Professionalisation, Entrepreneurial Orientation and Employee Engagement in Family and Nonfamily Firms: A Study of Graduate Employees in Indonesia

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This thesis is the result of the author's original research. It has been composed by the author and has not been previously submitted for examination which has led to the award of a degree. Parts of this thesis have been presented and published elsewhere, as follow:

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Abstract

Employee engagement is essential for both employee and business outcomes. For example, research suggests that employee engagement can encourage employee retention and boost profitability. Recent trends, however, depict a decline in levels of employee engagement with differences further observed between family and nonfamily firms. Using a sample of 545 highly educated Indonesian employees, this thesis employs Structural Equation Modelling to examine the potential effects of firm professionalisation and Entrepreneurial Orientation (EO) factors on employee engagement in family and nonfamily firms.

This thesis finds that professionalisation and EO are not dichotomous, but may mutually promote employee engagement. Drawing on the Personal Engagement Concept (PEC) and Social Exchange Theory (SET), the study posits that professionalisation provides predictability, transparency and perceived justice to compensate for any uncertainty that may be attached to the entrepreneurial firm. Equally, entrepreneurial behaviour provides challenging and stimulating work to compensate for inflexibility that may be attached to the professionalised firm. These dynamics together enhance employee engagement.

The positive impact of professionalisation and EO factors on employee engagement is however lower in family firms. This may be due to the typical family firm behaviours, such as self-control, dual-roles, and altruism, that could interfere with formal business procedures and reduce employee perceptions of predictability, transparency and justice. In particular, family firm owners' dual roles may reduce employee involvement in decision-making processes, thereby discouraging employee creativity. To effectively encourage employee engagement, this thesis therefore proposes that both family and nonfamily firms should heed the various human resource aspects of professionalisation. For family firms, in particular, since natural nepotism and subjective decisions could undermine any formal authority bestowed upon employees in family firms, installing formal recruitment procedures, performance reviews, training, and performance-based pay is recommended as a more effective strategy to boost employee engagement.

Dedication

To my beloved wife, Lila Susanti, and blessed son, Bayusena Hartanto

For their endlessly love, sacrifice, and patience accompanying me down the long journey

To my visionary parents, Hari Bowo and Isti Suhartati

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1. Introduction

1.1 Background

Employees are essential to any firm, and their role as stakeholder impacts both employee and business outcomes. Specifically, employee engagement (EE) underpins a positive relationship with job performance, organisational citizenship behaviour, customer loyalty, firm productivity and therefore profit, yet has a negative relationship with employee turnover (Harter et al., 2002; Baumruk, 2004). Thus, studying employee engagement is practically and theoretically attractive (Saks, 2006; Shuck, 2011). Even business leaders and managers recognise the essential role that employee engagement plays in terms of organisational effectiveness and competitiveness (Welch, 2011). Furthermore, the declining trend of engaged employees today (Richman, 2006) increases the importance of studying employee engagement (Saks, 2006).

Previous studies on employee engagement identified employee personality, job characteristics and organisational aspects as the main antecedents of employee engagement (Wollard and Shuck, 2011; Rana et al., 2014; Saks and Gruman, 2014). These studies dedicated much attention to the impact that job characteristics and individual aspects of the employee have on engagement (Saks and Gruman, 2014). The organisational antecedents of employee engagement consist of the working life, leadership and management preferences (McBain, 2007). Among them, leadership style and the working life have attracted more constant attention (Truss et al., 2006; Wollard and Shuck, 2011; Saks and Gruman, 2014). Conversely, previous engagement studies have given less attention to management preference issues.

On the other hand, recent studies have identified professionalisation (e.g., Chang & Shim, 2014; Dekker, Lybaert, Steijvers et al., 2015; Lien & Li, 2013) and entrepreneurial orientation (EO) (e.g., Lumpkin & Dess, 1996, 2001; Rauch, Wiklund, Lumpkin et al., 2009; Wales, Patel, Parida et al., 2013) as the organisational variables having a significant impact on a firm's performance. However, these studies focused more on financial measures, although employee engagement, as argued above, is an important performance indicator as well. The above facts indicated a gap in recent literature concerning how firm

professionalisation and EO impact the important, yet overlooked, performance indicator that is employee engagement.

