne, M. (1998). Is the invasive front of an oral carcinoma the most important area for prognostication?. *Oral diseases*, *4*(2), 70-77.

Buil, I., Martínez, E., & Matute, J. (2019). Transformational leadership and employee performance: The role of identification, engagement and proactive personality. *International journal of hospitality management*, *77*, 64-75.

Burke, P. J., & Tully, J. C. (1977). The measurement of role identity. *Social forces*, *55*(4), 881-897.

Burmeister, A., Fasbender, U., & Deller, J. (2018). Being perceived as a knowledge sender or knowledge receiver: A multistudy investigation of the effect of age on knowledge transfer. *Journal of Occupational and Organizational Psychology*, *91*(3), 518-545.

Burrell, G., & Morgan, G. (2017). *Sociological paradigms and organisational analysis: Elements of the sociology of corporate life*. Routledge.

Byun, G., Dai, Y., Lee, S., & Kang, S. W. (2016). When does empowering leadership enhance employee creativity? A three-way interaction test. *Social Behavior and Personality*, *44*(9), 1555–1564.

Cabrera, E. F., & Cabrera, A. (2005). Fostering knowledge sharing through people management practices. *The international journal of human resource management*, *16*(5), 720-735.

Cai, W., Lysova, E. I., Khapova, S. N., & Bossink, B. A. (2019). Does entrepreneurial leadership foster creativity among employees and teams? The mediating role of creative efficacy beliefs. *Journal of Business and Psychology*, *34*(2), 203-217.

Callea, A., Urbini, F., & Chirumbolo, A. (2016). The mediating role of organizational identification in the relationship between qualitative job insecurity, OCB and job performance. *Journal of Management Development, 35*(6), 735–746.

Carmeli, A., Gelbard, R., & Reiter-Palmon, R. (2013). Leadership, Creative Problem-Solving Capacity, and Creative Performance: The Importance of Knowledge Sharing. *Human Resource Management*, *52*(1), 95–121.

Carmeli, A., Sheaffer, Z., Binyamin, G., Reiter-Palmon, R., & Shimoni, T. (2014). Transformational leadership and creative problem-solving: The mediating role of psychological safety and reflexivity. *The Journal of Creative Behavior*, *48*(2), 115-135.

Caza, B. B., Moss, S., & Vough, H. (2018). From synchronizing to harmonizing: The process of authenticating multiple work identities. *Administrative Science Quarterly*, *63*(4), 703-745.

Chattopadhyay, P., Tluchowska, M., & George, E. (2004). Identifying the ingroup: A closer look at the influence of demographic dissimilarity on employee social identity. *Academy of Management Review*, *29*(2), 180-202.

Chen, A. S. Y., & Hou, Y. H. (2016). The effects of ethical leadership, voice behavior and climates for innovation on creativity: A moderated mediation examination. *The leadership quarterly*, *27*(1), 1-13.

Chen, G., Sharma, P. N., Edinger, S. K., Shapiro, D. L., & Farh, J.-L. (2011). Motivating and demotivating forces in teams: Cross-level influences of empowering leadership and relationship conflict. *Journal of Applied Psychology, 96*(3), 541–557.

Chen, L. (2016). From fintech to finlife: the case of fintech development in China. *China economic journal*, *9*(3), 225-239.

Chen, L., Wadei, K. A., Bai, S., & Liu, J. (2020). Participative leadership and employee creativity: a sequential mediation model of psychological safety and creative process engagement. *Leadership & Organization Development Journal*.

Cheong, M., Spain, S. M., Yammarino, F. J., & Yun, S. (2016). Two faces of empowering leadership: Enabling and burdening. *Leadership Quarterly*, *27*(4), 602–616.

Cheong, M., Yammarino, F. J., Dionne, S. D., Spain, S. M., & Tsai, C. Y. (2019). A review of the effectiveness of empowering leadership. *The Leadership Quarterly*, *30*(1), 34-58.

Churchill, G. A., & Iacobucci, D. (2006). *Marketing research: methodological foundations* (Vol. 199, No. 1). New York: Dryden Press.

Coelho, F. J., Evanschitzky, H., Sousa, C. M. P., Olya, H., & Taheri, B. (2021). Control mechanisms, management orientations, and the creativity of service employees: Symmetric and asymmetric modeling. *Journal of Business Research*, *132*, 753–764.

Coelho, F. J., Lages, C. R., & Sousa, C. M. P. (2018). Personality and the creativity of frontline service employees: linear and curvilinear effects. *International Journal of Human Resource Management*, *29*(17), 2580–2607.

Collier, J. E., Barnes, D. C., Abney, A. K., & Pelletier, M. J. (2018). Idiosyncratic service experiences: When customers desire the extraordinary in a service encounter. *Journal of Business Research*, *84*, 150–161.

Collins, H. (2010). Tacit and explicit knowledge. In *Tacit and Explicit Knowledge*. University of Chicago Press.

Collins, M. A., & Amabile, T. M. (1999). Motivation and creativity.

Conger, J. A., & Kanungo, R. N. (1998). *Charismatic leadership in organizations*. Sage Publications.

Conger, J. A., & Pearce, C. L. (2012). Using empowerment to motivate people to engage in effective self-and shared leadership. *Handbook of principles of organizational behavior: indispensable knowledge for evidence-based management*, 201-216.

Cummings, J. N. (2004). Work groups, structural diversity, and knowledge sharing in a global organization. *Management Science* , 50 (3), 352- 364.

De Dreu, C. K., & Van Vianen, A. E. (2001). Managing relationship conflict and the effectiveness of organizational teams. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, *22*(3), 309-328.

De Vaus, D., & de Vaus, D. (2013). *Surveys in social research*. Routledge.

de Wit, F. R. C., Greer, L. L., & Jehn, K. A. (2012). The paradox of intragroup conflict: A meta-analysis. *Journal of Applied Psychology*, *97*(2), 360–390.

de Wit, F. R. C., Greer, L. L., & Jehn, K. A. (2012). The paradox of intragroup conflict: A meta-analysis. *Journal of Applied Psychology, 97*(2), 360–390.

De Wit, Frank RC, Lindred L. Greer, and Karen A. Jehn. "The paradox of intragroup conflict: a meta-analysis." *Journal of applied psychology* 97, no. 2 (2012): 360.

Deng, X., Huang, Z., & Cheng, X. (2019). FinTech and sustainable development: Evidence from China based on P2P data. *Sustainability*, *11*(22), 6434.

Ding, X., Li, Q., Zhang, H., Sheng, Z., & Wang, Z. (2017). Linking transformational leadership and work outcomes in temporary organizations: A social identity approach. *International Journal of Project Management*, *35*(4), 543–556.

Dong, Y., Liao, H., Chuang, A., Zhou, J., & Campbell, E. M. (2015). Fostering employee service creativity: Joint effects of customer empowering behaviors and supervisory empowering leadership. *Journal of Applied Psychology*, *100*(5), 1364–1380.

Doosje, B., Ellemers, N., & Spears, R. (1995). Perceived intragroup variability as a function of group status and identification. *Journal of experimental social psychology*, *31*(5), 410-436.

Drazin, R., Glynn, M. A., & Kazanjian, R. K. (1999). Multilevel theorizing about creativity in organizations: A sensemaking perspective. *Academy of management review*, *24*(2), 286-307.

Dunaetz, D. R. (2020). Research methods and survey applications: Outlines and activities from a Christian perspective.

Edmonds, W. A., & Kennedy, T. D. (2016). *An applied guide to research designs: Quantitative, qualitative, and mixed methods*. Sage Publications.

Edmonds, W. A., & Kennedy, T. D. (2016). *An applied guide to research designs: Quantitative, qualitative, and mixed methods*. Sage Publications.

Edmondson, A. (1999). Psychological safety and learning behavior in work teams. *Administrative science quarterly*, *44*(2), 350-383.

Edú-Valsania, S., Moriano, J. A., & Molero, F. (2016). Authentic leadership and employee knowledge sharing behavior: Mediation of the innovation climate and workgroup identification. *Leadership & Organization Development Journal*.

