# The Antecedent of Perceiving a Calling: A Social Influence Perspective

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**Abstract**

The advances in technology science and changes in market environments have resulted in the emergence of various careers and jobs. Although people now have more career and job choices, many of them change their careers frequently, lack passion for their work and fail to understand the meaning of their work, thereby reducing their work efficiency and productivity. The lack of a sense of calling at work may be one of the main reasons for these undesirable behaviours and feelings. In the literature, calling refers to a conviction, often felt as a sense of destiny or fit, in which a particular domain of work leverages one's particular gifts and consuming passions in service of a cause or purpose beyond his/her own interests (Thompson & Bunderson, 2019). Perceiving work as a calling has been widely proven to enhance job satisfaction, job performance, professional success and other important personal and organisational outcomes. Given the importance of calling to individuals and organisations, exploring which factors can help individuals discern and develop their calling at work is both critical and valuable.

Previous studies find that individual-related personality traits, capacities, values and religious beliefs can influence the discernment of one's calling. This stream of literature mainly views the innate, stable and intrinsic intra-personal factors as the main determinants of calling. However, recent research shows that the above view may be one-sided and incomplete. Specifically, the social environment, especially the important surrounding people or social actors, plays an important role in shaping individuals' attitudes, perceptions and behaviours. Through interaction, communication and exchange with their surrounding environment, people construct their attitudes and perceptions about their careers and work accordingly. In addition to intra-individual factors, external environmental factors, such as interpersonal influence, may also have a significant effect on the discerning and developing processes of one's calling. However, these factors have rarely been examined both theoretically and empirically. Accordingly, this thesis proposes three key research questions to extend knowledge on antecedents of calling: (1) What are the general factors that drive people to perceive their work as a calling? (2) What are the specific interpersonal factors that shape people's calling

perceptions at work? (3) What are the empirical relationships and mediated mechanisms between interpersonal factors and perceiving a calling? Answering these questions is important because the current literature exploring the social or interpersonal antecedents of calling is relatively limited. Therefore, a clearer and deeper understanding of if and how calling can be discerned through interpersonal rather than intra-personal influence is critical.

To address the above research questions, this work adopted a novel social influence perspective and conducted three studies that combined qualitative and quantitative research methods (two qualitative studies and one quantitative study). The first study ($N = 23$) aimed to explore those general factors that are commonly thought to influence one's perceptions of calling through an open-ended in-depth interview method. Study 1 ultimately identified seven antecedents of calling, including proactive personality, past significant experience, family influence, empowering leadership, informal mentorship, feedback and person–job fit. The results of Study 1 also confirmed that there are indeed significant persons who can affect one's calling. Through semi-structured in-depth interviews, Study 2 ($N = 26$) was performed built on the results of Study 1 to further clarify the specific interpersonal factors that significantly influence one's calling. Study 2 identified four interpersonal factors that contribute to the discernment of one's calling, namely, empowering leadership, family influence, career encouragement from friends and informal mentorship. Using the findings from these two qualitative studies, Study 3 ($N = 266$) was performed to empirically examine the main effects of the four interpersonal factors and their functional mechanisms by adopting a specific social information processing theory and collecting survey data at multiple time points. The results demonstrated that family influence and informal mentorship have a direct, significant positive effect on perceiving a calling and that reflective career competencies and experienced responsibility for work outcomes are the two underlying mechanisms that mediate the positive indirect effects of empowering leadership, family influence and informal mentorship on perceiving a calling.

Through these three studies, this research offers the following important theoretical contributions. First, this thesis focuses on the interpersonal factors that affect one's calling,

thereby complementing previous studies that have mainly focused on the intrinsic aspects of individuals and providing a more complete and balanced understanding of the antecedents of calling. Second, this thesis introduces a social influence perspective, clarifies the significant persons or social factors that affect calling and reveals the specific influence of these social actors on calling. Third, this thesis empirically tests the impact of interpersonal factors on calling and the underlying functional mechanisms of such social influence. By providing convincing empirical results, this article enhances our understanding of how a sense of calling is discerned or formed through the process of social and interpersonal influence. Lastly, traditional work as a calling theory focuses only on the consequences of perceiving a calling. This thesis extends this theory by systematically exploring the general and social factors that drive people to perceive their work as a calling.

Key words: *perceiving a calling, social influence, career development, social information processing theory, mixed methodology*

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# Chapter 1: Introduction

## 1.1 Research Overview

People are starting to pay more attention to the meaning, purpose and values of their work for themselves and their society in the 21st century (Dik & Duffy, 2015). Achieving a sense of calling or a passionately self-motivated state at work is important for individuals to seek achievement and realise self-actualisation. Helping individuals discern and develop their calling at work is also essential for organisations given its role in improving the job performance, job satisfaction and career development of their employees (Xie et al., 2017). Therefore, this research aims to reveal the key factors that contribute to the discernment of one's calling. Previous studies have mainly examined person-related factors, such as personality, values and abilities, as determinants of calling yet overlooked the possibility that people's calling can be significantly influenced by their social environment (Buis et al., 2019; Dalla Rosa et al., 2019). To address this gap, this research adopts a social influence perspective and integrates both qualitative and quantitative studies to (1) check whether there are important people (e.g. leaders and family members) who can significantly affect one's calling, (2) identify the specific interpersonal factors that affect one's calling and (3) determine how do these interpersonal factors empirically function towards enhancing calling. By using a mixed methodology combining two qualitative studies (Study 1 and Study 2) and a quantitative study (Study 3), this research uncovers the underlying mechanisms by which one's calling is discerned and developed, hence going beyond the predominantly held perspective that calling is determined through personal predictors and enriching our knowledge on the interpersonal predictors that lead to one's calling and their functioning mechanisms. The following sections introduce the practical and theoretical reasons for conducting this research.

## 1.2 Practical Reasons for this Research

With the development of the social economy, people's motivations to pursue happiness at work and a better life have increased (Erdogan et al., 2012). People's attitude towards work has a direct effect on their life satisfaction and quality. Work occupies a significant proportion of people's life journey and provides them with a way to achieve wealth and happiness, fulfil

their life purpose and realise self-actualisation (Martela & Sheldon, 2019). However, in recent years, an increasing number of people have frequently switched jobs across various industries. Some even choose to leave their organisations within three months, thereby resulting in high turnover rates and resource wastage (Kammeyer-Mueller et al., 2013). This social phenomenon reflects the increasing job dissatisfaction of employees and their decreasing identifications with a certain job, occupation, career or organisation (Ivanovic & Ivancevic, 2019).

However, as shown in many cases, many people remain loyal to their careers and even actively dedicate themselves to their work or organisations (Zhu et al., 2021). They strive to achieve self-actualisation through their work and contribute to their society. The most typical manifestation of this behaviour is the performance of these employees during the COVID-19 pandemic. After COVID-19 broke out in December 2019 and spread rapidly worldwide, a group of *upstream people* voluntarily rushed to the frontlines to fight the virus, risking their own lives in the process (Cui et al., 2020; Liu et al., 2020). For instance, doctors and nurses save lives and heal the wounded, whereas scientists work hard and efficiently to develop vaccines to protect people's health (Cui et al., 2020). During the pandemic, the 85-year-old doctor Zhong Nanshan responded to his occupational identity, led a team to develop vaccines and used practical actions in ordinary positions to interpret his personal calling to work in China (Liu et al., 2020). The persistence and dedication of these heroes in their profession are commendable. This group of people referred to as *people with calling*, stick to their positions, are generally willing to contribute and survive and do not care about rewards (Dik et al., 2009; Wrzesniewski et al., 1997). Apart from the biomedical industry, other fields, such as aerospace, education and technology have an urgent need for the hard work and dedication of workers with calling (Hakala, 2009). The global economy, society and culture are constantly developing in the 21st century. The development and progress of human society cannot be separated from the outstanding contributions of people with a high level of calling. However, many countries are facing huge challenges and risks in the face of a new round of international competition. For example, technical problems, such as aero engines and chips, still exist (Ezugwu, 2005). Leaders from various fields should explore effective ways to cultivate their employees with

calling to maintain their human capital, increase their core competitiveness and facilitate their survival and development amidst fierce global competition (Esteves et al., 2018). In addition, despite bringing great convenience to people's work and life, rapid economic development has also resulted in social problems and value crises. As a result, many people have begun to strive for quick success and instant profits; even in the academic area, many forms of academic misconduct have been reported (Hopp & Hoover, 2017). Such a phenomenon may be ascribed to the lack of calling at work.

Calling reflects the subjective perception of an individual towards the meaning of his/her work and the value of his/her life, and personal development, growth, and success are critically related to the discernment of one's calling (Dik et al., 2012; Hall & Chandler, 2005; Thompson & Bunderson, 2019). In the process of personal career development and pursuit of self-achievement, individuals may also need to follow their perceived calling (Dik et al., 2012; Hall & Chandler, 2005; Thompson & Bunderson, 2019). Understanding how to train, motivate and manage talents effectively has become a core problem for many organisational leaders. Addressing this important issue can help employees better concentrate on their work, enhance their innovative vitality and allow them to create practical value for their organisations and societies (Gandy et al., 2018). Therefore, from a practical perspective, cultivating the work spirit of employees, improving their working environment and creating a healthy working ecosystem are critical to their personal growth and career success (Lee & Zemke, 1993). More importantly, people should be encouraged and guided in pursuing the truth, understanding and pursuing their calling, achieving their self-values and realising self-actualisation. Hence, this thesis aims to explore the potential factors that can contribute to the discernment and development of people's calling at work.

## 1.3 Theoretical Reasons for this Research

The concept of calling was introduced by protestant reformers, with the first record shown in the Bible (Schorr, 1990; Thompson & Bunderson, 2019). The concept of "God's calling" was later mentioned in religious studies. Initially, calling was mainly used to refer to priests and other staff who can communicate with God (Schorr, 1990). This concept has also been

defined by scholars in religious theology. After the Protestant Reformation, several representatives, such as Luther, released this concept from the confines of theology (Bishop, 2014). Serow proposed that ordinary people working for the benefit of others and society can also respond to the call of God (Serow, 1994). Meanwhile, psychologists' understanding of calling begins from their exploration of the connection between self-concept and self-achievement. For example, Garay defined calling as a desire to find one's true self, which would trigger an individual's strong sense of responsibility about his/her life by pondering on the meaning of his/her existence, thereby perceiving God's call to complete his/her life tasks (Garay, 2013). Researchers have also begun to describe calling both as a personal work meaning and a life meaning. Calling is work itself, a value of work and life and a guiding force. Wrzesniewski et al. (1997) divided people's work attitudes into three work orientations, namely, job, career and calling. People who hold the job orientation perceive work as a means of earning a livelihood and think that they only work to make money and survive. People who have career orientation view work as a career, and they work hard for promotion, power and reputation. Those who regard work as a calling view work as an important part of their lives and appreciate the meaning and sense of purpose brought about by their work. These people understand themselves through their work and even experience a sense of inner joy.

An increasing number of organisations continue to invest in their employees, such as by providing them various training and development opportunities, to retain their talents as much as possible and to achieve long-term development. However, in many cases, employees find that many of their needs are not well fulfilled, thereby resulting in their lack of motivation and difficulty in improving their work outcomes (Ng & Feldman, 2012). Therefore, scholars have shown a strong research interest in how to motivate employees to identify their selves, work and organisations and in how to accommodate their needs. Calling reflects both the inner (i.e. emphasising the sense of self-fulfilment, self-enjoyment or self-actualisation) and outer needs (i.e. emphasising the sense of duty, responsibility or prosocial motivation) of individuals to a certain extent (Thompson & Bunderson, 2019). Some scholars have begun to pay attention to the importance of personal calling to one's work, life and society (Thompson & Bunderson,

2019). Over the past 20 years, studies on calling have mainly focused on its influence on people's work and life. For example, Dik et al. (2012b) and Wrzesniewski et al. (1997) emphasised calling as a work value orientation and guiding force that reflects an individual's intrinsic motivation and has an important impact on his/her work attitude and behaviour. Calling actively promotes the sense of work identity and self-worth of individuals (Duffy et al., 2018). Duffy et al. (2018) explored the relationship between calling and career development from searching for a calling to perceiving a calling and found a significant positive relationship between calling and career decision making, career adaptation and self-clarity. People with calling are also more likely to have work identification and satisfaction, organisational citizenship behaviour and better job performance than those people without calling (Xie et al., 2017). Calling can also significantly reduce burnout at work (Lian et al., 2021) and improve life meaning and satisfaction (Duffy et al., 2011). In sum, calling is conducive to the development of one's career and life.

Although many papers have highlighted the considerable benefits of perceiving a calling to the well-being, job and life satisfaction, work and life meaning and other career-related outcomes of individuals (Duffy & Dik, 2013; Thompson & Bunderson, 2019), relatively few studies have examined how people discern their calling. In addition, those few empirical studies that have investigated the antecedents of perceiving a calling have mostly focused on personal factors, such as personal ability (e.g. talents and interests) (Elangovan et al., 2010), religious beliefs (Hernandez et al., 2011) and psychological perception (e.g. self-identity and spirituality)(Lazar et al., 2016). For example, people who possess talents in a certain domain and in things that capture their interests are more likely to perceive their calling at work (Elangovan et al., 2010; Harzer & Ruch, 2012). Moreover, people with work spirituality tend to perceive their work meaning and thus easily find their calling (Dik et al., 2012a). In addition, empirical studies find that the sensemaking and clarity of professional identity build one's calling by cultivating a sense of work meaningfulness (Dalla Rosa et al., 2019; Safaie, 2019). These empirical studies mainly hold the view that an individual's calling is formed intra-personally and largely depends on person-related characteristics or traits that are stable or

inherent within an individual's inner faith, values or personality.

However, recent research suggests that an individual's calling perceptions may be established through the influence of others, such as leaders and family members (Zhang et al., 2018), thereby indicating a potential interpersonal influence on the development of calling perceptions. Although previous research has discussed its dynamic nature and encouraged other studies to reveal the interpersonal determinants of calling, very few studies have theoretically and empirically examined the roles of specific social actors in fostering one's calling and explored the functioning processes by which these key social actors promote an individual's sense of calling (Esteves et al., 2018).

Based on the literature on the antecedents of perceiving a calling and following the suggestions of recent studies that emphasise the interpersonal influence on one's calling, this study adopts a generally social influence perspective to identify those interpersonal factors (the source of social influence) that help people perceive a calling in the work domain and adopts the specific social information processing theory to reveal the underlying mechanisms that mediate such interpersonal influence on one's calling. The social influence perspective was selected to serve as the theoretical guidance of this thesis because such a perspective can well capture how other persons in one's surrounding social environments can interpersonally shape his/her perceptions of calling and explain the specific processes by which such effects function to influence one's calling.

## 1.4 Research Questions and Plans

This study aims to address the following research questions:

**Research question 1:** What are the general factors that drive people to perceive their work as a calling?

**Research question 2:** What are the specific interpersonal factors that shape people's calling perceptions at work?

**Research question 3:** What are the empirical relationships and mediated mechanisms between interpersonal factors and perceiving a calling?

To rigorously address these questions, this research conducted three studies using a mixed

approach, that is, by combining qualitative and quantitative approaches across these studies.

**Step 1:** Revealing the general factors that affect one's calling at work in Study 1.

Given the considerable benefits that perceiving a calling can bring to the employee and organisation, previous studies have begun to investigate those factors that foster one's calling. These studies have theoretically proposed or empirically identified several antecedents of calling, including personality, personal ability and past experiences (Thompson & Bunderson, 2019; Vianello et al., 2020). Following this line of research, Study 1 aims to comprehensively explore the general predictors of calling through a qualitative interview study. By summarising and coding the interview data, all key factors mentioned in the interview that are generally believed to affect the development of the participants' calling are systematically presented. The findings on these factors are also discussed and compared with the antecedents of calling discovered in previous studies.

**Step 2**: Identifying the specific predictors of perceiving a calling at work from the social influence perspective in Study 2.

Calling is a highly subjective construct characterised by people's personal or own perceptions of their work. Individuals engage in considerable interpersonal and social interactions in their life and work and often have different work experiences and subjective feelings at work. Therefore, people's calling can be discerned through different paths. To better discern and perceive calling at work, individuals need to constantly ask themselves a series of questions related to calling, such as "How do I describe my current perception about my calling at work?", "What experiences make me discover my calling?" and "Are there some significant persons that influence the development of my calling perceptions?". To further clarify the specific interpersonal factors that affect individual calling (Study 1 only explored factors that are generally thought to affect calling), a new group of samples was selected for a confirmatory interview study. Based on the primary findings of Study 1, semi-structured in-depth interviews were conducted in Study 2. Respondents were asked to share their life stories, work experiences, and personal feelings associated with those important persons in their work and life. Through coding their more detailed and deeper responses, the specific interpersonal factors that capture

the influence of other persons on one's calling were finally identified in Study 2.

**Step 3**: Examining the empirical influence of the newly identified interpersonal factors on perceiving a calling and clarifying their mediated functioning mechanisms in Study 3.

Based on the results of qualitative research and drawing from social information processing theory (a theory which explains how the social environment and social influence affect people's attitudes and behaviours), a quantitative study was performed to empirically examine the effects of interpersonal factors on the discernment of one's calling and to reveal the specific mechanisms that account for how one's calling is discerned through the influence of other people. Study 3 adopted a multi-wave design to distribute surveys at different time points and collected data from diverse working adults who have different jobs, occupations, and working industries. The results and contributions of this empirical study were finally discussed.

## 1.5 Significance of this Research

Previous studies predominantly view that the process of perceiving work as a calling is a stable, intra-personal journey (e.g. beliefs and personal ability) (Hernandez et al., 2011). However, they have ignored the influence of important interpersonal factors (e.g. family members and leaders) and failed to examine how these interpersonal factors affect the discernment process of one's calling. The social influence perspective presents a new angle for understanding how calling is discerned inter-personally. This new perspective deepens our knowledge on how to facilitate the discernment of individual calling through the influence of important interpersonal factors. Therefore, this study enriches the literature on the antecedents of calling and the influential interpersonal processes, thereby complementing those limited studies that examine how perceptions of calling are established. In addition, the utilisation of both qualitative and quantitative studies advances the methodology of calling studies. Given that previous studies have mostly adopted either a quantitative (Duffy et al., 2017) or qualitative design (Ahn et al., 2017), combining two methodologies compensates for the disadvantages or limitations of qualitative (e.g. lacking empirical or statistical evidence) and quantitative studies (e.g. failing to develop or create new theories) and provides more rigorous

and solid research findings.

This study also provides organisations and managers with a novel perspective on how one's calling is inter-personally developed and offers them more specific, useful approaches to foster and ignite one's calling by designing a desirable, supportive social environment. Previous studies suggest that employees develop their calling perceptions based on their personal-related characteristics or individual differences (e.g. religious beliefs or values) (Dobrow, 2013; Jaffery & Abid, 2020; Lian et al., 2021). According to this line of research, organisations can do little in facilitating the development of their employees' calling perceptions. However, this research pinpoints that calling perception can be inter-personally shaped and influenced. This finding contributes to organisations in recruiting personnel and developing their talent. Specifically, when recruiting new employees, in addition to selecting candidates who are born to have high calling, organisations and managers can also help their senior employees and junior newcomers discern and develop their calling by intentionally manipulating the interpersonal antecedent factors of calling, such as by enhancing the desirable interpersonal influence from leaders and co-workers.

## 1.6 Overall Structure of this Research

To extend previous research on calling and generate novel insights in this regard, this study draws on the conceptualisation of calling, brings in a social influence perspective, and integrates qualitative and quantitative approaches to explore the antecedents of perceiving calling at work, particularly to reveal those interpersonal factors and their functional processes that contribute to the discernment of one's calling.

This thesis is divided into seven chapters.

Chapter 1 introduces the practical and theoretical background of calling, its definition and its importance to one's personal life and work. This chapter also reveals the practical dilemma in developing talents, inspiring the passion of employees, addressing the high turnover rate and meeting the needs of employees. This chapter presents the relevant literature on calling, highlights the gaps in the literature, proposes the research questions and purpose, illustrates the theoretical and practical implications of this research and introduces the adopted research

methods and framework.

Chapter 2 recounts the history of calling in religion, reviews the literature on calling and presents the foundational theory and theoretical framework adopted in this thesis.

Chapter 3 outlines the research methodology and explains the methodological decisions adopted in this thesis.

Chapter 4 performs an exploratory qualitative study to address the research question "What are the general factors that drive people to perceive their work as a calling?". In-depth, open-ended interviews are performed with 23 respondents, and the findings are used to prepare for the confirmatory qualitative study in the next chapter.

Chapter 5, based on the findings of the exploratory qualitative study, performs a confirmatory qualitative study to investigate those specific social actors (interpersonal factors) that predict an individual's calling at work through in-depth semi-structured interviews with 26 respondents. The findings of this study are treated as the core concepts of the next quantitative study.

Chapter 6 presents a theoretical model based on the findings of the qualitative studies building on the conceptualisation of calling and social information processing theory. This chapter introduces how specific interpersonal factors empirically influence one's calling at work. The theoretical model described in this chapter includes 22 hypotheses, which are tested quantitatively through field survey data. After two waves of data collection, 266 valid responses were returned. The results of empirical analyses were finally presented.

Chapter 7 presents the main conclusions and contributions of this research and the prospects for future work. First, this chapter summarizes the findings of the qualitative and quantitative studies. The theoretical contribution of this research to existing studies and its implications for business practices are also discussed. The important innovations and limitations of this research are then presented before proposing some potential future research directions.

Figure 1 presents the overall structure of this thesis.

| CHAPTER 1 | Overall introduction of this research | | **Introduction** · Research backgrounds · Research purpose and significance · Research design |
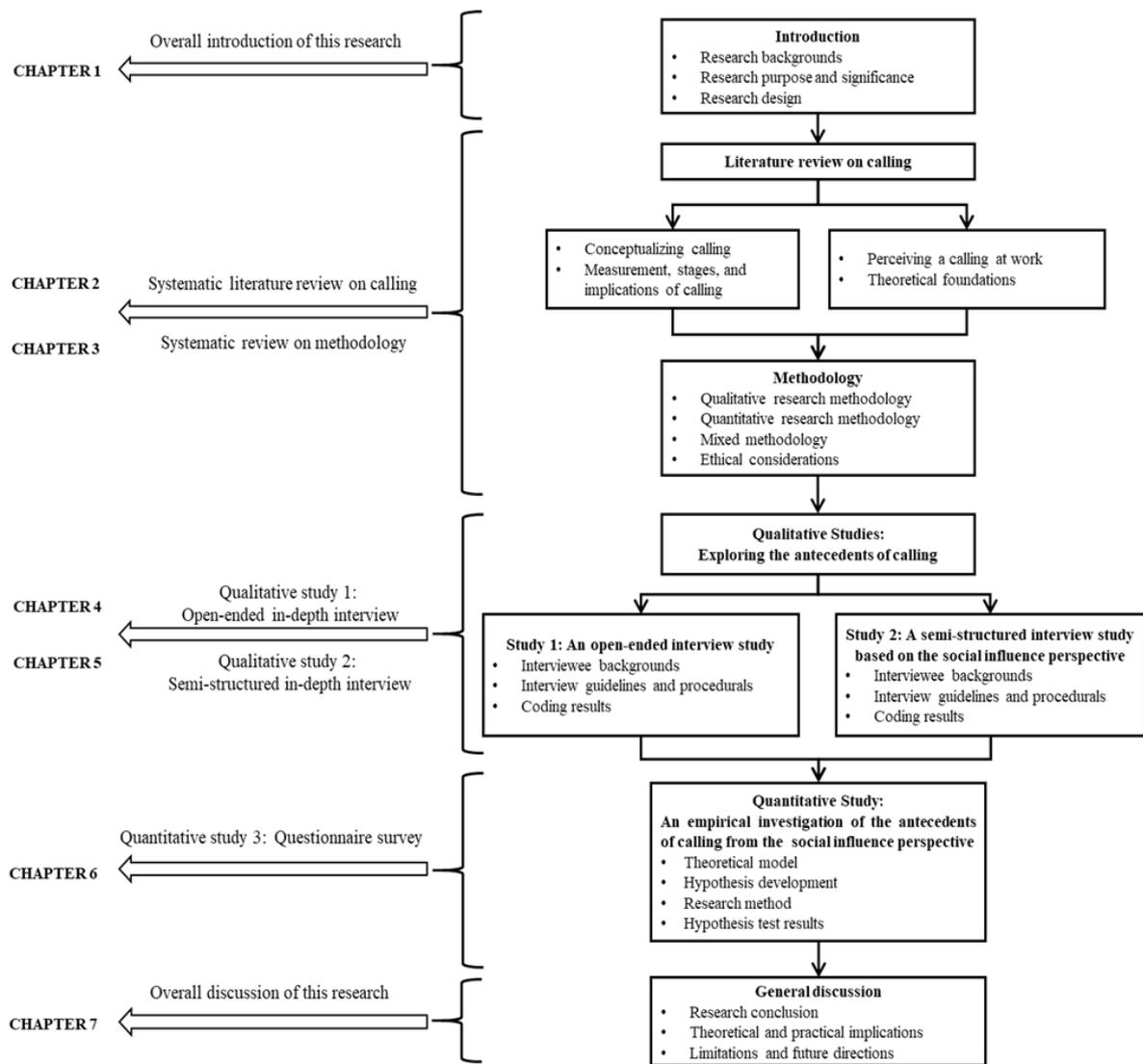
**Figure. 1** Research framework

**Chapter 2: Literature Review on Calling**

## 2.1 Conceptualising Calling

### 2.1.1 Origins of Calling

The term *Calling* is rooted in Western cultures. Before the 16th century, calling as a term was only used in areas relevant to religion (Scheitle & Adamczyk, 2016). This term is originally defined as the willingness of individuals to engage in occupations or contribute to others in response to God's calls (Davidson & Caddell, 1994). In the 1990s, researchers outside the narrow scope of religion have started to investigate calling (Davidson & Caddell, 1994). For instance, in the field of sociology, Bellah et al. found that people with religious beliefs are not the only ones who can perceive meaningfulness and sense of calling; general workers who work for the common good can also have such perceptions (Bellah et al., 1986). In this way, calling is perceived as a work orientation (Wrzesniewski et al., 1997). This concept was initially distinguished from work orientation by Bellah et al. (1986) in their book, *Habits of the Heart*. People with job orientation only pursue money and other material benefits, people with career orientation focus on promotion, reputation and power and people who view work as a calling do not care about money and power yet treat their work as a part of their lives and pay attention to their internal values and broader goals to make a difference in the world (Wrzesniewski et al., 1997).

Later scholars have examined the religious connotations of calling. For instance, Hall and Chandler (2005) argued that although calling is rooted in religion, some people indeed pursue their calling for reasons other than their religious beliefs. Recent scholars found that the connotation of calling has transitioned from a religious to a broad and secular one and argued that the secular connotation is shaped by individuals who perform their work to follow their hearts in hopes of doing good for their world (Elangovan et al., 2010). Dik et al. (2009b) posed two questions, namely, a) whether calling implies a religious connotation and b) whether calling is related to occupation. Therefore, the origins of calling have been divided by scholars into the religious view and the secular view. Individuals with a religious calling perceive the calling from God, divine forces or other mysterious power, whereas individuals with secular

calling focus on greater and broader contributions, such as world peace, environmentalism and public health.

### *2.1.2 Definitions of Calling*

Previous studies have proposed various definitions of calling, and a single unified definition is yet to be proposed. Although scholars have defined calling in different ways, these varied conceptualisations can be categorised as either neo-classical conceptualisations with an emphasis on destiny and duty or as modern conceptualisations with an emphasis on passion and self-fulfilment. The former type of conceptualisation has been characterised as an outside-in view (i.e. neoclassical view) that anchors calling in social obligations/responsibility or views such concept as an external summon. This neo-classical perspective of calling originates from the classical and religious concepts of calling and contains three core views. Firstly, the neo-classical view presumes a certain domain of work that is exactly right for each person so that people are destined or meant to conduct their work. Secondly, the neo-classical view presumes that the duty perceived by people drives them to find and embrace their destined calling. Such duty is derived from their sense of obligation to glorify God and to productively serve the public or society. Thirdly, the neo-classical view suggests that the discernment of calling is a discovery process that starts with the assessment of one's unique talents, passions and life opportunities. Specifically, Bellah et al. (1986) viewed calling as a contribution to the good of calling. Meanwhile, Dik and Duffy (2009, p. 247) characterised calling as "a transcendent summons, experienced as originating beyond the self', which can motivate personal efforts due to 'other-oriented values and goals".

Meanwhile, the latter type of conceptualisation has been characterised as an inside-out view (i.e. modern view) that anchors calling in internal preferences or passions. This modern perspective differs from the neo-classical views that emphasises destiny, duty and discovery and instead emphasises self-expressions and self-fulfilment. In line with this perspective, calling can be defined as a personal expression of one's internal passions and interests and is pursued by an individual to seek enjoyment or fulfilment. Therefore, calling is only meaningful for those persons who perceive such concept as significant, that is, calling is not necessarily

meaningful because of its benefits or contributions to the public or society. Wrzesniewski et al. (1997, p. 22) stated that "a person with a calling works not for financial gain or career advancement, but instead for the fulfilment that doing the work brings to the individual". Moreover, Berg et al. (2010, p. 974) defined calling as the occupation that a person "(1) feels drawn to pursue, (2) expects to be intrinsically enjoyable and meaningful, and (3) sees as a central part of his or her identity". In addition, Dobrow and Tosti-Kharas (2011, p. 1001) defined calling as "a consuming, meaningful passion people experience toward a domain". Although the above perspectives vary in their definitions of calling, scholars have acknowledged that most conceptualisations of calling are neither purely neo-classical nor purely modern. In other words, a one-sided, incomplete view on calling may miss the true and important dimensions of the calling experience.

In this study, calling was defined based on the definition recently proposed by Thompson and Bunderson (2019), who integrated multiple definitions of calling and proposed a common view on its conceptualisation. Specifically, calling can be seen as a conviction—often felt as a sense of destiny or fit—that a particular domain of work leverages one's particular gifts and consuming passions in service of a cause or purpose beyond self-interest (p. 432). According to their conceptualisation, calling covers not only outer requiredness (e.g. transcendent summons and prosocial intention) but also inner requiredness, such as meaningfulness or purposefulness. Some scholars have defined calling as a meaningful, consuming passion towards work, which only involves the inner requiredness of calling (Dobrow & Tosti-Kharas, 2011). Other scholars, such as Dik et al. (2009a), defined calling as "a transcendent summons, experienced as originating beyond the self, to approach a particular life role in a manner oriented toward demonstrating or deriving a sense of purpose or meaningfulness that holds other-oriented values and goals as primary sources of motivation" (p. 427). Such definition mainly highlights the outer requiredness of calling, such as a transcendent summon and prosocial intention. This integrated definition and conceptualisation of calling, developed by Thompson and Bunderson (2019) and used in this thesis, can reconcile the divergent views on this concept and provide a consolidated, comprehensive and clear understanding of calling.

**Table. 1** Definitions of Calling

| Scholar | Definition | View |
|---|---|---|
| Wrzesniewski (1997) | "People with callings find that their work is inseparable from their life. A person with a calling works not for financial gain or career advancement, but instead for the fulfilment that doing the work brings to the individual". | Modern Calling |
| Hall & Chandler (2005) | "Work that a person perceives as his purpose in life". | Modern Calling |
| Oates et al. (2005) | "A compelling summons by God that leads to the expression of oneself in particular profession". | Neoclassical Calling |
| Dik & Duffy (2009) | "A calling is a transcendent summons, experienced as originating beyond the self, to approach a particular life role in a manner oriented toward demonstrating or deriving a sense of purpose or meaningfulness that holds other-oriented values and goals as primary sources of motivation". | Neoclassical Calling |
| Berg et al. (2010) | "An occupation that an individual (1) feel drawn to pursue, (2) expects to be intrinsically enjoyable and meaningful, and (3) see as a central part of his or her identity". | Modern Calling |
| Elangovan et al. (2010) | "A course of action in pursuit of prosocial intentions embodying the convergence of an individual's sense of what he or she would like to do, should do, and actually does". | Modern Calling |
| Hunter et al. (2010) | "Originating from guiding forces, co-occurring with unique fit and well-being, having altruistic features, and extending to multiple life roles". | Neoclassical Calling |
| Dobrow & Tosti-Kharas (2011) | "A consuming, meaningful passion people experience toward a domain". | Modern Calling |
| Cardador & Caza (2012) | "A view toward work in which one expects the work to be intrinsically meaningful and sees the work as making a difference in some way". | Modern Calling |
| Coulson et al. (2012) | "A strongly held belief that one is destined to fulfil a specific life role, regardless of sacrifice, that will make a meaningful contribution to the greater good". | Transcendent Calling |
| Praskova et al. (2015) | "A mostly self-set, salient, higher order career goal, which generates meaning and purpose for the individual, and which has the potential to be strengthened (or weakened) by engaging in goal-directed, career-preparatory actions and adaptive processes aimed at meeting this goal". | Modern Calling |

### *2.1.3 Dimensions of Calling*

Early scholars thought that calling was a one-dimensional concept. For example, Wrzesniewski et al. (1997) viewed calling as a work orientation with a single dimension. Bunderson and Thompson (2009) described calling as a place which fits personal ability and is arranged in advance by God in the labour market. Recent scholars who supported the single dimension of calling are Dobrow and Tosti-Kharas, who argued that calling is a meaningful and consuming experience of passion that does not involve other connotations. such as prosocial intentions (Dobrow & Tosti-Kharas, 2011).