Both professionalisation and EO, as managerial preferences, may affect the psychological condition of employee engagement, although the precise impact of each may be different. For instance, the control system as a professionalisation factor may encourage certainty, transparency and perceived justice (Saks, 2006), leading to engagement (Kahn, 1990; Kahn, 1992). Innovativeness as an EO factor can stimulate personal growth, learning and development, leading to engagement (Bakker et al., 2007; Bakker and Demerouti, 2007), especially if the firm is willing to absorb any risk emanating from innovative activities and this may also lead to psychological safety.

According to its characteristics, each organisation needs to create unique strategies and methods to encourage employee engagement (Wollard and Shuck, 2011). This proposition indicates that an antecedent might affect employee engagement differently according to the organisation's aspects. Thus, examining the interaction effects of firm professionalisation and EO factors on employee engagement are plausible. It is reasonable to test the moderating effects of a firm's EO on the relationship of its professionalisation with employee engagement, as well as testing the moderating effects of firm's professionalisation on the relationship of the firm's EO with employee engagement.

For instance, human resource control as a firm's professionalisation factor may invoke some complexity when assessing entrepreneurial activities. In an entrepreneurial firm, there are many entrepreneurial activities (e.g., innovative projects, risky decision to capture uncertain opportunities) that can lead to firm performance increase. However, it is difficult to assess their contribution for the overall firm performance because the impacts of entrepreneurial behaviour are only visible in a long term and influenced by uncertainty of environmental factors. Moreover, as an entrepreneurial activity involves many employees, it is difficult to assess the exact contribution of any individual (employee) in that activity. Therefore, human resource control (e.g., assessment and rewarding system) may not correctly measure any individual entrepreneurial contribution. It is complicated and potentially cause disagreement between the employee and his superior (Jones and Butler, 1992). Consequently, human resource control may be more difficult to emerge employees' perceived justice and engagement in a highly entrepreneurial firm. On the other hand, as financial control tends to have a short-term orientation (Zahra et al., 2004), it can hinder

innovation (Dess et al., 2003). Consequently, innovativeness is less likely encourage engagement in high professionalised firms. Considering that previous studies mostly highlighted the interaction effects of job and employee aspects (Rana et al., 2014), this study has a chance to bridge the literature gap by examining the interaction effects of organisational aspects on employee engagement.

Furthermore, the influence of managerial preferences on employee engagement may be different according to family business status (i.e., family vs. nonfamily firms) because, traditionally, family firms experience more issues caused by owner self-controlled, owner-manager dual roles, and altruistic behaviour (Lubatkin et al., 2005). For instance, parental altruism may lead to unfairness by those owner-managers who are less willing to properly compensate or to promote talented nonfamily employees (Davis et al., 1997). In addition, the family firm owners-managers having their own self-control might easily fall into corruption and to shirking matters to satisfy their individual utility. These types of situation can cause other employees to withdraw their best efforts (Lubatkin et al., 2005), leading to employee disengagement. Conversely, other family firm characteristics may encourage employee engagement. For instance, family firm owners are more likely to accentuate the long-term benefits of all stakeholders, relying more on a personal approach, thus encouraging trust (Corbetta & Salvato, 2004a). In return, employees may offer their loyalty and high commitment for the sake of the organisation's goals (Siebels and zu Knyphausen-Aufseß, 2012), leading to employee engagement. Clearly, according to the typical characteristics of the family firm, professionalisation and EO as managerial preferences may produce different levels of employee engagement for both family and nonfamily firms.

Unfortunately, there were few studies comparing employee engagement in family and nonfamily firms. Moreover, previous studies on employee engagement did not specifically examine the relationship of professionalisation and EO as managerial preferences with employee engagement in the context of family firms. They only compared employee engagement level in family and nonfamily firms. For instance, Azoury et al. (2013) indicated a slightly higher engagement level of family firm's employees. They found that family firm's employees were 6.38% more engaged than nonfamily firm's employees. This gap represents an opportunity to bring the family firm context into the study of professionalisation, EO, and employee engagement, particularly when considering that professionalisation has been prescribed as a way to overcome family firm problems emanating from altruism and self-control behaviour (Dyer, 1989; Gnan and Songini, 2003; Fang et al., 2012; Stewart and Hitt,

2012). For instance, objectivity and rationality might reduce unfair decisions caused by asymmetric altruistic behaviour, thus encouraging perceived justice of nonfamily employees.