Elfil, M., & Negida, A. (2017). Sampling methods in clinical research; an educational review. *Emergency*, *5*(1).

Ellemers, N., De Gilder, D., & Haslam, S. A. (2004). Motivating individuals and groups at work: A social identity perspective on leadership and group performance. *Academy of Management review*, *29*(3), 459-478.

Emich, K. J., & Vincent, L. C. (2020). Shifting focus: The influence of affective diversity on team creativity. *Organizational Behavior and Human Decision Processes*, *156*, 24–37.

Fairhurst, G. T., & Antonakis, J. (2012). A research agenda for relational leadership. *Advancing relational leadership theory: A dialogue among perspectives*, 433-459.

Faraj, S. & Sproul, L. (2000). Coordinating expertise in software development teams. Management Science, 46 (12), 1554-1568.

Farmer, S., Tierney, P., & Kung-Mcintyre, K. (2003). Employee creativity in Taiwan: An application of role identity theory. Academy of Management Journal, 46(5),618–630.

Feng, J., Zhang, Y., Liu, X., Zhang, L., & Han, X. (2018). Just the right amount of ethics inspires creativity: A cross-level investigation of ethical leadership, intrinsic motivation, and employee creativity. *Journal of Business Ethics*, *153*(3), 645-658.

Feng, J., Zhang, Y., Liu, X., Zhang, L., & Han, X. (2018). Just the right amount of ethics inspires creativity: A cross-level investigation of ethical leadership, intrinsic motivation, and employee creativity. *Journal of Business Ethics*, *153*(3), 645-658.

Field, A. P. (2005). Is the meta-analysis of correlation coefficients accurate when population correlations vary?. *Psychological methods*, *10*(4), 444.

Findlay, C. S., & Lumsden, C. J. (1988). The creative mind: Toward an evolutionary theory of discovery and innovation. *Journal of Social and Biological Structures*, *11*(1), 3-55.

Fischer, T., Dietz, J., & Antonakis, J. (2017). Leadership process models: A review and synthesis. *Journal of Management*, *43*(6), 1726-1753.

G, H., R, V. D., & D, V. K. (2009). A social Identity perspective on leadership and employee creativity. *Journal of Organizational Behavior*, *30*(1), 963–982.

George, J. M. (2007). 9 Creativity in organizations. *Academy of Management annals*, *1*(1), 439-477.

Glick, W. H. (1985). Conceptualizing and measuring organizational and psychological climate: Pitfalls in multilevel research. *Academy of management review*, *10*(3), 601-616.

Goncalo, J. A., & Staw, B. M. (2006). Individualism–collectivism and group creativity. *Organizational behavior and human decision processes*, *100*(1), 96-109.

Greco, L. M., Porck, J. P., Walter, S. L., Scrimpshire, A. J., & Zabinski, A. M. (2022). A meta-analytic review of identification at work: Relative contribution of team, organizational, and professional identification. *Journal of Applied Psychology*, *107*(5), 795-830.

Gu, Q., Liang, B., & Cooke, F. L. (2022). How does shared leadership affect creativity in teams? A multilevel motivational investigation in the Chinese context. *The International Journal of Human Resource Management*, *33*(8), 1641-1669.

Gu, Q., Tang, T. L. P., & Jiang, W. (2015). Does moral leadership enhance employee creativity? Employee identification with leader and leader–member exchange (LMX) in the Chinese context. *Journal of business ethics*, *126*(3), 513-529.

Guadagnoli, E., & Velicer, W. F. (1988). Relation of sample size to the stability of component patterns. *Psychological bulletin*, *103*(2), 265.

Gully, S. M., Incalcaterra, K. A., Joshi, A., & Beaubien, J. M. (2002). A meta-analysis of team-efficacy, potency, and performance: interdependence and level of analysis as moderators of observed relationships. *Journal of applied psychology*, *87*(5), 819.

Hair Jr, J. F., Sarstedt, M., Hopkins, L., & Kuppelwieser, V. G. (2014). Partial least squares structural equation modeling (PLS-SEM): An emerging tool in business research. *European business review*.

Hair, E., Halle, T., Terry-Humen, E., Lavelle, B., & Calkins, J. (2006). Children's school readiness in the ECLS-K: Predictions to academic, health, and social outcomes in first grade. *Early Childhood Research Quarterly*, *21*(4), 431-454.

Hammond, M. M., Neff, N. L., Farr, J. L., Schwall, A. R., & Zhao, X. (2011). Predictors of individual-level innovation at work: A meta-analysis. *Psychology of Aesthetics, Creativity, and the Arts*, *5*(1), 90.

Han, G. H., & Harms, P. D. (2010). Team identification, trust and conflict: A mediation model. *International Journal of conflict management*.

Hao, P., He, W., & Long, L. R. (2018). Why and when empowering leadership has different effects on employee work performance: The pivotal roles of passion for work and role breadth self-efficacy. *Journal of Leadership & Organizational Studies*, *25*(1), 85-100.

Harris, T. B., Li, N., Boswell, W. R., Zhang, X. A., & Xie, Z. (2014). Getting what's new from newcomers: Empowering leadership, creativity, and adjustment in the socialization context. *Personnel Psychology*, *67*(3), 567–604.

Harvey, S., & Kou, C. Y. (2013). Collective engagement in creative tasks: The role of evaluation in the creative process in groups. *Administrative science quarterly*, *58*(3), 346-386.

Hayes, A. F. (2017). *Introduction to mediation, moderation, and conditional process analysis: A regression-based approach*. Guilford publications.

Hayes, A. F., Montoya, A. K., & Rockwood, N. J. (2017). The analysis of mechanisms and their contingencies: PROCESS versus structural equation modeling. *Australasian Marketing Journal (AMJ)*, *25*(1), 76-81.

Henne, D., & Locke, E. A. (1985). Job dissatisfaction: what are the consequences?. *International Journal of Psychology*, *20*(2), 221-240.

Hennessey, B. A. (2019). Motivation and creativity.

Hennessey, B. A., & Amabile, T. M. (2010). Creativity. *Annual Review of Psychology, 61,* 569–598.

Hennessey, Beth A., and Teresa M. Amabile. "Reality, intrinsic motivation, and creativity." (1998): 674.

Herman, H. M., & Chiu, W. C. (2014). Transformational leadership and job performance: A social identity perspective. *Journal of business research*, *67*(1), 2827-2835.

Hirst, G., van Dick, R., & van Knippenberg, D. (2009). A social identity perspective on leadership and employee creativity. *Journal of Organizational Behavior*, *30*(7), 963–982.

Hirst, G., Van Dick, R., & Van Knippenberg, D. (2009). A social identity perspective on leadership and employee creativity. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, *30*(7), 963-982.

Hoang, G., Wilson-Evered, E., Lockstone-Binney, L., & Luu, T. T. (2021). Empowering leadership in hospitality and tourism management: a systematic literature review. In *International Journal of Contemporary Hospitality Management* 33 (12), 4182–4214.

Hogg, M. A., & van Knippenberg, D. (2003). Social identity theory and leadership processes.pdf. In *Advances in experimental social psychology* (Vol. 35, Issue 235, pp. 1–52).

Hogg, M. A., Abrams, D., & Brewer, M. B. (2017). Social identity: The role of self in group processes and intergroup relations. *Group Processes and Intergroup Relations*, *20*(5), 570–581.

Hooper, D., Coughlan, J., & Mullen, M. (2008, September). Evaluating model fit: a synthesis of the structural equation modelling literature. In *7th European Conference on research methodology for business and management studies* (pp. 195-200).

Horstmeier, C. A., Boer, D., Homan, A. C., & Voelpel, S. C. (2017). The differential effects of transformational leadership on multiple identifications at work: A meta-analytic model. *British Journal of management*, *28*(2), 280-298.

Houghton, J. D., & Neck, C. P. (2002). The revised self-leadership questionnaire: Testing a hierarchical factor structure for self-leadership. *Journal of Managerial psychology*.