However, other scholars considered calling as a multidimensional concept because a single dimension cannot fully capture its meaning. For instance, Hunter, Dik and Banning (2010) found in their qualitative study that calling involves three themes, namely, *guiding force*, *personal fit or eudemonic well-being and altruism. Guiding force* refers to people behaving in certain ways because they perceive a sense of duty, mission or destiny. *Personal fit or eudemonic well-being* refer to people applying their gifts or abilities in their jobs. *Altruism* refers to the sense of calling that leads people to help others or their society. Hunter et al. (2010) are the first to examine calling as a multidimensional concept, and their results partially overlap with those of subsequent studies. For instance, Dik et al. (2012b) proposed the most representative three dimensions of calling. Firstly, *transcendent summon* refers to people perceiving their motivations in life from an external source. Secondly, *purposeful work* refers to people finding a sense of purpose and meaningfulness in their life activities. Thirdly, *prosocial intention* refers to people contributing to the common good by engaging in some activities. Meanwhile, Hagmaier and Abele (2012) explored the component of calling under a bicultural background (America and German) and identified five dimensions, namely, *identification with one's work, person–environment fit, value-driven behaviour, sense and meaning and transcendent guiding force.*

Dalla Rosa et al. (2019) recently integrated the above dimensions and proposed seven dimensions of calling. *Passion* refers to the deep satisfaction and enjoyment felt by individuals when engaged in activities related to their calling. *Pervasiveness* refers to the persistent

presence of a calling domain in one's thoughts. *Purposefulness* reflects people's engagement in calling activities, which provides them opportunities to do some purposeful things in their lives. *Sacrifice* refers to the willingness of individuals to sacrifice other pieces of their lives (e.g. family) to achieve their calling. *Identity* refers to the calling that helps people define who they are and how strongly they bond to who they are in some activities. *Transcendent summons* refers to the presence of a spiritual guidance that motivates people to engage in certain activities. *Prosocial orientation* refers to people doing something in the calling domain with an other-oriented purpose.

In sum, scholars hold different views towards the dimensions of calling, with some believing that calling is a universal one-dimensional construct that refers to people's meaningful and consuming experience of passion and others suggesting that calling is a multidimensional construct with several sub-dimensions (e.g. *transcendent summon* and *prosocial intention*). These conceptualisations of calling may be reasonable and acceptable considering that different scholars may define and conceptualise this concept in different ways. The key point is that the selection of the definition or conceptualisation should fit the research question. Given that this thesis investigates those factors that influence people's overall, comprehensive and holistic perceptions of calling at work, calling is viewed in this study as a universal, one-dimensional construct.

### 2.1.4 Measures of Calling

On the basis of their respective definitions of calling, scholars have proposed different scales for measuring this concept. Calling was generally measured by previous scholars in two ways, the first of which is through the *unidimensional scale*, which comprises five scales. Davidson and Caddell (1994) proposed a scale involving one item, "I feel a strong inner call". Wrzesniewski et al. (1997) designed a paragraph to test the presence of calling. Bunderson and Thompson (2009) adopted a neo-classical view in their study of zookeepers and developed a six-item unidimensional neo-classical calling scale based on this view. However, these scales all focus on a particular domain, hence challenging their wide application. To address this limitation, Dobrow and Tosti-Kharas (2011) developed a 12-item unidimensional scale for

measuring calling in the fields of music, art, management and business. Apart from its proven reliability and validity, all items in this scale fully respond to the connotation of calling. For example, one item in the scale of Dobrow and Tosti-Kharas (2011) is "I am passionate about playing my instrument/singing/engaging in my artist specially/business/being a manager" (p. 1048).

The second way to measure calling is through the *multidimensional scale*. One scale most frequently used in empirical research is the Calling and Vocation Scale (CVQ) developed by Dik et al. (2012b) based on the three dimensions of calling, namely, *transcendent summons*, *purposeful work* and *prosocial orientation*, that they identified in a previous study (Dik et al., 2009b). The Multidimensional Calling Measure (MCM) designed by Hagmaier and Abele (2012) comprises 9 items that were developed based on the dimensions of *identification and person–environment fit*, *transcendent guiding force* and *sense and meaning/value driven behaviour* (Hagmaier & Abele, 2012). The Career Calling Scale of Praskova et al. (2014) contains 15 items that were developed based on the dimensions of *other-oriented meaning*, *personal meaning* and *active engagement*. Rosa et al. (2019) developed the Unified Multidimensional Calling Scale (UMCS) with 22 items. Considering the Chinese cultural background, Zhang et al. (2015) developed the 11-item multidimensional calling scale called Chinese Calling Scale (CCS), which involves the dimensions of *altruism*, *guiding force* and *purpose* and partially overlaps with the findings of western studies.

In sum, as scholars have proposed various definitions and conceptualisations of calling, different unidimensional and multidimensional scales have also been used in the literature to measure this concept. As most of these scales have demonstrated desirable reliability and validity, using these well-established measures of calling may be acceptable. A measurement scale for calling should be theoretically consistent with the definition and conceptualisation adopted in the study. Given that this thesis focuses on people's universal and comprehensive perceptions of calling, using a unidimensional scale to measure calling is most appropriate.

**Table. 3** Measurement Scales of Calling

| Scholar | Measuring Tool | Dimension |
| --- | --- | --- |
| Wrzesniewski (1997) | Calling Orientation Scale | Single dimension |
| Steger et al. (2012) | Brief Calling Scale (BCS) | Single dimension |
| Bunderson & Thompson (2009) | Neo-Classical Calling Scale | Single dimension |
| Dobrow & Tosti-Khara (2011) | Calling Scale | Single dimension |
| Dik et al. (2012) | Calling and Vocation Questionnaire (CVQ) | Three dimensions: *Transcendent summon*, *purposeful work* and *prosocial orientation* |
| Hagmaier & Abele (2012) | Multidimensional Calling Measure | Three dimensions: *Identification and person–environment fit*, *transcendent guiding force* and *sense and meaning/value-driven behaviour* |
| Praskova, Creed, et al. (2014) | Career Calling Scale | Three dimensions: *Other-oriented meaning*, *personal meaning* and *active engagement* |
| Zhang et al. (2015) | Chinese Calling Scale (CCS) | Three dimensions: *Altruism*, *guiding force* and *meaning and purpose* |
| Vianello et al. (2018) | Unified Multidimensional Calling Scale (UMCS) | Seven dimensions: *Passion*, *purposefulness*, *sacrifice*, *pervasiveness*, *prosocial orientation*, *transcendent summons* and *identity* |

### 2.1.5 Different States of Calling

Some scholars identified three states in the development of calling, namely, searching, perceiving and living a calling, according to the dynamic nature of this concept (Dik & Duffy, 2012; Dik et al., 2012b). Searching for calling means that a person understands the meaning of calling and wants to make an effort to realise his/her calling through a series of actions. Those people who are searching for calling actively engage in related activities and try new challenges, which lead them to identify what they can do and what gives their life purpose and meaning and then constantly evaluate the possible actions. Under this state, individuals foster their identification of calling by combing their adaptability, identity development, meaning assessment and construction with their search process (Dik & Duffy, 2012b). Perceiving a calling measures the degree to which people have found their calling yet have not done anything to realise such calling (Elangovan et al., 2010). Living a calling refers to the degree to which individuals are experiencing and doing something (Cardador et al., 2011).

Although the other two states of calling are also important to the work and life of people, this research mainly focuses on perceiving a calling. The failure to perceive one's calling does not carry any meaning or significance even if people continue to search for their calling. Moreover, if people do not perceive their calling, then they will also not actively live out their calling. Therefore, perceiving a calling may be particularly important for individuals when searching, perceiving and living out their calling. Previous studies have also demonstrated that perceiving a calling serves as a more fundamental precise of one's living a calling and subsequent positive work and career-related outcomes (Duffy et al., 2018). Taken together, this research primarily aims to investigate the antecedents of perceiving a calling rather than living out a calling.

## 2.2 Perceiving a Calling at Work

### 2.2.1 Consequences of Perceiving a Calling at Work

For several decades, scholars have extensively examined the outcomes and consequences of perceiving a calling at work. For example, previous research shows that individuals with calling are more likely to enjoy their work and experience a feeling of person–job fit and

meaning in their work (Duffy et al., 2018). Perceiving a calling improves one's innovation performance via the mediating role of work passion (Liu et al., 2021). Duffy and Sedlacek (2007) argued that a sense of career calling is positively related to many significant career-related outcomes, such as effective career decision making and preparations for career success. Duffy and Sedlacek (2007) added that perceiving a calling is closely related to career decidedness, self-clarity and choice comfort. Those individuals who perceive a career calling may become more responsible and proactive in their career development. Furthermore, those people who view their work as a calling can feel a higher level of work satisfaction (Wrzesniewski et al., 1997) and psychological success at work (Hall & Chandler, 2005). Those people who perceive a calling also demonstrate a higher life satisfaction via the mediating role of life meaning (Duffy et al., 2018). Wrzesniewski et al. (1997) found that people who view their work as a calling feel a higher level of well-being compared with those who view their work as merely a job or career.

### 2.2.2 Antecedents of Perceiving a Calling at Work

In contrast to the outcomes or consequences of perceiving a calling at work, its antecedents have received relatively limited research attention (Dobrow et al., 2019; Thompson & Bunderson, 2019). The few studies that have examined those factors that affect the discernment and development of calling can be divided into two main streams. The first stream suggests that calling is discerned intra-personally, hence indicating that calling is often influenced by personal factors, such as one's personality traits, inherent values, religious beliefs and intrinsic attitudes. For example, proactive personality (i.e. the behavioural tendency to change the environment) has been found to promote people's perceived calling at work (Jaffery & Abid, 2020). Meanwhile, sense of self-confidence and self-awareness are also conducive to the development of one's calling (Hall & Chandler, 2005). Experiencing life meanings or having unique experiences of special significance and spirituality (Dik & Duffy, 2009) is beneficial to the discernment of calling. Having religious beliefs can enhance one's feeling of being called (Curlin et al., 2007). Earning high income helps individuals perceive a calling in their careers (Duffy & Autin, 2013). Individuals with high zest (Peterson et al. 2009), job satisfaction (Duffy

et al. 2014) and career attachment (Dobrow, 2013) are also more likely to perceive their work as a calling. Career adaptability also helps people develop their calling in their careers (Guo et al., 2014).

In addition to the first stream of research that mainly focuses on individual-related factors that are relatively personal, stable and intra-personal, several scholars have noted that people's calling may be influenced by their social environments or contexts (Buis et al., 2019; Dalla Rosa et al., 2019; Kreiner et al., 2006). These scholars claim that 'individuals do not enact their vocation in a vacuum. Rather, work involves, to some degree, responding to the expectations of various stakeholders' (Kreiner et al., 2006, p. 1040) and "we have relatively little understanding about how social contexts shape calling" (Buis et al., 2019, p. 88). Previous research also suggests when discerning and developing their calling at work, individuals may choose to look to their family members (Conklin, 2012), colleagues or friends with similar work experiences (Bunderson & Thompson, 2009; Schabram & Maitlis, 2017) and leaders or other mentors that can provide relevant guidance and support (Ehrhardt & Ensher, 2021) to construe the meaning of their work. Social support from important persons (e.g. family members and close friends) can significantly enhance people's perceived calling at work (Dalla Rosa et al., 2019). Receiving helpful mentorship from mentors has also been reported to exert the same effect (Dalla Rosa, et al., 2018).

## 2.3 Work as a Calling Theory

Over the past 15 years, many scholars have explored the conceptualisation of calling and its relationships with other constructs based on existing theories, such as self-determination theory and career construction theory. For example, Dik and Duffy (2015) used the self-determination theory to explain how perceiving a calling is linked to job crafting and leads to living a calling. Hirschi and Herrmann (2013) found a relationship between career preparation and development of calling. Duffy et al. (2018) developed a theoretical framework for calling—namely *work as a calling theory*—to understand how perceiving and living a calling are linked and how they affect positive and negative outcomes.

Work as a calling theory focuses on the relationship between perceiving and living a calling.

Perceiving a calling is the fundamental premise of if people will try to live out their calling. As suggested by this calling theory, the perceptions of calling significantly determine people's attitudes, motivation and behaviours towards their work, thereby shaping their work and career-related outcomes (Duffy et al., 2018). Therefore, discerning one's calling is critical, hence highlighting the need for research to identify the predictors of calling perceptions. Although perceiving a calling drives people to live out such calling, when and how people will successfully perceive their calling remain important questions that have been relatively ignored in previous studies.

Berg et al. (2010) found that people with an "unanswered" calling (i.e. people who have perceived yet are not living out their calling) often regret their decision to not follow their career developmental paths or pursue their callings outside of paid employment. Similarly, Gazica and Spector (2015) found that compared with people with unanswered callings, those individuals who do not perceive a calling produce better job, life and health outcomes. These findings suggest that living a calling is more closely related to outcomes compared with perceiving a calling. Therefore, this calling theory suggests that perceiving a calling predicts living a calling.

Work as a calling theory also proposes several channels to living a calling, such as person–environment fit (e.g. access to opportunity), which directly predicts living a calling. People who perceive a calling have the ability and opportunity to pursue and live out their calling, which are significant for producing positive outcomes at work. Similarly, work meaning is an important mediator that links perceiving and living a calling. As a key component of pursuing a calling, meaningfulness suggests that those people who perceive a calling treat their job as a vital source of life meaning or as an arena for expressing their meaning and purpose (Duffy et al., 2018). Therefore, perceiving a calling as a calling motivation has also been identified as a channel that links perceiving a calling to living a calling, hence leading to more positive outcomes of living a calling, including improved job satisfaction and performance (Allan et al., 2015; Douglass et al., 2016).

Despite its positive outcomes, the dark side of calling cannot be ignored. Work as a calling

theory introduces the potentially negative outcomes of calling and their possible moderators. For instance, calling can expose people to over-exploitation by their organisations and lead to workaholism (Bunderson & Thompson, 2009; Cardador & Caza, 2012). Meanwhile, one's personality and psychological climate may play a moderating role in the relationship between calling and its dark side. For example, individuals with perfectionist attitudes may attempt to set up some unrealistic tasks that are unlikely to be completed, hence leading to workaholic tendencies (Duffy et al., 2018). Along with personality factors, psychological climate may moderate the relationships of living a calling with workaholism and organisational exploitation.

Work as a calling theory views calling as a double-edged sword. Although living a calling can lead to some positive experiences, those people who perceive a calling yet are not given opportunities to live out their calling may face difficulties, such as job dissatisfaction. Personal or organisational factors also expose people to workaholism and over-exploitation by their organisations (Bunderson & Thompson, 2009; Duffy et al., 2018).

As a new theory, work as a calling theory only focuses on perceiving and living a calling, the predictors of living a calling, the relationship between perceiving and living a calling and the outcomes of living a calling. However, this theory is built on the conceptualisation of calling. Scholars usually begin by discussing and exploring the conceptualisation of calling before examining its outcomes and underlying mechanisms (Bunderson & Thompson, 2009; Thompson & Bunderson, 2019). As Thompson and Bunderson (2019) expected that the discernment of calling is significant to extend work as a calling theory, further empirical studies should test this theory and refine its latent structure by exploring the antecedents of perceiving a calling and the underlying mechanism and dark sides of calling (Duffy, Autin, et al., 2018; Duffy et al., 2016).
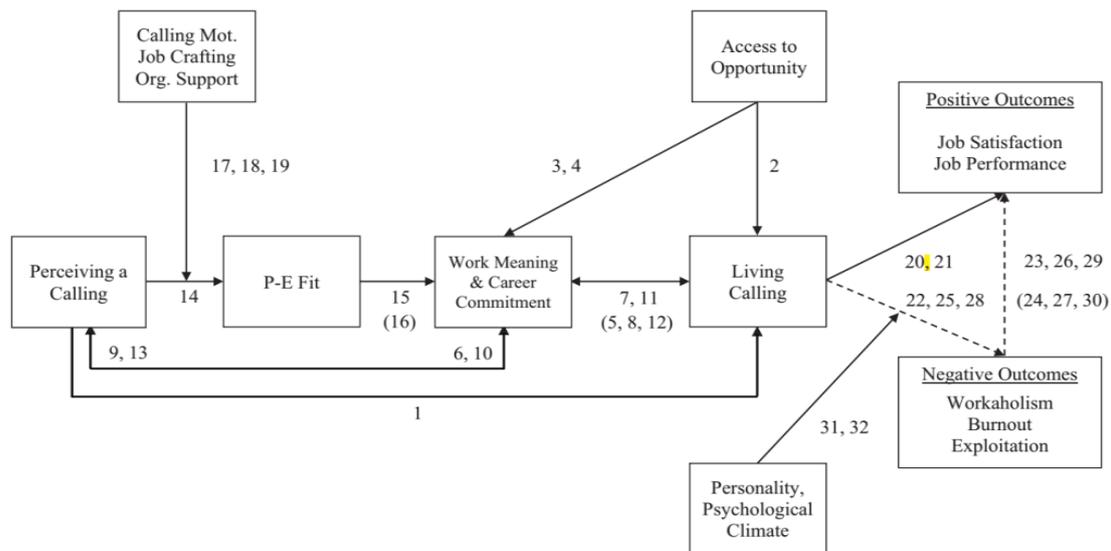
**Figure. 3** Work as a calling theory (Duffy, Dik, et al., 2018)

## 2.4 Comments on Previous Research

Many studies have highlighted the considerable benefits of perceiving a calling to individuals in terms of their well-being, job and life satisfaction, work and life meaning and other career-related outcomes (Duffy & Dik, 2013; Elangovan et al., 2010; Thompson & Bunderson, 2019). However, relatively few studies have examined how people discern their calling. These studies have focused mostly on personal factors, such as personal ability (e.g. talents and interests) (Elangovan et al., 2010), religious beliefs (Hernandez et al., 2011) and the capacity for career adaptability (Guo et al., 2014). Empirical studies hold the view that an individual's calling is formed intra-personally and mainly depends on person-related characteristics or individual traits that are stable or inherent within one's faith, values or personality.

However, recent research suggests that an individual's perceptions of calling may be established through the perspective of the social influence, such as calling driven by leaders and family members (Esteves et al., 2018; Zhang et al., 2018), thereby indicating a potential interpersonal influence perspective on the development of calling perceptions. Although previous research has already discussed the dynamic nature of calling and encouraged future studies to reveal its interpersonal determinants, very few studies have theoretically and empirically explored how key social actors promote an individual's sense of calling (Esteves

et al., 2018).

## 2.5 The Social Influence Perspective

Following the literature on the antecedents of perceiving a calling, this study aims to explore additional predictors of perceiving a calling from the perspective of social influence, such as interpersonal factors. That is, this thesis will adopt a general social influence perspective to understand the interpersonal antecedents of perceiving a calling. Social influence refers to the effects of others or the environment on an individual's attitudes, beliefs and behaviours (Goldsmith & Goldsmith, 2011). This perspective originates from the field of sociology and is often used to explain the changes in or the formation of an individual's willingness or behaviour (Goldsmith & Goldsmith, 2011).

The social influence perspective describes the sources of forces that influence a person's attitudes, perceptions and behaviours. Specifically, the forces of such influence come from the social environment around a person, such as other people and things in the environment. Human beings are social animals with strong social attributes. People's daily life and work cannot be separated from the social group and social environment. People are in contact, interact and communicate daily with different people and things in their social environment. For example, people often search for useful information from the environment, exchange valuable resources with others around them, learn from those who are excellent, seek helpful advice from seniors or more experienced people and so on. By constantly interacting with the environment, people's thoughts and behaviours are influenced by the social environment over time. According to the social influence perspective (Goldsmith & Goldsmith, 2011), people internalize the ideas, beliefs or values of people they consider important in their social environment. That is, they align themselves with the values of other important persons to a high degree. People also show a high degree of identification with those who are important to them, as well as a strong sense of belonging to the team or group to which they belong. People comply with and listen to the opinions or advice of others who are important to them. In general, factors in the social environment (such as other important people) influence how a person thinks, perceives the world, understands and interprets what is happening in the environment

and behaves in the environment. The process by which an individual's attitudes, perceptions and behaviours are shaped and changed by social environmental factors is called the social influence process, which is also an important element and is the central concern of the social influence perspective.

Under the social influence perspective, several specifically relevant theories are mentioned in the literature to describe the process of interaction between the social environment and the individual. These theories also explain how people are influenced by the social environment and thus produce attitude, cognitive and behavioural changes. For example, social learning theory (Bandura & Walters, 1977) explores the influence of three factors, namely, individual cognition, behaviour and environmental factors, and their interaction on human behaviour. This theory emphasizes the role of observational learning in the acquisition of human behaviour. It argues that most human behaviours are learned by observing the behaviour of others and the consequences of that behaviour. In other words, relying on observational learning allows for the rapid acquisition of a large number of behavioural patterns. Social contagion theory (Christakis & Fowler, 2013) describes a similar behavioural phenomenon. The theory states that an individual's behaviour, attitude, or emotional state spreads through a group or social organization in a manner similar to the spread of an infectious disease. There are two general types of social infections that cause the masses to clamour for imitation. The first is emotional contagion: individuals have reduced self-control and exhibit various types of excesses. The second type is behavioural contagion, in which actions are transmitted from one person to another. Social contagion is most likely to occur when participants share common attitudes, interests, and values. Different from these two theories, social exchange theory (Cropanzano & Mitchell, 2005) assumes that individuals will interact with others in their environment adhering to the principle of reciprocity. After receiving favours from others, people will actively reciprocate to maintain a good, lasting, and valuable reciprocal relationship. Thus, the way others in the environment treat a person will influence the person's subsequent behavioural responses.

Another established theory underlying the social influence perspective is the social

information processing theory (Salancik & Pfeffer, 1978), which explains how social environments influence one's attitudes, beliefs and behaviours. According to this theory, people actively collect, encode and analyse information from their social environments. Through these social information processing processes, people learn to adjust their attitudes, beliefs and behaviours accordingly. This is because social information delivered from the environment can help people interpret the things that happen in their world, construe the meanings of their behaviours and understand how they should think and behave in the environment. This theory has been widely used to account for how people's attitudes and behaviours at work are shaped by different social influences, such as the influence generated by leaders, co-workers and mentors. These persons are important social actors with whom people frequently interact in their social environments. Thus, it is reasonable to believe that interpersonal interactions with key persons (e.g., leaders and families) typically involved in one's social environments will significantly influence how one thinks and feels about their work and career.

Considering the above introductions and explanations of social information processing theory, this thesis believes that adopting this theory to study the antecedents of calling is suitable and reasonable. First, the main goal of this thesis is to explore the interpersonal antecedents of calling. To reveal how one's calling is discerned through interpersonal processes, this thesis requires a theory that can help explain how the social environment and social factors affect people's perceptions and understandings of their work and career. Social information processing theory is such a theory that introduces the processes of how social information influences one's attitudes, cognitions, and behaviours. Second, according to the conceptualizations of calling, to perceive one's work as a calling, people should achieve a sense of fulfilment of both the inner (e.g., self-awareness) and outer requiredness (e.g., responsibility) of calling. The processes by which people approach and fulfil the inner and outer requiredness require them to actively seek, encode, process, and analyses social information from their social environment. For example, they obtain a clear understanding of themselves by receiving feedback from others (i.e., inner requiredness); they perceive high job responsibility to perform well from the leader's enhancement of their work meaning and purpose (i.e., outer

requiredness). Taken together, through a series of social information processing processes, people can achieve a deeper self-understanding of their career-related motivations, interests, competencies and qualifications, and perceive their work and career in a more comprehensive way, which is key to the discernment and development of one's calling. Therefore, there is theoretical rationale to study the interpersonal antecedents of calling from a specific social influence perspective, namely the social information processing lens.

Further, according to this social information processing perspective, individuals determine their attitudes and behaviours by processing the information they receive from the surrounding social environment. Therefore, the components of the social environment, especially those embedded important people in the social environment, have an extremely important influence on individuals' attitudes and behaviours. In general, the social environment around an individual consists of people with whom the individual is closely connected, communicates frequently and has close relationships. Typically, for an adult worker, the social environment around him or her consists of two parts: the environment in the workplace (i.e., the work domain) and the environment in the living place (i.e., the non-work domain). In the work domain, individuals mainly communicate and interact mainly with their leaders and colleagues; in the non-work domain, individuals mainly interact with family members and friends in their lives. In other words, leaders and colleagues are an important part of an individual's work environment, while family and friends are an important part of an individual's living environment. Through communication with these people in the work and non-work domains, the individual is able to understand how s/he should think and behave in the social environment around him. These arguments suggest that from the perspective of social information processing, the interpersonal antecedents that influence how people perceive their work as a calling might can be generally characterized as work-related and non-work-related factors. This categorization provides a potentially useful and comprehensive theoretical framework that guides the selection of interpersonal factors as the independent variables in the theoretical model of this thesis.

As inspired by the general social influence perspective and hinted at by the specific social

information processing theory, this thesis will investigate the critical interpersonal influential process that determines how calling perceptions are discerned through the influence of key social actors in both work and non-work domains. Notably, as described in the previous section, work as a calling theory mainly explains how perceiving a calling leads to living a calling, which in turn generates some outcomes. However, this theory fails to identify those factors that drive people to perceive their work as a calling. As shown in Figure 4, the newly proposed social influence perspective extends work as a calling theory by identifying interpersonal antecedent factors that help people discern and develop their perceptions of calling at work.
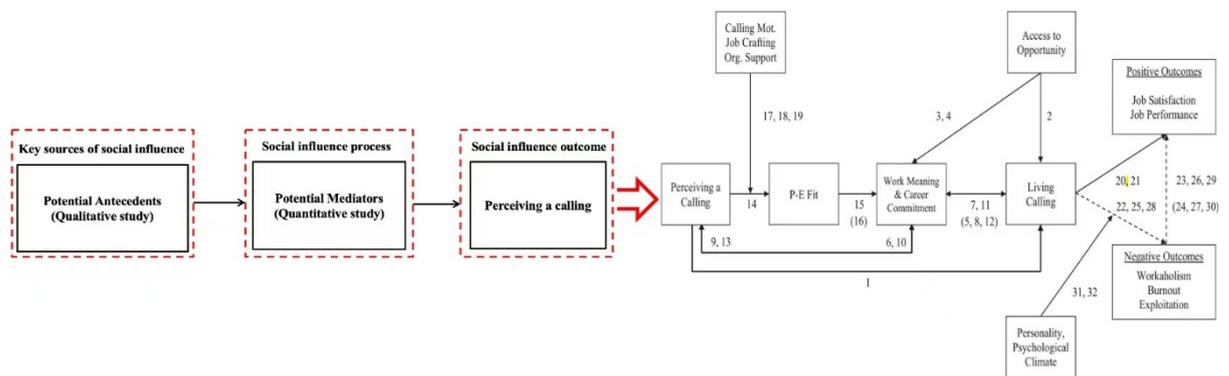


**Figure 4.** The social influence perspective on perceiving a calling

## Chapter 3: Methodology

### 3.1 Research Design

This research adopted a mixed methodology combining qualitative (for Studies 1 and 2) and quantitative approaches (for Study 3).

First, given the theoretical ambiguities and relatively limited empirical findings on the antecedents of perceiving a calling, a qualitative study was conducted via open-ended, in-depth interviews to explore the general antecedent factors of perceiving a calling (Study 1). These interviews allowed us to deeply understand the inner thoughts of the participants and to comprehensively understand those factors that are generally thought to affect their calling. More importantly, through the findings of this open-ended qualitative study, this thesis can generate insights to judge whether there are indeed important persons or social actors that can are thought to be able to significantly influence the discernment of one's calling, providing theoretical support and confidence for the following qualitative and quantitative studies.

Second, to achieve the second research purpose (i.e. identifying the specific interpersonal antecedents of perceiving a calling from a social influence perspective), a second qualitative study (Study 2) was performed via semi-structured in-depth interviews. Semi-structured interviews rather than open-ended ones were used this time because unlike Study 1, which was completely exploratory and lacked structured interview questions, Study 2 had a clearer research task and more specific interview questions, which is to identify the interpersonal antecedents of perceiving a calling from the social influence perspective.

Finally, to further verify, generalise and extend the findings of Study 2 and to achieve the third research purpose (i.e. empirically examining if and how the interpersonal factors affect perceiving a calling), a quantitative study (Study 3) was conducted with a wide variety of participants engaged in different jobs, occupations and industries. Study 3 went beyond the Studies 1 and 2 by collecting empirical data through a field survey to justify the results of the qualitative interviews. This quantitative study empirically and statistically verified whether the interpersonal factors are the antecedents of perceiving a calling and examined their underlying mechanism by using a broader sample, hence increasing the objectivity and generalisability of

the qualitative study results.

The next sections introduce the respective advantages and disadvantages of the qualitative and quantitative research methodologies before indicating why a mixed methodology was adopted here to address the research questions.

**3.2 Different Research Methodologies**

*3.3.1 Qualitative Research Methodology*

According to Creswell (2003), qualitative research has been widely used for many years and has established its credibility amongst the academe. Robson (2002) pointed out the flexibility of a research that adopts the qualitative approach. This method expects the use of more research designs in the data collection process. Johnson and Onwuegbuzie (2004) enumerated the advantages and disadvantages of this approach as follows:

Advantages:

1. The data are based on the categories of participants' own understandings.

2. This approach is useful for small in-depth studies.

3. This approach can effectively describe complex phenomena.

4. The data are usually collected in natural environments.

Disadvantages:

1. This approach cannot easily test hypotheses and theories.

2. The data analysis is usually time consuming.

3. The results tend to be influenced by research bias.

If solely used to describe complex phenomena and if the data are built on the participants' own understandings, then the qualitative approach may be fine and useful. In other words, if the research aims to address an exploratory research question that has no precise or specific hypotheses, then using the qualitative approach is preferred. However, if the research aims to examine proposed hypotheses with specific prior theoretical assumptions, then using the qualitative approach is inappropriate. Moreover, the results of qualitative studies are mainly based on the authors' subjective inductions of data from the participants' understandings, which

may lack statistically rigorous analytical processes and thereby result in subjective bias.

### 3.3.2 Quantitative Research Methodology

Quantitative research methods are specifically designed for natural sciences, such as biology or chemistry. Amaratunga et al. (2002) pointed out that the advantages of quantitative research include its ease of reproduction, separation of researchers from the subject, objectivity, reliability, validity and emphasis on hypothesis formation. This approach is inherently fixed and theoretically driven. Johnson and Onwuegbuzie (2004) enumerated the advantages and disadvantages of the quantitative approach as follows:

Advantages:

1. Testing and validating extant theories related to the development of the phenomena.

2. Testing the hypothesis constructed before the data collection.

3. Saves time in data analysis.

4. Collects data much faster than the qualitative approach.

Disadvantages:

1. The categories used by researchers may not reflect the understanding of local constituencies.

2. The theories selected by researches may not fully reflect the understanding of local constituencies.

3. Researchers may miss some phenomena because they focus on testing than generating theories or hypotheses.

4. The generated knowledge may be too abstract and general to be directly adopted to certain local conditions, environments and individuals.

Whilst the quantitative approach can quickly collect data from a considerable number of participants and saves time in analysing these data, as mentioned by Johnson and Onwuegbuzie (2004), this approach is often used to confirm established theories and is unable to generate new theories. Therefore, when the research aims to explore new mechanisms, develop new hypotheses and provide novel insights into previous theories, using the quantitative approach

may be inappropriate.

### *3.3.3 Mixed Methodology*

Academics usually regard qualitative and quantitative approaches as the same accepted forms of research. They initially adopt qualitative methods to capture the emotions or perceptions of people that are difficult to quantify and then use quantitative methods to verify their data extensively, hence leading to a mixed qualitative–quantitative approach. By leveraging the advantages of both qualitative and quantitative approaches and addressing their respective limitations, the mixed approach is deemed the most beneficial for this research. According to Tashakkori and Teddlie (2009), "mixed methods research has emerged as an alternative to the dichotomy of the qualitative and quantitative traditions during the past 20 years" (p. 4). The mixed approach combines various aspects of the qualitative and quantitative approaches and provides statistical and perceptual benefits for research. Palakshappa and Gordon (2006) wrote that a mixed approach can improve the flexibility and details in research. Tashakkori and Teddlie (2009) added that "the mixed method has been treated as a specific research design in which qualitative and quantitative methods are used in types of questions, research methods, data collection and analysis process, and/or inferences" (p. 7). According to Creswell (2003), perceptions or emotions can be represented in a more statistical way using a mixed approach, and quantitative approaches can improve the presentation of data collected by qualitative approaches. Rocco et al. (2003) mentioned that one of the main reasons why they used the mixed approach in their study is to enhance the validity of their results. Johnson and Onwuegbuzie (2004) stated that the mixed method does not aim to replace any one method but to refine and complete the research. When some research questions cannot be fully answered by one research method, using another approach can supplement and further verify the research. The arguments of mixed approach also greatly outweigh the arguments of Hurmerinta-Peltomäki and Nummela (2006). Therefore, a mixed methodology was adopted in this work to enhance the validity of its results and to fully explore the topic at hand. According to Tashakkori and Teddlie (2009), "the ultimate goal of any research project is to answer the questions set forth in the beginning of the study" (p. 33). The mixed approach offers the following

advantages:

1. A set of confirmatory and exploratory questions can be addressed simultaneously by combining qualitative and quantitative approaches.

2. The mixed approach can provide better inferences than either the qualitative or quantitative approach.

3. The mixed approach provides opportunities to balance and realise divergent views.

Brannen (2008) argued that the mixed approach is more difficult to use compared with other approaches and pointed out many reflections throughout the research process. Amaratunga et al. (2002) wrote that qualitative research 'focus on using words and observations to express reality and try to describe people in natural situations. On the contrary (Amaratunga et al., 2002), the quantitative method stems from a strong academic tradition that places great trust in numbers that represent views or concepts' (p. 19). This statement highlights the positive aspects of the qualitative and quantitative approaches, and any research may benefit from these approaches by combining their aspects.