Current studies on employee engagement mostly used the Anglo-countries culture context (e.g., Haar & White, 2013; Kahn, 1990; Saks, 2006). However, employee outcomes and attitudes may not be independent from the cultural context (Saari and Judge, 2004). Some cultural dimension seemingly affects employee outcomes, either as the antecedent or moderator. For instance, power distance positively moderates the relationship between procedural justice with job satisfaction and organisational citizenship behaviour (OCB). Also, power distance negatively moderates the relationship between distributional justice with job satisfaction and OCB (Begley and Lee, 2002). In addition, collectivism positively relates to commitment and that relationship is even stronger in a more collectivist context (Felfe et al., 2008). Considering the existence of the positive relationship between engagement with OCB (Rich et al., 2010; Rurkkhum and Bartlett, 2012), job satisfaction (Harter et al., 2002), commitment (Jari J Hakanen et al., 2008), perceived procedural and distributive justice (Saks, 2006), it is plausible to suppose cultural contexts influence employee engagement. Therefore, exercising employee engagement concepts using cases from non-Anglo-countries cultural context is necessary to broaden the scope of the literature.

Indonesia, as a developing country, forming part of the Southern Asian cultural-cluster, may offer typical cases and opportunities in this regard. As a developing country, Indonesian annual GDP growth was relatively high, i.e., 5.52% on average during 2011 to 2015. It was about twice that of the average percentage of the world's annual GDP growth, i.e., 2.62% (WorldBank, 2016). Unfortunately, whilst enjoying high economic growth, Indonesia is also a country with high levels of corruption, along with business and regulation uncertainty (Kuncoro, 2006; Moccero, 2008; von Luebke, 2009). This political and economic uncertainty may push Indonesian employees to experience anxiety, less trust and more stress in their work life, leading to disengagement (Upson et al., 2007; Sonenshein and Dholakia, 2012; Ugwu et al., 2014). Therefore, professionalisation may have a positive impact on employee engagement when it brings with it transparency and certainty.

As eastern cultured people, Indonesians tend to accentuate the collective well-being to maintain harmony (Irawanto, 2009). In this way, Indonesian employees deeply consider other opinions when making decisions and taking action. Consequently, Indonesian employees may consider collective habits in professionalisation implementation. Also, living

in an undemocratic system for a hundred years under imperialism, colonialism and dictatorship, Indonesian people have only enjoyed 'true democracy' for less than 20 years. Therefore, Indonesian people are very familiar with unequal power distribution. In short, this study intends to examine the relationship of professionalisation, entrepreneurial orientation, and employee engagement in the family and nonfamily firms under high power distance and a collectivist environment.

1.2 Research Objectives and Scope

Building upon the backgrounds as presented in section 1.1, this research highlights gaps in the current literature and endeavours to bridge them in four ways. First, this research examines professionalisation and EO as potential organisational antecedents of employee engagement. Thus, it is expected to enrich previous studies which, for the most part, elaborate leadership styles and working life as the organisational antecedents of employee engagement (Truss et al., 2006; Wollard and Shuck, 2011; Saks and Gruman, 2014). Second, when earlier studies mostly put individual characteristics as the moderators on the relationship of employee engagement with its antecedent (Rana et al., 2014), this research investigates professionalisation and EO as the potential organisational moderators. Third, this research brings the family business context into the relationships of employee engagement, professionalisation and EO. Therefore, it compares those relationships between family and nonfamily firms or investigates the moderating effects of family business status. Finally, this research discusses the possible influences of Indonesian cultural context.

Therefore, the objective of this study is to investigate the relationship of employee engagement, professionalisation and EO in the Indonesian family and nonfamily firms. Studying those relationships, the aims of this research are to gain a robust understanding of the relationship between employee engagement, professionalisation and EO in the context of the family firm and to give practical contributions to family firm management. According to that research objective, this study tries to answer the following research questions, i.e.,

1. What are the impacts of professionalisation factors (authority decentralisation, financial and human resource control systems) on employee engagement?
    a) What are the moderating effects of the family business status (being family or nonfamily firms) on the relationship between professionalisation and employee

engagement?

b) What are the moderating effects of firm's EO levels on the relationship between professionalisation and employee engagement?

c) What are the joint moderating effects of family business status and EO on the relationship between professionalisation and employee engagement?