Hu, J., Jiang, K., Erogan, B., & Bauer, T. (2018). Leader humility and team creativity: The role of team information sharing. *Journal of Applied Psychology*, *103*(3), 313–323.

Hu, L. T., & Bentler, P. M. (1999). Cutoff criteria for fit indexes in covariance structure analysis: Conventional criteria versus new alternatives. *Structural equation modeling: a multidisciplinary journal*, *6*(1), 1-55.

Hughes, D. J., Lee, A., Tian, A. W., Newman, A., & Legood, A. (2018). Leadership, creativity, and innovation: A critical review and practical recommendations. *Leadership Quarterly*, *29*(5), 549–569.

Hülsheger, U. R., Anderson, N., & Salgado, J. F. (2009). Team-level predictors of innovation at work: A comprehensive meta-analysis spanning three decades of research. *Journal of Applied Psychology, 94*(5), 1128–1145.

Jaiswal, N. K., & Dhar, R. L. (2015). Transformational leadership, innovation climate, creative self-efficacy and employee creativity: A multilevel study. *International journal of hospitality management*, *51*, 30-41.

James, L. R., Demaree, R. G., & Wolf, G. (1984). Estimating within-group interrater reliability with and without response bias. *Journal of applied psychology*, *69*(1), 85.

James, L. R., Demaree, R. G., & Wolf, G. (1993). rwg: An assessment of within-group interrater agreement. *Journal of applied psychology*, *78*(2), 306.

Jansen, A. E., & Searle, B. J. (2021). Diverse effects of team diversity: a review and framework of surface and deep-level diversity. *Personnel Review*.

Janssen, O., Van de Vliert, E., & Veenstra, C. (1999). How task and person conflict shape the role of positive interdependence in management teams. *Journal of management*, *25*(2), 117-141.

Jehn, K. A. (1995). A multimethod examination of the benefits and detriments of intragroup conflict. *Administrative science quarterly*, 256-282.

Jehn, K. A., & Bendersky, C. (2003). Intragroup conflict in organizations: A contingency perspective on the conflict-outcome relationship. *Research in organizational behavior*, *25*, 187-242.

Jehn, K. A., & Mannix, E. A. (2001). The dynamic nature of conflict: A longitudinal study of intragroup conflict and group performance. *Academy of management journal*, *44*(2), 238-251.

Jehn, K. A., Rispens, S., & Thatcher, S. M. (2010). The effects of conflict asymmetry on work group and individual outcomes. *Academy of Management Journal*, *53*(3), 596-616.

Jia, J., Jiao, Y., & Han, H. (2021). Inclusive leadership and team creativity: a moderated mediation model of Chinese talent management. *International Journal of Human Resource Management*. 1-24.

Jo, S. J., & Joo, B. K. (2011). Knowledge sharing: The influences of learning organization culture, organizational commitment, and organizational citizenship behaviors. *Journal of Leadership & Organizational Studies*, *18*(3), 353-364.

Johnson, H. H., & Avolio, B. J. (2019). Team psychological safety and conflict trajectories' effect on individual's team identification and satisfaction. *Group & Organization Management*, *44*(5), 843-873.

Jöreskog, K. G., & Sörbom, D. (1993). *LISREL 8: Structural equation modeling with the SIMPLIS command language*. Scientific software international.

Jung, D. I., & Sosik, J. J. (2003). Group potency and collective efficacy: Examining their predictive validity, level of analysis, and effects of performance feedback on future group performance. *Group & Organization Management*, *28*(3), 366-391.

Kern, D., Phillips, J., Tewari, J., Jones Jr, K. E., & Edwards, S. (2017). A decade of progress in self-leadership research. *Regional Business Review*, *36*(37), 20-50.

Kershaw, C., Rast III, D. E., Hogg, M. A., & van Knippenberg, D. (2021). Divided groups need leadership: A study of the effectiveness of collective identity, dual identity, and intergroup relational identity rhetoric. *Journal of Applied Social Psychology*, *51*(1), 53-62.

Kia, N., Halvorsen, B., & Bartram, T. (2019). Ethical leadership and employee in-role performance: The mediating roles of organisational identification, customer orientation, service climate, and ethical climate. *Personnel Review*.

Kim, J. G., & Lee, S. Y. (2011). Effects of transformational and transactional leadership on employees' creative behaviour: mediating effects of work motivation and job satisfaction. *Asian Journal of Technology Innovation*, *19*(2), 233-247.

Kim, M., & Beehr, T. A. (2020). Empowering leadership: leading people to be present through affective organizational commitment?. *The International Journal of Human Resource Management*, *31*(16), 2017-2044.

Kim, M., & Beehr, T. A. (2021). The power of empowering leadership: Allowing and encouraging followers to take charge of their own jobs. *The International Journal of Human Resource Management*, *32*(9), 1865-1898.

Kim, M., Beehr, T. A., & Prewett, M. S. (2018). Employee responses to empowering leadership: A meta-analysis. *Journal of Leadership & Organizational Studies*, *25*(3), 257-276.

Kolb, D. A., Boyatzis, R. E., & Mainemelis, C. (2001). Experiential learning theory: Previous research and new directions. In R. J. Sternberg & L.-f. Zhang (Eds.), *Perspectives on thinking, learning, and cognitive styles* 227–247.

Kreiner, G. E., & Ashforth, B. E. (2004). Evidence toward an expanded model of organizational identification. *Journal of Organizational Behavior: The International Journal of Industrial, Occupational and Organizational Psychology and Behavior*, *25*(1), 1-27.

Langfred, C. W. (2007). The downside of self-management: A longitudinal study of the effects tf conflict on trust, autonomy, and task interdependence in self-managing teams. *Academy of management journal*, *50*(4), 885-900.

Lantz, J., Ebbers, T., Engvall, J., & Karlsson, M. (2013). Numerical and experimental assessment of turbulent kinetic energy in an aortic coarctation. *Journal of biomechanics*, *46*(11), 1851-1858.

Lavrakas, P. J. (2008). *Encyclopedia of survey research methods*. Sage publications.

Lee, A., Legood, A., Hughes, D., Tian, A. W., Newman, A., & Knight, C. (2019). Leadership, creativity and innovation: a meta-analytic review. *European Journal of Work and Organizational Psychology*, *29*(1), 1–35.

Lee, A., Willis, S., & Tian, A. W. (2018). Empowering leadership: A meta-analytic examination of incremental contribution, mediation, and moderation. *Journal of Organizational Behavior*, *39*(3), 306–325.

Lee, C. C., Lin, Y. H., Huang, H. C., Huang, W. W., & Teng, H. H. (2015). The effects of task interdependence, team cooperation, and team conflict on job performance. *Social Behavior and Personality: an international journal*, *43*(4), 529-536.

Lee, D., Huh, Y., & Reigeluth, C. M. (2015). Collaboration, intragroup conflict, and social skills in project-based learning. *Instructional science*, *43*(5), 561-590.

Lee, J., Lee, H., & Park, J. G. (2014). Exploring the Impact of Empowering Leadership on Knowledge Sharing, Absorptive Capacity and Team Performance in it Service. *Information Technology and People*, *27*(3), 366–386.

Lee, N., & Hooley, G. (2005). The evolution of "classical mythology" within marketing measure development. *European Journal of Marketing*.

Li, G., Liu, H., & Luo, Y. (2018). Directive versus participative leadership: Dispositional antecedents and team consequences. *Journal of Occupational and Organizational Psychology*, *91*(3), 645–664.

Li, M., & Hsu, C. H. C. (2018). Customer participation in services and employee innovative behavior: The mediating role of interpersonal trust. *International Journal of Contemporary Hospitality Management*, *30*(4), 2112–2131.

Li, M., & Hsu, C. H. C. (2018). Customer participation in services and employee innovative behavior: The mediating role of interpersonal trust. *International Journal of Contemporary Hospitality Management*, *30*(4), 2112–2131.