Although Johnson and Onwuegbuzie (2004) highlighted the typical advantages of the quantitative approach (i.e. greater reliability, better validity, easy replication and ideal hypothesis verification), other authors have also listed few weaknesses of this approach. For instance, Amaratunga et al. (2002) wrote, "the weaknesses of such quantitative research designs lie mainly in their failure to ascertain deeper underlying meanings and explanations of built environments, even when significant, reliable and valid" (p. 23). Amaratunga et al. (2002) added that whilst the quantitative data can be used to find representative and deviation samples that facilitate the design process in qualitative research, qualitative data facilitate the design process in quantitative research with the aid of conceptual design and instrumentation. Therefore, both quantitative and qualitative approaches are significant and useful. The purpose of the mixed approach is not to replace either of these methods but to emphasise their strengths and minimise their weaknesses.

## 3.3 Reasons for Using the Mixed Approach

This thesis has three main purposes. First, this research aims to explore those general factors

that affect people's perceptions of calling at work. Second, this research draws from a social influence perspective to identify those interpersonal factors that drive people to perceive their work as a calling. Third, this research aims to empirically examine how interpersonal factors affect people's calling perceptions at work. A mixed approach was therefore adopted to answer the three important research questions and fulfil the aforementioned purposes.

Relatively few studies have examined the antecedents of calling, and the present knowledge on those factors that help people perceive calling at work is limited. Therefore, to go beyond previous studies and generate deeper knowledge on the antecedent factors of perceiving a calling, the potential antecedents should be explored using a qualitative approach.

Calling is essentially a psychological, subjective perception with a deep connotation and requires an in-depth exploration of people's psychological perceptions and inner thoughts. In-depth interviews have been suggested as a representative qualitative approach to help researchers understand people's thoughts in depth. Therefore, adopting a qualitative approach is deemed appropriate for this study to understand why people are likely to perceive their work as a calling. This approach helps this research fulfil its first and second goals, that is, to probe the general factors of perceiving calling at work and to reveal the interpersonal factors that affect people's perceptions of calling at work.

However, merely using a qualitative approach may not help this research achieve its third purpose, namely, to empirically test if and how the newly identified interpersonal factors influence people to perceive calling at their work. As mentioned above, the results of qualitative studies are somewhat subjective, inductive and exploratory given that they are obtained from qualitative data generated from the personal understandings of a limited number of participants. One may ask if statistically significant relationships exist between interpersonal factors and perceiving a calling, if the qualitative results based on a limited sample size can be generalised to broader samples, and how to statistically reveal the functional mechanisms by which these interpersonal factors affect people's calling perceptions at work. These questions cannot be well answered by merely using a qualitative approach, hence necessitating the adoption of a quantitative approach. Using such approach allows this research to collect data from many

participants with different jobs, occupations and industries, thereby enhancing the generalisability of the qualitative studies. Moreover, the quantitative approach generates solid statistical evidence to support the conclusions of the qualitative studies. Adopting this approach also allows this research to empirically test the mediating processes of the relationship between the interpersonal factors explored in qualitative studies and people's calling perceptions at work, hence generating statistically rigorous and convincing results regarding those specific processes that clearly explain how one's calling perceptions are discerned, developed and shaped through interpersonal influence.

In sum, the qualitative and quantitative approaches complement each other, and their mutual combinations can lead to highly rigorous and effective research findings.

## 3.4 Ethical Considerations

This research followed the guidance of the University of Nottingham's Code of Research Conduct and Research Ethics (2010), Ethical Issues in Digitally Based Research (2012) and Data Protection Policy and Guidelines of the University of Nottingham. Some important ethical issues prioritised in this research are discussed in the following sections.

The confidentiality of the data collected from the participants was maintained from their collection up to the end of this study. Following the Data Protection Policy and Guidelines of the University of Nottingham, these data were protected and stored carefully across all stages of the research (e.g. data collection, data analysis, data reporting and data storing). Only the researchers had access to these data. After completing this research, the collected data will be stored for several years in compliance with the requirements of the University's Code of Research Conduct. During this period, the confidentiality of these data will be guaranteed. These data will be disposed safely after the storage period.

The responses of the participants were not only anonymous but also confidential. The researcher ensured that none of the information provided by the participants directly link them to their responses. To do so, the participants were only asked for their demographic information that was related to the data analysis. In this way, threats to the anonymity or confidentiality of the participants were minimised. The organisations of the participants were informed

beforehand that this research is conducted purely for academic purposes, so organisations cannot obtain specific analysis results of their employees.

To ensure transparency, all participants were provided with a participation information sheet, and two participant consent forms were read and signed by the participants prior the data collection. The participants kept a copy of the consent form and returned one to the researcher.

**Chapter 4: Study 1 – A Qualitative Study on the General Antecedents of Calling**

**4.1 Introduction**

Although previous research has highlighted the considerable benefits of perceiving a calling for individuals and companies, relatively few studies have examined how such calling perceptions can be discerned or developed, which may explain why recent scholars have shown a growing interest in those factors that contribute to one's calling (Bloom et al., 2020). The few studies that have investigated the antecedents of calling have focused mostly on personal factors, such as proactive personality, cognitive ability (Elangovan et al., 2010), religious affiliation (Hernandez et al., 2011) and other personal characteristics such as trait gratitude (Li et al., 2021). These studies mainly posit that an individual's calling is formed intra-personally and depends largely on the dispositional factors that are stable or inherent within the inner faith, values or personality of an individual. However, recent research suggests that an individual's calling perceptions may be established through the influence of other people (Buis et al., 2019; Dalla Rosa et al., 2019), thereby indicating the potential inter-personal influence on the discernment of calling. Although previous research has discussed its dynamic nature and encouraged other studies to reveal the inter-personal or social determinants of calling, few studies have theoretically and empirically explored the specific influence of key social actors and interpersonal factors on the discernment or development of individual calling.

To address the above research gaps, the current study (Study 1) aims (1) to explore the general factors that affect the discernment of one's calling and (2) to check for significant persons who play important roles in affecting one's calling. To achieve these purposes, an open-ended, one-on-one interview approach was adopted to collect qualitative data from working adults coming from different industries, occupations and work types. A total of 23 in-depth interviews were conducted with Chinese working adults, including painters, researchers, photographers, managers and soldiers. These interviewees were encouraged to share their feelings at work, thoughts about their careers and opinions about their perceptions of calling. They were also invited to talk about experiences and events that have strengthened their sense of calling or about those people who have helped or impeded them in discerning and developing

their calling at work. After the interviews, the audio recordings were transcribed into text, which was then analysed thoroughly to code the key themes that significantly influenced the calling of the participants. After a series of analysing and coding processes, the general factors that influence the discernment or development of one's calling were determined, and the presence of significant persons who greatly affected the participants' discernment of calling was verified. The following sections introduce the characteristics of the sample, data collection methods, data analysis processes and results.

## 4.2 Methodology

### 4.2.1 Research Method

Miles and Huberman (1994) emphasised the importance of understanding the meanings that people place on their lived experiences and connecting these meanings to their social world. The qualitative approach can help in gaining a primary and overall understanding of those factors that are generally believed to affect calling. Therefore, a qualitative approach was adopted to explore the general antecedents of calling. Specifically, an open-ended, one-on-one interview technique was adopted to collect qualitative data in Study 1. These interviews had a logical baseline that was prepared based on the findings of previous studies and on extant knowledge related to calling as a guide. Additionally, in-depth interviews offer a unique advantage in which researchers can ask some follow-up questions. Asking the respondents to expound on their responses and then asking deeper questions can facilitate an in-depth exploration of phenomena arising from the interviews and capture additional clues or information (Barriball & While, 1994). Overall, open-ended, in-depth interviews provide researchers and interviewees additional flexibility in the questioning and responding processes. This technique also allows the interviewees to clearly understand and answer the interview questions.

### 4.2.2 Population, Sampling Technique and Inclusion Criteria

The sample for Study 1 comprised adults working in different industries. The convenience and snowball sampling techniques were used to select the participants. On the one hand, purposeful sampling was adopted to ensure that each participant had relevant experiences to

contribute to the study (Gentles et al., 2015). The potential participants in Study 1 should be presently pursuing a career (their primary professional work experience) that they perceive to be their calling (i.e. they perceive that they are destined for these careers and consider them meaningful). On the other hand, snowball sampling was used because the participants were recommended by the acquaintances of the researcher to join this research. The in-depth interviews were conducted after receiving the written consent of the participants.

### 4.2.3 Pilot Study

Before the data collection, the interview questions were piloted on a sample of two working adults. This pilot study was deliberately designed to examine the acceptability of the interview questions and the researcher's capability to conduct the qualitative research efficiently (Kim, 2011). The specific purposes of the pilot study were (1) to assess if the research methods were suitable for working adults who perceive a calling, some of whom have poor education, and (2) to test the interview questions and duration. Given the limited experience of the researcher in qualitative research, this pilot study also allowed the researcher (3) to evaluate his/her ability to carry out open-ended in-depth interviews and (4) to address some practical and methodological issues that need to be solved before conducting the formal qualitative study.

Before the participant information sheets and ethical forms were distributed in the pilot study, the two participants were informed that they should read these documents carefully. Any questions related to these forms were entertained before the participants provided their signatures. They were invited to a quiet place for the interview. The participants were initially asked if they would consent to have the interviews recorded on tape. With their permission, the interviews were recorded using a voice recorder. Each of the two interviews lasted for approximately 40 minutes. Following the recommendations of Lincoln and Guba (1985), after each interview, a member checking process was performed to enhance the credibility of the interviews. Specifically, the relevant experiences of the participants with regards to calling were summarised. If some bias is present, then clarifying questions were asked, and some additions and amendments were applied. Each participant also shared feedback that helped

identify those issues that need to be addressed in the following formal qualitative study.

The discussion of the research process after each interview revealed several elements that needed to be modified. For example, the first participant felt that the explanation of calling was too technical and difficult to understand. During the interview, the following definitions of calling in reference to Thompson and Bunderson (2019) and Wrzesniewski et al. (1997) were shared to the participants:

*What is calling? Calling is a conviction—often feels like fate, a sense of destiny or fit—in which a specific domain of work utilises an individual's particular talents or gifts and consuming passions in service of a cause or purpose that transcends one's self-interests. People with a calling find that their work is an inseparable part of their lives. A person who has a calling works not for financial reward, power or career promotion but for the enjoyment, self-actualisation or fulfilment that this work brings him/her.*

After taking this concern into consideration, the concept of calling was introduced to the second participant through a story and the three descriptions shared by Wrzesniewski et al. (1997) about job, career and calling. The participant seemed comfortable with this definition of calling and raised no concerns. The story about calling and the descriptions of work orientation used and adopted for the formal study were as follows:

*I have this story that I wanted to share with you to help you understand calling. Amy, a professor from Yale University, interviewed some cleaners about their work in a hospital. Interestingly, Amy found that some cleaners spend a lot of time at work, but some cleaners refused to talk about their salary and did not think that their work is not decent. Instead, they enjoyed their work and found it deeply meaningful. Those cleaners told Amy that they cleaned the rooms of patients each day and paid attention to those patients who seemed to be upset so that they could check on them again during their shift, spend time with them, see if they want to have a conversation and even give them an opportunity to cry. However, some cleaners complained about their work and were suffering from depression. Why do people who do the same work feel differently? Actually, calling is also a work orientation that differs from a job or a career. Now, I will use the following descriptions shared by Wrzesniewski et al. (1997) to*

*explain the differences amongst job, career and calling (p. 24).*

*Job*

*"Mr. A works primary to earn enough money to support his life outside of his job. If he was financially secure, he would no longer continue with his current line of work, but would really rather do something else instead. Mr. A's job is basically a necessity of life, a lot like breathing or sleeping. He often wishes the time would pass more quickly at work. He greatly anticipates weekends and vacations. If Mr. A lived his life over again, he probably would not go into the same line of work. He would not encourage his friends and children to enter his line of work. Mr. A is very eager to retire."*

*Career*

*"Mr. B basically enjoys his work, but does not expect to be in his current job five years from now. Instead, he plans to move on to a better, higher level job. He has several goals for his future pertaining to the positions he would eventually like to hold. Sometimes his work seems a waste of time, but he knows that he must do sufficiently well in his current position in order to move on. Mr. B can't wait to get a promotion. For him, a promotion means recognition of his good work, and is a sign of his success in competition with his co-workers."*

*Calling*

*"Mr. C's work is one of the most important parts of his life. He is very pleased that he is in this line of work. Because what he does for a living is a vital part of who he is, it is one of the first things he tells people about himself. He tends to take his work home with him and on vacations, too. The majority of his friends are from his place of employment, and he belongs to several organisations and clubs relating to his work. Mr. C feels good about his work because he loves it, and because he thinks it makes the world a better place. He would encourage his friends and children to enter his line of work. Mr. C would be pretty upset if he were forced to stop working, and he is not particularly looking forward to retirement."*

The pilot study allowed the researcher to understand his/her personal ability to implement an open-ended, in-depth interview that meets the methodological rigor of qualitative research. Results of the pilot study highlighted practical realities that need to be considered in the formal

qualitative study. The main logical baseline of the interviews and the final interview guideline was developed based on these results.

### 4.2.4 Sample

A total of 23 participants were invited to join the interview. Table 4 shows their demographics. Around 57% of the participants were male. The average age was 32 years, with the youngest and oldest interviewees aged 23 and 60 years, respectively. The working tenure of the participants ranged from 2 to 40 years, with 9 years as the mean. Specifically, 5 participants had been working for less than 5 years, 12 had been working for 5 to no more than 10 years and 5 had been working for no less than 10 years. These participants were working in different industries and held distinct occupations, including painter, actor, photographer, manager or VP in medical and education companies, swimming coach, professional soldier, doctor and NGO employee. In sum, these interviewees came from different backgrounds and had varying demographics, thereby highlighting the diversity of the sample and enhancing the validity and generalisability of the interview findings.

**Table. 4** Demographic data of the participants

| Participant | Occupation | Age | Gender | Tenure | Job duties |
|---|---|---|---|---|---|
| P1 | Painter | 27 | female | 4 years | Painting and selling painting products |
| P2 | Researcher | 26 | Male | 5 years | Doing academic research and publishing papers |
| P3 | Soccer referee | 30 | Male | 4 years | Acting as a referee or judge in professional football games |
| P4 | Photographer | 28 | Male | 5 years | Taking pictures of various landscapes and people |
| P5 | NGO employee | 27 | Female | 2 years | Volunteering and serving the community |
| P6 | Interpreter | 27 | Male | 4 years | Helping clients translate documents |
| P7 | Handicraftsman | 26 | Female | 5 years | Making handmade products and selling them |
| P8 | Photographer | 60 | Male | 40 years | Taking pictures of TIAN AN MEN Square |
| P9 | Chinese traditional doctor | 27 | Female | 9 years | Treating patients using acupuncture |
| P10 | Photographer | 23 | Male | 3 years | Taking pictures of fashionable things |
| P11 | Actor | 30 | Male | 8 years | Performing on the stage in modern dramas |
| P12 | Swimming coach | 37 | Female | 15 years | Teaching others swimming |
| P13 | Pub singer | 20 | Female | 10 years | Singing on the stage |
| P14 | Government researcher | 32 | Male | 5 years | Helping the government make policies |
| P15 | Actress | 30 | Actress | 12 years | Performing on the stage in modern dramas |

| P16 | Swimming coach | 30 | Female | 6 years | Teaching others swimming |
|-----|----------------|-----|--------|---------|--------------------------|
| P17 | Tour guide | 29 | Male | 5 years | Guiding the tourists around the scenic spot |
| P18 | Manager | 46 | Male | 20 years | Market development, evaluation, and sales |
| P19 | CFO | 43 | Female | 21 years | Taking charge of financial work of the company |
| P20 | Professional solider | 31 | Male | 6 years | Taking military training |
| P21 | Business executive | 29 | Male | 5 years | Leading the company's market and strategy departments |
| P22 | Manager in a medical company | 30 | Female | 5 years | Business development and operation management |
| P23 | VP in an education company | 30 | Male | 5 years | Product design and strategical planning |

*4.2.5 Procedure*

Before collecting data, the researcher contacted his/her acquaintances and told them about the purpose of the interviews and the objectives of the research. The researcher was then introduced to an extended line of colleagues and acquaintances. Those who expressed their interest in the research topic were also encouraged to invite their friends to the interviews. A total of 23 participants were eventually recruited through snowball sampling.

After identifying the participants, the researcher introduced him/herself, the purpose of the research and the interview procedure. Face-to-face or virtual meetings were arranged with each participant. For those participants living in other cities and countries, the interviews were conducted virtually through WeChat and FaceTime. Meanwhile, those participants living in Shanghai, Zhejiang, Henan and Beijing province of China were interviewed face to face.

*4.2.6 Interview Schedule*

The interview was conducted in three phases. The first phase, during the initial contact with potential participants, the researcher told them a story about calling and shared the three descriptions of work orientation.

After sharing relevant information about calling, the participants were asked, "What do you think of your work orientation? Are you situated in a job, career or calling?" This phase aimed to identify those participants who satisfied the interview criteria and to move them to the subsequent phases.

In the second phase, the demographic information of the participants was collected by asking questions such as "How old are you?" and "What field or industry do you work in?" The participants were also asked about their work tenure and education background.

In the third phase, the participants were asked how well they understand the concept of calling, their experiences in a process of perceiving a calling and the social influence on their calling discernment. Sample questions included the following:

How well can you describe those things that you are being called towards?

Can you please share with us some important experiences related to your calling?

Do you think that others influence your calling discernment? How?

After asking the first question, most of the participants reconfirmed the definition of calling so that they could fully grasp this concept. The participants were given the following definition: "Calling is a conviction—often felt as a sense of destiny or fit—that a particular domain of work leverages one's particular gifts and consuming passions in service of a cause or purpose beyond self-interest" (Thompson & Bunderson, 2019, p. 12). Whilst answering the second and third questions, the participants were asked some follow-up questions to solicit more detailed examples and information. The interviews lasted for approximately 30 minutes per participant. All interviews were recorded on audio.

### 4.2.7 Ethical Considerations

This study was guided by the University of Nottingham's Code of Research Conduct and Research Ethics (2010) and Ethical Issues in Digitally Based Research (2012). Ethical approval was granted by the Faculty of Business School Research Ethics Committee of the University of Nottingham Ningbo China.

Those participants who met the inclusion criteria were given a participation information sheet that described the research aims, objectives, procedures and ethical guidelines in detail. The participants were assured that their responses would be kept confidential and that none of their provided information would directly link them to their responses. As such, the participants were only asked for their demographic information that was relevant to the data analysis. The participants were also assured that they have the right to withdraw from the study at any time without any reason and that their withdrawal would not affect them in any way.

The participants gave their informed consent to have the interviews recorded on tape and were informed that the collected information would only be used for the doctoral thesis and would be stored by the researcher and the university for several years. Interview notes were taken instead in case one consents to participate in the study but not to having the interview recorded on tape. Prior to the data collection, the participants read and voluntarily signed a consent form. The participants were informed that they can stop the interview at any moment in case they start feeling uncomfortable. The researcher also shared his/her phone number to each participant in case they require any assistance.

*4.2.8 Data Analysis*

All data were transcribed verbatim by the researcher, and the transcripts were checked by two other Ph.D. candidates in the management field to avoid mistakes, such as leaving out some important content. To ensure the anonymity of the participants, all references to their names, departments and other information that can be used to identify them were removed from the transcripts.

The transcripts were analysed by performing thematic analysis, in which recurring patterns of meanings within qualitative data are identified, analysed and reported, and by using the following six-phase process recommended by Braun and Clarke (2006):

1. Familiarisation with the data

2. Initial codes generation

3. Searching for themes based on the initial codes

4. Reviewing the themes

5. Defining and labelling the themes

6. Report writing

Combining inductive and theoretical thematic analyses ensures that the derived themes are reflective of the data. After ensuring that the researcher read the interview transcripts carefully, a coding framework was built. The data were read again according to this coding framework to avoid leaving out important information and to prevent bias in understanding the data.

Besides, the researcher took constant iterations between data, existing literature, and developing theoretical ideas (Strauss & Corbin, 1990). The sententious approach was adopted, in which each interview transcript was read as a whole to construct the essential imports of employees' experiences (Van Manen, 1998). This process was performed several times as the researcher kept going back and forth bet ween the transcripts and the initial codes.

The initial codes were expressed in keywords, phrases, and short sentences from the original interview transcripts. These codes were then thoroughly reviewed and sorted into the first-order themes. Two other Ph.D. candidates with extensive qualitative research experience were invited to confirm each review process until they reached an agreement on the main

themes and sub-themes.

The relationships amongst the codes, themes and sub-themes were analysed, and the themes and sub-themes derived from the data were reviewed by the researcher and his/her supervisors independently to ensure consistency. The final thematic framework was then developed.

**4.3 Findings**

Results of Study 1 identified common themes from the interview notes regarding the participants' discerning of their calling. Seven major themes were identified, namely, proactive personality, significant past experience, family influence, empowering leadership, informal mentoring, feedback and person–job fit. Table 5 enumerates these themes and sub-themes.

**Table. 5** Themes and Sub-Themes from the Interview Data (Coding Process)

| Aggregate themes | Second-order order themes | First-order concepts | Number of participants mentioned |
|---|---|---|---|
| Proactive personality | Proactively accumulate professional knowledge | Accumulate knowledge of other fields<br>Seek deeper understanding of the job<br>In-depth knowledge accumulation | 15 |
| | Proactively participate in relevant activities | Actively participating in a work-related process | |
| | Proactive exploration at work | Compared with previous occupations<br>Proactive and constant exploration | |
| Feedback | Obtained information from others | I define my talents based on the teacher's comments<br>Other's positive feedback helps me enjoy this work and makes me feel valuable | 8 |
| Family influence | Professions of family | My grandfather was a soldier... internalisation as unconsciously influenced by family | 14 |
| | Expectation and encouragement from family | My mother expected that I will do this | |
| Significant past experience | Critical event in the past | A chance and coincidence make people do their work<br>My mothered suffered a severe illness, which inspired me | 8 |
| | Challenging job experience | Relevant past internship experiences<br>Compared with my previous occupations... I prefer my current job | |
| Empowering leadership | De-constraining followers' ideas and behaviours | My leader encourages me to develop more autonomous behaviours<br>A supervisor empowered me to manage the layout of a journal | 11 |

| | | | |
|---|---|---|---|
| | Trust in followers | My leader believes in me and allowed me to make mistakes in my work | |
| | Participation in decision making | Participate in the decision-making process | |
| | Encouraging self-development | Leaders help me understand the meaning of my work | |
| Informal mentoring | Professional guidance from seniors | My supervisor helps me understand the work procedure | 11 |
| | | He not only gave me some professional and technical help | |
| | Psychosocial support from seniors | He is more like a friend and a career/spiritual guide | |
| | | The senior doctor guided the direction of my career | |
| Person–job fit | Perceive job suitableness | Being a singer is suitable for me | 9 |
| | | I am in a comfortable state when I am doing this work | |
| | Personal characteristics fit the job | The nature of drama suits my personality | |
| | | Show one's true self through drama | |

### 4.3.1 Proactive Personality

In Study 1, 15 participants shared that proactive intentions and behaviours accelerate one's perception of a calling. For example, some participants mentioned that participating proactively in a relevant activity, learning and accumulating relevant knowledge, and seeking to make positive changes in themselves and their environments play a vital role in driving their work passion. Some participants also stated that actively exploring the mystery of their work motivates them to enjoy their work. Therefore, a proactive participant accumulates relevant knowledge and actively participates in his/her work, and his/her explorations have a positive influence on his/her passion for work. The following quotations from the interviews support this point.

*"...I was not good at drawing at first, but I believe I can do it well as long as I take the initiative and put more effort.... of course, I have encountered many obstacles, but I actively overcame them and I persisted in painting even if it was so difficult. I remember when I first learned to sketch, I needed to draw the facial outlines of people, but I was not as good as the students around me. But I don't think there is anything. I believe I can make progress if I continue to practice more. At that moment, I practised for two hours or more every day and finally won third prize in a competition. I often want to explore the mysteries of fine art in depth proactively, and I like it more and more. I need to search for information and identify the potential opportunities in the changing market... I had never thought of painting as a means of earning a living. Later... I started to expect myself to be able to paint such works one day... well... I think it is 'Love', which will be done involuntarily, not for something utilitarian..." (P 1, painter)*

*"...I have actively tried to find NGO jobs before, and I am doing my part-time job in an NGO group... When it comes to falling in love with NGOs, I need to talk about it starting from my childhood... my undergraduate courses involved knowledge about NGOs. I envied students from abroad who have many opportunities to participate in such activities. So, I was very persistent to study abroad to learn more about social work. At that time, I worked very hard to pass the IELTS and successfully got an offer. When I got an offer letter from the University of*

*Birmingham, I told myself: You must take the initiative to learn more theoretical knowledge about social work professional localisation and utilise the advantage of being an international student status in the UK to do an internship in NGOs. After arriving in the UK, indeed, NGO organisations in the UK, such as fair trade, are relatively more mature than those in China; for NGOs, the content of their work is geared toward serving the poor… you know, they are non-profit organisations. For example, they help those institutions without an education system. I saw some success stories like this before, and I feel that a little bit of help can change the lives of others… I actively take some social work courses, and the more knowledge I accumulate, the more I like social work…" (P 5, NGO employee)*

Buss noted that people can change their current circumstances actively, consciously and directly (Buss, 1987). For instance, individuals with a proactive personality actively choose vocations for which they are best suited. Bateman and Crant (1993) pointed out that the personal disposition towards proactive behaviour is designed to highlight differences in the extent to which people act to influence their environments. Bateman and Crant (1993) defined the "proactive personality" prototype as a person who is relatively unconstrained by environmental forces and who influences environmental change. Proactive personalities find opportunities and act on them; they show initiatives and persist in their actions until they bring about meaningful change. These proactive people tend to take actions to challenge the status quo and explore new opportunities (Crant, 2000). Proactive personalities actively accumulate professional knowledge, proactively participate in relevant activities and proactively explore their work, all of which are considered to be beneficial for the discernment of one's calling.

### 4.3.2 Feedback

Eight participants mentioned that the information obtained from others (e.g. their teachers, colleagues and customers), such as recognition and advice, led them to reflect and embrace what they are doing and change their work attitudes and behaviours. The following quotations support such contention.

*"…When I was serving as an intern in a hotel during my undergraduate studies, I often needed to communicate with guests in English or Spanish because I was doing room service*

*work. Colleagues, guests and my leaders told me that I sounded like a native speaker, so I would like to learn more foreign languages. They found my gift, and I hoped that I will become an interpreter one day..." (P 6, interpreter)*

*"...I think my work is very meaningful when my patients recover well. The feedback from my patients is good. I think I can use my expertise to help many people and reduce their physical pain. If my patients do not recover well, it motivates me to improve my skills and learning. I treat my work as a calling. For example, a person suffering from cardio-cerebrovascular disease... for his/her whole family, they may lose a member of the labour force and a family member. Saving a person also means helping a family survive. This makes me feel valuable and develop a strong sense of calling..." (P 9, Chinese traditional doctor)*

These participants obtained their information from others. They are not just meaningless words or chats but useful information or constructive feedback that can help them ponder and make changes. Ramaprasad defined feedback as "the information about the gap between the actual level and the reference level of a system parameter which is used to alter the gap in some way" (Ramaprasad, 1983, p. 4). Feedback is a widely used concept in management theory. The information on the gap itself is not feedback. Only when it is used to fill the gap can such information be called feedback (Ramaprasad, 1983). For example, the managers' awareness of their employees' performance shortcomings is not considered feedback. However, when such awareness is translated into action (e.g. managers encourage or punish someone), the information about these shortcomings becomes feedback. Previous studies define formal performance appraisals, grades or affirmations from others as different types of feedback that affect the motivation and creativity of individuals towards their work (Zhou, 1998). Positive feedback is a greater motivator than negative feedback when individuals are working, and the former contributes strongly to completing tasks and achieving significant progress at work (Van Dijk & Kluger, 2011). Taken together, the information obtained from others can be aggregated into the theme of feedback in this study.

### 4.3.3 Family Influence

Family influence has received much attention from many scholars, such as those in the

field of career development. In Study 1, 14 participants mentioned that family influence played an important role in their perceiving a calling. Some participants felt that their passion and commitment to their work were driven by the expectations of their families (Fouad et al., 2010). One participant shared,

*"… At first, I learned how to paint, and my family was very supportive. Later, I persisted in drawing, and I was guided by my mom to a certain extent. My mom immensely loves painting, and she expects that I can inherit her hobbies and turn it into a profession in the future…" (P 1, painter)*

The jobs and knowledge of family members in their professions can also affect the career calling of their offspring. One participant shared,

*"...My grandpa was a soldier, and my father worked in politics and law. They often told me some military-related stories at home. Gradually, I became unconsciously attracted to everything about the military. Later, I found that this feeling is internal, and I began to treat my work as a soldier as my calling...' (P 20, soldier)*

In sum, the influence from the participants' families is twofold: expectation and encouragement from family and professions of family. Previous studies on family influence showed that such factor includes several sub-dimensions, including financial support, prestige, expectation, same professions and status (Paloş & Drobot, 2010). Families develop expectations for the career choice and development of their offspring. Same professions refer to a situation where family members share the same occupation in which a professed knowledge of some subject, field or science is applied (Buhai, 2012). Some scholars also found that family members are likely to work in similar professions (Jodl et al., 2001) and that the professions, skills, knowledge, education and socioeconomic levels and cultural background are crucial factors that influence the career interests and job selection of children (Jodl et al., 2001; Noreen & Khalid, 2012). Therefore, the effects of family expectations, encouragement and professions were aggregated under the theme of family influence.

### 4.3.4 Significant Past Experience

Eight participants shared that their past experiences affected the development of their

calling. Significant past experience refers to important things that people have lived out in their past lives. Such experience plays a vital role in one's process of discerning a calling. In Study 1, past experience was divided into challenging job experiences and critical past events. One participant shared,

*"...I like the campus environment. The university gives me a good experience. As a graduate student of Tsinghua University, I stayed in Beijing and actually had a lot of job opportunities. I also tried out many research topics. In the beginning, my research topic (medical policy) was not so attractive for me, but after attending other programmes relevant to research like marketing... The logic of those programmes is even worse, so I realised that my research topic is more interesting than others. In addition, I often listened to and taught lectures in the past. In the classroom, I felt that I keep making progress. It was a very comfortable state for me because I could think and reflect on myself and help my students understand some knowledge more effectively. The work I do is meaningful and great..." (P 14, government researcher)*

Participant 14 shared that he tried many opportunities and eventually found his dream work by thinking about new methods to learn relevant knowledge and teach his students. A challenging job experience is characterised by (a) inadequate tactics and routines of work and (b) requiring the application of new methods to deal with work situations (Davies & Easterby-Smith, 1984). In Study 1, six participants found that their calling was influenced by their previous experiences in the relevant area. Participant 2 shared that after he attended an academic programme during his undergraduate studies, he started actively joining more academic activities. These arguments lead to the theme of challenging job experience.

Some participants also mentioned that past critical events influenced their calling discerning process. They shared that a critical past event drove them to learn or dedicate themselves to something for the rest of their lives. One participant shared,

*"...Before the second year of high school, I was very reluctant to see traditional medical doctors. I remember one day; I went to see a Chinese traditional doctor because my mother was sick. I saw an old doctor that was singing in the pharmacy and filling prescriptions. At*

*that moment, I thought that scene was so interesting and magical. Later, my mom recovered well, at least her feelings of pain were not as serious as before. So I wanted to eliminate my mom's pain, and I was afraid of losing her. From then, I began to learn knowledge of Chinese medicine. The more I learned about Chinese medicine in the university, the more I started to like it…" (P 9, Chinese traditional doctor)*

Following the above statements, challenging job experience and critical past events were aggregated into the theme of significant past experience.

### *4.3.5 Empowering Leadership*

Eight participants mentioned that their direct leaders empowered them to do some work and become more responsible, thereby motivating them to perceive their work as a calling. Specifically, they mentioned four types of leader behaviours, namely, providing autonomy to followers, trusting their followers, encouraging the participation of followers in decision-making processes and encouraging their self-development and search for meaning in their work.