2. What are the impacts of entrepreneurial orientation factors (innovativeness, proactiveness and risk-taking) on employee engagement?

   a) What are the moderating effects of the family business status on the relationship between EO and employee engagement?

   b) What are the moderating effects of firm professionalisation level on the relationship between EO and employee engagement?

   c) What are the joint moderating effects of the family business status and professionalisation on the relationship between EO and employee engagement?

To conceptually explain the relationship between professionalisation factors, EO factors, family business status and employee engagement, this study employs several theories and perspectives to describe the variables being studied and to explain how those variables potentially being related. First, this research relies on Kahn's (1990) engagement conception and uses Buckingham and Coffman's (1999) employee engagement measures. Second, amongst several constructs of family firm professionalisation, this research only focuses on authority decentralisation and control systems (i.e., financial and human resource) (Dekker et al., 2012). Third, this research uses three established EO dimensions to measure a firm's entrepreneurial behaviour, i.e. innovation, proactiveness and risk-taking (Covin and Slevin, 1989). Fourth, this research uses a structure-based approach (Litz, 1995; Chua et al., 1999) to operationalise the family firm status. According to this approach, family firm is defined as a firm where ownership and managerial control are concentrated to some extent within a family (Litz, 1995, p.77). In short, this research examines the relationship of seven variables, i.e.,

1. Employee engagement

<u>Professionalisation factors, i.e.,</u>

2. Authority decentralisation

3. Financial control system
4. Human resource control system

EO factors, i.e.,

5. Innovativeness
6. Proactiveness
7. Risk-taking

There are three main employee engagement antecedents, i.e., individual characteristics, job characteristics and organisational aspects (Wollard and Shuck, 2011; Rana et al., 2014; Saks and Gruman, 2014). This study focuses on the organisational aspects, i.e., professionalisation and EO. Further, according to the professionalisation dimensions, this study only investigates the relationship of authority decentralisation and control systems (i.e., financial and human resource control system) with employee engagement. From the family business and EO research view, this study positions employee engagement as a firm's performance indicator. As discussed in the section 1.1, the firm's performance should not only cover shareholder values (e.g., financial aspects). Instead, it should also consider stakeholder values, such as employee engagement. Anticipating possible differences of professionalisation factors – employee engagement relationship for family and nonfamily firms as well as for low and high EO firms, this study puts the family business status and firm EO levels as moderators for that relationship. However, this study does not investigate the impact of individual characteristics.

Figure 1.1 presents the thesis scope within the overall model of employee engagement antecedents and outcomes (Rana et al., 2014). Among all possible employee engagement antecedents, this thesis only investigates the potential impacts of authority decentalisation and control system as the professionalisation aspects along with innovativeness, proactiveness, and risk-taking as the EO aspects.