Li, Y., Wei, F., Chen, S., & Yan, Y. (2020). Effects of CEO humility and relationship conflict on entrepreneurial performance. *International Journal of Conflict Management 31*(3), 489–508.

Lim, S. E. (2021). Knowledge sharing in hospitality organizations: A meta-analysis. *International Journal of Hospitality Management*, *95(5)*, 102-118.

Lin, M., Zhang, X., Ng, B. C. S., & Zhong, L. (2020). To Empower or Not to Empower? Multilevel Effects of Empowering Leadership on Knowledge Hiding. *International Journal of Hospitality Management*, *89*.

Lin, M., Zhang, X., Ng, B. C. S., & Zhong, L. (2020). To Empower or Not to Empower? Multilevel Effects of Empowering Leadership on Knowledge Hiding. *International Journal of Hospitality Management*, *89*(5), 102-115.

Lin, M., Zhang, X., Ng, B. C. S., & Zhong, L. (2020). To Empower or Not to Empower? Multilevel Effects of Empowering Leadership on Knowledge Hiding. *International Journal of Hospitality Management*, *89*(5), 101-117.

Li, X., Froese, F., & Pak, Y. (2022). Promoting knowledge sharing in foreign subsidiaries through global talent management: the roles of local employees' identification and climate strength. *The International Journal Of Human Resource Management*, 56(9), 1-28.

Liu, D., Jiang, K., Shalley, C. E., Keem, S., & Zhou, J. (2016). Motivational mechanisms of employee creativity: A meta-analytic examination and theoretical extension of the creativity literature. *Organizational behavior and human decision processes*, *137*, 236-263.

Liu, G., Tsui, E., & Kianto, A. (2021). Knowledge-friendly organisational culture and performance: A meta-analysis. *Journal of Business Research*, *134*, 738-753.

Liu, S., Wei, H., Xin, H., & Cheng, P. (2021). Task conflict and team creativity: The role of team mindfulness, experiencing tensions, and information elaboration. *Asia Pacific Journal of Management*.

Liu, W., Zhang, P., Liao, J., Hao, P., & Mao, J. (2016). Abusive supervision and employee creativity: The mediating role of psychological safety and organizational identification. *Management Decision*.

Liu, Y., & DeFrank, R. S. (2013). Self-interest and knowledge-sharing intentions: the impacts of transformational leadership climate and HR practices. *The International Journal of Human Resource Management*, *24*(6), 1151-1164.

Lombardi, S., Sassetti, S., & Cavaliere, V. (2019). Linking employees' affective commitment and knowledge sharing for an increased customer orientation. *International Journal of Contemporary Hospitality Management*.

Lorinkova, N. M., & Perry, S. J. (2017). When is empowerment effective? The role of leader-leader exchange in empowering leadership, cynicism, and time theft. *Journal of Management*, *43*(5), 1631-1654.

Ma, Y., Cheng, W., Ribbens, B. A., & Zhou, J. (2013). Linking ethical leadership to employee creativity: Knowledge sharing and self-efficacy as mediators. *Social Behavior and Personality*, *41*(9), 1409–1420.

Ma, Z., Long, L., Zhang, Y., Zhang, J., & Lam, C. K. (2017). Why do high-performance human resource practices matter for team creativity? The mediating role of collective efficacy and knowledge sharing. *Asia Pacific Journal of Management*, *34*(3), 565–586.

Mach, M., Ferreira, A. I., & Abrantes, A. C. (2022). Transformational leadership and team performance in sports teams: A conditional indirect model. *Applied Psychology*, *71*(2), 662-694.

Madjar, N., & Ortiz-Walters, R. (2008). Customers as contributors and reliable evaluators of creativity in the service industry. *Journal of Organizational Behavior*, *29*(7), 949–966.

Mael, F., & Ashforth, B. E. (1992). Alumni and their alma mater: A partial test of the reformulated model of organizational identification. *Journal of organizational Behavior*, *13*(2), 103-123.

Magnotta, S. R., & Johnson, C. M. (2020). The role of sales team intragroup conflict on critical job outcomes. *Industrial Marketing Management*, *84*, 126-137.

Mainemelis, C., Kark, R., & Epitropaki, O. (2015). Creative leadership: A multi-context conceptualization. *Academy of Management Annals*, *9*(1), 393-482.

Maiyaki, A. A., & Mohd Mokhtar, S. S. (2011). Determinants of customer behavioural responses: A pilot study. *International business research*, *4*(1), 193-197.

Malik, A., Froese, F. J., & Sharma, P. (2020). Role of HRM in knowledge integration: Towards a conceptual framework. *Journal of Business Research*, *109*, 524-535.

Malik, M. A. R., Choi, J. N., & Butt, A. N. (2019). Distinct effects of intrinsic motivation and extrinsic rewards on radical and incremental creativity: The moderating role of goal orientations. *Journal of Organizational Behavior*, *40*(9-10), 1013-1026.

Malingumu, W., Stouten, J., Euwema, M., & Babyegeya, E. (2016). Servant leadership, organisational citizenship behavior and creativity: The mediating role of team-member exchange. *Psychologica Belgica*, *56*(4), 342.

Manata, B. (2016). Exploring the association between relationship conflict and group performance. *Group dynamics: Theory, research, and practice*, *20*(2), 93.

Manz, C. C. (1986). Self-leadership: Toward an expanded theory of self-influence processes in organizations. *The Academy of Management Review, 11*(3), 585–600.

Manz, C. C., & Sims Jr, H. P. (1980). Self-management as a substitute for leadership: A social learning theory perspective. *Academy of Management review*, *5*(3), 361-367.

Manz, C. C., & Sims, H. P. (2001). *The new superleadership: Leading others to lead themselves*. berrett-koehler publishers.

Marks, M. A., Mathieu, J. E., & Zaccaro, S. J. (2001). A temporally based framework and taxonomy of team processes. *Academy of management review*, *26*(3), 356-376.

Marsh, H. W., Hau, K. T., & Wen, Z. (2004). In search of golden rules: Comment on hypothesis-testing approaches to setting cutoff values for fit indexes and dangers in overgeneralizing Hu and Bentler's (1999) findings. *Structural equation modeling*, *11*(3), 320-341.

Martin, L. J., Balderson, D., Hawkins, M., Wilson, K., & Bruner, M. W. (2018). The influence of social identity on self-worth, commitment, and effort in school-based youth sport. *Journal of Sports Sciences*, *36*(3), 326-332.

Martin, R., Guillaume, Y., Thomas, G., Lee, A., & Epitropaki, O. (2016). Leader–member exchange (LMX) and performance: A meta-analytic review. *Personnel psychology*, *69*(1), 67-121.

Martin, S. L., Liao, H., & Campbell, E. M. (2013). Directive versus empowering leadership: A field experiment comparing impacts on task proficiency and proactivity. *Academy of management Journal*, *56*(5), 1372-1395.

Martinaityte, I., Sacramento, C., & Aryee, S. (2019). Delighting the Customer: Creativity-Oriented High-Performance Work Systems, Frontline Employee Creative Performance, and Customer Satisfaction. *Journal of Management*, *45*(2), 728–751.

Mathieu, J. E., Gilson, L. L., & Ruddy, T. M. (2006). Empowerment and team effectiveness: An empirical test of an integrated model. *Journal of applied psychology*, *91*(1), 97.

Maynard, M. T., Mathieu, J. E., Gilson, L. L., O'Boyle Jr, E. H., & Cigularov, K. P. (2013). Drivers and outcomes of team psychological empowerment: A meta-analytic review and model test. *Organizational Psychology Review*, *3*(2), 101-137.

McCarter, M. W., Wade-Benzoni, K. A., Kamal, D. K. F., Bang, H. M., Hyde, S. J., & Maredia, R. (2020). Models of intragroup conflict in management: A literature review. *Journal of Economic Behavior & Organization*, *178*, 925–946.

Men, C., Fong, P. S., Luo, J., Zhong, J., & Huo, W. (2019). When and how knowledge sharing benefits team creativity: The importance of cognitive team diversity. *Journal of Management & Organization*, *25*(6), 807-824.