For providing autonomy to followers, one participant shared,

*"…I'm very passionate about my job, and I'm very comfortable with it... I guess... Because of the leadership style, which strongly supports me and gives me a lot of autonomy. I am a business executive in this company, and I am mainly responsible for interfacing with other data suppliers and discussing formal contracts. But on the first day that I joined the company, I had a short meeting with my director. Incredibly, the director told me that 'since you are in charge of business negotiations, you make the preliminary decisions about the suppliers… and the details of cooperation would be further negotiated according to your negotiation style. If you think that some suppliers' qualifications were not good, then you can refuse their request for cooperation.' Such leadership style makes me feel comfortable and more proactive in what I do..." (P 21, business executive)*

In terms of trusting their followers, some participants shared that their leaders believed in their handling of tasks even if they make some mistakes:

*"…In this hospital, the director encouraged and gave me the opportunity to perform acupuncture independently and the authority to write down prescriptions. He told me, 'Do not*

*be afraid of making mistakes… It is better that you make mistakes now than in the future. One day, you will become a doctor, even a director. You should be confident… you deserve to have this opportunity…' I felt a sense of self-growth, and I also want to have more responsibility in my work. So I gradually treat this work as my calling. The challenge of working independently stimulated my enthusiasm for my work…"* (P 9, Chinese traditional doctor)

In terms of participating in the decision-making process, some participants shared that their direct leaders often encouraged them to attend decision-making meetings and that they willingly listened to their opinions. One participant shared,

*"…My supervisors gave me space to come up with some ideas and encouraged me to make decisions. She empowered me to conduct and manage a key provincial project, and… during that period, I could attend any committee decision meetings about the project… I am grateful to her, and her empowering behaviour motivated me to take more responsibility for my work and gave me a sense of accomplishment. I perceived the significance of doing my work, and I began to love academics more…"* (P 2, researcher)

In terms of encouraging self-development, several participants mentioned that they highly appreciated the patience of their leaders in helping them grow in their work and understanding their job responsibilities, vision and work meaningfulness. One participant shared,

*"…My leader always gives me some authorisation, such as establishing KPIs, and within an acceptable degree, he let me set it by myself. These things helped me see what I contribute to and what my value is in my work… The work I do is meaningful, and these things made me feel that I should take more responsibility... I actually started to think about the general direction and purpose of my work like him and clarified my goals and values..."* (P 22, manager in a medical company)

After the interviews, this study reviewed previous studies on empowerment and leadership. Zhang and Bartol (2010) found that empowering leadership focuses on developing the self-management or self-leadership skills of followers. Aheame et al. (2005) mentioned that empowering leaders not only encourage the ideas and behaviours of followers but also trust their followers, encourage them to participate in decision-making processes and facilitate their

self-development (Aheame et al., 2005). Specifically, empowering leaders liberate their followers' autonomy from bureaucratic constraints. Some empowered employees in organisations mention that their leaders allow them to make important decisions quickly to satisfy their customers' needs and allow them to do their job in their own ways (Aheame et al., 2005). Empowering leaders trust their followers, which also means that followers show confidence in demonstrating excellent performance. In other words, these followers can handle demanding tasks or improve their abilities even if they make some mistakes (Aheame et al., 2005). Empowering leaders encourage their followers to express their opinions, involve them in decision-making processes and develop their skills in self-management and self-improvement (Arnold et al., 2000). Through empowerment, these leaders help their followers understand how their objectives and goals are related to those of the entire group (Aheame et al., 2005) and how their work is significant to the overall organisational effectiveness. Findings from the interviews and the literature review altogether indicate that the traits and behaviours of leaders demonstrate the cores of empowering leadership, which Arnold et al. (2000) defined as "leaders encourage their subordinates to express their own opinions and involve them in the decision-making process, and facilitate team members to develop self-management, self-improvement, and other a series of activities". Therefore, the four aforementioned aspects can be aggregated into the theme of empowering leadership.

### 4.3.6 Informal Mentoring

As role models for the participants, seniors also play a role in fostering the development of their followers' callings at work. Eleven participants mentioned that they received psychological support and professional guidance from their seniors that motivated them to perceive their calling. The following quotations support this view.

*"…During my internship, I met an old doctor who had a sense of mission and responsibility. He was so kind and nice, and he was willing to teach us all his knowledge without reservation. He told us about the true meaning of traditional Chinese medicine. He let us think about why we learn medicine and what is the significance of studying Chinese medicine and becoming a doctor. Even if I am currently working as a doctor in another hospital, his words still guide me*

*to becoming a real doctor. He is my role model. Like him, I always share my knowledge with my internship students. In my current hospital, my director found that I was good at acupuncture, so he guided me toward a career in rehabilitation. I later realised that this is what I want to do..." (P 9, Chinese traditional doctor)*

*"...In this company, I previously was so confused and even thought about giving up. It can be said that I am constantly growing in struggle and confusion. In this tangled cycle, I actively sought help. I need to thank one of my seniors. He was more of a friend and career/spiritual guide... He not only gave me some professional and technical help but also constantly supported, encouraged, taught and inspired me on the spiritual level. Our communications and his helping behaviour were significant not only for the development of our company but also for my life and career..." (P 21, business executive)*

From the above excerpts, seniors not only provided professional support to the participants but also accorded them psychosocial guidance. Mentorship refers to the relationship between the experienced seniors and the less experienced junior employees, where the former provides the latter with support, guidance and feedback that can guide their career planning and personal development (Kram & Isabella, 1985). In a mentorship, the senior plays the role of the mentor, whereas the junior employee acts as the protégé. Mentorship is considered informal when such a relationship is initiated by the mentors themselves; this type of mentorship is most likely driven by the requirements of both the mentor and protégé (Ragins & Cotton, 1999). Any person in an organisation can become an informal mentor (Ragins & Scandura, 1994). Protégés often choose their role models or someone they respect as mentors. Protégés are often in the early stages of their career and need to develop their professional identity with the help of mentoring. This mutual identification often leads to informal relationships between mentors and protégés. Mentoring can also be viewed as a parent-child relationship. According to Ragins and Kram (2007), protégés with informal mentors often receive many career development and psychosocial functions in work. For example, the participants in Study 1 mentioned that their seniors provided them with professional knowledge, skills and other guidance in their work and that their influence extended to other aspects of their lives, such as their future personal

development. The above findings are consistent with the description of informal mentorship in previous studies that investigate why informal mentors are concerned with the long-term career needs and mental growth of their protégés (Ragins & Scandura, 1994). On the basis of these findings, the career-related and psychosocial support provided by seniors can be aggregated into the theme of informal mentoring.

### 4.3.7 Person–Job Fit

During the coding process, some participants shared that their calling discerning process is influenced by two factors, namely, their perceived suitableness for their jobs and the fit between their characteristics and their jobs. The following excerpts illustrate this point:

*"...I can get in touch with nature. I am a person who is unwilling to contact many people. I am not outstanding, but I also want to realise my value. How can I realise my value? I can touch animals and trees. I love to communicate with nature more than with humans. This type of work is also very meaningful, and the working hours are very flexible. So generally, working in an NGO is suitable for me…"* (P 5, NGO employee)

*"...The nature of the occupation is related. Traditional Chinese medicine sticks to a medium, and it is neither urgent nor slow. By contrast, Western medicine requires speed and accuracy, but its sense of mission is lower than that of Chinese medicine. How can I describe my personality? I am patient in doing things, and I am not always in a hurry, so I think I am suited to become a doctor of traditional Chinese medicine..."* (P 9, Chinese traditional doctor)

*"...Drama helps me realise part of my nature. I become another person when I am standing on the stage... it is a comfort that is hard to express. Drama emotionally connects me to the audience. So, the characterisation of the script and the drama actor indeed suit my personality..."* (P 11, actor)

These interview data highlighted the importance of the fit between one's personal characteristics and job in personal calling development. Kristof-Brown et al. (2005) defined person-job fit as "the relationship between a person's characteristics and those of the job or tasks that are performed at work" (p. 284). In other words, the person-job fit highlights the match between one's personal and job characteristics. This fit negatively predicts turnover

intention (Arthur Jr et al., 2006) and is positively correlated with job satisfaction, organisational commitment, organisational citizenship behaviour and job performance (Biswas & Bhatnagar, 2013; Cable & DeRue, 2002; Kim et al., 2013). Person–job fit is also positively related to perceiving a calling. Therefore, perceived job suitableness and personal characteristics fit the job can be aggregated into the theme of person-job fit.

## 4.4 Discussion and Conclusion

Given the many desirable outcomes that perceiving a calling can bring to people, examining how to foster and build people's calling at work becomes critical. Several famous calling experts, such as Duffy and Thompson, have long called for future research to explore the antecedents of perceiving a calling for the purpose of enriching our knowledge about how calling perceptions are discerned over time (Dalla Rosa et al., 2019; Duffy & Dik, 2013; Thompson & Bunderson, 2019). As a result, recent studies have started to test those potential antecedents, but given the limited amount of empirical evidence, a comprehensive understanding of those factors that may drive people to perceive their work as a calling remains lacking.

To extend the present knowledge in this stream of research, 23 Chinese employees with diverse demographic backgrounds (e.g. industry and age) were interviewed in Study 1, answering open questions such as 'What are the factors that might influence your calling?'. Through this exploratory study, seven core factors frequently mentioned by the participants were discovered, namely, proactive personality, feedback, family influence, past significant experience, empowering leadership, informal mentoring and person–job fit. These factors can be categorised into two groups of antecedents of perceiving a calling, namely, personal factors (including proactive personality, past significant experience, and person–job fit) and social influence factors (including feedback, family influence, empowering leadership and informal mentorship). By pinpointing these antecedents, Study 1 offers the following key contributions to the literature.

First, this study confirms previous findings which suggest that perceiving a calling is affected by the personalities, beliefs, values or other stable traits of individuals. Moreover,

people's calling at work is not dominantly determined by their inherent characteristics but can be significantly shaped by their subsequent experiences and feelings about their jobs or lives. The findings of this study regarding proactive personality are consistent with those of previous studies that highlight the predictive power of such factor in producing positive career outcomes, such as subjective success or satisfaction with one's career (Fuller Jr & Marler, 2009). Hall and Chandler (2005) defined calling as a type of psychologically perceived success in one's career, hence indirectly justifying the above arguments.

For significant past experience, Rosa et al. (2019) stated that personal behaviour (e.g. engagement in learning) precedes calling, which is consistent with the present finding that actively accumulating knowledge and learning something new can help people perceive their work as a calling. Challenging job experience can also help people discern their calling by motivating them to think about the meaning and purpose of their work. Although previous studies indicate that critical events in a life domain (e.g. family changes) are associated with their calling, Study 1 added that the critical moments or events happening in the workplace are also meaningful for the development of people's calling.

Previous studies have also claimed that perceiving a calling leads to a feeling of fitting in with the environment (Duffy, Autin, et al., 2018). Conversely, this study reveals that one's fit with his/her job will prompt this individual to perceive his/her work as a calling. This finding implies that the relationship between perceiving a calling and person–job or person–environment fit may be much more complicated than expected, hence necessitating future studies to further investigate the underlying causality between these variables.

Secondly, the findings on social influence factors greatly contribute to and extend previous studies that explore the antecedents of perceiving a calling. Study 1 not only echoed previous studies that suggest the potential influence of social actors on calling (e.g., social support, Duffy et al., 2014; Rosa et al., 2019) but largely extended these studies by specifying the source of such influence and identifying other direct social influence factors. Several studies have highlighted the role of family in one's career development. For example, Fouad et al. (2010) interviewed 12 Asian Americans using a consensual qualitative approach and found that family

of origin, specifically parental expectations, influences the career decisions of the participants. Many of their interviewees mentioned that their parents had chosen their career paths for them early in their lives.

Other researchers demonstrated that individuals tend to carefully consider their family expectations and obligations when choosing a career (Tang et al., 1999) (Tang et al., 1999). Family backgrounds (e.g. parental professions, status or skills) have also been shown to strongly influence people's career choices (Tang et al., 1999). These findings provide solid evidence to support the result of Study 1 on family influence. Zhang et al. (2015) obtained a slightly different finding, that is, both family expectations and family mission are parts of one's calling. Nevertheless, they identified family influence as an independent antecedent of calling.

With regard to the influence of leadership, Esteves et al. (2018) found that leadership greatly affects people's calling. In contrast to their empirical finding that empowering leadership is not significantly related to one's calling, Study 1 showed that empowering leadership enhances people's calling by motivating them to be more responsible and by promoting a strong sense of meaningfulness in their work. In their correlation table, Esteves et al. (2018) revealed a significantly positive relationship between empowering leadership and calling ($r = .24, p < .01$). However, given that Esteves et al. (2018) simultaneously considered the influence of other types of leadership (e.g. transformational, transactional and directive leadership) in a regression model, the unique effect of empowering leadership was weakened by the influence of these other forms of leadership. These inconsistent findings suggest that different leadership behaviours may jointly affect people's calling, hence necessitating future research to adopt a highly rigorous research design to test if and how empowering leadership uniquely predicts one's calling.

With regard to the influence of informal mentorship, the results of Study 1 were consistent with those of Ensher and Ehrhardt (2020), who revealed that the presence of a mentor helps people discern their calling. Specifically, they pointed towards informal mentors as a source of effective mentorship that allows protégés to discern their calling. Rosa et al. (2019) suggested that calling development is driven by the presence of significant people, especially friends and

special others, because individuals can turn to these people to talk about problems in their career and to receive comfort and encouragement. This argument was supported by the findings of Study 1 regarding the roles of family members, leaders and informal mentors. Study 1 additionally discovered that apart from the help, guidance and support provided by significant others, their evaluations, judgments and feedback also encourage people to reflect and think about themselves and their work, ultimately leading them to perceive their work as a calling.

Overall, by identifying three personal factors (i.e. proactive personality, past significant experience, and person–job fit) and four interpersonal factors (i.e. feedback from others, family influence, empowering leadership and informal mentorship), Study 1 provides a highly nuanced and complete overview of the antecedents of calling, thereby contributing to calling theory by comprehensively revealing those paths that lead people to perceive their work as a calling. Notably, the results of Study 1 are partially consistent with the findings of previous studies. This is because in addition to personal factors that have been identified in past research, Study 1 also revealed several social or interpersonal factors as key antecedents of perceiving a calling. This insight is critically important and valuable. Most previous studies have focused on how individual factors influence calling. According to these studies, the only option to help a person find calling is to change a person's innate, established, and stable traits in order to enhance his or her perception of calling. However, in practice, it is very difficult for a person to make these changes and it takes a long enough period of time to achieve these changes. Therefore, previous studies and their findings may be limited or ineffective in guiding or helping a person to enhance calling. The finding from Study 1 not only challenges the previous view that individual factors influence calling, but also gives us an easier, more effective, operational and achievable way to improve one's calling. Specifically, the results of Study 1 indicate that calling is not completely rooted in inherent personal traits but can also be fostered and developed through the influence of social interactions with other important persons in people's work and lives, such as their family members, leaders, informal mentors and friends. These findings suggest that in addition to changing innate, stable traits related to calling, another way to help a person discern calling is to shape calling through interpersonal influences

and other environmental factors that are more easily changed and manipulated than stable individual traits. Thus, the findings of Study 1 stimulate a deeper and more comprehensive consideration of how to help a person improve calling, especially from the perspective of social influence. For example, since the preliminary results of the interviews in Study 1 revealed that a person's calling may be influenced by certain social factors, what are the specific social influences that help a person discern his or her calling, what are the connotations and roles of these social influences, and what are the social agents that produce these social influences? These are the deeper and more meaningful inspirations and thoughts that the results of Study 1 bring to us, all of which deserve future investigations.

The findings of Study 1 are inspiring, but there are some issues that need to be further addressed. First, although Study 1 discovered some important antecedents of calling and indicated that there are potentially important interpersonal factors (e.g. leaders and mentors) that will significantly shape people's perceptions of their calling, these findings are produced based on a limited sample of 23 participants. Thus, the qualitative findings of Study 1 might be questioned by others due to such limited data information, which may bias the generalisability, accuracy and reliability of these findings. Second, Study 1 used absolutely open-ended interview guidelines with a small number of focused, well-directed questions. Despite asking open questions that can help generate general, authentic and rich information related to factors that are generally thought to affect calling at work, such information may also be massive, divergent and less concrete or directional, hence limiting the understanding of those specific interpersonal factors that can socially influence people to perceive their work as a calling. To obtain more detailed information and clarify the interpersonal antecedents of calling, the research focus should be narrowed on those factors related to the specific influence of other significant persons, and semi-structured interviews should be conducted using another independent sample of participants with more diverse jobs, occupations, and working industries. Third, now that Study 1 has revealed that there may be potentially important interpersonal factors that affect one's calling, from a theoretical perspective, it is necessary and valuable to portray a fuller picture of the interpersonal antecedents of perceiving a calling and

enrich our understanding of how one's calling perceptions are discerned through interpersonal processes rather than intrapersonal processes. Therefore, to confirm and extend the findings of Study 1 as well as deepen scholarly knowledge, it is theoretically imperative to initiate further studies to further work on these issues basing on the primarily explored findings of Study 1.

To address these concerns, a second qualitative study (i.e. Study 2) was conducted with another set of highly diverse participants and by using a semi-structured interview approach with purposely specific and targeted questions. Study 2 not only constructively replicated the findings of Study 1 related to the influence of social actors on calling but also provided a deeper and more comprehensive understanding of how significant persons affect one's calling. Therefore, Study 2 serves as a follow-up, complementary study that echoes the findings of Study 1 and aims to further identify the specific interpersonal antecedent factors of perceiving a calling.

## Chapter 5: Study 2 – A Qualitative Study on the Interpersonal Antecedents of Calling

### 5.1 Introduction

Results of Study 1 show that amongst the seven antecedent factors of perceiving a calling, four social factors (i.e. family influence, feedback, empowering leadership and informal mentorship) may affect people's calling. Although Study 1, as an initial exploratory research on the antecedents of calling, initially revealed some social factors that influence one's calling, a deeper and more accurate and comprehensive understanding about the conceptualisation of the above social influence factors is necessary. Therefore, confirmatory qualitative Study 2 was performed with a highly diverse set of participants and by using focused interview questions to (1) replicate the findings on the social factors identified in Study 1 and (2) reveal the specific conceptualisation of each of those social factors. Study 2 can also provide stronger evidence on whether the influence of these four social factors on calling also exists amongst participants from different backgrounds. Study 2 also enriches the present knowledge of how calling is developed through inter-personal interactions. The following sections describe the research methods, research sample, data collection process, analytical methods and results of Study 2.

### 5.2 Methodology

Same as Study 1, Study 2 used the qualitative approach to consider the subjective perceptions of people who perceive a calling. To recruit more interviewees, the snowball sampling technique was used in selecting the participants. The same inclusion criteria in Study 1 were used. The potential participants in Study 2 had to be currently working in a career that they perceived to be their calling. Semi-structured, one-on-one, in-depth interviews were carried out after securing ethical approval from the participants. To ensure the effectiveness of the formal interviews, similar to Study 1, the interview questions were piloted on a sample of 2 working adults before the data collection.

Two participants were invited to a quiet place for the interview and were asked for their permission to have the interview recorded on notes and on tape. The interview proceeded after the participants provided their consent. Both interviews lasted for approximately 30 minutes. Some questions were then modified and refined based on the feedback of the two participants.

For example, the original question "Did you encounter some significant persons in your discovery of calling at work?" was changed to "Is there a significant person or social actor who influenced your discovery of your calling at work?" The word "influence" was added after one participant commented that the term "significant person" was confusing.

### 5.2.1 Procedure

Prior the data collection, the researcher contacted some of his/her friends to explain the purpose and objective of this research. These friends then helped find and invite 26 participants who perceive a calling in their work. Each of these participants was then contacted by the researcher to introduce himself, the purpose of the research and the interview procedure. Face-to-face or virtual meetings were then arranged for each participant. Those participants who were living in other cities and countries were interviewed virtually using WeChat and FaceTime, whereas those living in Henan, Shanxi and Beijing were interviewed face to face.

### 5.2.2 Sample

A total of 26 participants were invited to join the interview. Table 1 shows their demographic information. Amongst these participants, 58% were male, and 42% were female. The average age was 32 years, with the youngest and oldest interviewees aged 25 and 60 years, respectively. These participants had a working tenure of 4 to 40 years, with a mean of 11 years. These participants worked in different industries and occupations, including researchers, photographer, company managers, doctor, baker, accountant and civil servant. Given the different backgrounds and demographics of the participants, the selected sample was considered diverse, hence enhancing the validity and generalisability of the interview data.

**Table 6** Demographics of the Participants

| Participant | Occupation | Age | Gender | Tenure | Job duties |
|---|---|---|---|---|---|
| 1 | CEO in an engineering company | 42 | Male | 20 years | Leading and managing the company |
| 2 | Consultant | 38 | Female | 15 years | Helping clients detect financial issues and providing solutions |
| 3 | Boss in a bakery | 31 | Female | 6 years | Making and selling French bread and cake |
| 4 | CEO in a media company | 26 | Male | 4 years | Live broadcasting and selling products |
| 5 | Teacher | 51 | Male | 40 years | Teaching students painting |
| 6 | Doctor | 30 | Male | 8 years | Orthopaedic surgeons |
| 7 | Doctor | 38 | Male | 7 years | Treating patients using acupuncture |
| 8 | Accountant | 27 | Female | 5 years | Cost budgeting, accounting, and controlling |
| 9 | Baker | 25 | Female | 5 years | Making birthday cakes for different clients |
| 10 | Estimator | 30 | Male | 8 years | Pricing the project in the construction industry |
| 11 | Accountant | 30 | Male | 8 years | Taking charge of financial issues of the company |
| 12 | Manager in KPMG | 28 | Female | 7 years | Government consulting issues |
| 13 | Civil servant | 38 | Female | 16 years | Holding activities of the science and technology association |
| 14 | Civil servant | 44 | Male | 22 years | Evaluating projects of the science and technology association |
| 15 | Teacher | 30 | Female | 9 years | Teaching students English |
| 16 | Film producer | 30 | Female | 8 years | Creative work related to film production |

| 17 | Chinese traditional doctor | 27 | Female | 9 years | Using Chinese medicine to treat patients |
|----|----------------------------|----|--------|---------|------------------------------------------|
| 18 | Photographer | 60 | Male | 40 years | Taking pictures of Forbidden City |
| 19 | Researcher | 27 | Male | 6 years | Doing academic research and publishing papers |
| 20 | Solider | 32 | Male | 8 years | Weapons research and development work |
| 21 | Professor | 32 | Female | 12 years | Teaching, writing, and doing research |
| 22 | Employee in the car industry | 27 | Male | 5 years | Making products in the factory |
| 23 | Research assistant | 26 | Female | 5 years | Assisting professors about academic work |
| 24 | Researcher | 25 | Male | 4 years | Doing academic research and publishing papers |
| 25 | Researcher | 30 | Male | 10 years | Doing academic research and publishing papers |
| 26 | Assistant professor | 28 | Male | 7 years | Teaching, writing, and doing research |

*5.2.3 Interview Schedule*

The interview was conducted in three phases. The first phase was similar to that in Study 1. Specifically, the participants were initially told a story about calling and were given three descriptions of work orientation.

Given that the participants of Study 2 were required to perceive a calling in their work, after sharing some relevant information about calling, they were asked "How did you enjoy these jobs/careers? Do you perceive your calling at work?" This phase aimed to identify those participants who satisfied the interview criteria. All 26 participants satisfied this criterion and moved onto the next phases of the interview.

In the second phase, the demographic information of the participants, including their age, job tenure, work field and educational backgrounds, was collected.

The main interview questions were asked in the third phase. Specifically, the participants were asked about the social influence in their calling discernment. Sample questions included the following:

- How did you come to work in this career?
- What do you think was the source of your calling (e.g. internal drive/passion or external influence such as feedback)?
- Is there some significant person or social factors that influenced the discovery of your calling?
- How did they influence your calling? Please give me some examples.

Similar to Study 1, the participants were given the following definition of calling: "Calling is a conviction—often felt as a sense of destiny or fit—that a particular domain of work leverages one's particular gifts and consuming passions in service of a cause or purpose beyond self-interest" (Thompson & Bunderson, 2019). Whilst answering the second and third questions, the participants were given some follow-up questions to gain additional examples and information. One follow-up question about the source of calling was, "Do you receive any information from others? If so, give us some examples". Each interview lasted for approximately 50 minutes. The entire interviews were recorded using a voice recorder.

### 5.2.4 Ethical Considerations

The ethical approval for Study 2 was granted by the Faculty of Business School Research Ethics Committee of the University of Nottingham Ningbo China. The participants who met the inclusion criteria were given a participation information sheet. They were informed that their responses would be kept confidential throughout the study and that none of the information they share would directly link them to their responses. Before obtaining their informed consent, the participants were informed that the interviews would be recorded solely for the purpose of the doctoral dissertation and that the interview data would be stored by the researcher and the university for several years. These participants were given the chance to stop the interview at any time in case they no longer want to respond to any of the questions or have their responses recorded on audio. The interview procedures essentially depended on the willingness of the participants.

### 5.2.5 Data Analysis

The adopted data analysis procedure was the same as that in Study 1. All data were transcribed verbatim by the researcher, and the transcripts were checked by two other researchers. The thematic analysis method was also adopted, and a six-phase process was followed to generate four main themes (Braun & Clarke, 2006). Similar to Study 1, initial codes were reframed in some key phrases and short sentences from the original interview transcripts. Afterwards, these initial codes were sorted into the first-order themes, and then the first-order themes were inducted into the second-order themes until the main dimensions were aggregated. To develop the thematic framework, the researcher and his/her supervisors analysed the relationship between the codes and themes independently to ensure consistency.

## 5.3 Findings

Study 2 identified four themes based on the interview notes taken from the 26 participants on the social influence on their calling discernment. These themes included empowering leadership, family influence, career encouragement from friends and informal mentorship. Table 7 presents the coding results.

**Table. 7** Coding Themes of Study 2

| Aggregate themes | Second-order themes | First-order concepts | Number of participants mentioned |
|---|---|---|---|
| Empowering leadership | Providing autonomy behaviour | My leader allowed to complete the team task in my own way, and he encouraged my ideas and behaviours. | 15 |
| | Enhancing the meaningfulness of work | My supervisor helped me understand the purpose, significance and values of my work and inspired me. | |
| Family influence | Family support | My parents encouraged me to open this bakery shop, and they also provided financial support. | 15 |
| | | My family supported and encouraged my work very much. | |
| | | I got a lot of information from my family. | |
| | Family expectation | I want to build my family's and ancestors' glory and help them live a good life because they are hoping that I could work in the government. | |
| Career encouragement from friends | Potential-discerning information from friends | I received recognition or encouragement from my friends, who helped me realise my potential in this area. | 8 |
| | | Several of my friends said that I had potential in baking cakes, which made me like baking even more. | |
| | Career-guiding information from friends | My friend told me some helpful career plans, which inspired me to pursue my current work. | |
| | | She recommended that I combine my interests with my career and open a bakery. | |
| Informal mentorship | Professional support | A senior helped me know about medicine, and he guided me on how to analyse the patients' symptoms. | 22 |
| | | My senior inspired me after I made some videos with his guidance. | |
| | Psychosocial support | My senior inspired me after I made some videos with his guidance. | |

| | |
|---|---|
| Role modelling | I respected an excellent consultant in the past... He is my role model. |
| | When I was young, I was inspired by him every time I saw his paintings, and then I was deeply attracted by them. |
| | I persist in learning relevant knowledge in Chinese traditional medicine, which led me to a yin-yang balance situation and helped me learn how to love it. |

*5.3.1 Empowering Leadership*

Fifteen participants mentioned that their leaders' behaviours, such as leadership, affected their process of perceiving their calling. On the one hand, these leaders empowered the participants through their autonomous behaviour. For example, these leaders allowed their participants to complete their tasks in their own way, thereby inspiring the latter to develop their passion and take their work seriously. The following excerpts support this argument:

*"...He trusts me very much. Whatever I do, he will say: 'Shuman, you can'. Besides, my supervisor created good conditions during the early stage of my academic research, making me feel that I was an independent researcher or an independent teacher without facing too many restrictions. l later realised that I like this kind of life and work style, and it triggered my calling..." (P 26)*

*"...My leader empowered me in doing my tasks independently. The affirmation of my leader made me love this job more… My direct leader empowers and encourages me to do things my own way. For example, when sorting out data, I found that many companies have problems with their funds, which have not been dealt with promptly and increasing their losses, thereby preventing them to reach their original goal. I offered some suggestions to address this problem, and my leader then asked me to take full responsibility for this task, which inspired me to take responsibility for my work, enhanced my feelings of self-value, made me realise the meaning of my work and built my confidence in my own abilities. I started to love financial management even more..." (P 12, manager in KPMG)*

On the other hand, leaders help their followers have a clear understanding of their work and its meaning by arranging specific tasks, which significantly affect the development of their calling at work. The following excerpts illustrate this argument:

*"...My leader gave me some advice about career planning, taught me about the meaning of work as an accountant and guided my professional direction and long-term development. He told me, 'You can start from the lowest level of finance and gain familiarity with the various modules, then you can understand financial management in depth and know how to solve problems whenever you are facing obstacles. For example, the tax percentage can reflect how*

*the business performance changes. There is a slow progression in this process.' During the time I worked with him, I had a clear understanding of my job in the company, what my job mainly contributes to my company and that my career development should be aligned with that of our company. He gave me a clearer and deeper understanding of my job as a whole, and he inspired me mentally to reflect on how to be proactive in my career development and how to take the initiative to learn, which inspired me to take responsibility in my work..." (P 8, accountant)*

*"...Working as an apprentice required a strong sense of teaching and learning opportunities! I learned so much knowledge and ideas from my teacher. My teacher made us understand the history of medical practice and the destiny of the country, both of which are tightly tied together. Understanding the country's mission made me feel that this what I am doing is great and that it can rescue others. So there will be many beautiful imaginations of doctors, which make me feel very passionate in my work and perceive a strong sense of calling..." (P 6, doctor)*

The above two aspects indicate that the autonomy provided by leaders and the meaningfulness of work promoted by leaders have vital roles in the calling development of their followers. The literature on leader behaviour and leadership shows that the autonomy and building behaviour of leaders towards the meaning of work is the core connotation of empowering leadership (Aheame et al., 2005; Zhang & Bartol, 2010). Therefore, providing autonomous behaviour and enhancing the meaningfulness of work can be aggregated into dimension-empowering leadership.

Study 1 showed that de-constraining the ideas and behaviours of followers, trusting followers, allowing their participation in decision making and encouraging their self-development were the key predictors of perceiving a calling. Study 2 also confirmed the effect of the autonomy behaviour of leaders and their roles in enhancing the meaningfulness of work or the self-development of their followers on perceiving a calling. Both studies confirmed the effect of autonomy and meaningfulness/self-development encouraged by leaders on perceiving a calling, and thus, one can posit that granting power, autonomy and meaning to followers can

significantly help them discern and develop their calling at work.

### 5.3.2 Family Influence

Fifteen participants mentioned that family-related factors influence their process of perceiving a calling. On the one hand, the financial and material support provided by the family, information exchange and experience sharing enhanced the knowledge accumulation, self-reflection and job identity of the participants. The following excerpts illustrate this point:

*"...My family influenced me since I was young. The older generation knows how to paint, and they taught me. When I was young, I was very impressed by my father's paintings. I was impressed with each of his strokes, his choosing of colours for the peony flowers and leaves and his use of the pen. I have been painting since I was a child, and I often look at pictures and imitate them... Gradually, I reflected on my painting motivation. I felt that all my time was wasted before, and I did not devote all my energy to painting. I have been painting every day until now from then..." (P 5, teacher)*

*"...My father worked in the finance industry and was a senior accountant. My mother worked in a bank. They both do well in finance and often communicated financial knowledge to me. So I learned a lot about finance when I was a child. Later in college, due to my family's influence, I received great scores for those modules related to finance and economics... I understood those subjects quickly, so I did not hesitate to choose accounting when I was choosing a major. I later became more and more interested and even dreamed of becoming an excellent accountant..." (P 11, accountant)*

On the other hand, the expectation of families regarding future career development inspired the participants' sense of responsibility for their family and their work, driving their perception of their work as a calling. The following excerpts illustrate this point:

*"...I want to build my family's and ancestors' glory and help them live a good life because they are hoping that I could work in the government... They helped me analyse the pros and cons of being a civil servant. I also thought it was a very good idea, so I chose this job and eventually loved it..." (P 13, civil servant)*

*"...My parents were poorly educated. They were hoping that I would become a*

*knowledge-based talent, like a professor or a scientist, in the future...” (P 19, researcher)*

The above aspects show that the financial and informational support and the expectation of family members are important for individuals to discern their calling at work. Based on previous studies on the effects of family-related factors on individual career development, for example, some scholars labelled the financial and mental support, experience, guidance and expectations of family members for the career development of an individual as “family influence” (Fouad & Bynner, 2008; Fouad et al., 2010; Moore, 2006; Nelson et al., 2006). Therefore, both family support and expectations were aggregated into the theme of family influence.

Study 2 also confirmed the effect of family expectations on the calling of the participants and further revealed that the financial and informational support received from family members can also significantly influence one's calling.