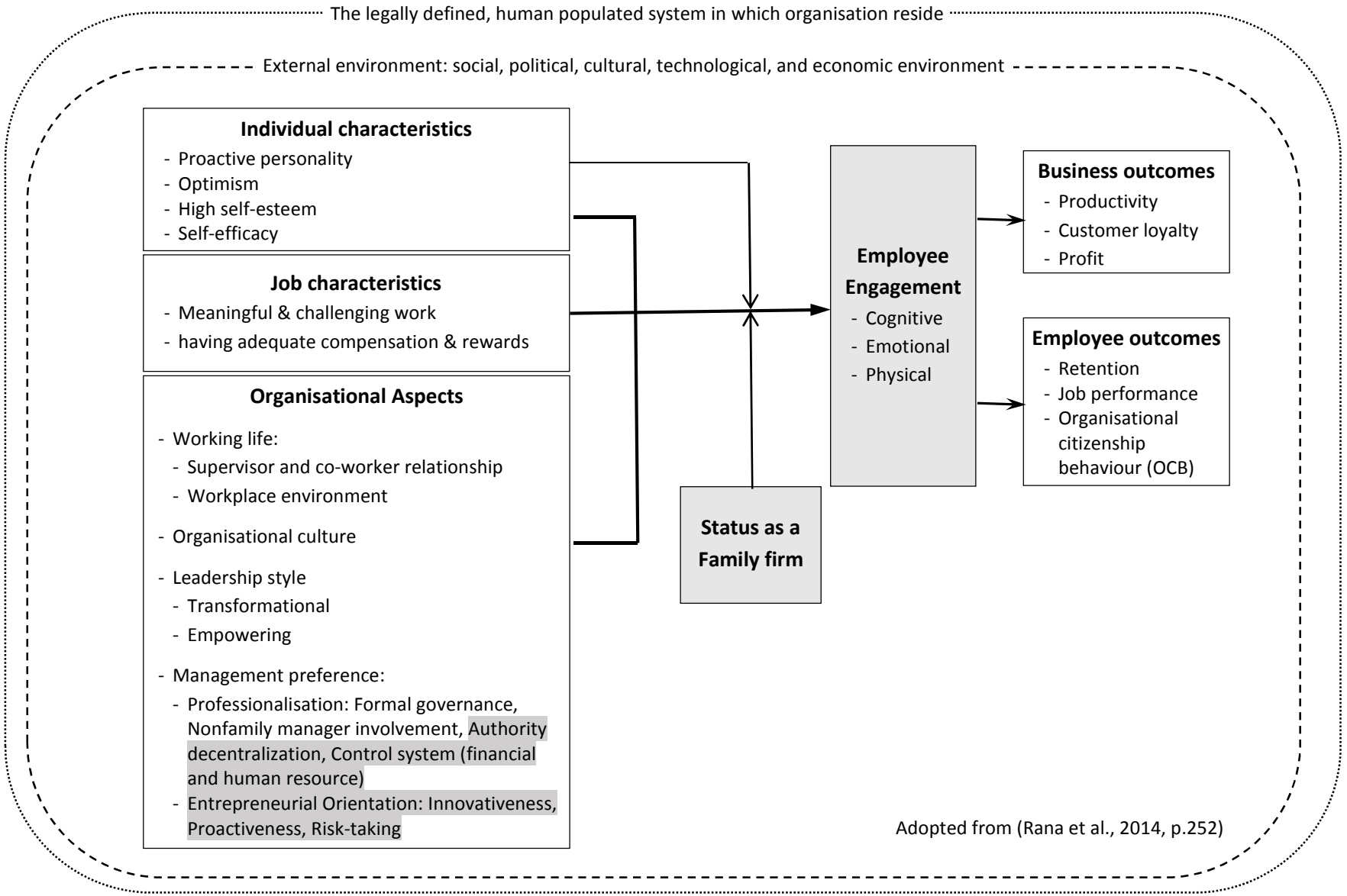


Figure 1.1 Research Scope within the Theoretical Model of EE Antecedents and Outcomes

To explain the relationship of employee engagement with professionalisation and EO factors, this thesis uses Social Exchange Theory (SET) (Gouldner, 1960; Cropanzano and Mitchell, 2005) as the overarching theory to complement prior studies examining employee engagement antecedents (Saks, 2006; Zhang & Jia, 2010). SET explains resource exchange process that provides a mutual advantage for both parties having a certain relationship. The relationships can produce mutual commitment when both parties are responsible for certain exchange rules (such as reciprocity). As a kind of transaction, reciprocity is interdependent and a norm, thus the actions of one party should lead to compulsory responses by another party (Cropanzano and Mitchell, 2005). In this way, this thesis uses SET to explain the exchange process between the employees and their employing firms. Specifically, SET is used to predict how employees try to match their virtue as a compulsory response to receiving benefits from their employers. For instance, presenting engagement can be a way for employees to repay the resources received from the firms.

The level of employee engagement depends on the organisational resources that can lead to engagement psychological conditions such as employees' experiences of meaningfulness, safety, and availability (Kahn, 1990). Thus, to what extent professionalisation and EO factors lead employees to psychologically feel meaningful, safe and available should determine the strength of their relationship with employee engagement. In summary, SET provides a theoretical foundation for predicting whether employees become more or less engaged based on the economic and socioemotional resources they received from the organisation (Saks, 2006). A more detail explanation about SET and the exchange process of engagement with its antecedents is available in Sub-section 2.2.4 and throughout Chapter 3.