Menguc, B., Auh, S., & Uslu, A. (2013). Customer knowledge creation capability and performance in sales teams. *Journal of the Academy of Marketing Science*, *41*(1), 19-39.

Mesmer-Magnus, J. R., & DeChurch, L. A. (2009). Information sharing and team performance: A meta-analysis. *Journal of Applied Psychology, 94*(2), 535–546.

Mesmer-Magnus, J. R., Asencio, R., Seely, P. W., & DeChurch, L. A. (2018). How organizational identity affects team functioning: The identity instrumentality hypothesis. *Journal of Management*, *44*(4), 1530-1550.

Mittal, S., & Dhar, R. L. (2015). Transformational leadership and employee creativity: Mediating role of creative self-efficacy and moderating role of knowledge sharing. *Management Decision*, *53*(5), 894–910.

Mo, S., Ling, C. D., & Xie, X. Y. (2019). The Curvilinear Relationship Between Ethical Leadership and Team Creativity: The Moderating Role of Team Faultlines. *Journal of Business Ethics*, *154* (1), 229–242.

Mumford, M. D., & Gustafson, S. B. (1988). Creativity syndrome: Integration, application, and innovation. *Psychological Bulletin, 103*(1), 27–43.

Mumford, M. D., Friedrich, T. L., Vessey, W. B., & Ruark, G. A. (2012). Collective leadership: Thinking about issues vis-à-vis others. *Industrial and Organizational Psychology*, *5*(4), 408-411.

Nassaji, H. (2015). Qualitative and descriptive research: Data type versus data analysis. *Language teaching research*, *19*(2), 129-132.

Neff, K. D., & Germer, C. K. (2013). A pilot study and randomized controlled trial of the mindful self-compassion program. *Journal of clinical psychology*, *69*(1), 28-44.

Neville, F., & Reicher, S. (2015). The experience of collective participation: Shared identity, relatedness and emotionality. In *Crowds in the 21st Century* (pp. 125-144). Routledge.

Newman, A., Donohue, R., & Eva, N. (2017). Psychological safety: A systematic review of the literature. *Human resource management review*, *27*(3), 521-535.

Nicely, A., & Palakurthi, R. (2018). Organizational culture requirements for high levels of knowledge usage from learning activities among hotel managers. *International Journal of Hospitality & Tourism Administration*, *19*(1), 1-25.

Nunnally, J. C. (1978). An overview of psychological measurement. *Clinical diagnosis of mental disorders*, 97-146.

O'Neill, T. A., & Mclarnon, M. J. (2018). Optimizing team conflict dynamics for high performance teamwork. *Human Resource Management Review*, *28*(4), 378-394.

Oldham, G. R., & Cummings, A. (1996). Employee creativity: Personal and contextual factors at work. *Academy of management journal*, *39*(3), 607-634.

Peng, J., Wang, Z., & Chen, X. (2019). Does Self-Serving Leadership Hinder Team Creativity? A Moderated Dual-Path Model. *Journal of Business Ethics*, *159*(2), 419–433.

Peng, J., Yang, X., & Huan, T. C. (2022). The effects of empowering leadership on employee adaptiveness in luxury hotel services: Evidence from a mixed-methods research. *International Journal of Hospitality Management*, *101*.

Pereira, V., & Mohiya, M. (2021). Share or hide? Investigating positive and negative employee intentions and organizational support in the context of knowledge sharing and hiding. *Journal of Business Research*, *129*, 368-381.

Perotti, F. A., Ferraris, A., Candelo, E., & Busso, D. (2022). The dark side of knowledge sharing: exploring "knowledge sabotage" and its antecedents. *Journal of Business Research*, *141*, 422-432.

Perry-Smith, J. E., & Shalley, C. E. (2003). The social side of creativity: A static and dynamic social network perspective. *Academy of management review*, *28*(1), 89-106.

Pitman, R. K., Sanders, K. M., Zusman, R. M., Healy, A. R., Cheema, F., Lasko, N. B., ... & Orr, S. P. (2002). Pilot study of secondary prevention of posttraumatic stress disorder with propranolol. *Biological psychiatry*, *51*(2), 189-192.

Podsakoff, P. M., MacKenzie, S. B., Paine, J. B., & Bachrach, D. G. (2000). Organizational citizenship behaviors: A critical review of the theoretical and empirical literature and suggestions for future research. *Journal of management*, *26*(3), 513-563.

Postmes, T., Spears, R., Lee, A. T., & Novak, R. J. (2005). Individuality and social influence in groups: Inductive and deductive routes to group identity. *Journal of personality and social psychology*, *89*(5), 747.

Potter, J., & Wetherell, M. (1987). *Discourse and social psychology: Beyond attitudes and behaviour*. Sage.

Pundt, A., & Herrmann, F. (2015). Affiliative and aggressive humour in leadership and their relationship to leader–member exchange. *Journal of Occupational and Organizational Psychology*, *88*(1), 108-125.

Puschmann, T. (2017). Fintech. *Business & Information Systems Engineering*, *59*(1), 69-76.

Qu, R., Janssen, O., & Shi, K. (2015). Transformational leadership and follower creativity: The mediating role of follower relational identification and the moderating role of leader creativity expectations. *The leadership quarterly*, *26*(2), 286-299.

Ramarajan, L. (2014). Past, present and future research on multiple identities: Toward an intrapersonal network approach. *Academy of Management Annals*, *8*(1), 589-659.

Rank, J., Pace, V. L., & Frese, M. (2004). Three avenues for future research on creativity, innovation, and initiative. *Applied psychology*, *53*(4), 518-528.

Rego, A., Sousa, F., Marques, C., & e Cunha, M. P. (2012). Authentic leadership promoting employees' psychological capital and creativity. *Journal of business research*, *65*(3), 429-437.

Rego, A., Sousa, F., Marques, C., & e Cunha, M. P. (2014). Hope and positive affect mediating the authentic leadership and creativity relationship. *Journal of Business research*, *67*(2), 200-210.

Riketta, M. (2005). Organizational identification: A meta-analysis. *Journal of vocational behavior*, *66*(2), 358-384.

Rosendaal, B., & Bijlsma-Frankema, K. (2015). Knowledge sharing within teams: Enabling and constraining factors. *Knowledge Management Research and Practice*, 13(3), 235-247.

Rudestam, K. E., & Newton, R. R. (2014). *Surviving your dissertation: A comprehensive guide to content and process*. Sage publications.

Rudestam, K. E., & Newton, R. R. (2014). *Surviving your dissertation: A comprehensive guide to content and process*. Sage publications.

Ruiz-Palomino, P., & Zoghbi-Manrique-de-Lara, P. (2020). How and when servant leaders fuel creativity: The role of servant attitude and intrinsic motivation. *International Journal of Hospitality Management*, *89*, 102537.

Rujie Qu, Onne Janssen, Kan Shi. (2015). Transformational leadership and follower creativity: The mediating role of follower relational identification and the moderating role of leader creativity expectations. *The Leadership Quarterly,* 26, (2), 286-299.

Runco, M. A. (2004). Creativity. *Annual Review of Psychology, 55,* 657–687.

Safdar, M., Batool, S. H., & Mahmood, K. (2020). Relationship between self-efficacy and knowledge sharing: systematic review. *Global Knowledge, Memory and Communication*, *70*(3), 254-271.

Salkind, N. J. (Ed.). (2005). *Encyclopedia of human development*. Sage Publications.

Sarah Lindsay, Cathy Sheehan & Helen De Cieri (2020) The influence of workgroup identification on turnover intention and knowledge sharing: the perspective of employees in subsidiaries, The International Journal of Human Resource Management, 31 (3), 432-455.

Saunders, M., Lewis, P. H. I. L. I. P., & Thornhill, A. D. R. I. A. N. (2007). Research methods. *Business Students 4th edition Pearson Education Limited, England*.

Schaeffner, M., Huettermann, H., Gebert, D., Boerner, S., Kearney, E., & Song, L. J. (2015). Swim or sink together: The potential of collective team identification and team member alignment for separating task and relationship conflicts. *Group & Organization Management*, *40*(4), 467–499.