### 5.3.3 Career Encouragement from Friends

Eight participants mentioned that the positive information (e.g. praise, talent recognition and career guidance) they received from their friends influenced their process of perceiving a calling. On the one hand, the information received from friends is conducive to realising one's potential. Such information triggered the in-depth thinking of the participants and helped them realise their potential. On the other hand, the participants perceived that such information was also beneficial for their careers. Specifically, providing guiding information on building a new career or achieving a higher goal based on the potential and abilities of individuals can encourage and strengthen their confidence in their work, leading them to reflect on their current status and change some of their behaviours. Such information can help these individuals make up their minds to develop themselves in their preferred fields and promote their calling at work. The following excerpts support such an argument:

*"...When I do something different from others, I get recognition or encouragement from my friends. The praise, recognition and encouragement I receive from them motivate and urge me to enjoy art more. From a psychological view, it makes me feel different. I become more able to subconsciously strengthen myself. When I look at the painting again, I realise that I am*

*very talented and that I need to aim high in this area..." (P 1, CEO of an engineering company)*

*"...That was the first time I tried to make cheesecake at home because I had no experience in this area before. I successfully made cheesecake once after watching an instructional video. At that moment, I felt that I was very talented. From that day on, I fell in love with making desserts, and it was out of control... Later, when I attended my friend's birthday party, I ordered a cake for him, and I invited some of my other friends. However, they thought that the cake was not as delicious as the ones I make. I was inspired by their comments, and I made a new birthday cake for my friend. After they ate it, they all said that the cake was very delicious. It was not as sweet as those sold in other shops, but it was delicious. Several of my friends thought that I had the potential in baking cakes. Their recognition made me like baking even more..." (P 3, boss in a bakeshop)*

*"...When I was in high school, I made a cake with my friends. It felt good. And although I never tried baking before, I was always interested in it. When I entered high school, I had a chance to make birthday cakes with my friends. We went to a do-it-yourself cake shop. That was the first time I made a cake by myself. Because I was a novice, my friends at that time thought it was impossible for me to make such a beautiful cake. But the result of what I did was very good. My friends said that I was very talented in this area. The boss of the cake shop was also surprised by this product... On the way home, my friends suggested that I should open a cake shop. They gave me the idea of opening my own shop in the future. That is how I found my calling..." (P 9, baker)*

The above aspects indicate that any information conducive for one to realise his/her potential and guide his/her career development can promote his/her discernment of a calling. Previous research on constructive information, such as pointing out others' strengths and encouraging others' pursuits of their goals, has identified various skills related to encouragement, such as reflective listening, communicating one's faith in others, smiling, non-verbal acceptance of others, expressing genuineness, pointing out others' strengths, positive reframing and validating others' goals (Dinkmeyer & Losoncy, 1996; Perman, 1975; Sherman & Dinkmeyer, 2014). The participants mentioned that their friends discovered their potential

in a particular domain. Such behaviour can be viewed as 'pointing out others' strengths. Meanwhile, the information shared by friends that benefits one's career mainly guides individuals toward achieving a career-related goal. Such behaviour can be viewed as "validating others" goals.

Wong (2015) recently defined encouragement as "the expression of affirmation through language or other symbolic representations to instil courage, perseverance, confidence, inspiration, or hope in a person (s) within the context of addressing a challenging situation or realizing a potential" (p. 182). Instilling confidence or inspiration into a person by helping them realise their potential is a core component of encouragement. Therefore, potential-discerning and career-guiding information from friends can be aggregated into the theme of career encouragement from friends.

### 5.3.4 Informal Mentorship

Twenty-two participants mentioned that some experienced seniors in their fields stimulated their perceptions of work calling whether in their own or other organisations. Most participants recalled that when they were newcomers in their industry, they spontaneously sought out seniors with whom they had good rapport or experience. These seniors later became their mentors and spiritual guides who not only helped them improve their professional skills but also acted as their inspiration. Some participants treated their seniors as their role models who helped them perceive their calling at work. The participants' influential interactions with their seniors were divided into three aspects, the first of which refers to professional support, including the guidance and assistance received from seniors. One participant shared,

*"...My mentor played a significant role in my calling development. He told me that if I enter a new team, I should pay attention to improving my academic skills and maintaining good interpersonal relationships. For example, he taught me how I can keep myself in a good state when I get along with my teammates, how can I do scientific research, how can I work with other teams and how I can avoid disputes. He shared a lot about his work experiences and taught me how to write a great paper and how to live in an academic circle, which affected my professional consideration and career planning..." (P 26, assistant professor)*

The second aspect refers to psychosocial support from seniors. Several participants felt that some seniors in their organisations not only served as their co-workers or partners at work but also played the role of a mental guide in their careers. These important seniors inspired and motivated them to perceive their work as a calling. The following excerpts illustrate this point:

*"...that senior recommended a book called 'Suzhu'. After reading this book, we exchanged our thoughts about it. His understanding and ideas had a great influence on me. For example, he taught me how to reflect on my value. "Be a civil servant; everyone needs to serve the people. You have to be a good servant. You must first learn how to be a good man, and you need to care for everyone in China. Well, if you want to realise your sense of calling, you must always think of Chinese citizens'. That senior is my soul guide, and I thought that the book he recommended and the truths he told me guided the way I think and taught me about what I really should do and who I am..." (P 14, civil servant)*

*"...If we're talking about seniors, I remember one of my teachers during my undergraduate years. He was the source of my calling. His attitude towards academics and his values in guiding his students stimulated my interest in academics and inspired me to become a university teacher..." (P 25)*

The third aspect refers to role modelling. Some participants felt that their informal mentors greatly helped them in their process of perceiving a calling. They admired these informal mentors and treated them as their role models in the work context. One participant shared,

*"...I have met some informal mentors who I admire very much. If you pay attention, it is not difficult to find that some outstanding psychological counsellors are very charismatic. When you are with him, you can feel his tolerance and acceptance because whoever first enters this society is a novice. When you are a rookie, you are recognised by a master when he says that you are good and that you have done very well. You feel appreciated, recognised and accepted. That feeling is very special. At that moment, I told myself that I will become that kind of person who does things the way my mentor did. I even followed my heart and eventually became a counsellor…" (P 2, consultant)*

As role models, seniors provide their followers with the necessary professional and mental

support that inspires their calling at work. Some participants mentioned the significant influence of informal mentors, their psychosocial support and how they act as their role models. Therefore, professional support, psychological support and role modelling were aggregated into the dimension of informal mentorship.

As Study 1 also identified informal mentorship as a key antecedent of perceiving a calling, the findings of Studies 1 and 2 were compared. Both studies revealed that the professional and psychosocial support received from informal mentors had a considerable influence on one's calling. However, Study 2 further revealed that the role modelling of informal mentors also has a significant effect on the discernment and development of people's calling.

**5.4 Discussion and Conclusion**

Unlike Study 1 that used an open-ended interview approach to examine the general antecedents of calling, Study 2 adopted a specific social influence perspective to investigate the interpersonal factors that affect calling. This study used a semi-structured interview approach with more specific and focused questions regarding the influence of significant persons. The social influence perspective is an important theoretical perspective that has been relatively overlooked in prior research. Previous studies predominantly view that individual calling is developed intra-personally yet ignore how other important social actors affect the development process of one's calling. To fill this research gap and inspired by the findings of Study 1 regarding the potential influence of several social factors (i.e. empowering leadership, family influence, career encouragement from friends and informal mentorship) on people's calling, Study 2 conducted 26 semi-structured interviews with a highly diverse set of participants and specific interview questions (e.g. "Are there any important persons that have significantly influenced your calling?"). The coding results from the 26 interview datasets demonstrated that significant persons, including leaders, family members, friends and informal mentors, indeed influenced the participants' discernment of their calling. Study 2 also identified the four most representative social influence factors (interpersonal factors) that affect one's calling, namely, empowering leadership, family influence, career encouragement from friends and informal mentorship. These findings not only prove that leaders, families, friends and

informal mentors can greatly impact one's calling but also explain their specific influence.

With regard to empowering leadership, Study 1 revealed that when leaders grant their followers a sense of autonomy in their jobs, trust them in their work, involve them in decision-making processes and encourage their self-development, followers are likely to perceive their work as a calling. Meanwhile, Study 2 identified the two most important empowering behaviours of leaders that have the greatest impact on their followers' calling, namely, encouraging followers' autonomous behaviour and constructing the meaning of their followers' work. By inspiring followers to do their job or make decisions on their own and enhancing the meaning of their work, leaders can fuel their followers' passion, proactivity and responsibility at their work, hence strengthening their perceptions of their work as a calling. In these two studies, job autonomy and meaning enhancement were identified as the most beneficial elements of leaders' empowerment that can help people discern their calling.

With regard to family influence, similar to Study 1, Study 2 found that family members' expectations and advice helped the participants think about their careers and influenced their calling development. Study 2 also discovered that the financial, informational and spiritual support from families benefits the discernment of one's calling. Combining the results of both studies revealed that the career expectations and other valuable job-related support from family members significantly influenced the calling of their offspring and later generations.

With regard to career encouragement from friends, Study 1 reported that the general feedback (e.g. comments, encouragement and suggestions) from others can encourage people to reflect on themselves and perceive more clarity at work. Meanwhile, Study 2 found that receiving more potential-discerning and career-guiding information from friends (e.g. praises on one's strengths, recognition and constructive guidance) can directly encourage individuals to perceive their work as a calling because such positive judgments help them realise their strengths, establish their confidence in their careers, perceive the positive social impact of their work on others, stimulate them to achieve more desirable work outcomes and inspire their passion and persistence at work, all of which are conducive to their discernment of calling. Interestingly, previous research shows that negative information or feedback can activate

people's systematic effort and attention towards an external, novel information (Hoever et al., 2018) and encourage them to address their failures, solve problems (Eggers & Jung-Hyun, 2019) and improve their in-role job performance (Chen et al., 2007), thereby highlighting the many benefits that negative feedback can bring to people in their work or career. However, very few participants in both Studies 1 and 2 mentioned that negative information or feedback has an important role in promoting their calling. Such counterintuitive finding encourages future studies to test whether negative information or feedback is either valuable or useless for the development of one's calling. In sum, when receiving desired or favourable (vs. negative) information and feedback from those persons with whom people usually interact (especially friends, leaders and colleagues), people are more likely to perceive their work as a calling.

With regard to informal mentorship, the results of Study 2 not only replicated the important roles of professional and psychological support from an informal mentor in facilitating one's calling but also highlighted a role modelling process through which people proactively learn from their informal mentors to discern their calling. Social learning theory (Bandura & Walters, 1977) posits that individuals learn from people who they consider important in their lives. By observing and interacting with their informal mentors, people perceive the purpose and meaning of their work, understand how they should perform at their work and try to perform and behave in the same way as their informal mentors who have high perceptions of calling at their work. Such role modelling process eventually benefits the development of people's calling.

To conclude, the findings of Study 2 not only confirmed and echoed with the findings of Study 1 related to the influence of social factors on calling but also extended the results of Study 1 by comprehensively and precisely revealing the components or conceptualisations of each theme. The findings of these two studies based on 49 participants with different individual backgrounds consistently and strongly justified the salient effect of social interactions with other important persons in people's work and lives on the development of their calling. By highlighting such a social influence perspective through two qualitative studies, this research offers a new point of view to explain how calling develops inter-personally, thus enriching the

present knowledge on how to facilitate the development of one's calling through the influence of other important social actors (Ahn et al., 2017; Anastasiadis & Zeyen, 2021; Ehrhardt & Ensher, 2021; Safaie, 2019; Zhang et al., 2021).

Despite this novel perspective towards the antecedents of calling and the four interpersonal factors identified in the two qualitative studies, more solid and empirical evidence should be provided to statistically verify the actual effects of these factors on calling. Although adopting qualitative methods can generate novel ideas, the newly developed theories or arguments are somewhat subjective and may lack sufficient evidence, especially statistical ones. To provide more solid and direct evidence that verifies the interpersonal influence of the four new antecedents on perceiving a calling, another empirical study should be conducted using the quantitative approach, which can compensate for the disadvantages of the qualitative approach in offering statistical evidence. Moreover, the two qualitative studies only focused on the direct impact of social influence from others on one's calling yet failed to specifically reveal the mediation processes through which such social influence functions to enhance one's calling. Probing the mediated mechanisms that link the four interpersonal antecedents with perceiving a calling is theoretically crucial because doing so can introduce a more nuanced and deeper understanding of how one's calling perceptions are specifically discerned and developed through interpersonal influence. In addition, although 23 and 26 participants were interviewed in Studies 1 and 2, respectively, such sample size was relatively small, hence threatening the generalisability of the findings in these studies. Data should be collected from more participants with diverse jobs and occupations to comprehensively and statistically replicate the findings of Studies 1 and 2. The next chapter then conducts Study 3 to enrich the present understanding about if and how empowering leadership, family influence, career encouragement from friends and informal mentorship empirically impact one's calling and to collect additional empirical evidence from a relatively larger sample of participants from different industries.

**Chapter 6: Study 3: A Quantitative Study on the Empirical Effects of Interpersonal Factors on Calling**

**6.1 Introduction**

The qualitative Study 2 identified four interpersonal antecedents of calling (i.e. empowering leadership, family influence, career encouragement from friends and informal mentorship) by adopting a qualitative research methodology and collecting interview data from 26 participants. However, whether the four factors have statistically significant effects on calling is empirically unclear. Moreover, the mediation mechanisms through which these four interpersonal factors affect calling remain vague. Past research has also overlooked the mediated process through which one's calling is influenced by others. Addressing these gaps is valuable because it provides more solid and convincing empirical evidence to conclude the direct effects of the four newly identified interpersonal factors on calling. In addition, doing so helps enrich scholarly knowledge about how people's calling is specifically discerned and developed through interpersonal influence.

To address the above important research voids and provide more empirical evidence, this thesis further attempts to provide statistical evidence to replicate and extend the qualitative results of Study 2 by adopting a quantitative research methodology and collecting field survey data from a larger sample of participants who have different occupations and work in varied industries. Specifically, Study 3 builds on social information processing theory (Salancik & Pfeffer, 1978) to argue the main effects of the four interpersonal factors on calling. Drawing on this theory, Study 3 proposes *reflective career competencies* and *experienced responsibility for work outcomes* as two parallel mediators that explain the indirect effects of the four interpersonal factors on calling, revealing the specific mediated interpersonal influence processes. By collecting data from field surveys at different time points, Study 3 first examines the main effects of the four interpersonal factors on perceiving a calling. This study then conducts empirical analyses on the mediation effects of the two mediators on the relationship between the four interpersonal factors and calling. Finally, the theoretical and practical

contributions of Study 3 are discussed. Figure 5 presents the theoretical framework of this quantitative study.

| Key sources of social influence | Social influence process | Social influence outcome |
|---|---|---|
| Empowering leadership<br>Family influence<br>Career encouragement from friends<br>Informal mentorship | Reflective career competencies<br><br>Experienced responsibility for work outcomes | Perceiving a calling |
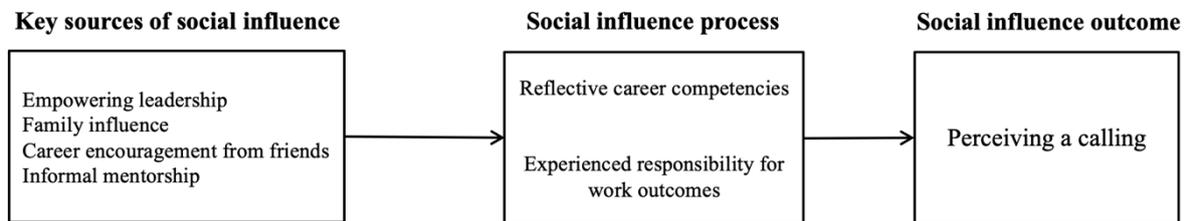
**Figure 5.** Theoretical framework of Study 3

## 6.2 Theoretical Foundations

### *6.2.1 Social information processing theory*

Study 3 mainly draws from social information processing theory (Salancik & Pfeffer, 1978) to argue the relationships between the four interpersonal factors and perceiving a calling as well as the mediation effects of reflective career competencies and experienced responsibility for work outcomes. Social information processing theory assumes that environment, individual and behaviour interact with one another and that the interaction between the first two jointly determines the individual's behaviour. Social information processing consists of three important aspects: the input of information, the processing of information and the change of people's attitudes and behaviours. Social information processing theory argues that individual activities and behaviours do not occur in a vacuum and are usually influenced by complex and ambiguous social situations (Salancik & Pfeffer, 1978). The social context in which an individual lives provides a variety of information that influences their attitudes and behaviours, and the individual's interpretation of this information determines subsequent attitudes and behaviours. However, individuals do not interpret all information but rather select those that are relevant to them or by selecting the views of people similar to them and approved as sources of information. Overall, social information processing theory assumes that people's attitudes and behaviours are largely influenced by the social environment around them and that people

process and interpret specific social information to decide what attitudes and behaviours to adopt.

Salancik and Pfeffer (1978, p. 226) introduced that "individuals, as adaptive organisms, adapt attitudes, behaviour, and beliefs to their social context…the social environment provides cues which individuals use to construct and interpret events. It also provides information about what a person's attitudes and opinions should be". Regarding working adults or employees in organisational context, one typical and important source of information that people can assess is their immediate social environment, such as their social interactions with leaders, colleagues, families and friends. These social contexts help employees construct meaning of their behaviours and surrounding environments by directly guiding them to develop socially acceptable beliefs, attitudes, needs and reasons for action. Social context can also attract their attention to certain information, make such information more salient and visible and provide expectations or normative pressure for how one should think and behave in the environment.

According to social information processing theory, social information can directly affect people's attitudes, beliefs and behaviours. Individuals look to social cues and rely on information from social environments to determine their own attitudes, beliefs and behaviours. Leaders, families, friends and mentors are all key sources from which people seek social information to understand themselves and their work to accordingly adjust their attitudes, beliefs and behaviours. That is, social information from leaders, families, friends and mentors can directly influence how people think and behave at work. For example, when leaders demonstrate empowering behaviours (e.g. enhancing job autonomy and work responsibility), which signal that leaders trust followers' abilities and value their work contributions, followers understand how competent they are and how meaningful their work is (Auh et al., 2014). As another example, when employees have desirable social exchanges with their co-workers through which they obtain key work-related information, they enhance their understanding of the goals, objectives and requirements related to their work role (Chen et al., 2013).

Based on the above theoretical arguments and empirical evidence, believing that empowering leadership, family influence, career encouragement from friends and informal

mentorship can delivery relevant social information to individuals and subsequently influence their understanding of *themselves* and their *work* is reasonable. In particular, this thesis proposes that by processing social information obtained from leaders, families, friends and mentors, people enhance their understanding of their own career-related competencies (i.e. *reflective career competencies*) and perceive more accountability for their work outcomes (i.e. *experienced responsibility for work outcomes*). These constructive understanding or perceptions of themselves and their work help people discern and develop their calling at work. In the following sections, this thesis first introduces the two key mediators (i.e. reflective career competencies and experienced responsibility for work outcomes). Building on social information processing theory as an overall theoretical framework, this thesis then argues the main effects of the four interpersonal factors on perceiving a calling. Finally, this thesis present support regarding the mediating effects of reflective career competencies and experienced responsibility for work outcomes on the relationships between the four interpersonal factors and perceiving a calling.

### 6.2.2 *Reflective career competencies*

Reflective career competencies refer to "individuals' awareness of one's motivation and qualities, which includes reflecting on values, motivations, strengths, and shortcomings with regard to one's career" (Blokker et al., 2019, p. 173). Reflective career competencies represent a core dimension of general career competency (Akkermans et al., 2013) and are associated with many important work, career and life outcomes, including work engagement (Akkermans et al., 2013; Wardani et al., 2021), internal and external employability (Akkermans & Tims, 2017), career adaptability (AlKhemeiri et al., 2020), career success (Blokker et al., 2019), well-being (Plomp et al., 2016) and life satisfaction (Akkermans et al., 2018). Given these salutary outcomes, believing that reflective career competencies can also benefit another key important individual outcome at work—perceptions of calling at work—is reasonable.

In addition to their consequences, reflective career competencies can be facilitated by received job-related resources, such as autonomy, social support and opportunities for development (Akkermans et al., 2013). When provided with job autonomy, work-related

guidance and self-growth opportunities from the work environment, people's reflective career competencies can be greatly enhanced. Therefore, believing that empowering leadership, family influence, career encouragement from friends and informal mentorship may affect people's reflective career competencies is reasonable.

Given that reflective career competencies can produce a wide variety of positive career and work-related outcomes and can be significantly shaped by interpersonal factors, it is empirically and statistically possible that reflective career competencies can serve as a key mediator that transmits the influence of the four interpersonal factors on perceiving a calling. Moreover, according to the definitions and conceptualizations of calling, a deep reflection and a clear understanding of one's own career-related motivations, capabilities and qualifications are key intrinsic driving forces and important inner requirements (i.e., inner requiredness) that lead to the discernment and development of one's calling. In other words, to discern one's calling, people need to constantly think or reflect on a series of work-related questions, including what their work means to them, what they are working hard for and whether they are working hard because of their own interests and intrinsic motivation, and so on. Only by constantly asking themselves these questions and actively thinking about and responding to them will people have a clearer understanding of their own abilities, qualifications, and the meaning of their work. Through social interaction, communication and exchange with others in the external environment, people will obtain a variety of information or feedback from people in the social environment that is relevant to them. This important information and interpersonal feedback will stimulate them to have a clearer and stronger self-understanding of themselves, which will eventually help people perceive that work is not just a career for them, but also a sense of mission that they need to work hard to fulfil. Therefore, from a theoretical perspective, reflective career competencies may be a highly plausible mediating mechanism that links the four interpersonal factors to perceiving a calling. Considering the above theoretical arguments and indirect empirical evidence, it is reasonable to expect that reflective career competence might serve as a possible mediator to account for the influence of interpersonal factors on perceiving a calling.

### 6.2.3 *Experienced responsibility for work outcomes*

Experienced responsibility for work outcomes refers to 'the extent to which the employee feels personally accountable and responsible for the results of the work he or she does' (Hackman & Oldham, 1975, p. 162). It is a typical psychological perception that individuals likely develop about the characteristics of their work which can promote their work motivation and work outcomes (Hackman & Oldham, 1974, 1975, 1976). Experienced responsibility for work outcomes can generate many positive individual outcomes, including job satisfaction (Loher et al., 1985), organisational commitment (Pierce & Dunham, 1987), work engagement and task performance (Aryee et al., 2012). This motivated psychological perception may help people discern their calling at work.

Experienced responsibility for work outcomes can be directly facilitated by autonomous designs of people's work (Hackman & Oldham, 1975, 1976). Leadership behaviours (e.g. transformational leadership) can enhance employees' experienced responsibility for work outcomes (Aryee et al., 2012). Holdorf and Greenwald (2018) stated that "expectations and mentorship from others also seem related to responsibility" (p. 122). Foss et al. (2009) found that receiving feedback from others can strengthen people's external motivation at work. Considering the above theoretical arguments and empirical findings, believing that empowering leadership, family influence, career encouragement from friends, and informal mentorship may significantly affect people's experienced responsibility for work outcomes is reasonable.

Similarly, considering that experienced responsibility for work outcomes can guide people to work hard, behave positively and strive to achieve good performance at work and can be facilitated by certain social-environmental forces, from an empirical or statistical point of view, it is possible that experienced responsibility for work outcomes may serve as a parallel mediating path linking the four interpersonal factors and perceiving a calling. In fact, feeling responsible or accountable for one's own work and having a strong sense of duty to perform well at work are seen as important external motivating forces and outer requirements that promote the discernment and development of one's calling. That is, in order to perceive one's

work as a calling, people need to first realize that work for them is not merely a simple task or career without much meaning or purpose, but a great mission for which they need to work hard, demonstrate excellent performance and strive to live up to the expectations of others. The formation of this sense of responsibility is often influenced by the external environment. For example, when important people in the social environment constantly emphasize the importance and significance of fulfilling their duties and responsibilities, people perceive a strong sense of responsibility to perform their jobs well and be responsible for the results of their work. This sense of responsibility for work enhanced through interpersonal influence makes it clear to people what they are working for, for whom they are working and why they need to work hard, which ultimately helps people find their sense of purpose in their work and discern their calling. Based on the above theoretical arguments and indirect empirical evidence, it should be reasonable to expect experienced responsibility for work outcomes as a plausible mediator to explain the influence of interpersonal factors on perceiving a calling.

To conclude, the conceptualisations of calling have highlighted that the fulfilment of inner (e.g., self-awareness and self-actualization) and outer requiredness (e.g., duty and responsibility) are the two key approaches that enable people to discern their calling. Taking the above theoretical and empirical findings and conceptualizations of calling together, this thesis justifies that reflective career competencies and experienced responsibility for work outcomes are potentially appropriate mediators in the relationships of the four interpersonal factors and perceiving a calling.

### 6.2.4 *Theoretical rationale for selecting the four interpersonal factors*

Although study 2, through conducting in-depth interviews, identified four specific interpersonal factors as antecedents of perceiving a calling, it is still important and reasonable to provide the behind theoretical rationale for selecting the four interpersonal factors as independent variables in the theoretical model of Study 3, which is a quantitative study. The four interpersonal factors represent four types of social influence derived from different social actors, including leaders, mentors, families, and friends. These people are key persons embedded in one's social environments and have a critical influence on one's thoughts and

behaviours. Specifically, leaders and mentors are those persons with whom one generally has frequent work-related communications and interactions. For example, people often communicate with their leaders on task completion, job performance and work efficiency, and seek professional or task-related support from their informal mentors who are more experienced and have more expertise. In parallel, families and friends are those persons with whom one usually has non-work-related communications and interactions. For example, people often share their pleasant or unpleasant life experiences with their families and friends or seek emotional support from those who can cheer them up and provide psychological comfort.

Taken together, it is obvious that the four interpersonal factors identified in Study 2 can be categorized into two groups: work-related interpersonal factors and non-work-related interpersonal factors. Interpersonal factors that function in the work domain include empowering leadership and informal mentorship. Interpersonal factors that function in the non-work domain include family influence and career encouragement from friends. According to the social information processing theory (Salancik & Pfeffer, 1978), both work-related and non-work-related interpersonal factors are keys to shaping people's perceptions and understanding of their calling, because these factors, as important elements of one's immediate social environment, can deliver key information and social cues that significantly influence how one thinks and behaves at work (Chandler et al., 2011; Hirschi et al., 2018; Luu, 2022; Wang et al., 2020).

Indeed, in the literature, there is indirect evidence that adopts a social information processing perspective demonstrating the influence of the above work and non-work-related interpersonal factors on people's attitudes, thoughts and behaviours. Regarding the social influence of *leaders*, Wang et al. (2020) stated that leader's empowerment behaviours are "relevant cues that provide employees with information that is likely to have a positive impact on the perceptions of their capabilities, their sense of safety, and their desire to achieve favourable outcomes" (p. 8). Bucher et al. (2020) found that by demonstrating empowering leadership behaviours, leaders can send social cues of mutual care and concern for and between

employees, thereby fostering mutual trust in the team and facilitating active sharing, discussion, and exchange of ideas, opinions, and knowledge between team members.

Regarding the social influence of *mentors*, Chandler et al. (2011) stated that "in the context of mentoring, interactions between mentors and protégés are shaped by social information cues from their organizational environment. As such, organizational cues are "useful sources of data to understand how mentors and protégés interpret and adapt to their organizational environment" and that "social information processing theory provides an important perspective on how informational cues influence mentoring behaviour, as well as psychological responses to mentoring" (p. 546). These arguments, based on social information processing theory, justify the key influence of mentors on people in the workplace. Moreover, as supportive empirical evidence, Son and Kim (2016) found that management support for mentoring can make employees receive more effective mentorship and build a high level of trust in mentors, thereby prompting them to engage in more organizational citizenship behaviours at work.

Regarding the social influence of *families*, Luu (2022) studied the posttraumatic growth of tourism workers in the background of the COVID-19 shutdown and found that family support is critically important for one's positive change and personal growth. The author stated that "supported by resources from their family, tourism workers in face of the pandemic crisis are inclined to evoke perceptions of stressful challenges as opportunities for them to improve themselves, learn to develop the mastery of their life, and live in a more proactive manner rather than following routines as previously" (p. 3). Moreover, Jiang and Wrzesniewski (2021) also found and highlighted that family members are "powerful social referents, who serve as a key source of social information regarding which attributes of work to attend to and how much they matter" (p. 2).

Regarding the social influence of *friends*, Hirschi et al. (2018) viewed friendship as a type of social support or resource that one can receive, which "helps to buffer potential stressors at work and is directly linked to a variety of positive outcomes, such as organizational and job commitment" (p. 3). Other scholars also stated that a desirable relationship with friends is a key to benefiting one's psychological needs, enhancing one's career and life satisfaction and

bringing about positive career and work outcomes (e.g., Delbecq, 2004; Ferreira, 2019).

Generally speaking, the social environment of an adult worker consists of the working environment and the living environment. On the one hand, in the work environment, the people who have the most influence on a person are usually leaders and colleagues. This is because leaders have more power, higher status and stronger influence. Hence, individuals can be easily influenced by leaders to change their attitudes and behaviours. Based on the above theoretical discussion and empirical findings, it is clear that when a leader increases the motivation and job responsibility of subordinates by empowering them, individuals will have more positive changes in their attitudes and behaviours. In addition, because colleagues and themselves have relatively similar work environments, work experience, work tasks and work experience, individuals will have a lot of work communications and interactions with their colleagues and will also have more similar and consistent attitudes and behavioural performance, and thus, individuals are more likely to be influenced by their colleagues. The prior theoretical arguments and empirical research findings also show that when individuals receive help, guidance and encouragement from colleagues, they will improve their work attitude and performance.

On the other hand, the people who have the most influence on a person in their daily life environment are family and friends. This is because a person has lived in a family environment since childhood and is very susceptible to the influence of family members. Friends are a very important category of people in a person's daily social life because people often communicate with close friends about various work or personal problems and often seek advice from them, and thus, they can be easily influenced by them to change their attitudes and behaviours. Previous theoretical and empirical research findings also confirm that influence from family and encouragement and feedback from friends play an important role in promoting changes in one's attitudes and behaviours.

Taken together, four groups of people, namely, leaders, colleagues, family, and friends, constitute the primary social environment for an adult worker. The characteristics, behaviours, and interactions of these four groups of people can have a direct and significant effect on a person's attitude and behaviour at work. That is, both work-related and non-work-related

interpersonal factors have a crucial effect on one's work and career-related outcomes. Such evidence also justifies the behind theoretical rationale that guides this thesis to select empowering leadership, family influence, career encouragement from friends and informal mentorship as the four independent variables in the theoretical model of Study 3. Building on social information processing theory and the accumulated theoretical and empirical research, this thesis will introduce how the four interpersonal factors influence people's calling perceptions in the next sections.

## 6.3 Research Hypotheses

### 6.3.1 Direct effects of interpersonal antecedent factors on perceiving a calling
6.3.1.1 Empowering leadership and calling

Empowering leadership has been viewed as a typical constructive leadership style that can significantly facilitate followers' wide variety of desirable work outcomes (Aheame et al., 2005). The core purpose of this type of leadership style is to grant power and autonomy to followers and raise their job responsibilities (Amundsen & Martinsen, 2014). Researchers depicted that empowering leadership mainly includes four types of specific leader behaviours, namely, 1) articulating and enhancing the values, contributions and significance of followers' work to the team and organisation; 2) expressing strong confidence in their achievement of extraordinary performance; 3) involving them in decision making and 4) providing them work freedom and authority (Zhang & Bartol, 2010). According to social information processing theory (Salancik & Pfeffer, 1978), by demonstrating these inspiring and empowering behaviours, leaders can provide key social cues and deliver important information to followers that can greatly strengthen their perceived sense of meaning, responsibility, and impact of their work (Aheame et al., 2005; Lee et al., 2018), thereby promoting the discernment and development of their calling at work.

Specifically, when their leaders display empowering leadership behaviours, followers understand how meaningful and influential their work is. They tend to feel competent and autonomous in task accomplishment and psychologically perceive a high-level of empowerment. Ultimately, they achieve a motivational state where one is authorized and in

turn motivated at work. With this motivational state, people tend to 1) perceive external support from the organisation that inspires them to work hard and proactively at work, 2) realize the meanings of their work to themselves and feel obligated to reciprocate the leader and organisation and 3) are more capable of and willing to initiate positive influence to the organisation. All three jointly contribute to the discernment and development of their calling. Leaders with empowering leadership pass the power, authority, decision making and competency to their followers (Pearce & Sims, 2002) and enhance these followers' perceptions of their career-related abilities, motivations to work, efficacy and meanings to work (Biemann et al., 2015; Hoch & Kozlowski, 2014; Lee et al., 2018). Given that a sense of meaning and strong work motivation are key determinants of calling (Dik & Duffy, 2012; Dik et al., 2015), greater perceptions of the influence, impact and meanings of their work strengthened by empowering leadership can stimulate employees' perceived calling at work. Therefore, this thesis hypothesizes that

*Hypothesis 1*: *Empowering leadership is positively related to perceiving a calling.*
6.3.1.2 Family influence and calling

Family members (e.g. parents) often actively engage in generativity or parenting behaviours to help their later generations form their personal calling. Expressing generativity behaviours and guiding their later generations are often viewed as parts of their indispensable duties as parents or seniors. For example, they try to be available when children are in need (social surveillance), help children find their personal purposes in life (meaningful guidance), share necessary career-related information to them (informational support), provide monetary or tangible support for their education and career development (financial support) and set extraordinary goals and expect them to be successful in the future (high expectation) (Lang & Carstensen, 2002; Ryff & Heincke, 1983). As suggested by social information processing theory (Salancik & Pfeffer, 1978), these family-influenced behaviours, serving as key social cues and information, can significantly affect later generations' occupation choice, personal growth, professional development and career success. In particular, generativity and parenting behaviours can cheer children up in their difficult time, motivate them to proactively seek the

meaningfulness of their works, enhance their career confidence or efficacy and provide them considerable opportunities for career explorations (Wright et al., 2020). Moreover, high expectations from families motivate people to achieve success at work (Fouad et al., 2010). When people have strong desires, high competence and more opportunities to achieve career success, they are more likely to discern their calling (Praskova et al., 2014). Thus, in general, family influence should be beneficial for people to discern their calling at work.