Schepers, J., de Vries, J., van Weele, A., & Langerak, F. (2019). Exploring the motivational and behavioral foundations of external technology experts' knowledge sharing in collaborative R&D projects: the contingency role of project formalization. *Journal of Product Innovation Management*, *36*(4), 467-489.

Schumacker, R. E., & Lomax, R. G. (2004). *A beginner's guide to structural equation modeling*. psychology press.

Seibert, S. E., Wang, G., & Courtright, S. H. (2011). Antecedents and consequences of psychological and team empowerment in organizations: A meta-analytic review. *Journal of Applied Psychology, 96*(5), 981–1003.

Seong, J. Y., & Choi, J. N. (2014). Effects of group-level fit on group conflict and performance: The initiating role of leader positive affect. *Group & Organization Management*, *39*(2), 190-212.

Shafi, M., Lei, Z., Song, X., & Sarker, M. N. I. (2020). The effects of transformational leadership on employee creativity: Moderating role of intrinsic motivation. *Asia Pacific Management Review*, *25*(3), 166-176.

Shalley, C. E., & Gilson, L. L. (2004). What leaders need to know: A review of social and contextual factors that can foster or hinder creativity. *Leadership Quarterly*, *15*(1), 33–53.

Shamim, S., Cang, S., & Yu, H. (2017). Supervisory orientation, employee goal orientation, and knowledge management among frontline hotel employees. *International Journal of Hospitality Management*, *62*, 21-32.

Shamir, B., House, R. J., & Arthur, M. B. (1993). The motivational effects of charismatic leadership: A self-concept based theory. *Organization Science, 4*(4), 577–594.

Sharma, P. N., & Kirkman, B. L. (2015). Leveraging Leaders: A Literature Review and Future Lines of Inquiry for Empowering Leadership Research. *Group and Organization Management*, *40*(2), 193–237.

Sharma, S., 1996. Applied Multivariate Techniques. John Wiley and Sons, Inc., New York

Shin, S. J. (2015). Leadership and creativity: The mechanism perspective. *The Oxford handbook of creativity, innovation and entrepreneurship*, 17-30.

Shin, Y., & Eom, C. (2014). Team proactivity as a linking mechanism between team creative efficacy, transformational leadership, and risk-taking norms and team creative performance. *The Journal of Creative Behavior*, *48*(2), 89-114.

Siedlecki, S. L. (2020). Understanding descriptive research designs and methods. *Clinical Nurse Specialist*, *34*(1), 8-12.

Sinha, R., Chiu, C. Y., & Srinivas, S. B. (2021). Shared leadership and relationship conflict in teams: The moderating role of team power base diversity. *Journal of Organizational Behavior*, *42*(5), 649-667.

Slåtten, T., Svensson, G., & Sværi, S. (2011). Empowering leadership and the influence of a humorous work climate on service employees' creativity and innovative behaviour in frontline service jobs. *International Journal of Quality and Service Sciences*.

Snedecor, G. W. C., & William, G. (1989). Statistical methods/george w. *Snedecor and william g. Cochran*.

Song, D., Liu, H., Gu, J., & He, C. (2018). Collectivism and employees' innovative behavior: The mediating role of team identification and the moderating role of leader-member exchange. *Creativity and Innovation Management*, *27*(2), 221-231.

Spreitzer, G. M. (1995). Psychological empowerment in the workplace: Dimensions, measurement, and validation. *Academy of management Journal*, *38*(5), 1442-1465.

Spreitzer, G. M. (1996). Social structural characteristics of psychological empowerment. *Academy of management journal*, *39*(2), 483-504.

Srivastava, A., Bartol, K. M., & Locke, E. A. (2006). Empowering leadership in management teams: Effects on knowledge sharing, efficacy, and performance. *Academy of management journal*, *49*(6), 1239-1251.

Steffens, N. K., Munt, K. A., van Knippenberg, D., Platow, M. J., & Haslam, S. A. (2021). Advancing the social identity theory of leadership: A meta-analytic review of leader group prototypicality. *Organizational Psychology Review*, *11*(1), 35-72.

Steiger, J. H. (2007). Understanding the limitations of global fit assessment in structural equation modeling. *Personality and Individual differences*, *42*(5), 893-898.

Stets, J. E., & Burke, P. J. (2014). Self-esteem and identities. *Sociological Perspectives*, *57*(4), 409-433.

Stevens, G. C. (1992). The elevational gradient in altitudinal range: an extension of Rapoport's latitudinal rule to altitude. *The American Naturalist*, *140*(6), 893-911.

Stryker, S. (2001). Traditional symbolic interactionism, role theory, and structural symbolic interactionism: The road to identity theory. In *Handbook of sociological theory* (pp. 211-231). Springer, Boston, MA.

Sung, S. Y., & Choi, J. N. (2019). Effects of diversity on knowledge sharing and creativity of work teams: status differential among members as a facilitator. *Human Performance*, *32*(3-4), 145-164.

Tabachnick, B. G., Fidell, L. S., & Ullman, J. B. (2007). *Using multivariate statistics* (Vol. 5, pp. 481-498). Boston, MA: pearson.

Tajfel, H. (1979). Individuals and groups in social psychology. *British Journal of social and clinical psychology*, *18*(2), 183-190.

Tajfel, H., & Turner, J. C. (1978). Intergroup behavior. *Introducing social psychology*, 401-466.

Tang, G., Chen, Y., van Knippenberg, D., & Yu, B. (2020). Antecedents and consequences of empowering leadership: Leader power distance, leader perception of team capability, and team innovation. *Journal of Organizational Behavior*, *41*(6), 551–566.

Teng, C. C., Lu, A. C. C., Huang, Z. Y., & Fang, C. H. (2019). Ethical work climate, organizational identification, leader-member-exchange (LMX) and organizational citizenship

behavior (OCB): A study of three star hotels in Taiwan. *International Journal of Contemporary Hospitality Management*.

Tepper, B. J., Moss, S. E., & Duffy, M. K. (2011). Predictors of abusive supervision: Supervisor perceptions of deep-level dissimilarity, relationship conflict, and subordinate performance. *Academy of management journal*, *54*(2), 279-294.

Thomas, K. W., & Velthouse, B. A. (1990). Cognitive elements of empowerment: An "interpretive" model of intrinsic task motivation. *Academy of management review*, *15*(4), 666-681.

Tierney, P. (2015). An identity perspective on creative action in organizations. *The Oxford handbook of creativity, innovation, and entrepreneurship*, 79-92.

Tierney, P. (2015). LMX and creativity. *The Oxford Handbook of leader–member exchange*, 175-188.

Trong Tuan, L. (2020). Can managing employee diversity be a pathway to creativity for tour companies? *International Journal of Contemporary Hospitality Management*, *32*(1), 81–107.

Tse, H. H., To, M. L., & Chiu, W. C. (2018). When and why does transformational leadership influence employee creativity? The roles of personal control and creative personality. *Human Resource Management*, *57*(1), 145-157.

Tse, H. H., To, M. L., & Chiu, W. C. (2018). When and why does transformational leadership influence employee creativity? The roles of personal control and creative personality. *Human Resource Management*, *57*(1), 145-157.

Tse, H., & Chiu, W. (2014). Transformational leadership and job performance: A social identity perspective.Journal of Business Research, 67, 2827–2835

Tu, Y., Lu, X., & Yu, Y. (2017). Supervisors' ethical leadership and employee job satisfaction: A social cognitive perspective. *Journal of Happiness Studies*, *18*(1), 229-245.

Tu, Y., Lu, X., Choi, J. N., & Guo, W. (2019). Ethical Leadership and Team-Level Creativity: Mediation of Psychological Safety Climate and Moderation of Supervisor Support for Creativity. *Journal of Business Ethics*, *159*(2), 551–565.

Unsworth, K. (2001). Unpacking creativity. *Academy of management review*, *26*(2), 289-297.

Us and Me: Team Identification and Individual Differentiation as Complementary Drivers of Team Members' Citizenship and Creative Behaviors. 2008 (2) Journal of Management, 34(1), 69-88

Usunier, J. C. (1998). *International and cross-cultural management research*. Sage.

van Dick, R., Grojean, M. W., Christ, O., & Wieseke, J. (2006). Identity and the extra mile: Relationships between organizational identification and organizational citizenship behaviour. *British Journal of Management*, *17*(4), 283–301.

Van Dick, R., Van Knippenberg, D., Hägele, S., Guillaume, Y. R., & Brodbeck, F. C. (2008). Group diversity and group identification: The moderating role of diversity beliefs. *Human Relations*, *61*(10), 1463-1492.

van Dijke, M., De Cremer, D., Mayer, D. M., & Van Quaquebeke, N. (2012). When does procedural fairness promote organizational citizenship behavior? Integrating empowering

leadership types in relational justice models. *Organizational Behavior and Human Decision Processes*, *117*(2), 235-248.

van Emmerik, H., Jawahar, I. M., Schreurs, B., & De Cuyper, N. (2011). Social capital, team efficacy and team potency: The mediating role of team learning behaviors. *Career Development International*.

Van Knippenberg, D., & Van Schie, E. C. (2000). Foci and correlates of organizational identification. *Journal of occupational and organizational psychology*, *73*(2), 137-147.

van Veelen, R., & Ufkes, E. G. (2019). Teaming up or down? A multisource study on the role of team identification and learning in the team diversity–performance link. *Group & Organization Management*, *44*(1), 38-71.

van Veelen, R., & Ufkes, E. G. (2019). Teaming up or down? A multisource study on the role of team identification and learning in the team diversity–performance link. *Group & Organization Management*, *44*(1), 38-71.

Van Vugt, M., & Hart, C. M. (2004). Social Identity as Social Glue: The Origins of Group Loyalty. *Journal of Personality and Social Psychology, 86*(4), 585–598.

Vecchio, R. P., Justin, J. E., & Pearce, C. L. (2010). Empowering leadership: An examination of mediating mechanisms within a hierarchical structure. *The Leadership Quarterly*, *21*(3), 530-542.

Wallace, J. C., Johnson, P. D., Mathe, K., & Paul, J. (2011). Structural and Psychological Empowerment Climates, Performance, and the Moderating Role of Shared Felt Accountability: A Managerial Perspective. *Journal of Applied Psychology*, *96*(4), 840–850.

Walther, J.B. (2008). Social information processing theory. *Engaging theories in interpersonal communication: Multiple perspectives*, *391*.

Wang, C. J., Tsai, H. T., & Tsai, M. T. (2014). Linking transformational leadership and employee creativity in the hospitality industry: The influences of creative role identity, creative self-efficacy, and job complexity. *Tourism management*, *40*, 79-89.

Wang, D., Su, Z., & Guo, H. (2019). Top management team conflict and exploratory innovation: The mediating impact of market orientation. *Industrial Marketing Management*, *82*, 87-95.

Wang, J., Zhang, Z., & Jia, M. (2017). Understanding how leader humility enhances employee creativity: The roles of perspective taking and cognitive reappraisal. *The Journal of Applied Behavioral Science*, *53*(1), 5-31.

Wang, X. H., Kim, T. Y., & Lee, D. R. (2016). Cognitive diversity and team creativity: Effects of team intrinsic motivation and transformational leadership. *Journal of Business Research*, *69*(9), 3231–3239.

Wang, P., & Rode, J. C. (2010). Transformational leadership and follower creativity: The moderating effects of identification with leader and organizational climate. *Human relations*, *63*(8), 1105-1128.

Wang, P., & Zhu, W. (2011). Mediating role of creative identity in the influence of transformational leadership on creativity: Is there a multilevel effect?. *Journal of Leadership & Organizational Studies*, *18*(1), 25-39.

Wang, R., Liu, J., & Luo, H. (2021). Fintech development and bank risk taking in China. *The European Journal of Finance*, *27*(4-5), 397-418.

Wang, S., Noe, R. A., (2010). Knowledge sharing: A review and directions for future research. *Human Resource Management Review*, 20, 115-131.

Wang, X. H. F., & Howell, J. M. (2012). A multilevel study of transformational leadership, identification, and follower outcomes. *The Leadership Quarterly*, *23*(5), 775-790.

Wang, X. H. F., Kim, T. Y., & Lee, D. R. (2016). Cognitive diversity and team creativity: Effects of team intrinsic motivation and transformational leadership. *Journal of business research*, *69*(9), 3231-3239.

Wang, X., Wen, X., Paşamehmetoğlu, A., & Guchait, P. (2021). Hospitality employee's mindfulness and its impact on creativity and customer satisfaction: The moderating role of organizational error tolerance. *International Journal of Hospitality Management*, *94*, 102846.

Wilder, K. M., Collier, J. E., & Barnes, D. C. (2014). Tailoring to Customers' Needs: Understanding How to Promote an Adaptive Service Experience With Frontline Employees. *Journal of Service Research*, *17*(4), 446–459.

Wilson, J. (2010). Essentials of Business Research: A Guide to Doing Your Research Project. SAGE Publications

Wong, A., Wei, L., Wang, X., & Tjosvold, D. (2017). Collectivist values for constructive conflict management in international joint venture effectiveness. *International Journal of Conflict Management*.

Woodman, R. W., Sawyer, J. E., & Griffin, R. W. (1993). Toward a theory of organizational creativity. *Academy of management review*, *18*(2), 293-321.

Wu, G., Zhao, X., Zuo, J., & Zillante, G. (2019). Effects of team diversity on project performance in construction projects. *Engineering, Construction and Architectural Management*.

Xenikou, A. (2014). The cognitive and affective components of organisational identification: The role of perceived support values and charismatic leadership. *Applied Psychology*, *63*(4), 567-588.

Xie, K., Hensley, L. C., Law, V., & Sun, Z. (2019). Self-regulation as a function of perceived leadership and cohesion in small group online collaborative learning. *British Journal of Educational Technology*, *50*(1), 456-468.

Xue, Y., Bradley, J., & Liang, H. (2011). Team climate, empowering leadership, and knowledge sharing. *Journal of knowledge management*.2011(5), 299-312.

Yam, K. C., Reynolds, S. J., Zhang, P., & Su, R. (2021). The unintended consequences of empowering leadership: Increased deviance for some followers. *Journal of Business Ethics*, 1-18.

Yang, J., Zhang, H., Ni, J., De Dreu, C. K., & Ma, Y. (2020). Within-group synchronization in the prefrontal cortex associates with intergroup conflict. *Nature neuroscience*, *23*(6), 754-760.

Yao, C. Y., Tsai, C. C., & Fang, Y. C. (2015). Understanding social capital, team learning, members'e-loyalty and knowledge sharing in virtual communities. *Total Quality Management & Business Excellence*, *26*(5-6), 619-631.

Ye, B. H., Tung, V. W. S., Li, J. J., & Zhu, H. (2020). Leader humility, team humility and employee creative performance: The moderating roles of task dependence and competitive climate. *Tourism Management*, *81*, 104170.

Yidong, T., & Xinxin, L. (2013). How ethical leadership influence employees' innovative work behavior: A perspective of intrinsic motivation. *Journal of business ethics*, *116*(2), 441-455.

Yoshida, D. T., Sendjaya, S., Hirst, G., & Cooper, B. (2014). Does servant leadership foster creativity and innovation? A multi-level mediation study of identification and prototypicality. *Journal of Business Research, 67*(7), 1395–1404.

Yukl, G. (2008). How leaders influence organizational effectiveness. *The leadership quarterly*, *19*(6), 708-722.

Yun, S., Cox, J., & Sims, H. P. (2006). The forgotten follower: a contingency model of leadership and follower self-leadership. *Journal of managerial psychology*.

Zeb, A., Abdullah, N. H., Hussain, A., & Safi, A. (2020). Authentic leadership, knowledge sharing, and employees' creativity. *Management Research Review*.