Indirect evidence supports the above arguments. Fouad et al. (2016) found that individuals' families may intentionally or inadvertently convey information about which careers are meaningful and important. In exploring the relationship between family influence on an individual's career decision making, Fouad et al. (2016) found that family influence is positively correlated with some dimensions of calling, such as purposeful work and prosocial motivation. Marks et al. (2018) also found that some dimensions of family influences (i.e. informational support, financial support and family expectation) have significant direct effects on the presence and development of calling. In addition, Zhang et al. (2015) found that the expectation from family is a key driving and guiding force for the discernment of calling among Chinese college students. Building on the above theoretical arguments and empirical evidence, this thesis hypothesizes that

**Hypothesis 2**: *Family influence is positively related to perceiving a calling.*

6.3.1.3 Career encouragement from friends and calling

Wong (2015) defined encouragement as "an expression of affirmation through language or other symbolic representations to install courage, perseverance, confidence, inspiration, or hope in a person(s) within the context of addressing a challenging situation or realizing a potential". Encouragement and positive information received from important persons (e.g. friends) can enhance people's confidence and self-efficacy beliefs (Dimotakis et al., 2017), make them view their work efforts as a worthy endeavour (Phillips et al., 1996) and positively predict self-actualization (Wong, 2015). All of which can enable people to continuously develop their career and achieve career success (Dimotakis et al., 2017). Positive career encouragement (e.g. positive feedback, evaluations and inspirations) enhances people's career-

related competence, motivations and outcomes (Dimotakis et al., 2017; Nikandrou et al., 2008; Tharenou et al., 1994; Zhou, 2003). When receiving desirable encouragement from friends, people are motivated to maintain their positive performance and make greater achievements. Enhanced career-related competence and intensified motivation to achieve higher goals can help people discern their calling (Hall & Las Heras, 2012).

Moreover, Azoulay (1999) pointed out that a key advantage of encouragement is its emphasis on fulfilling one's inner needs and increasing intrinsic motivation. Main and Boughner (2011) and Wong (2015) argued that encouragement is beneficial to install hopeful thinking because it is an affirmative and positive message that is intended to fulfil the recipient's deep needs and trigger or increase inner motivation. For instance, in an academic context, students who receive academic encouragement from others (e.g. "your performance this time is much better than before and I believe you can achieve even higher performance next time") can have greater confidence and motivation in their abilities to pursue their academic goals and thereby achieve higher academic performance (Wong, 2015). Work- or career-related encouragements from close friends can make people clearly see and feel how their work or performance is appreciated, recognized and acknowledged by significant persons (e.g. intimate friends), leading them to perceive a strong sense of self-actualization and self-fulfilment. These motivating and desirable encouragements from important friends serve as significant social cues to enhance people's calling perceptions when conducting their work. Therefore, this thesis hypothesizes that

**Hypothesis 3**: *Career encouragement from friends is positively related to perceiving a calling.*

### 6.3.1.4 Informal mentorship and calling

Mentoring includes a relationship between a less experienced individual (protégé) and an experienced person (the mentor), the purpose of which is to make protégés grow professionally (Russell & Adams, 1997). Ehrhardt and Ensher (2021) attempted to explore the relationship between mentorship and calling. They found that high-quality mentorship is positively related to the presence of calling through the role modelling effect. However, they overlooked informal

mentorship and failed to explain the influence from an informal mentor on one's calling. Informal mentors, rather than formal mentors, can provide protégés with more psychosocial support, direction and feedback about their career development and better detect and fulfil the protégés' internal needs (Russell & Adams, 1997). In addition to formal mentorship, informational mentorship behaviours as significant social inductions may also have greatly affect the discernment and development of people's calling at work.

Informal mentors often focus on protégé's needs that are professionally long term (e.g. career development in the future), and they tend to care about the changes of protégé's psychological feelings and emotional experiences (e.g. developing a more positive job attitude) through their mentorship (Chao et al., 1992). To this end, informal mentors provide necessary personal or energy resources to protégés to trigger their positive job attitude and heighten their intrinsic motivations to work. By providing more favourable professional guidance, psychological support and other career- or work-related assistance, informal mentors can lead their protégés to perceive more work mastery, strong sense of professional satisfaction and higher self-fulfilment in their work. As supportive evidence, Kram and Isabella (1985) suggested that high-quality mentoring relationships can enhance protégés' sense of competence and effectiveness, then eliciting the feeling of self-fulfilment. Wang and Millward also mentioned that informal mentoring relationships can increase protégés' emotional attachment and mental energy, reinforce their professional identity and improve their meaningfulness and self-fulfilment(Wang & Millward, 2014) .

Overall, informal mentorship (e.g. professional guidance and psychosocial support) helps people increase career-related abilities and develop stronger identification with or commitment to their career (Chao et al., 1992; Ragins et al., 2000). Moreover, when receiving professional guidance and psychosocial support from informal mentors, people are motivated to achieve the same growth, development and success in their own career as their mentors who they identify with (Bandura, 1986). Owing to the enhanced career competence, identification and role modelling effect, people are likely to discern their calling at work (Ensher & Ehrhardt, 2020). Taken together, this thesis hypothesizes that

***Hypothesis 4****: Informal mentorship is positively related to perceiving a calling.*

After theorizing the direct effects of the four interpersonal factors on calling, this thesis argues the underlying mechanisms that mediate the above effects. It unfolds the mediation processes by which the four interpersonal antecedent factors affect people's perceptions of calling at work. To this end, this thesis first argues the direct effects of the four interpersonal factors on the two mediator variables (i.e. reflective career competencies and experienced responsibility for work outcomes) and then the main effects of the two mediators on perceiving a calling. Finally, this thesis proposes the mediating hypotheses. The following sections present the specific theoretical arguments on the main and mediation effects.

## 6.3.2 Indirect effects of reflective career competencies and experienced responsibility for work outcomes

*6.3.2.2 Empowering leadership and reflective career competencies/experienced responsibility for work outcomes*

According to social information processing theory (Salancik & Pfeffer, 1978), leader characteristics or leadership behaviours can significantly affect employees' work attitudes and behaviours because employees often use the information or social cures delivered from their leaders to adapt their behaviours to the organisational norms and managerial expectations. Aheame et al. (2005) indicated that empowering leaders express confidence to employees' abilities in task completion, allow them to do their work in their own ways and invite them in joint decision making. As suggested by social information processing theory (Salancik & Pfeffer, 1978), the above empowerment-related information can make followers believe that they are capable of completing their work and that they have certain advantages or strengths appreciated by their leaders (Lee et al., 2018; Zhang & Bartol, 2010). Bucher et al. (2020) stated that 'leaders can enhance the motivation and performance of subordinates by signaling their competencies, involving them in decision making, and delegating authority and power" (p. 5). Moreover, granting power and resources to employees signals leaders' high expectations on employees' performance and achievements, making employees foresee a discrepancy between their current states (i.e. attributes they currently have, such as abilities and

shortcomings) and their desired states (i.e. attributes they are expected to have). Such a foresight then promotes more self-reflections and deeper understanding of their personal qualities and motivations. For example, they may actively think about what their abilities, interests and attitudes are towards their career and work. By providing social cues that facilitate employees' understanding of their career-related competencies and personal qualifications, empowering leadership should be positively related to reflective career competencies.

In addition to increasing reflective career competencies, empowering leadership should make employees perceive a stronger sense of responsibility for work outcomes. Empowering leaders enhance work meanings to employees, share decision-making authority with them and create a flexible, autonomous work environment (Aheame et al., 2005; Hong et al., 2016). When receiving these empowerment informational cues from their leader, employees can feel trusted, recognized, and encouraged by their leader. As a result, they tend to generate more intense motivations to reciprocate their leader's trust, recognition and encouragement by working harder, engaging more and performing better. These highly motivated psychological states also make employees understand that they have self-determined power to complete their work and influence their organisation (Lorinkova & Perry, 2017). This understanding then promotes them to believe that they are accountable for their work outcomes and thus become willing to take greater responsibilities for their team and organisation. Moreover, empowering leaders strengthen the meaning and significance of work to their followers, making them internalize team goals and view contributing to the collective good as part of their own goals. Ultimately, empowering leaders guide their followers to achieve a greater sense of feeling obligated to dedicate themselves to their team or organisation at work. When being granted with power or empowerment, people likely feel a much salient responsibility at work (Kim & Beehr, 2017; Munduate & Medina, 2017; Tost, 2015). Taken together, when receiving empowerment from leaders, people feel that the work is importantly relevant to them and that they determine or control work outcomes, so they develop a sense of accountability or ownership to their work (Kim & Beehr, 2017). They feel responsible for the consequences, outcomes and results of their work. Therefore, this thesis proposes the following hypotheses:

*Hypothesis 5: Empowering leadership is positively related to a) reflective career competencies and b) experienced responsibility for work outcomes.*

*6.3.2.3 Family influence and reflective career competencies/experienced responsibility for work outcomes*

Family members (e.g. parents) often transfer various supports to children such as work advice, their knowledge, work-related value and other tangible resources, and they usually expect their children to achieve outstanding performance in their career. As suggested by social information processing theory (Salancik & Pfeffer, 1978), all of these family-influenced behaviours, as importantly relevant social cues, can affect people's cognitions, motivations and behaviours at work. When individuals approach and process career-related information their families approved, to pursue more desirable career goals or perform better at work, they may intentionally or unintentionally recall previous relevant experiences in their career, reflect on their current states or qualifications (e.g. strengths and shortcomings) and anticipate the desired states they are expected to reach in the future (Fouad et al., 2016). As Steinberg (2004) posited, parents' guidance is a powerful part of their children's career decision-making process because such guidance helps children reflect on if they are suitable for their current work and understand what kind of job fits their personalities and interests most. Moreover, when receiving informational and financial supports from family, people likely feel that they have more tangible or intangible resources and opportunities to explore themselves and their career possibilities, promoting them to develop deeper and more comprehensive understanding of their career interests, abilities and other career-related personal qualities (Koçak et al., 2021; Wright et al., 2020). By receiving and processing informational cues from important family members, people are stimulated to develop and gain a clearer, deeper and more comprehensive understanding of their career-related qualifications. Believing that family influence can boost people's career-related competencies is reasonable.

People are often encouraged to achieve extraordinary career goals and make great work contributions so that their family can feel proud of their success (Lang & Carstensen, 2002; Ryff & Heincke, 1983). According to social information processing theory (Salancik & Pfeffer,

1978), when family members express this kind of information (i.e. expecting good performance from children), people view such information as relevant cues which indicate that they should gain excellent performance outcomes and achieve huge success in their career and should not disappoint their family and let them down (Salancik & Pfeffer, 1978). As a result, they care about their work outcomes and feel highly accountable for what they do at work. Moreover, when receiving career-related informational and financial supports from family, people likely perceive that they have great latitude and wide considerations in making career-related decisions, thus facilitating their self-management motives in career development (Koçak et al., 2021; Vautero et al., 2021). Hence, they generate a sense of ownership and feel personally responsible for their work and career outcomes. Taken together, the constructive influence from family members not only leads people to understand and aware of their reflective career competencies but also produces a strong sense of obligation for performing their work well and being responsible for the corresponding work outcomes. Taken together, this thesis proposes the following hypotheses:

**Hypothesis 6**: *Family influence is positively related to a) reflective career competencies and b) experienced responsibility for work outcomes.*

*6.3.2.4 Career encouragement from friends and reflective career competencies/experienced responsibility for work outcomes*

Career encouragement (e.g. praise, appreciation and inspiration) as a type of positive interpersonal evaluative feedback can serve as important social information that affects people's understanding and awareness of themselves (Dimotakis et al., 2017; Nikandrou et al., 2008; Tharenou et al., 1994; Zhou, 2003). Receiving inspiring career encouragement from close friends indicate that people are positively evaluated and greatly recognized by others (Dimotakis et al., 2017; Wong, 2015). By processing these informational cues, people actively think of or reflect on their current qualifications and become more aware of what specific strengths, abilities, competencies and other desirable attributes they currently have, thus enhancing their understanding of their career-related personal qualifications. This is aligned with social information processing theory (Salancik & Pfeffer, 1978) which suggests that

individuals look for significant informational cues from their social environment (e.g. recognition of personal strengths and abilities from important persons such as friends) to understand how they should accordingly react and behave in the environment. As supportive evidence, Quinton and Smallbone (2010) found that the reflection on one's strengths or talents can be triggered in certain ways and especially facilitated by others' encouragement that has been shown to positively leverage one's potentials and enhance career motivation. Encouragement helps people realize their strengths and shortcomings and motivate them to actively reflect on themselves and pursue new or higher goals (Dinkmeyer & Losoncy, 1996; Sherman & Dinkmeyer, 2014). Moreover, Bloom et al. (2020) demonstrated that participants who received encouragement from others are more likely to think about how to "find my [their] place in the world" or "try to figure out what I [they] should do with my [their] life" (p. 313). The above evidence pinpoints a plausible positive relationship between career encouragement from friends and reflective career competencies.

People learn from external informational cues to understand how they should behave in the environment (Salancik & Pfeffer, 1978). When friends provide desirable feedback on their performance, appreciate their abilities and contributions and inspire them to achieve higher goals, people view these career-related encouragement behaviours from friends as important informational cues that guide how they should think and act at work (Salancik & Pfeffer, 1978). Recognition and inspiration from important friends can motivate people to continuously perform well and make greater contributions for their organisation. Moreover, people are often inspired to maintain and regain other's positive feedback and judgment. When they receive desirable encouragement from friends, they tend to keep doing well and taking more personal responsibility to achieve greater success at work so that they can remain a good impression in their friends' eyes, keep receiving positive evaluations or delighted feedback from their friends and develop more desirable self-concepts(Leary & Kowalski, 1990). In particular, they likely feel that they are accountable for their future work outcomes because they seek to avoid disappointing their friends in the future. That is, encouragement and inspirations from friends has a long-lasting effect on enhancing and promoting the responsibility felt by people to

perform and work well. Thus, career encouragement from friends facilitates people's experienced responsibility for work outcomes. Taken together, this thesis proposes the following hypotheses:

*Hypothesis 7: Career encouragement from friends is positively related to a) reflective career competencies and b) experienced responsibility for work outcomes.*

*6.3.2.5 Informal mentorship and reflective career competencies/experienced responsibility for work outcomes*

In general, informal mentorship is developed from the informal relationships and interactions between senior and junior members of organisations. Thus, informal mentors often refer to those experienced colleagues or senior co-workers (Chao, 1992). These persons are key sources of social information that people seek to enhance their understanding of their own career-related qualifications (Salancik & Pfeffer, 1978). Specifically, protégés may actively identify with and internalize their mentor's advice, support and guidance, thereby making significant changes in their work and career-related attitudes, motivations, cognitions and behaviours. For example, Hunt and Michael (1983) suggested that informal mentors help protégés learn professional skills, analyse how they process the necessary information to do their jobs and become valuable members of the group. Similarly, Chao et al. (1989) suggested that informal mentors can boost protégés to reflect on themselves and achieve personal improvement by conveying the necessary knowledge and information about the organisation's histories, goals, language, politics, people and performance. Given that informal mentors usually have similar career experiences and job requirements with protégés, protégés may actively compare themselves with informal mentors and seek relevant information from their informal mentors to understand if they are qualified in their career (Kaye & Jacobson, 1996; Kram, 1983). Through frequent interactions with an informal mentor who is a peer, people can notice the difference or discrepancy between the mentor's qualifications and their own, leading to a more salient awareness of their current personal qualifications. Mentors often serve as role models who protégés can learn from in many aspects of their career (Allen & Eby, 2007). By providing professional psychosocial support and sharing similar or relevant career-related

experiences to protégés, informal mentors can deliver useful information to protégés that helps them know about their shortcomings, develop career competence and reflect on their career interests and motivations (Salancik & Pfeffer, 1978). Thus, informal mentorship is expected to be beneficial for enhancing people's reflective career competencies.

By serving as a role model, informal mentors help protégés understand the requirements, goals, meanings and impact of their work (Ragins et al., 2000). When informal mentors share their experiences, expertise, knowledge and values to protégés, protégés tend to internalize what their informal mentors say and believe (Liu & Fu, 2011). Those regarded as informal mentors often have excellent performance, strong passions and high responsibility at work. The above important characteristics of informal mentors can serve as key social cues that stimulate protégés' perceived responsibility for their own work (Salancik & Pfeffer, 1978). When receiving professional guidance and psychological support from informal mentors, protégés tend to generate a sense of obligation to improve their performance and obtain better work outcomes (Chao et al., 1992). They then become concerned about how their work is done and what results they will get, thus feeling high accountability for their work outcomes. When receiving desirable informal mentorship, protégés tend to be motivated to perform well, fulfil their mentors' expectations and reciprocate their mentors in the form of achieving great contributions at work and forwarding their career to a higher level. Believing informal mentorship likely promotes protégés' experienced responsibility for work outcomes is reasonable. Taken together, this thesis proposes the following hypotheses:

**Hypothesis 8**: *Informal mentorship is positively related to a) reflective career competencies and b) experienced responsibility for work outcomes.*

*6.3.2.6 Reflective career competencies and perceiving a calling*

After hypothesizing the effects of the four interpersonal antecedent factors on reflective career competencies and experienced responsibility for work outcomes, this thesis theorizes the effects of reflective career competencies and experienced responsibility for work outcomes on perceiving a calling. Self-reflection or actively thinking about their own career capacities can make people understand what is important, meaningful and significant to their life and

career (Akkermans et al., 2013). A clear understanding of their interests, abilities and weakness enables people to judge if their qualifications fit their work requirements and if their current career suits them (Blokker et al., 2019; Jabeen et al., 2021). Such judgement helps people build their work or career identifications and gain a more salient sense of self-awareness. Increased awareness of one's career competencies and motivations facilitate a sense of self-fulfilment and self-actualization which are key indicators of calling  (Thompson & Bunderson, 2019). Self-awareness as an inner path helps people discern their calling at work (Thompson & Bunderson, 2019).

Indirect evidence supports a positive relationship between reflective career competencies and perceiving a calling. For example, Ardelt and Grunwald (2018) stated that engaging in self-reflective activities triggers individuals to think of who they are and know more about their attributes (e.g. strengths and weakness), motivating them to explore, develop and actualize themselves in their career. In addition, Moon (2001) noted that reflective career competencies can facilitate people's diagnosis of their core strengths and weaknesses, consequently enabling them to know about their true self. Thompson and Bunderson (2019) posited that perceiving a calling involves a particular feeling about people's true self. Especially, the modern view has emphasized that the sense of self-awareness and self-actualization are important facilitators that can fulfil the inner requiredness path linking to calling. Given the above evidence, believing that reflective career competencies should be helpful for people to discern their calling at work is reasonable. Therefore, this thesis hypothesizes that

*Hypothesis 9*: *Reflective career competencies is positively related to perceiving a calling.*
*6.3.2.7 Experienced responsibility for work outcomes and perceiving a calling*

Handgraaf et al. (2008) suggested that individuals with highly experienced responsibility take their work and career seriously as they believe they are accountable for their work outcomes. For example, they tend to act conscientiously, behave in a manner socially desirable and perform effectively (Hackman & Oldham, 1975, 1976). Strengthened perceptions of accountability for work outcomes makes people view achieving good outcomes and succeeding at work as part of their important duties (Oldham & Fried, 2016; Oldham & Hackman, 2010).

Following, when they perceive high responsibility for work outcomes, people feel that they are called by something outside or someone else to fulfil their duties or obligations at work. Moreover, employees with a sense of experienced responsibility are highly motivated to undertake obligations for their work, contribute great achievement to the team and actively engage in behaviours that can significantly contribute to the organisation and other beneficiaries (Frese et al., 1996; Liang, 2014). This is because these people likely believe that dedicating themselves at work and contributing to others are meaningful (McClelland & Holland, 2015). Experienced responsibility at work can facilitate people to work hard and increase their altruism, such as helping others (Mayer et al., 1985; McClelland & Holland, 2015). Altruistic behaviours induced by the sense of experienced responsibility or accountability is generally considered a type of prosocial behaviour, and its motive is a genuine desire to benefit another one or others without the expectation of benefiting oneself (Batson & Powell, 2003; Lay & Hoppmann, 2015). Taken together, expecting that experienced responsibility for work outcomes is beneficial for people to fulfil the outer requiredness path related to calling is plausible (e.g. feeling an external force that motivates one to exert great work effort and transcend self-interests for contributing to others). Thus, this thesis hypothesizes that

**Hypothesis 10**: *Experienced responsibility for work outcomes is positively related to perceiving a calling.*

*6.3.2.8 Mediating roles of reflective career competencies and experienced responsibility for work outcomes*

In the previous sections, this thesis theorizes the relationships of empowering leadership, family influence, career encouragement from friends and informal mentorship with reflective career competencies and experienced responsibility for work outcomes. The hypotheses regarding the relationships between reflective career competencies/experienced responsibility for work outcomes and perceiving a calling are also put forward. These theorizations indicate that these two mediators may mediate the effects of empowering leadership, family influence, career encouragement from friends and informal mentorship on perceiving a calling. The work-

related autonomy, authority and meaning granted by the leader (i.e. empowering leadership); the tangible support and expectation received from family members (i.e. family influence); the career-related constructive encouragement and inspiration by friends (i.e. career encouragement) and the professional guidance and psychological support provided by an informal mentor (i.e. informal mentorship) promote people to actively engage in reflective activities to obtain a clear and deep understanding about their motivations and qualifications (i.e. reflective career competencies). These four antecedents also facilitate people to perceive strong responsibility and achieve a sense of obligation to contribute to their works, unit and or the public. These cognitive and motivational states in turn stimulate the discernment of their calling at work. Taken together, the following mediation hypotheses are formulated:

*Hypothesis 11*. *The positive relationship between empowering leadership and perceiving a calling is mediated by a) reflective career competencies and b) experienced responsibility for work outcomes, respectively.*

*Hypothesis 12*. *The positive relationship between family influence and perceiving a calling is mediated by a) reflective career competencies and b) experienced responsibility for work outcomes, respectively.*

*Hypothesis 13*. *The positive relationship between career encouragement from friends and perceiving a calling is mediated by a) reflective career competencies and b) experienced responsibility for work outcomes, respectively.*

*Hypothesis 14*. *The positive relationship between informal mentorship and perceiving a calling is mediated by a) reflective career competencies and b) experienced responsibility for work outcomes, respectively.*

**6.4 Method and Results**

*6.4.1 Research sample and procedures*

This study used an independent sample with full-time working adults in China as participants was used to empirically test the theoretical model. Data were collected by conducting field (paper-and-pencil) surveys in different companies and institutions with the managers' help and distributing online questionnaires to participants whom the author could

not approach on site. Specifically, the author contacted some managers of various companies and institutions through the researcher's family's social network and introduced the purposes of this research to them. After communications and discussions with these managers, they showed interests in this research and agreed that the author could conduct surveys in their units. They also claimed that they would provide necessary help during data collection, such as informing their employees to complete the questionnaire on time. After receiving the approval and support from these managers, the author went to their units to distribute paper-and-pencil questionnaires on site. The author also invited online participants based on personal social network. The author contacted several friends of mine who agreed to help invite more participants from different industries to fill in the online questionnaire.

Through this snowballing approach of data collection from both on-site and online channels, 355 participants were invited in total, including government employees, teachers, accountants, doctors, engineers and administrative employees, among others. All participants were ensured that their participation was voluntary and that their responses were used only for academic purpose. This study collected data at two-time points to decrease the potential influence of common method variance (Podsakoff et al., 2012) with an approximately one month interval. At Time 1, participants provided their demographical information, including their gender (0 = male; 1 = female), age (1 = 25 years old or younger; 2 = 26–34 years old; 3 = 35–50 years old; 4 = older than 50), education level (1 = primary school; 2 = middle school; 3 = high school; 4 = bachelor; 5 = master or above), organisational tenure (1 = no more than 1 year; 2 = 1–3 years; 3 = 3–6 years; 4 = 6–10 years; 5 = 10–15 years; 6 = more than 15 years), industry experience (i.e. years working in the current industry; 1 = no more than 1 year; 2 = 1–3 years; 3 = 3–6 years; 4 = 6–10 years; 5 = 10–15 years; 6 = more than 15 years), specific occupation and the type of the industry where they work. Moreover, they were asked to rate empowering leadership, family influence, career encouragement from friends and informal mentorship. Out of 355 participants, 349 completed the questionnaire, yielding a response rate of 98.3%. At Time 2, the 349 participants who finished the Time-1 survey were asked to provide ratings on reflective career competencies, experienced responsibility for work

outcomes and perceiving a calling. A total of 268 completed responses were returned with a response rate of 76.8%. The responses of two participants included too many missing data, so the final sample included data from 266 participants after matching the data from the two time points, yielding a total response rate of 74.9%.

Among the 266 participants, 41% were males and 59% were females; 6% were younger than 25 years old, 25.2% were aged between 26 and 34 years, 59% were aged between 35 and 50 years and 9.8% were older than 50 years old; 25.9% had a master's degree or above, 40.2% had a bachelor degree, 24.4% had high school education and 9.4% had middle school or primary school education; 8.6% had an organisational tenure less than 1 year, 13.2% had an organisational tenure between 1 and 3 years, 12.4% had an organisational tenure between 3 and 6 years, 10.9% had an organisational tenure between 6 and 10 years, 15.8% had an organisational tenure between 10 and 15 years and 39.1% had an organisational tenure more than 15 years; 6.4% worked in the current industry less than 1 year, 9.4% worked between 1 and 3 years, 12% worked between 3 and 6 years, 12.8% worked between 6 and 10 years, 19.2% worked between 10 and 15 years and 40.2% worked in the current industry more than 15 years. These participants have different occupations, varying from government employees, teachers, engineers and accountants to doctors, nurses, designers, drivers, human resource staff. The participants also came from different industries, as summarized in Table 8.

**Table 8.** Industries where the participants of Study 3 work

| Industry | Frequency | Proportion |
| --- | --- | --- |
| 1. Government, Public Administration | 73 | 27.4% |
| 2. Manufacturing | 76 | 28.6% |
| 3. Internet, Finance, Insurance, Real Estate | 10 | 3.8% |
| 4. Medical Industry | 9 | 3.4% |
| 5. Agriculture, Forestry, Fishing | 2 | 0.8% |
| 6. Research institutions, University, College | 14 | 5.3% |

| | | | |
|---|---|---|---|
| 7. Construction | | 46 | 17.3% |
| 8. Other industries | | 36 | 13.5% |
| Total | | 266 | 100% |

### 6.4.2 Measures

As all items were originated from English, the author used the standardized back-translation approach to create the Chinese version of all items (Brislin, 1980, 1986). First, the author searched for established English measurement scales for the corresponding variables and then translated them word by word into Chinese. The author also invited a doctoral student in management to translate the English items into Chinese and another doctoral management student to translate back to English. After comparing their translations, they checked and revised the measurement questions one by one and adapted the wording to the Chinese context to fit the research situation. The translation was then revised again by two professors in the field of management. After revising some of the translations, the author sent the Chinese measurement questions to the other two doctoral students and a company manager for verification to ensure that the participants could read and understand the measurement questions accurately. Finally, the author produced a translated Chinese version of all the English questions.

#### 6.4.2.1 Empowering leadership

This research used the 12-item scale ($\alpha = .93$) of Aheame et al. (2005) to measure empowering leadership in Time 1. This scale has four dimensions: (1) enhancing the meaningfulness of work, (2) fostering participation in decision making, (3) expressing confidence in high performance and (4) providing autonomy from bureaucratic constraints. Respondents indicated the extent to which they agreed with the 12 statements describing empowering leadership behaviors of their current supervisor (see Table 9) on a 7-point Likert-type scale ranging from 1 = strongly disagree to 7 = strongly agree.

**Table 9.** Empowering leadership measurement scale

| Number | Items |
|---|---|
| 1. | My supervisor helps me understand how my objectives and goals |

|     | relate to that of the company. |
| --- | --- |
| 2.  | My supervisor helps me understand the importance of my work to the overall effectiveness of the company. |
| 3.  | My supervisor helps me understand how my job fits into the bigger picture. |
| 4.  | My supervisor makes many decisions together with me. |
| 5.  | My supervisor often consults me on strategic decisions. |
| 6.  | My supervisor solicits my opinion on decisions that may affect me. |
| 7.  | My supervisor believes that I can handle demanding tasks. |
| 8.  | My supervisor believes in my ability to improve even when I make mistakes. |
| 9.  | My supervisor expresses confidence in my ability to perform at a high level. |
| 10. | My supervisor allows me to do my job my way. |
| 11. | My supervisor makes it more efficient for me to do my job by keeping the rules and regulations simple. |
| 12. | My supervisor allows me to make important decisions quickly to satisfy customer needs. |

*6.4.2.2 Family influence*

The original Family Influence Scale of Fouad et al. (2010) includes 22 items representing four independent sub-dimensions: (1) informational support, (2) family expectation, (3) financial support and (4) values/beliefs. The items of each dimension were generated from previous literature with regard to family influences on career in each area (e.g. family informational support (Schultheiss et al., 2002), family expectation and family financial support (Fouad & Bynner, 2008) and family values/beliefs(Pearson & Bieschke, 2001). This research only used the three dimensions of family influence (i.e. informational support, family expectation and financial support) to measure family influence in Time 1 and dropped the dimension of values/beliefs. The values/beliefs dimension describes the influence coming from the family's religious values or beliefs which are quite sensitive topics in China (Fouad et al., 2010). Moreover, according to the results of the qualitative study (Study 2), no participants mentioned that their calling was affected by their family's religious values or beliefs. Many

participants stated that their family's informational and financial support as well as expectations had significant impact on their calling. Therefore, 19 items related to the remained three dimensions were used to measure family influence in this study (see Table 10, $\alpha = .93$). Respondents indicated the extent to which they agreed with the 19 statements describing family influence on a 7-point Likert-type scale ranging from 1 = strongly disagree to 7 = strongly agree.

**Table 10.** Family influence measurement scale

| Number | Items |
|---|---|
| 1. | My family shared information with me about how to obtain a job. |
| 2. | My family discussed career issues with me at an early age. |
| 3. | My family showed me how to be successful in choosing a career. |
| 4. | My family showed me what was important in choosing a career. |
| 5. | Watching my family work gave me confidence in my career. |
| 6. | My family provided guidance on which careers would be best for me. |
| 7. | My family has given me information about obtaining education/training. |
| 8. | My family supported me by asking career-related questions. |
| 9. | My family expects me to select a career that has a certain status. |
| 10. | My family expects me to make career decisions so that I do not shame them. |
| 11. | My family is only willing to support me financially if I choose a career of which they approve. |
| 12. | My family expects that my choice of occupation will reflect their wishes. |
| 13. | My family expects people from our culture to choose certain careers. |
| 14. | My family's career expectations for me are based on my gender. |
| 15. | My family expects me to contribute financially to my career education and training. |
| 16. | Because my family supports me financially, I can focus on my |

career development.

| | |
|---|---|
| 17. | My family has not been able to financially support my career decisions. |
| 18. | If I wanted to get additional education after high school, my family would provide financial support. |
| 19. | If I were to experience a difficult career situation, my family would support me financially. |

### 6.4.2.3 Career encouragement from friends

This research used four items developed by Wong et al. (2019) to measure career encouragement from friends (see Table 11, α = .89) in Time 1. This scale captures the extent to which people are encouraged, inspired and motivated by friends to purse higher career goals and achieve their dreams (Wong et al., 2019). Respondents indicated the extent to which they agreed with the four statements describing career encouragement from friends on a 7-point Likert-type scale ranging from 1 = strongly disagree to 7 = strongly agree.

**Table 11.** Career encouragement from friends measurement scale

| Number | Items |
|---|---|
| 1. | My friends pointed out my strengths when she/he suggested I pursue a new career opportunity. |
| 2. | My friends noticed I was doing well in school/company and encouraged me to dream bigger and aim higher. |
| 3. | My friends explained why I had the skills to succeed in career at an advanced level. |
| 4. | My friends said something positive to motivate me to consider a new career goal. |

### 6.4.2.4 Informal mentorship

This research used 21 items developed by Noe (1988) to measure informal mentorship (see Table 12, α = .95) in Time 1. This scale includes three sub-dimensions, representing the psychological, career-related and role modelling aspects of mentorship. Respondents were asked to read the following instructions before indicating their responses on a 5-point Likert-type scale (ranging from 1 = not at all true of me to 5 = completely true of me):

"Please select an informal mentor from your colleagues (not supervisors) who influences you mostly in the organisation. (An informal mentor is someone who actively assists and helps guide your professional development). The following items describe the general interactions between you and this informal mentor. Please indicate to what extent these descriptions reflect the truth of your mutual interactions."

**Table 12.** Informal mentorship measurement scale

| Number | Items |
|--------|-------|
| 1. | My mentor has shared history of his/her career with you. |
| 2. | My mentor has encouraged you to prepare for advancement. |
| 3. | My mentor has encouraged me to try new ways of behaving in my job. |
| 4. | My mentor has conveyed feelings of respect for me as an individual. |
| 5. | My mentor has demonstrated good listening skills in our conversations. |
| 6. | My mentor has discussed my questions or concerns regarding feelings of competence, commitment to advancement, relationships with peers and supervisors or work/family conflicts. |
| 7. | My mentor has encouraged me to talk openly about anxiety and fears that detract from my work. |
| 8. | My mentor has shared personal experiences as an alternative perspective to my problems. |
| 9. | My mentor has conveyed empathy for the concerns and feelings I have discussed with him/her. |
| 10. | My mentor has kept feelings and doubts I shared with him/her in strict confidence. |
| 11. | I try to imitate the work behaviour of my mentor. |
| 12. | I agree with my mentor's attitudes and values regarding education. |
| 13. | I respect and admire my mentor. |
| 14. | I will try to be like my mentor when I reach a similar position in my career. |

| | |
|---|---|
| 15. | My mentor reduced unnecessary risks that could threaten the possibility of becoming a school principal or receiving a promotion. |
| 16. | My mentor helped me finish assignments/tasks or meet deadlines that otherwise would have been difficult to complete. |
| 17. | My mentor helped me meet new colleagues. |
| 18. | My mentor gave me assignments that increased written and personal contact with school administrators. |
| 19. | My mentor assigned responsibilities to me that have increased my contact with people in the district who may judge my potential for future advancement. |
| 20. | My mentor gave me assignments or tasks in my work that prepare me for an administrative position. |
| 21. | My mentor gave me assignments that present opportunities to learn new skills |

*6.4.2.5 Reflective career competencies*

This research used the seven-item scale developed by Akkermans et al. (2013) to measure reflective career competencies (see Table 13, $\alpha = .92$) in Time 2. This scale includes two sub-dimensions: reflection on motivation (reflection on values, work passions and work motivations of the personal career) and reflection on qualities (reflective activities on strengths, talents, shortfalls and skills of the personal career). Respondents indicated the extent to which the seven items truly describe their reflective career competencies on a 5-point Likert-type scale ranging from 1 = not at all true of me to 5 = completely true of me.

**Table 13.** Reflective career competencies measurement scale

| Number | Items |
|---|---|
| 1. | I know what I like in my work. |
| 2. | I know what is important to me in my career. |
| 3. | I can clearly see what my passions are in my work. |
| 4. | I know my strengths in my work. |
| 5. | I am familiar with my shortcomings in my work. |
| 6. | I am aware of my talents in my work |

7.         I know which skills I possess.

### 6.4.2.6 Experienced responsibility for work outcomes

This research used three items developed by Hackman and Oldham (1975) to measure experienced responsibility for work outcomes (see Table 14, α = .78) in Time 2. The original Experienced Responsibility for Work Outcomes Scale included four items, but exploratory factor analysis demonstrated that one item (i.e. "It is hard, for me to care very much about whether or not the work gets done right") had rather low factor loading. Given that this item added little incremental variance to the measure of experienced responsibility for work outcomes, this research followed previous studies (Kark et al., 2015; Umphress et al., 2010) and removed this item from the scale. This research used the remaining three items with high factor loading to measure it. Respondents indicated to what extent they agree with the three statements describing their experienced responsibility on a 7-point Likert-type scale ranging from 1 = strongly disagree to 7 = strongly agree.

**Table 14.** Experienced responsibility for work outcomes measurement scale

| Number | Items |
| --- | --- |
| 1. | Whether or not this job gets done right is clearly my responsibility. |
| 2. | I feel I should personally take the credit or blame for the results of my work on this job. |
| 3. | I feel a very high degree of personal responsibility for the work I do on this job. |

### 6.4.2.7 Perceiving a calling

This research built on the two-item Brief Calling Scale developed by Dik et al. (2012b) to measure people' calling perceived by them in their current work (see the Table 15) in Time 2. This thesis investigates those factors that influence people's overall comprehensive and holistic perceptions of calling at work, calling is viewed as a universal construct in this thesis. The current research used this scale because the scale and its items are suitable for measuring one's overall, comprehensive and universal perceptions of calling at work. The items are "I have a

calling to the current work I am doing" and "I have a good understanding of my calling as it applies to my career" ($\alpha = .87$). This scale, in which respondents can appeal to their own idiosyncratic definition of calling when responding to the items and it does not limit personal understanding on their own callings. Moreover, this scale has been widely used among previous studies to measure perceiving a calling and has been shown to have great measurement reliability and validity (Dik et al., 2012; Douglass & Duffy, 2015; Duffy & Autin, 2013; Duffy et al., 2012, 2015). Respondents indicated the extent to which the two statements described their true feelings about their work on a 5-point Likert-type scale ranging from 1 = not at all true of me to 5 = completely true of me.

**Table 15.** Perceiving a calling measurement scale

| Number | Items |
| --- | --- |
| 1. | I have a calling to a particular kind of work. |
| 2. | I have a good understanding of my calling as it applies to my career. |

*6.4.2.8 Control Variables*

This research mainly controlled for people's demographical backgrounds, including age, gender, education, organisational tenure and industry experience because these factors are potential indicators of perceiving a calling. Age and gender can influence people's calling towards their work because older people have more sophisticated work experiences than younger people and the issue of gender bias hold by the society may induce male and female to obtain different working experiences, thus developing varied perceptions of their work (Dobrow, 2013; Vianello et al., 2020). Moreover, education level is positively related to one's calling because well-educated people are more professionally skilful and usually have more expertise at work (Hirschi et al., 2018). Some organisational scholars pointed out that organisation tenure may be a potentially confounding factor that also affects one's calling because senior employees in the organisation often have relatively higher status, possess more resources and undertake more organisational responsibilities (Xie et al., 2019). Finally, working experiences in the industry (i.e. industry experience) affect one's professional identity

which then influences one's calling exploration (Bloom et al., 2020). These demographical background factors have been included as control variables in many empirical studies wherein calling is viewed as a dependent variable (Dobrow Riza & Heller, 2015; Xie et al., 2019). To examine the unique effects of the four social factors (i.e. empowering leadership, family influence, career encouragement from friends and informal mentorship) on calling, the author followed past studies to control for participants' age, gender, education, organisational tenure and industry experience. The results almost remained the same after removing all these control variables.

### 6.4.3 Data analysis and results

This study mainly used the Statistical Package for Social Science (SPSS) version 25.0 software Wagner III (2019) to analyze the data. Firstly, the researcher performed the descriptive, reliability and correlation analyses. Secondly, the researcher conducted confirmatory factor analyses (CFAs) by Amos 25 to test the fitness of the measurement model and evaluate the discriminant validity. Thirdly, the researcher used regression analysis to examine the direct effects of the four social factors and two mediators on perceiving a calling (Hypotheses 1, 2, 3, 4, 5a, 5b, 6a, 6b, 7a, 7b, 8a, 8b, 9 and 10). Lastly, to test the significance of the mediation effects (indirect effects: Hypotheses 11a, 11b, 12a, 12b, 13a, 13b, 14a and 14b), the researcher used the PROCESS macro (version 2.13) software package Model 4 (Hayes, 2013) to obtain the 95% bias corrected confidence interval (bootstrapping = 5,000) of the mediation effects. If the confidence interval excludes zero, the mediation effect can be judged as significant.

### 6.4.3.1 Descriptive statistic, reliability and correlations

This study used SPSS 25.0 to conduct descriptive, reliability and correlation analyses (see Table 16). Firstly, the means and standard deviation (*SD*) were presented using descriptive analysis. Secondly, the reliabilities of all studies variables were reported. As shown in Table 16, the Cronbach's alphas of all variables were greater than 0.70, indicating great reliabilities of the measures of this study. Thirdly, the zero-order inter-correlations based on person-correlation analysis were reported. As seen from Table 16, empowering leadership, family influence, career encouragement from friends and informal mentorship were positively

correlated with perceiving a calling (r = .30, .28, .18, .37, *p* < .01), reflective career competencies (r = .30, .33, .25, .34, *p* < .01) and experienced responsibility for work outcomes (r = .25, .19, .13, .26, *p* < .01) respectively. Moreover, reflective career competencies and experienced responsibility for work outcomes were positively correlated with perceiving a calling respectively (r = .74, .56, *p* < .01). These findings suggest that the four social factors had significant direct and indirect correlations with perceiving a calling.

**Table 16.** Mean, standard deviation, correlation, and reliability.

| Variable | Mean | SD | 1 | 2 | 3 | 4 | 5 | 6 | 7 | 8 | 9 | 10 | 11 | 12 |
|---|---|---|---|---|---|---|---|---|---|---|---|---|---|---|
| 1. Gender | 0.59 | 0.49 | | | | | | | | | | | | |
| 2. Age | 2.73 | 0.72 | -.14* | | | | | | | | | | | |
| 3. Education | 3.83 | 0.92 | -.04 | -.24** | | | | | | | | | | |
| 4. Organisational tenure | 4.29 | 1.75 | -.02 | .69** | -.27** | | | | | | | | | |
| 5. Industry experience | 4.50 | 1.62 | -.07 | .74** | -.26** | .85** | | | | | | | | |
| 6. Empowering leadership | 5.42 | 0.96 | .07 | -.13* | -.07 | -.01 | -.07 | (.93) | | | | | | |
| 7. Family influence | 4.31 | 0.74 | .05 | -.13* | -.13* | .00 | -.08 | .50** | (.89) | | | | | |
| 8. Career encouragement from friends | 5.40 | 1.07 | .04 | -.13* | .01 | -.06 | -.15* | .43** | .53** | (.89) | | | | |
| 9. Informal mentorship | 3.87 | 0.61 | .07 | -.15* | .11 | .00 | -.07 | .66** | .51** | .45** | (.95) | | | |
| 10. Reflective career competencies | 4.09 | 0.53 | -.03 | .15* | -.02 | .19** | .15* | .30** | .33** | .25** | .34** | (.92) | | |
| 11. Experienced responsibility for work outcomes | 5.62 | 0.94 | -.07 | .14* | -.01 | .11 | .11 | .25** | .19** | .13* | .26** | .64** | (.78) | |
| 12. Perceiving a calling | 4.00 | 0.72 | .01 | .08 | .05 | .09 | .10 | .30** | .28** | .18** | .37** | .74** | .56** | (.87) |

*Note*: $N = 266$. *SD* = Standard deviation. Cronbach's alphas are presented in parentheses.

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

*6.4.3.2 Confirmatory factor analyses*

The author conducted a series of CFAs to test the discriminant validity of all focal variables by Amos 25. Given that too many items were involved in the original scales of these variables and this study included relatively small sample size, the measurement model with all original items loading on the substantive factors exceeded the recommended parameter to sample size ratio (1:5, Bentler & Chou, 1987). Therefore, the author followed previous studies and used the technique of item parceling to obtain more reliable estimations (Marks, Harrell-Williams, Tate, Coleman, & Moore, 2018; Zhang & Bartol, 2010). Specifically, for latent variables with multiple sub-dimensions, the researcher parceled items of each sub-dimension to create new indicators to measure the multi-dimensional variable. This parceling method has been widely adopted by many scholars (Astrauskaite et al., 2011; Zhang & Bartol, 2010). For instance, the original empowering leadership scale includes four sub-dimensions, and each dimension was measured by three items. The author parceled the three items of the four dimensions to obtain four parcels as new indicators of empowering leadership. For single-dimensional variables, all raw items were remained as indicators of the latent variable. As shown in Table 17, the results of CFA test revealed that the seven-factor measurement model fitted the data best ($\chi2$ =303.963, *df* = 169, *p* < .01; comparative fit index [CFI] = .96, Tucker–Lewis index [TLI] = .95, root mean square error of approximation [RMSEA) = .06) which was significantly better than other alternative factor models. Therefore, the seven substantive constructs in the measurement model were distinguishable.

**Table 17.** Results of confirmatory factor analyses

| Model | | $\chi 2$ | df | $\Delta\chi 2$ | RMSEA | CFI | TLI |
|---|---|---|---|---|---|---|---|
| 1. seven factor | baseline model | 303.963 | 169 | | 0.055 | 0.959 | 0.949 |
| 2. six factor | combining reflective career competencies and experienced responsibility | 366.648 | 175 | 62.685** | 0.064 | 0.942 | 0.93 |
| 3. six factor | combining empowering leadership and informal mentorship | 444.665 | 175 | 140.702** | 0.076 | 0.902 | 0.918 |
| 4. six factor | combining empowering leadership and family influence | 437.23 | 175 | 133.267** | 1.075 | 1.921 | 1.905 |
| 5. six factor | combining empowering leadership and career encouragement from friend | 739.195 | 175 | 435.232** | 0.110 | 0.829 | 0.795 |
| 6. six factor | combining informal mentorship and family influence | 430.2 | 175 | 126.237** | 0.074 | 0.923 | 0.907 |
| 7. six factor | combining informal mentorship and career encouragement from friend | 673.987 | 175 | 370.024** | 0.104 | 0.849 | 0.819 |
| 8. six factor | combining family influence and career encouragement from friend | 438.08 | 175 | 134.117** | 0.075 | 0.920 | 0.904 |
| 9. five factor | combining empowering leadership, informal mentorship, and family influence | 556.011 | 180 | 252.048** | 0.089 | 0.886 | 0.867 |
| 10. five factor | combining empowering leadership, informal mentorship, and encouragement | 869.696 | 180 | 565.733** | 0.120 | 0.791 | 0.756 |
| 11. five factor | combing empowering leadership, family influence, and encouragement | 804.473 | 180 | 500.51** | 0.114 | 0.811 | 0.779 |
| 12. five factor | combing informal mentorship, family influence, and encouragement | 753.676 | 180 | 449.713** | 0.110 | 0.826 | 0.797 |
| 13. four factor | combining empowering leadership, informal mentorship, family influence, and encouragement | 939.929 | 184 | 635.966** | 0.125 | 0.771 | 0.739 |
| 14. three factor | combining empowering leadership, informal mentorship, family influence, and encouragement; combining reflective career competencies and experienced responsibility | 996.934 | 187 | 692.971** | 0.128 | 0.755 | 0.725 |

| | | | | | | | |
|---|---|---|---|---|---|---|---|
| 15. two factor | combining empowering leadership, informal mentorship, family influence, and encouragement; combining reflective career competencies, experienced responsibility and calling | 1056.936 | 188 | 752.973** | 0.132 | 0.737 | 0.706 |
| 16. one factor | combining all studied variables | 1812.199 | 189 | 1508.236** | 0.180 | 0.508 | 0.454 |

*Note*: $N = 266$. RMSEA = Root mean square error of approximation. CFI = Comparative fit index. TLI = Tucker–Lewis index. ** $p < .01$.

*6.4.3.3 Common method variance test*

The data of all studied variables were collected from the same sample, inducing the concern of common method variance (CMV) that might threaten the findings of this study. To reduce the influence of CMV, the researcher took proactive steps to mitigate its potential effect through a more rigorous design of this study (Conway & Lance, 2010). Specifically, the researcher collected data at two different time points with approximately one-month interval, approached as many respondents as possible to distributed on-site questionnaires, provided clear instruction about how to fill the questionnaire based on their true thoughts and feelings and separated the questions in the questionnaire into different pages. In addition to these procedural steps, the researcher examined if the data were significantly affected by CMV. Prior literature has suggested several statistical methods to identify and control for any possible CMV (Chang et al., 2010). The researcher used Harman's single-factor test, common marker variable and the unmeasured method factor approach (Podsakoff et al., 2003). The results of Harman's single-factor test showed that all items of the seven studied variables loaded on more than one factor and that the first factor only accounted for 29.15% (less than the 50% threshold) of the total variance. Thus, the common source did not profoundly explain the major covariance of all items.

Moreover, the result of common marker variable approach showed that the controlled model with all parameters related to the common marker variable being fixed equally was not significantly superior to the baseline model with all parameters related to the common marker variable being fixed to zero ($\Delta\chi^2 = 71.385$, *n.s.*). This outcome suggested no significant CMV in this study. Finally, the results of the unmeasured method factor approach showed that the factor loadings of all of the items decreased by an averaged 0.17 upon removing the potential effect of the method factor which was equal to an averaged 25% of the variance explained by CMV in each item. Given the relatively small magnitude of the method factor effect, the CMV was unlikely to threaten the data. Taken the results of the three approaches together, CMV was not a serious concern in this study.

*6.4.3.4 Results of direct effect tests*

The main effect or direct effect results based on the linear regression using SPSS 25.0 were presented in Table 18. Hypothesis 1 predicts that empowering leadership is positively related to perceiving a calling. The results showed that empowering leadership was not significantly related to perceiving a calling ($B = .07$, $p > .05$). Thus, Hypothesis 1 was not supported. Hypothesis 2 predicts that family influence is positively related to perceiving a calling. The results showed that family influence had a marginally significant relationship with perceiving a calling ($B = .14$, $p < .10$). Thus, Hypothesis 2 was supported at the 90% significance level. Hypothesis 3 predicts that career encouragement from friends is positively related to perceiving a calling. The results showed that career encouragement from friend was not significantly related to perceiving a calling ($B = -.02$, $p > .05$). Thus, Hypothesis 3 was not supported. Hypothesis 4 predicts that informal mentorship is positively related to perceiving a calling. The results showed that informal mentorship was significantly related to perceiving a calling ($B = .31$, $p < .01$). Thus, Hypothesis 4 was supported.

Hypothesis 5 predicts that empowering leadership is positively related to a) reflective career competencies and b) experienced responsibility for work outcomes. The results demonstrated that empowering leadership had a non-significant relationship with reflective career competencies ($B = .05$, $p > .05$) and a positive, marginally significant relationship with experienced responsibility for work outcomes ($B = .14$, $p < .10$). Hence, Hypothesis 5a was not supported, but Hypothesis 5b was supported at the 90% significance level. Hypothesis 6 predicts that family influence is positively related to a) reflective career competencies and b) experienced responsibility for work outcomes. The results revealed that family influence had a positive, significant relationship with reflective career competencies ($B = .14$, $p < .05$) and a non-significant relationship with experienced responsibility for work outcomes ($B = .09$, $p > .05$). Therefore, Hypothesis 6a was supported, but Hypothesis 6b was not. Hypothesis 7 predicts that career encouragement from friends is positively related to a) reflective career competencies and b) experienced responsibility for work outcomes. The results showed that career engagement had a non-significant relationship with reflective career competencies ($B$

= .03, $p > .05$) and a non-significant relationship with experienced responsibility for work outcomes ($B = .03$, $p > .05$). Thus, Hypotheses 7a and 7b were not supported. Hypothesis 8 predicts that informal mentorship is positively related to a) reflective career competencies and b) experienced responsibility for work outcomes. The results revealed that informal mentorship had a positive, significant relationship with reflective career competencies ($B = .16$, $p < .05$) and a positive, significant relationship with experienced responsibility for work outcomes ($B = .27$, $p < .05$). Hence, Hypotheses 8a and 8b were supported.

Hypothesis 9 predicts that reflective career competencies is positively related to perceiving a calling. The results showed that reflective career competencies had a positive, significant relationship with perceiving a calling ($B = .84$, $p < .01$), thus supporting Hypothesis 9. Hypothesis 10 predicts that experienced responsibility for work outcomes is positively related to perceiving a calling. The results showed that experienced responsibility for work outcomes had a positive, significant relationship with perceiving a calling ($B = .10$, $p < .01$), supporting Hypothesis 10.

**Table 18.** Results of main effect test

| Variable | Reflective career competencies | | Experienced responsibility | | Perceiving a calling | | |
|---|---|---|---|---|---|---|---|
| | Model 1 | Model 2 | Model 3 | Model 4 | Model 5 | Model 6 | Model 7 |
| | Estimate | Estimate | Estimate | Estimate | Estimate | Estimate | Estimate |
| Sex | -.02(.22) | -.04(.06) | -.12(.12) | -.13(.11) | .03(.09) | .004(.09) | .05 (.06) |
| Age | .04(.07) | .11(.06) | .14(.12) | .25(.12) | .02(.10) | .13(.09) | .01(.06) |
| Education | .02(.07) | .03(.04) | .03(.07) | .04(.07) | .07(.05) | .07(.05) | .04(.04) |
| Organisational tenure | .06(.04) | .03(.03) | .03(.06) | -.02(.06) | .02(.05) | -.03(.05) | -0.05(.03) |
| Industry experience | -.02(.04) | .01(.04) | -.01(.07) | .01(.07) | .03(.06) | .05(.05) | .05(.04) |
| Empowering leadership | | .05(.04) | | .14$^†$ (.08) | | .07(.06) | .02(.04) |
| Family influence | | .14$^*$(.05) | | .09(.10) | | .14$^†$ (.07) | .02(.05) |
| Career encouragement from friends | | .03(.03) | | -.01(.06) | | -.02(.05) | -.04(.03) |
| Informal mentorship | | .16$^*$(.07) | | .27$^*$(.13) | | .31$^{**}$(.10) | .14$^*$(.07) |
| Reflective career competencies | | | | | | | .84$^{**}$(.08) |
| Experienced responsibility | | | | | | | .10$^*$(.04) |
| $R^2$ | 0.039 | 0.205 | 0.023 | 0.12 | 0.016 | 0.178 | 0.58 |

$N = 266$. Unstandardized regression coefficients are reported. Standard errors are shown in parentheses.

$^†p < .10$; $^*p < .05$; $^{**}p < .01$.
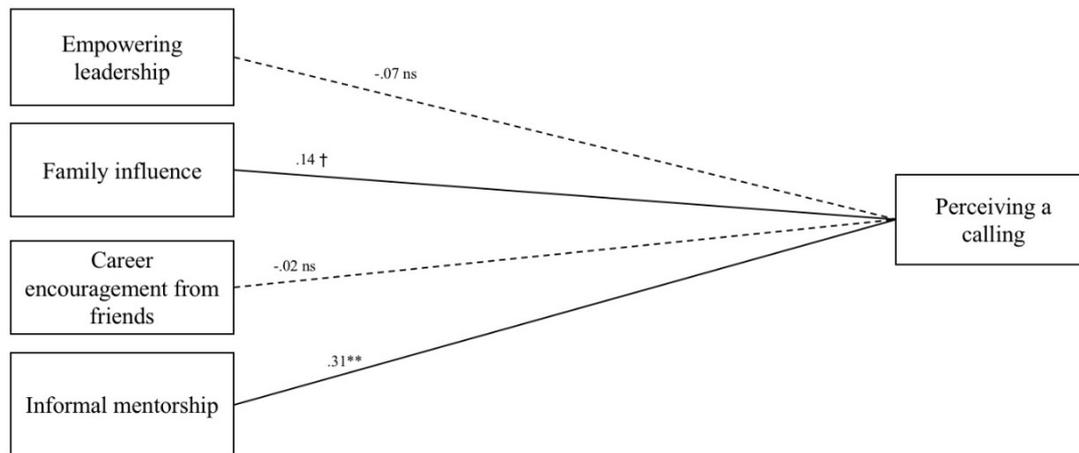
**Figure 6** Main effect model. † *p* < .10; * *p* < .05; ** *p* < .01.

### 6.4.3.5 Results of indirect effect tests

The mediation effect results using the PROCESS macro of Model 4 with bootstrapping = 5,000 (Hayes, 2013) were summarized in Table 19. Hypothesis 11a proposes that reflective career competencies mediates the positive relationship between empowering leadership and perceiving a calling. Hypothesis 11b proposes that experienced responsibility for work outcomes mediates the positive relationship between empowering leadership and perceiving a calling. The results showed in Table 19 demonstrated that reflective career competencies did not mediate the relationship between empowering leadership and perceiving a calling (indirect effect = 0.40, 95% BC CI = [-.0320, .1153]), whereas experienced responsibility for work outcomes mediated the relationship between empowering leadership and perceiving a calling (indirect effect = .014, 95% BC CI = [.0001, .0385]). Thus, Hypothesis 11a was not supported, but Hypothesis 11b was supported.

Hypothesis 12a proposes that reflective career competencies mediates the positive relationship between family influence and perceiving a calling. Hypothesis 12b proposes that experienced responsibility for work outcomes mediates the positive relationship between family influence and perceiving a calling. The results showed that reflective career competencies mediated the relationship between family influence and perceiving a calling

(indirect effect = .114, 95% BC CI = [.0405, .1954]), whereas experienced responsibility for work outcomes did not mediate the relationship between family influence and perceiving a calling (indirect effect = .009, 95% BC CI = [-.0067, .0369]). Hence, Hypothesis 12a was supported, but Hypothesis 12b was not.

Hypothesis 13a proposes that reflective career competencies mediates the positive relationship between career encouragements from friends and perceiving a calling. Hypothesis 13b proposes that experienced responsibility for work outcomes mediates the positive relationship between career encouragement from friends and perceiving a calling. The results displayed in Table 19 indicated that reflective career competencies (indirect effect = .024, 95% BC CI = [-.0373, .0870]) and experienced responsibility for work outcomes (indirect effect = -.001, 95% BC CI = [-.0159, .0128]) did not mediate the relationship between career encouragement from friends and perceiving a calling. Therefore, Hypothesis 13a and Hypothesis 13b were not supported.

Hypothesis 14a proposes that reflective career competencies mediates the positive relationship between informal mentorship and perceiving a calling. Hypothesis 14b proposes that experienced responsibility for work outcomes mediates the positive relationship between informal mentorship and perceiving a calling. The results reported in Table 19 showed that reflective career competencies (indirect effect = 0.135, 95% BC CI = [.0230, .2609]) and experienced responsibility for work outcomes (indirect effect = 0.027, 95% BC CI = [.0013, .0687]) mediated the relationship between informal mentorship and perceiving a calling. Thus, Hypothesis 14a and Hypothesis 14b were supported.

**Table 19.** Results of mediation effect test

| Indirect effect | Estimate | SE | 95% CI | |
|---|---|---|---|---|
| | | | Lower | Upper |
| Empowering leadership → Reflective career competencies → Perceiving a calling | .040 | .038 | -.0320 | .1153 |
| Empowering leadership → Experienced responsibility for work outcomes → Perceiving a calling | .014 | .001 | .0001 | .0385 |
| Family influence → Reflective career competencies → Perceiving a calling | .114 | .040 | .0405 | .1954 |
| Family influence → Experienced responsibility for work outcomes → Perceiving a calling | .009 | .011 | -.0067 | .0369 |
| Career encouragement from friends → Reflective career competencies → Perceiving a calling | .024 | .032 | -.0373 | .0870 |
| Career encouragement from friends → Experienced responsibility for work outcomes → Perceiving a calling | -.001 | .007 | -.0159 | .0128 |
| Informal mentorship → Reflective career competencies → Perceiving a calling | .135 | .062 | .0230 | .2609 |
| Informal mentorship → Experienced responsibility for work outcomes → Perceiving a calling | .027 | .0171 | .0013 | .0687 |

*Note*: $N = 266$. SE= Standard error. CI = Confidence interval.
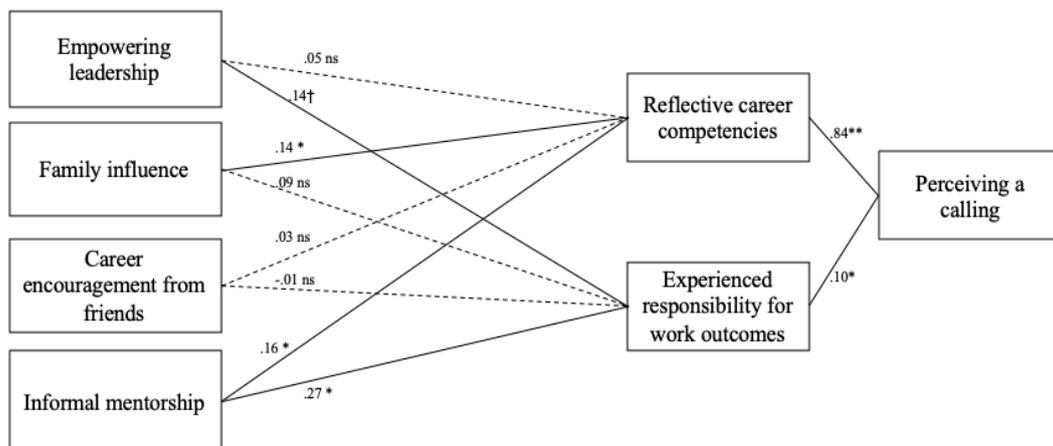
**Figure 7** Mediation effect model. † *p* < .10; * *p* < .05; ** *p* < .01.

Overall, the author proposed 22 hypotheses in this study, and the results were concluded in Table 20. Hypothesis 2, 4, 5b, 6a, 8a, 8b, 9, 10, 11b, 12a, 14a and 14b were supported, but Hypothesis 1, 3, 5a, 6b, 7a, 7b, 11a, 12b, 13a and 13b were not.

**Table 20** Results of hypotheses of Study 3

| Hypotheses | Testing results |
|---|---|
| H1: Empowering leadership is positively related to the perceiving a calling. | × |
| H2: Family influence is positively related to the perceiving a calling. | √[a] |
| H3: Career encouragement from friends is positively related to the perceiving a calling. | × |
| H4: Informal mentorship is positively related to the perceiving a calling. | √ |
| H5a: Empowering leadership is positively related to reflective career competencies. | × |
| H5b: Empowering leadership is positively related to experienced responsibility for work outcomes. | √[a] |
| H6a: Family influence is positively related to reflective career competencies. | √ |
| H6b: Family influence is positively related to experienced responsibility for work outcomes. | × |
| H7a: Career encouragement from friends is positively related to reflective career competencies. | × |
| H7b: Career encouragement from friends is positively related to experienced responsibility for work outcomes. | × |
| H8a: Informal mentorship is positively related to reflective career competencies. | √ |
| H8b: Informal mentorship is positively related to experienced responsibility for work outcomes. | √ |
| H9: Reflective career competencies is positively related to perceiving a calling. | √ |
| H10: Experienced responsibility for work outcomes is positively related to perceiving a calling. | √ |
| H11a: The positive relationship between empowering leadership and perceiving a calling is mediated by reflective career competencies. | × |
| H11b: The positive relationship between empowering leadership and perceiving a calling is mediated by experienced responsibility for work outcomes. | √ |
| H12a: The positive relationship between family influence and perceiving a calling is mediated by reflective career competencies. | √ |
| H12b: The positive relationship between family influence and perceiving a calling is mediated by experienced responsibility for work outcomes. | × |
| H13a: The positive relationship between career encouragement from friends and perceiving a calling is mediated by reflective career competencies. | × |
| H13b: The positive relationship between career encouragement from friends and perceiving a calling is mediated by experienced responsibility for work outcomes. | × |
| H14a: The positive relationship between informal mentorship and perceiving a calling is mediated by reflective career competencies. | √ |
| H14b: The positive relationship between informal mentorship and perceiving a calling is mediated by experienced responsibility for work outcomes. | √ |

Note: √ = supported. √a = supported at 90% significance level. × = not supported.

**6.5 Discussion and Conclusion of Study 3**

Using data from 266 Chinese full-time working adults with different occupations from various industries, this study examined the direct and indirect effects of the four social factors identified in prior qualitative study (Study 2). Study 3 provided empirical evidence to show the importance of social actors and their interpersonal influence on the discernment of one's calling. Specifically, Study 3 found that family influence and informal mentorship has direct significant influence on perceiving a calling. Empowering leadership has a significant positive effect on perceiving a calling through experienced responsibility for work outcomes; family influence has a significant positive effect on perceiving a calling through reflective career competencies; informal mentorship has significant positive relationships with perceiving a calling through reflective career competencies and experienced responsibility for work outcomes.

These empirical findings not only supported many of the qualitative results in Study 2 but also highlighted the importance of adopting a social influence perspective to study the antecedents of perceiving a calling. Moreover, the findings of this study emphasized the crucial roles of reflective career competencies and experienced responsibility in transmitting and underpinning the positive influence of different key social actors (i.e. leader, family member and mentor) on people's calling perceptions. By unfolding the functional processes by which the four interpersonal factors affect perceiving a calling, Study 3 clearly depicted how perceiving a calling is affected, developed and enhanced through interpersonal influence from different key social actors. This study provided strong support to the emerging perspective that calling is not inherently discerned and is not only determined by those stable, unchangeable personalities, values and beliefs but can be significantly shaped by one's social environment. Therefore, research should focus on socially embedded, under-examined antecedent factors instead of on previously widely personal predictors of perceiving a calling. Doing so helps deepen and extend the knowledge about how to promote the discernment or development of one's calling.

Unexpectedly, when simultaneously examining the effects of the four social-related actors, the empirical study failed to find the proposed positive relationships of reflective career

competencies with empowering leadership and career encouragement from friends as well as the proposed positive relationships of experienced responsibility for work outcomes with family influence and career encouragement from friends. Interestingly, when independently testing the effect of each of the four interpersonal factors, these non-significant relationships became significant. These findings suggest that each predictive interpersonal factor has independent significant influence on helping people obtain clear understanding of their career-related competences and perceive responsibility for their work outcomes. However, the effects from leader, family, friends and mentor may compete and constrain one another, thereby making the relative effects of the four interpersonal actors differ in predicting reflective career competencies and experienced responsibility for work outcomes. Moreover, reflective career competencies and experienced responsibility for work outcomes can respectively fulfil the inner and outer requiredness of calling and consequently promote the discernment of calling. The inner requiredness process to calling may be associated more with the influence of one's family and informal mentor, whereas the outer requiredness process to calling may be associated more with the influence of one's leader and informal mentor. Furthermore, career encouragement from friends cannot exert significant influence on either the inner or the outer requiredness process to calling.

Possible explanations to the above unexpected non-significant findings are as follows. Firstly, leader behaviours expressed to subordinates are primarily based on the formal employment contract and the legitimate employer–employee relationship, so subordinates inherently perceive an extrinsic obligation to perform well at work. By contrast, reflection on career denotes an inner, intrinsic motivational process by which people spontaneously or proactively reflect on their personal motivations and qualifications. Therefore, leader behaviours may be more influential to the outer requiredness process (i.e. experienced responsibility for work outcomes) and less influential to the inner requiredness process (i.e. reflective career competencies). Secondly, family members know more about the person than the person's job in the workplace. People may share and communicate with their family more about their personal problems and life experiences rather than their job and work experiences.

Working adults sometimes are less willing to be influenced or controlled by their families in choosing what kind of job to do and determining how to do the work, especially for those who have their own opinions and ideas towards work. Hence, family influence may be less influential to people's felt job responsibility. Lastly, among the four social-related actors, the influence from friends (i.e. career encouragement from friends) may have the weakest influence to people's awareness of their career competencies and perceptions of work responsibility because friends, unlike leaders and mentors at work context, have few direct work connections and play a less important role, compared with the role of family, in one's career decision making. This non-significant finding implies that people's friends are relatively less important persons, compared with their family members, leaders and informal mentors, who can significantly affect the discernment and development of their perceptions of calling at work.