Zhang, A. Y., Tsui, A. S., & Wang, D. X. (2011). Leadership behaviors and group creativity in Chinese organizations: The role of group processes. *The leadership quarterly*, *22*(5), 851-862.

Zhang, H., Kwan, H. K., Zhang, X., & Wu, L. Z. (2014). High core self-evaluators maintain creativity: A motivational model of abusive supervision. *Journal of management*, *40*(4), 1151-1174.Zhang, S., Ke, X., Frank Wang, X. H., & Liu, J. (2018). Empowering leadership and employee creativity: A dual-mechanism perspective. *Journal of Occupational and Organizational Psychology*, *91*(4), 896–917.

Zhang, X., & Bartol, K. M. (2010). Linking empowering leadership and employee creativity: The influence of psychological empowerment, intrinsic motivation, and creative process engagement. *Academy of management journal*, *53*(1), 107-128.

Zhang, Y., Long, L., Wu, T.-y., & Huang, X. (2015). When is pay for performance related to employee creativity in the Chinese context? The role of guanxi HRM practice, trust in management, and intrinsic motivation. *Journal of Organizational Behavior, 36*(5), 698–719.

Zhou, J., & George, J. M. (2001). When job dissatisfaction leads to creativity: Encouraging the expression of voice. *Academy of Management journal*, *44*(4), 682-696.

Zhou, J., & George, J. M. (2001). When Job Dissatisfaction Leads to Creativity : Encouraging the Expression of Voice Author (s): Jing Zhou and Jennifer M . George Source : *The Academy of Management Journal*, 44 (4). 682-696.

Zhou, J., & Hoever, I. J. (2014). Research on Workplace Creativity: A Review and Redirection. In *Annual Review of Organizational Psychology and Organizational Behavior* (1), 333–359.

Zhou, J., & Shalley, C. E. (2003). Research on employee creativity: A critical review and directions for future research. *Research in personnel and human resources management* 22, p, 165 – 217.

Zhou, J., & Shalley, C. E. (2011). Deepening our understanding of creativity in the workplace: A review of different approaches to creativity research. *APA handbook of industrial and organizational psychology, Vol 1: Building and developing the organization.*, 275-302.

APPENDIX A

Employee Questionnaires

Dear participant

This survey is a part of a PhD project developed by Yang Han. The aim of this study is attempts to investigate those factors, that might act as potential antecedents to creativity in the frontline service context.

This study is conducted based on research on knowledge creation purposes only and no further purposes for this survey.

Your participation and engagement to this survey is fully voluntary, and you have the rights to refuse and withdraw from this survey at any time.

The questionnaires have been coded, and you do not need to write your personal information such as your name on the questionnaire. Only the researcher himself have the access to these questionnaires and the research assured no other person will access the questionnaire and data. Full anonymity and confidentiality of your responses is assured.

It will take you around 10 -15 minutes to answer the questions within the questionnaire. There are no right or wrong answers. Hence, please tick the number that you feel best represents the statements. Please answer all questions.

If you have any further questions or concerns, please feel free to contact Yang Han at Robert.han2015@gmail.com. Thank you for your participation and collaboration!

Section 1 Basic Information

1. Your gender
   A. Male
   B. Female

2. Your age
   A. 18-25
   B. 26-35
   C. 36-45
   D. 46-55
   E. 55 above

3. Your educational level
   A. High school
   B. College
   C. Degree
   D. Master and/or Doctor

4. Numbers of team members
   A. 5-10
   B. 11-15
   C. 16-20
   D. More than 20

5. Your tenure
   A. Less than 6 months
   B. 6 month – 1 year
   C. 1-3 years
   D. More than 3 years

Section 2 **Empowering leadership**

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
My manager helps me understand how my objectives and goals relate to that of the company.	1	2	3	4	5
My manager helps me understand the importance of my work to the overall effectiveness of the company.	1	2	3	4	5
My manager helps me understand how my job fits into the bigger picture.	1	2	3	4	5
My manager makes many decisions together with me.	1	2	3	4	5
My manager often consults me on strategic decisions.	1	2	3	4	5
My manager solicits my opinion on decisions that may affect me.	1	2	3	4	5
My manager believes that I can handle demanding tasks.	1	2	3	4	5
My manager believes in my ability to improve even when I make mistakes.	1	2	3	4	5
My manager believes in my ability to improve even when I make mistakes.	1	2	3	4	5
My manager allows me to do my job my way.	1	2	3	4	5

My manager makes it more efficient for me to do my job by keeping the rules and regulations simple.	1	2	3	4	5
My manager allows me to make important decisions quickly to satisfy customer needs.	1	2	3	4	5

Team identification

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
I see myself as a member of this team.	1	2	3	4	5
I am pleased to be a member of my team.	1	2	3	4	5
I feel strong ties with members of my team.	1	2	3	4	5
I identify with other members of my team.	1	2	3	4	5

Relationship conflict

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
There are many frictions among members in this team.	1	2	3	4	5

There are much personally conflicts evident in this team.	1	2	3	4	5
There are many tensions among members in this team.	1	2	3	4	5
There is much emotional conflict among members in this team.	1	2	3	4	5

Knowledge sharing

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
People in our team share their special knowledge and expertise with one another	1	2	3	4	5
If someone in our team has some special knowledge about how to perform the team task, he or she is not likely to tell the other member about it (R)	1	2	3	4	5
There is virtually no exchange of information, knowledge, or sharing of skills among members (R)	1	2	3	4	5
More knowledgeable team members freely provide other members with hard-to-find knowledge or specialised skills.	1	2	3	4	5

Team efficacy

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
Achieving this team's goals is well within our reach.	1	2	3	4	5
This team can achieve its task without requiring us to put in unreasonable time or effort.	1	2	3	4	5
With focus and effort, this team can do anything we set out to accomplish.	1	2	3	4	5
This team is capable to manage effectively unexpected troubles.	1	2	3	4	5

APPENDIX B

Manager Questionnaires

Dear participant

This survey is a part of a PhD project developed by Yang Han. The aim of this study is attempts to investigate those factors, that might act as potential antecedents to creativity in the frontline service context.

This study is conducted based on research on knowledge creation purposes only and no further purposes for this survey.

Your participation and engagement to this survey is fully voluntary, and you have the rights to refuse and withdraw from this survey at any time.

The questionnaires have been coded, and you do not need to write your personal information such as your name on the questionnaire. Only the researcher himself will have the access to these questionnaires and you are assured that no other person will access the questionnaire and data. Full anonymity and confidentiality of your responses is assured.

It will take you around 10 -15 minutes to answer the questions within the questionnaire. The questions in Section 2 are about the creativity performance of your team. There are no right or wrong answers. Hence, please tick the number that you feel best represents the statements. Please answer all questions.

If you have any further questions or concerns, please feel free to contact Yang Han at Robert.han2015@gmail.com. Thank you for your participation and collaboration!

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5.Your tenure

   A. Less than 6 months
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   C. 1-3 years
   D. More than 3 years

Section 2 **Team Creativity**

Statement	Strongly disagree	Disagree	Neutral	Agree	Strongly agree
This team always suggest new ways to achieve goals or objectives.	1	2	3	4	5
This team comes up with new and practical ideas to improve performance.	1	2	3	4	5
This team searches out new technologies, processes, techniques, and / or product ideas.	1	2	3	4	5
This team suggests new ways to increase quality.	1	2	3	4	5
This team is a good source of creative ideas.	1	2	3	4	5
This team is not afraid to take risks.	1	2	3	4	5
This team promotes and champions ideas to others.	1	2	3	4	5
This team exhibits creativity on the job when given the opportunity to.	1	2	3	4	5
This team develops adequate plans and schedules for the implementation of new ideas.	1	2	3	4	5
This team often has new and innovative ideas.	1	2	3	4	5
This team comes up with creative solutions to problems. This team often has a fresh approach to problems.	1	2	3	4	5

This team suggest new ways of performing work tasks.	1	2	3	4	5