The core focus of this thesis is to examine the relationships between interpersonal antecedent factors and perceiving a calling. Study 3 was conducted to empirically test such relationships. The findings on the relative importance of different interpersonal factors in predicting perceiving a calling can provide novel and meaningful insights. However, investigating the relative predictive power of different interpersonal factors is not the primary focus in this thesis. The findings of Study 3 demonstrated that each of the four interpersonal factors can significantly predict perceiving a calling as long as they are inputted into the regression model one by one independently. Although some interpersonal factors are relatively less functional to shape one's calling perceptions compared with other interpersonal factors, they still have important, meaningful and distinct implications for the discernment and development of one's calling. Only when simultaneously considering the influence from many different interpersonal factors (i.e. the influence from leaders, families, informal mentors and friends) should people think and judge which kind of influence is most effective and helpful for them to discern, develop, and maintain their calling at work.

## Chapter 7: General Discussion

This thesis conducted two qualitative studies and one quantitative study to examine the antecedents of perceiving a calling from a social influence perspective. Four interpersonal antecedent factors were identified in this thesis: empowering leadership, family influence, career encouragement from friends and informal mentorship. This research built on social information processing theory to investigate the mediating roles of reflective career competencies and experienced responsibility for work outcomes in explaining the effects of the four interpersonal factors on perceiving a calling. This chapter mainly introduces the overall research findings, contributions and limitations of this thesis and future research directions.

### 7.1 Overall Research Findings

This research addressed three specific research questions through two qualitative studies (Study 1 and Study 2) and one quantitative study (Study 3). The findings of each studies are presented below.

Study 1, as an exploratory qualitative study, addressed the first research question of this thesis: What are the general factors that drive people to perceive their work as a calling and whether the perspective of social influence exists in the antecedents of perceiving a calling? Through 23 open-ended in-depth interviews, seven major themes were generated in Study 1: proactive personality, feedback, family influence, past significance experience, empowering leadership, informal mentorship and person–job fit. Study 1 found that the above seven factors are generally thought to be the key factors that can significantly affect people to perceive their work as calling. Moreover, some of these factors reflect that the interpersonal influence of certain important persons (e.g. leaders and families) can have great impact on the discernment of one's calling, supporting a potential social influence perspective on the antecedents of calling.

Study 2, as a confirmatory qualitative study, addressed the second research question of this thesis: If social influence factors exist, what are the specific interpersonal factors that shape people's calling perceptions at work? Different from Study 1 which aimed to examine antecedents that are generally thought to be important in predicting one's calling; Study 2 went

beyond the findings of Study 1 by further conducting 26 semi-structured in-depth interviews to reveal the specific interpersonal antecedents of calling from a social influence perspective. Four specific interpersonal factors were identified in Study 2, namely, empowering leadership, family influence, career encouragement from friends and informal mentorship.

Study 3, as an empirical study, addressed the third research question of this thesis: What are the empirical relationships and mediated mechanisms between interpersonal factors and perceiving a calling? Basing on the findings of Study 2 and using the sample of 266 Chinese full-time working adults with different occupations from various industries, Study 3 empirically examined the relationships between four social factors identified in Study 2 and perceiving a calling and unfolded the mediating mechanisms that explain how the four interpersonal factors influence perceiving a calling. Study 3 proposed 22 hypotheses, and 12 hypotheses of them were supported (as shown in Table 20 in Chapter 6).

Overall, by adopting a mixed methodology and conducting two qualitative studies and one quantitative study, this thesis addressed the three key research questions in significant ways. The findings of these three studies not only identified seven general antecedents of perceiving a calling but also specified four interpersonal factors that can greatly affect one's calling and empirically examined the underlying mechanisms of such effects. This thesis and corresponding findings provide novel, important theoretical insights for calling studies and offer meaningful practical guidance for organisations. In the following sections, the theoretical and practical implications, limitations and future directions of this thesis are discussed in detail.

## 7.2 Theoretical Contribution

This research has three overall theoretical contributions. Firstly, this research extended previous studies on antecedents of perceiving a calling and brought in a social influence perspective to specifically investigate the effect of different interpersonal factors on the discernment of one's calling. Several famous calling experts such as Duffy and Thompson long suggested future research to explore the antecedents of perceiving a calling for the purpose of enriching our knowledge about how calling perceptions are discerned. Pratt and Ashforth (2003) also stated that career calling can be driven by personal and social influence. To address this

gap, emerging studies have started to test potential antecedents of calling. However, more comprehensive understanding and empirical evidence about what factors may drive people to perceive their work as a calling are lacking. Previous studies have mainly focused on the personal factors such as personalities (Bloom et al., 2020), personal growth and religiousness (Bott & Duffy, 2015), personal ability (Dobrow, 2013) or other stable individual traits (Rosa et al., 2019). They have ignored the effect of social environments and interpersonal interactions on perceiving a calling. This research replicated the findings of previous studies suggesting that personal factors can affect perceiving a calling. It also went beyond previous findings by showing that people's calling at work is not dominantly determined by their inherent characteristics but can be significantly shaped by their social interaction with their surrounding environments. Moreover, this research explored specific interpersonal factors that promote the discernment of one's calling at work, adding to the emerging studies and recent research momentum on examining the antecedents of calling.

Through two qualitative studies (Study 1 and Study 2) and quantitative study (Study 3), two groups of antecedents of perceiving a calling were generated. One group was named *personal factors*, and it included proactive personality, past significant experience and person–job fit. Another group was named *interpersonal factors*, and it included empowering leadership, family influence, feedback, career encouragement from friends and informal mentorship. The following paragraphs discuss how the findings related to these two groups of antecedents of calling echo previous research findings and enrich knowledge of how calling is discerned at work.

For *personal factors*, the findings of the current research are quite consistent with those of previous research. Regarding the role of *proactive personality*, previous findings have highlighted the predictive power of proactive personality in producing positive career outcomes such as subjective success or satisfaction with one's career (Fuller Jr & Marler, 2009). Similarly, the finding of this research proves that a stable disposition to change environment (i.e. proactive personality) is conducive for the discernment and development of perceptions of calling in one's work environment. Regarding the role of *past significant experience*,

supportive evidence for its effect on calling exists. For example, Rosa et al. (2019) found that a chance and coincidence make people to do their work thereby predicting a calling, which is quite similar to the finding of this research on past significant experience. Different from their study, this research further found that challenging job experience can also help people to discern their calling because it promotes people to think about their work meaning and purpose. Although past studies have somewhat indicated that critical events that happened in one's life domain (e.g. family changes) are associated with their calling, this research highlighted that these critical moments or events happened in the workplace are meaningful for the development of people's calling at work. Regarding the role of *person–job fit*, Duffy and his colleagues revealed that perceiving a calling leads to the feeling of fitting in with the environment (Duffy et al., 2018). Interestingly, this research conversely found that people perceive their work as a calling when people feel they fit in with their jobs. The relationship between person–job fit or person–environment fit and perceiving a calling may be much more complicated than expected, suggesting future studies to explore the causality between person–job fit and perceiving a calling.

For *interpersonal factors*, although a few studies have proposed the important effects of social influence on calling, such as social comfort (Dobrow, 2013) and the presence of a supportive social environment (Rosa et al., 2019). However, this research provided a novel research perspective—social influence perspective—and systematically integrated the social support from leader, family, friends and mentors. This thesis provided a more complete understanding on predictors of calling at work and further identified which social influence factor is stronger for the discernment of calling. Doing so helps enrich understanding of the impact of different sources of social influence on calling.

Regarding the role of *empowering leadership*, Esteves et al. (2018) indicated that leadership may have a great impact on people's calling. However, they simultaneously considered the influence of many types of leadership such as transformational leadership, transactional leadership and directive leadership in a regression model. The unique effect of empowering leadership thus was occupied and weakened by the influence of other forms of

leadership. Xie et al. (2019) also noticed the role of supervisors' calling in shaping their subordinates' calling at work. Although they noted the importance of leader in affecting subordinates' calling, they did not specify what leadership behaviours of the leader are important to followers' discernment of calling at work. The findings of this theses emphasized that granting work-related power, autonomy, meaning and responsibility to subordinates (i.e. demonstrating empowering leadership behaviours) is beneficial for facilitating the discernment of their calling at work.

Regarding the role of *family influence*, this research supported past studies that explored the relationship between family influence and career development. Bott et al. (2017) indicated that personal career choices are influenced by family members. Parents' career beliefs and work attitudes also influence their children's future career choices (Bryant et al., 2006). Fouad et al. (2010) found the family expectation significantly influences one's career decisions. Similarly, Tang et al. (1999) highlighted the effect of family background (e.g. parental professions, skills), family expectations and obligations on people's career choices. The current research not only provided empirical support to the findings of previous studies but also revealed that the financial and informational support from family (e.g. communication about career and professional advice) had an equally powerful role in influencing one's career calling. Moreover, different from the study of Zhang et al. (2015) which demonstrated that family expectations and mission are a part of one's calling, this research showed that family influence is a significantly independent predictor of one's calling.

Regarding the roles of *feedback* and *career encouragement from friends*, the qualitative studies of this thesis found that receiving positive feedback from others and inspiring encouragement from friends are helpful for people to discern and construe their calling. The quantitative study of this thesis (Study 3) found a non-significant relationship between career encouragement from friends and perceiving a calling when simultaneously considering the effects of other three interpersonal factors (i.e. empowering leadership, family influence, and informal mentorship). Nevertheless, the supplementary analysis of Study 3 revealed a significant, positive relationship between the two when removing the confounding influence

of other three interpersonal factors and only considering the independent influence of career encouragement from friends. These results somewhat suggest a statistically positive effect of career encouragement on calling, but such an effect is relatively less salient in statistics than the effects of other interpersonal factors identified in this thesis.

Regarding the role of *informal mentorship*, this research provides supportive evidence to the findings of Ensher and Ehrhardt (2020) and Cai et al. (2021). These studies emphasized that having a mentor is important to enhance career calling. By contrast, this research further introduced the critical role of informal mentors in promoting the discernment of one's calling. In addition, Rosa et al. (2019) suggested that the development of calling is facilitated by the presence of influence by significant people, such as friends and other important persons. People can talk about their problems with these persons and seek for support from them when facing career obstacles. The findings of this thesis on the role of informal mentorship in enhancing calling actually supported the statement of Rosa et al.

Secondly, in addition to examining the direct influence of interpersonal factors to one's calling, this research unfolded the underlying mechanisms through which these interpersonal factors affect perceiving a calling. Identifying these mediated functioning processes is theoretically important because doing so helps understand how one's calling is specifically developed and discerned through the influence of social actors. The development of one's calling involves a long and complex process by which people adjust and regulate their attitudes, cognition and motivations towards work in response to the events and influence from their social environment. Social factors may affect one's calling by shaping their psychological, attitudinal and motivational states, indicating the potentially indirect effects of interpersonal factors on perceiving a calling. Interestingly, the empirical findings of this research showed that not all interpersonal factors have direct significant influence on one's calling. Empowering leadership and career encouragement have no significant direct impact on perceiving a calling. Instead, some interpersonal factors indirectly affect perceiving a calling through certain mediated social influence processes.

Based on social information processing theory (Salancik & Pfeffer, 1978), this research

identified reflective career competencies as the facilitator of the inner requiredness of calling and experienced responsibility for work outcomes as the facilitator of the outer requiredness of calling that can transmit the effects of interpersonal factors on perceiving a calling. According to social information processing theory (Salancik & Pfeffer, 1978), by processing key information delivered from other important persons (i.e. leaders, families, friends and mentors), people develop a clear understanding about their career-related qualifications (i.e. reflective career competencies) and gain a strong sense of responsibility of their work (i.e. experienced responsibility for work outcomes). Such self-awareness and perceived work responsibility respectively fulfil the inner and outer requiredness of calling and thereby promote the discernment of people's calling, inspiring them to perceive their work as a calling. From the theoretical perspective of social information processing, empowering leadership, family influence, career encouragement from friends and informal mentorship indirectly prompt perceiving a calling through reflective career competencies and experienced responsibility for work outcomes. Partially supporting the above speculations, the empirical results of this research revealed that empowering leadership has an indirect effect on perceiving a calling through experienced responsibility for work outcomes, family influence has an indirect effect on perceiving a calling through reflective career competencies and informal mentorship has an indirect effect on perceiving a calling through reflective career competencies and experienced responsibility for work outcomes. Although some studies have examined the effects of certain interpersonal factors on one's calling, they have rarely investigated the processes by which or how these social factors specifically function to influence one's perceptions of calling. By untangling these important mediation processes, this research largely enriches the understanding about the detailed social influence processes which clearly explain how perceiving a calling is socially or interpersonally discerned and developed.

Moreover, this research echoes the calling conceptualizing view (Thompson & Bunderson, 2019) which suggests that calling can be discerned by meeting the inner or outer requiredness. Importantly, the current research sheds new light on the unique source of social influence that can activate and fulfil the inner or outer requiredness. Past research has seldom differentiated

which type of social influence is more or less relevant to the inner or outer requiredness, limiting the knowledge on the differed roles of inner and outer requiredness in explaining the effects of social environment on perceiving a calling. In particular, this research finds that empowering leadership has a stronger and more salient relationship with the outer requiredness (i.e. experienced responsibility for work outcomes). By contrast, family influence is more associated with the inner requiredness (i.e. reflective career competencies). Interestingly, informal mentorship can fulfil the inner and outer requiredness of calling. However, career encouragement from friends cannot significantly shape the inner or outer requiredness. These findings suggest that although different interpersonal factors may have important effects on one's calling, these effects are mediated and transmitted through different processes of inner and outer requiredness.

Finally, this research extends work as a calling theory by comprehensively revealing the antecedents of perceiving a calling. This theory has been widely used to explain why perceiving a calling have important influence on people's work, career and life outcomes, which has made great contributions to the development of research on the field of calling. However, this theory only focuses on the outcomes or consequences of perceiving a calling and fails to explain how and why people tend to perceive their work as a calling. Given that perceiving a calling can predict many desirable personal and organisational outcomes, examining the antecedents of perceiving a calling is crucial for individuals and organisations. The traditional work as a calling theory cannot answer the above important theoretical questions, thus warranting further investigations on the determinants that help people discern their calling. By bringing in a social influence perspective and revealing four distinct interpersonal antecedent factors, this research extends work as a calling theory and reorients scholarly attention to the antecedents of perceiving a calling. Moreover, the current research broadens the understanding about who are the significant social actors who can affect one's calling, what kind of social influence these actors has on calling and how do these different social factors function to affect perceiving a calling. Therefore, this research complements work as a calling theory to provide a more complete picture about the antecedents and consequences of perceiving a calling, creating more

holistic understanding of how calling perceptions are discerned and how such perceptions influence people in significant ways.

## 7.3 Practical Implications

This research generates several significant practical implications. Firstly, through three studies, this research revealed that calling is not merely determined by personal factors. Instead, interpersonal factors can critically promote the discernment of calling. Besides recruiting and selecting employees who have already discerned their calling, organisations can take actions to help employees with unanswered calling to discern their calling at work. Therefore, organisational managers should believe that calling is not inherently determined by personal factors but can be developed through the functions of social influence from one's social environments. Such belief is important because it relates to how organisational managers can efficiently allocate resources in personnel selection, employee development and talent management. All of which are key to accumulating human resource capitals and contributing to the organisation's effective human resource management activities.

Secondly, this research demonstrated that calling can be discerned through the direct social influence from significant persons. Specifically, this research found a direct positive relationship of family influence and informal mentorship with perceiving a calling. As suggested by such empirical finding, people should learn to seek financial and informational support from their families and view family expectations in constructive ways. These supports and expectations from family can help people discern their calling at work. Organisations are encouraged to create opportunities for junior workers to learn from senior workers and actively facilitate informal mentorship relationships between them. This is because protégés often view informal mentors as role models who they actively learn from to increase their career-related professional expertise. Accurately and effectively assigning a formal mentor to an employee is often difficult for organisations. Given that informal mentorship is beneficial for the discernment and development of one's calling, organisations can also choose to initiate informal mentorship programs that allow more automatically developed mentorship relationships to emerge and develop. For example, organisations can encourage newcomers to

choose a seminar to establish an informal mentorship not only to provide support with job skills and career advancement but also to increase the psychosocial communication between mentor and mentee. This strategy can help employees to build work meaning and life goals.

Moreover, the two qualitative studies (Study 1 and Study 2) found empowering leadership as a key antecedent of perceiving a calling and the quantitative study (Study 3) found that empowering leadership has an indirect positive influence on perceiving a calling. These findings recommend organisations to actively initiate leadership training programs that teach leaders how to effectively empower their subordinates. To promote an empowering leadership style among organisational leaders, organisational top managers can create an empowerment climate in the workplace or directly demonstrate empowering leadership behaviours. Both can stimulate frontline leaders to learn how to exhibit empowering leadership to their subordinates. In addition, the qualitative Study 2 revealed career encouragement from friends as a potential facilitative factor that contributes to the discernment of calling. Accordingly, organisations can support employees to establish friendship between co-workers and encourage them to provide positive, beneficial feedback to their colleagues for their excellent work or contributions.

Thirdly, this research proves that reflective career competencies and experienced responsibility for work outcomes are key mechanisms that explain the specific social influence of interpersonal factors on perceiving a calling. Such a finding emphasizes that self-awareness of career-related competencies and perceptions of work responsibility are crucial facilitators that contribute to the discernment of calling. As a result, organisations should help employees to establish clear understanding of both themselves and their work. To do so, organisations first need to provide more detailed, informative feedback to employees. For example, leaders should give subordinates more specific evaluations on their career-related competencies, recognize and acknowledge their career-related motivations at work and facilitate more self-reflective activities among subordinates, thereby promoting self-clarify on their own reflective career competencies. In addition, organisations, particularly frontline leaders, should actively express the meaning, purposes and significance of work in the team, making employees realize how important and meaningful their work is. Moreover, leaders are encouraged to grant job

autonomy, confidence, and other job-related resources to followers. By doing so, employees can perceive a salient self-determination power in deciding how their work is done, feeling high accountability for their work outcomes. Such a perception can ultimately boost the discernment and development of calling at work.

Finally, the findings of this research provide useful implications for individuals who strive to discern their calling at work. Overall, individuals who want to perceive a calling and is searching for a calling at work can proactively understand what the calling is and eagerly seek career-related help from leaders with empowering leadership, ask for informational and financial support from family members, receive positive encouragement from friends and actively keep the high-quality informal mentorship with someone you respect. Simply put, individuals are encouraged to discern their calling with the help and support from other significant persons who are important to them (Ahn et al., 2017).

## 7.4 Limitations and Further Recommendations

First, the survey data of Study 2 were collected from the same source, so this thesis may face a CMV issue. To constructively address this issue, this thesis gave respondents specific information about the steps taken to ensure their confidentiality, which reduced socially desirable responding. Moreover, many of the variables of the conceptual model reflected individuals' cognitions and attitudes—constructs that are appropriately measured using self-reported data (Conway & Lance, 2010). In Study 3, this thesis empirically examined if CMV is indeed a serious concern using different statistical methods. The results demonstrated that the data and findings in Study 3 were not significantly threatened by the potential CMV issue. Although this thesis had taken multiple methods to prove that CMV was not a serious threat, future studies can collect data from different sources in different waves to further avoid this issue. Researchers can consider using other-reported calling, and the interval between each round of data collection can be adjusted to three or six months. It is difficult for calling to change significantly in a short period (1 month), so the interval at which the data are collected is more effective in capturing calling changes.

Second, the quantitative study used cross-sectional data, and it was not longitudinal in nature. As such, Study 3 did not help in establishing causal relationships between variables, leaving a gap unexplored. It is possible for variables to be causal to each other. For example, this research explored how four sources of social influence affect calling, but calling may in turn affect these sources of social influence. To test the causal impact of antecedents on calling more precisely, future studies can consider research designs such as cross-lagged, longitudinal tracking and experiments. These research designs can help reveal causal relationships among variables. Future scholars are encouraged to replicate or extend the research findings through the above research design.

Third, although this thesis addressed whether the social influence perspective affects personal presence of calling at work and further uncovered the underlying mechanism through which the specific social-related actors affect one's calling, some hypotheses were not supported in the empirical study. For example, the career encouragement from friends, as an interpersonal factor, has no effect on the perceiving a calling. Despite reasonable explanations regarding this relationship, future research can explore it using different samples and other research designs. This research also acknowledged that additional mediators may link interpersonal factors and perceiving a calling. For example, in the data set, this research explored whether experienced responsibility for work outcomes mediates the connection between family influence and perceiving a calling, but it showed non-significant results. By contrast, the family influence can affect one's calling via reflective career competencies. Future research can examine additional mechanism that link different interpersonal factors and perceiving a calling at work, with a focus on other potential inner or outer motivational factors.

Fourth, this research only explored the predictors of perceiving a calling and mediation mechanism of linking predictors to perceiving a calling. This does not mean that this mechanism is valid in any situations or conditions because different scenarios may enhance or weaken the effect of the mediating mechanism, which in turn may moderate the effect of predictors on perceiving a calling. Thus, the boundary conditions under which this mediating mechanism is established should be explored. This research encourages future studies to pay

attention to the boundary condition of the predictors. Potential moderators can be personal traits that reflect people's tendency or disposition to be easily or hardly influenced by others, such as agreeableness, narcissism, and dominance. Moreover, as this research only examined the influence from four different types of social actors, namely leaders, families, mentors, and friends, future studies can further explore if and how the social influence from other persons (e.g., customers and subordinates) shapes one's perceptions of calling at work.

Fifth, in the quantitative Study 3, this thesis only used two items to measure perceiving a calling, which could lead to questions on the validity of such measures of calling. This thesis acknowledges that using a two-item scale to measure the important dependent variable (i.e., perceiving a calling) in this research might be theoretically less reasonable and statistically less convincing, and hence, the measures of this variable may serve as another limitation of this thesis. However, two-item scales are actually quite common in organizational research and other studies have indeed used the same two-item scale to measure perceiving a calling (e.g., Dik et al., 2012; Duffy & Autin, 2013; Duffy et al., 2012; Duffy et al., 2015). Moreover, the two-item calling scale has been shown to have favourable convergent and discriminant validity and has strong positive correlations with other measurement scales of calling (Dik et al., 2012). Of course, despite the above evidence supporting the use of the two-item calling scale, this thesis still recommends future studies to adopt other scales with more measurement items to measure calling to replicate the findings of this research. For example, future studies can use multi-dimensional scales identified in previous research to measure perceiving a calling. In the literature, some scholars have indeed developed other alternative multi-dimensional scales of calling. As several examples, Dik et al. (2012) developed the Calling and Vocation Questionnaire (CVQ) to measure three sub-dimensions of calling: transcendent summon, purposeful work, and prosocial orientation; Hagmaier and Abele (2012) developed the Multidimensional Calling Measure to measure three dimensions of calling: identification and P-E fit, transcendent guiding force, sense and meaning and value driven behaviour; Praskova et al. (2014) also developed a three-dimensional scale, the Career Calling Scale, which includes sub-measures of other-oriented meaning, personal meaning, and active engagement. Using

Chinese samples, Zhang et al. (2015) developed the Chinese Calling Scale to measure three dimensions of calling: altruism, guiding force, and meaning and purpose. These multi-dimensional scales are all potential choices that future studies can adopt to replicate and extend the findings of this research. In particular, considering the current research was conducted in the Chinese context, the Chinese Calling Scale (Zhang et al., 2015) might be especially useful in measuring the different dimensions of Chinese people's calling, which deserves particular focus in future investigations.

**7.5 Conclusion**

The findings from the three studies of this thesis make significant contributions to the body of knowledge in the calling literature by specifying the interpersonal antecedent factors of calling and identifying the manner in which these interpersonal factors affect people to perceive their work as a calling. Past studies have predominantly focused on how calling is discerned through the influence of personal factors that are relatively stable, inherent and unchangeable, such as values, religious beliefs, personalities and abilities. This stream of research believes that calling is intra-personally determined. Different from this perspective, the current research proposes that calling can be discerned through the influence of other significant persons in one's social environment, such as leaders, families, friends and mentors. Specifically, through two qualitative studies and one quantitative study, this thesis pinpointed that empowering leadership, family influence, career encouragement friends and informal mentorship can significantly shape the discernment and development of one's calling. Building on social information processing theory, the quantitative study of this thesis identified and empirically found that reflective career competencies and experienced responsibility for work outcomes are two main mediating mechanisms that account for why other persons and their interpersonal influence can significantly affect people's calling at work. This thesis thus extends knowledge of the specific processes through which social influence shapes one's calling at work. Taken together, the findings of this thesis greatly enrich the understanding of the antecedents of calling particularly by showing that calling can be interpersonally facilitated.

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# Appendices

## Appendix 1: Ethics Approval from the University of Nottingham, Ningbo China

Research Ethical Approval for qualitative studies

**The University of Nottingham**

UNITED KINGDOM · CHINA · MALAYSIA

## University of Nottingham Ningbo

### Research Ethics Checklist for Staff and Research Students

[strongly informed by the ESRC (2012) *Framework for Research Ethics*]

A checklist should be completed for **every** research project or thesis where the research involves the **participation of people, the use of secondary datasets or archives relating to people and/or access to field sites or animals**. It will be used to identify whether a full application for ethics approval needs to be submitted.
You must not begin data collection or approach potential research participants until you have completed this form, received ethical clearance, and submitted this form for retention with the appropriate administrative staff.

The principal investigator or, where the principal investigator is a student, the supervisor, is responsible for exercising appropriate professional judgement in this review.

Completing the form includes providing brief details about yourself and the research in Sections 1 and 2 and ticking some boxes in Sections 3 and/or 4, 5, 6. **Ticking a shaded box in Sections 3, 4, 5 or 6 requires further action by the researcher**. Two things need to be stressed:

- Ticking one or more shaded boxes does **not** mean that you cannot conduct your research as currently anticipated; however, it does mean that further questions will need to be asked and addressed, further discussions will need to take place, and alternatives may need to be considered or additional actions undertaken.

- Avoiding the shaded boxes does **not** mean that ethical considerations can subsequently be 'forgotten'; on the contrary, research ethics - for everyone and in every project – should involve an ongoing process of reflection and debate.

The following checklist is a starting point for an ongoing process of reflection about the ethical issues concerning your study.

Signature of Principal Investigator/Researcher: *Kunjing Li*

Signature of Supervisor (where appropriate): *Joon Park*
Date
7th November 2020

### Research Ethics Panel response

☒ the research can go ahead as planned

☐ further information is needed on the research protocol (see details below)

☐ amendments are requested to the research protocol (see details      below)

An exploratory study on the antecedent of calling and influencing factor on living a calling

School REO... *Jin Chen Yang Yang Jiang* ...... Date ...25/11/2020.......................

Research Ethical Approval for quantitative study

# University of Nottingham Ningbo

**Research Ethics Checklist for Staff and Research Students**

[strongly informed by the ESRC (2012) *Framework for Research Ethics*]

A checklist should be completed for **every** research project or thesis where the research involves the **participation of people**, **the use of secondary datasets or archives relating to people and/or access to field sites or animals**. It will be used to identify whether a full application for ethics approval needs to be submitted.

You must not begin data collection or approach potential research participants until you have completed this form, received ethical clearance, and submitted this form for retention with the appropriate administrative staff.

The principal investigator or, where the principal investigator is a student, the supervisor, is responsible for exercising appropriate professional judgement in this review.

Completing the form includes providing brief details about yourself and the research in Sections 1 and 2 and ticking some boxes in Sections 3 and/or 4, 5, 6. **Ticking a shaded box in Sections 3, 4, 5 or 6 requires further action by the researcher**. Two things need to be stressed:

- Ticking one or more shaded boxes does **not** mean that you cannot conduct your research as currently anticipated; however, it does mean that further questions will need to be asked and addressed, further discussions will need to take place, and alternatives may need to be considered or additional actions undertaken.

- Avoiding the shaded boxes does **not** mean that ethical considerations can subsequently be 'forgotten'; on the contrary, research ethics - for everyone and in every project – should involve an ongoing process of reflection and debate.

The following checklist is a starting point for an ongoing process of reflection about the ethical issues concerning your study.

Signature of Principal Investigator/Researcher:

Signature of Supervisor (where appropriate):

Date
15th April 2021

## Research Ethics Panel response

☒ the research can go ahead as planned

☐ further information is needed on the research protocol (see details below)

☐ amendments are requested to the research protocol (see details below)

> An exploratory study on the antecedent and underlying mechanism of perceiving a calling at work.

School REO… Jin Chen … Yang Yang Jiang     Date 20/04/2021……………

## Appendix 2: Participants' Information Sheet

Participant information sheet for qualitative studies

**Participant Information Sheet**

**Topic:** An exploratory study on the antecedent of calling and influencing factor on living a calling

Dear Participant,

Thank you for agreeing to participate in this questionnaire survey in connection with our study at the University of Nottingham Ningbo. We explore how people understand calling in the workplace, what influences perceiving and living a calling, and how people react in different career stages.

Your participation in the survey is voluntary. You are able to withdraw from the survey at any time and to request that the information you have provided is not used in the project. Any information provided will be confidential. Your identity will not be disclosed in any use of the information you have supplied during the survey.

The research project has been reviewed according to the ethical review processes in place in the University of Nottingham Ningbo. These processes are governed by the University's Code of Research Conduct and Research Ethics. Should you have any question now or in the future, please contact me or my supervisor. Should you have concerns related to my conduct of the survey or research ethics, please contact my supervisor or the University's Ethics Committee.

Yours truly,

Kunjing Li, Joon Park

Contact details:

Student Researcher:
Kunjing.Li, Kunjing.Li@nottingham.edu.cn;
Joon Hyung Park, joon.park@nottingham.edu

University Research Ethics Committee Coordinator, Ms Joanna Huang
(Joanna.Huang@nottingham.edu.cn)

Participant information sheet for quantitative study

**Participant Information Sheet**

The study on the antecedent of perceiving a calling at work from a social influence perspective

Dear Participant,

Thank you for agreeing to participate in this questionnaire survey in connection with my PhD dissertation at the University of Nottingham Ningbo. The project is a study of exploring the relationship between significant others and an individual's career calling from the perspective of social influence. For example, whether and how some factors related to family (family expectations, etc.) may influence individual's calling discernment at work.

Your participation in the survey is voluntary. You are able to withdraw from the survey at any time and to request that the information you have provided is not used in the project. Any information provided will be confidential. Your identity will not be disclosed in any use of the information you have supplied during the survey.

The research project has been reviewed according to the ethical review processes in place in the University of Nottingham Ningbo. These processes are governed by the University's Code of Research Conduct and Research Ethics. Should you have any question now or in the future, please contact me or my supervisor. Should you have concerns related to my conduct of the survey or research ethics, please contact my supervisor or the University's Ethics Committee.

Yours truly,

Kunjing LI

Contact details:

Student Researcher: Kunjing LI, Kunjing.Li@nottingham.edu.cn

Supervisor: Joon Hyung Park, Joon Hyung.Park@nottingham.edu.cn

University Research Ethics Committee Coordinator, Ms Joanna Huang

(Joanna.Huang@nottingham.edu.cn)

## Appendix 3: Participant Consent Form

Participant consent form for qualitative studies

**PARTICIPANT CONSENT FORM**

**Project title** An exploratory study on the antecedent of calling and influencing factor on living a calling

**Researcher's name** Kunjing Li
**Supervisor's name** Joon Hyung Park

- I have read the Participant Information Sheet and the nature and purpose of the research project has been explained to me. I understand and agree to take part.

- I understand the purpose of the research project and my involvement in it.

- I understand that I may withdraw from the research project at any stage and that this will not affect my status now or in the future.

- I understand that while information gained during the study may be published, I will not be identified and my personal results will remain confidential.

- I understand that the interview/data collection.
  will be recorded/filmed.

- I understand that data will be stored in accordance with data protection laws.

- I understand that I may contact the researcher or supervisor if I require more information about the research, and that I may contact the Research Ethics Sub-Committee of the University of Nottingham, Ningbo if I wish to make a complaint related to my involvement in the research.

**Signed** ............................................. (participant)

**Print name** ................................. **Date** ........................................................

**Contact details**
Researcher: Kunjing LI and Kunjing.Li@nottingham.edu.cn
Supervisor: Joon Hyung Park and Joon.Park@nottingham.edu.cn
UNNC Research Ethics Sub-Committee Coordinator:
Joanna.Huang@nottingham.edu.cn

Participant consent form for quantitative study

## PARTICIPANT CONSENT FORM

**Project title**
The study on the antecedent of perceiving a calling at work from a social influence perspective

**Researcher's name** Kunjing Li

**Supervisor's name** Joon Hyung Park

- I have read the Participant Information Sheet and the nature and purpose of the research project has been explained to me. I understand and agree to take part.

- I understand the purpose of the research project and my involvement in it.

- I understand that I may withdraw from the research project at any stage and that this will not affect my status now or in the future.

- I understand that while information gained during the study may be published, I will not be identified and my personal results will remain confidential.

- I understand that the interview/data collection [*omit as appropriate*].
  will be recorded/filmed [*omit as appropriate*].

- I understand that data will be stored in accordance with data protection laws.

- I understand that I may contact the researcher or supervisor if I require more information about the research, and that I may contact the Research Ethics Sub-Committee of the University of Nottingham, Ningbo if I wish to make a complaint related to my involvement in the research.


**Signed** ………………………………………………………………… (Participant)


**Print name** ………………………………………………………… **Date** …………………………………


**Contact details**
Researcher: Kunjing.Li; Kunjing.LI@nottingham.edu.cn
Supervisor: Joon Hyung. Park; Joon Hyung. Park@nottingham.edu.cn

UNNC Research Ethics Sub-Committee Coordinator:

Joanna.Huang@nottingham.edu.cn