In addition to SET, agency and stewardship theories are used to predict the moderating effect of the family business status. Both agency and stewardship theories should be beneficial to explain how typical family firm characteristics, including, self-control, dual roles, altruism behaviour, informal approach, long-term orientation (Schulze et al., 2002; Corbetta and Salvato, 2004a) can create a mechanism that potentially affects the relationship of employee engagement with professionalisation and EO factors. For instance, self-controlled and dual roles may produce the informal power of family firm owners that can inhibit the implementation of professionalisation. As these circumstances may reduce the positive impacts of professionalisation, the employees exchange their engagement less. A more detailed explanation of the effect of family business status from the view of agency and

stewardship theories is presented in Sub-section 2.4.2 and throughout Chapter 3.

1.3 Potential Contributions

By answering the research questions described in the previous section, this study expects to produce the following fresh perspectives and contributions. First, previous studies were concerned with principal (i.e., owners, family member, shareholders) points of interest and used financial performance as the outcome variable in their research model (e.g., Dyer, 2006; Lindow, 2013; Mazzi, 2011; Olson, Zuiker, Danes et al., 2003; Rutherford, Kuratko & Holt, 2008). Whereas this research focuses attention on the agent (i.e., employee) issues and uses employee engagement as the outcome variable in the research model. Second, previous studies referred to family firm professionalisation as merely nonfamily involvement in a governance system (e.g., Bennedsen, Nielsen, Perez-Gonzalez, & Wolfenzon, 2007; Blumentritt, Keyt, & Astrachan, 2007; Corbetta & Salvato, 2004b; S. Klein & Bell, 2007). Following Dekker et al.'s (2015) suggestions, this research considers family firm professionalisation to be a multidimensional construct, consisting of authority decentralisation and control systems. Third, existing studies individually discuss the impact of either professionalisation (e.g., Dekker et al., 2013; Gnan & Songini, 2003; Lien & Li, 2013) or EO factors (e.g., Chirico, Sirmon, Sciascia, & Mazzola, 2011; Naldi, Nordqvist, Sjöberg, & Wiklund, 2007; T. Zellweger & Sieger, 2012) on the firm's performance. This research discusses the joint effects of professionalisation and EO factors specifically on employee engagement in the family firm context.

Accordingly, the first expected practical contribution of this research is to introduce professionalisation and EO as organisational aspects that can encourage employee engagement for family and nonfamily firms. Specifically, this research elucidates how the control system and firm's entrepreneurial behaviour can mutually promote employee engagement. Family and nonfamily firms may need different professionalisation factors to increase engagement of their employees. Thus, the second contribution is a suggestion on how to use a certain factor of professionalisation or EO to increase employee engagement in specific circumstances.

Further, viewing the relationship of employee engagement, professionalisation and EO as a social exchange process, this research extends the literature on Social Exchange Theory

with regard to the effects of culture. First, according to SET, socioemotional resources (e.g., employee engagement) are naturally intangible and therefore manifest in a less definite manner (Cropanzano and Mitchell, 2005). This study finds that certain mechanisms can produce socioemotional resources more predictably if it considers cultural context. For instance, to encourage employee engagement in a high power distance society, the implementation of control system is more effective than authority decentralisation because people in this culture may not be familiar with distributed power.

Second, this study helps to explain the relevance of socioemotional resources and economic values to complement previous findings of beneficial mismatch exchange process (Cropanzano and Mitchell, 2005). Professionalisation mechanisms motivated by economic purposes can encourage employee perception of certainty and justice, which in turn influences employee engagement in a high power distance culture. This is because employees in such a context rely more on formal rules to secure fairness since procedural justice cannot be guaranteed informally due to power inequality (Begley and Lee, 2002).

Finally, based on the agency (Jensen and Meckling, 1976) and stewardship (Corbetta and Salvato, 2004a) theories, this study conceptually explains why professionalisation is favourable for employee engagement in family firms. In summary, this study extends SET literature by introducing the effects of culture to the nature of social exchange in family and nonfamily firms.

1.4 Thesis Overview

The previous sections have laid out the background and objectives of the present study. An overview of the rest of the thesis is given below and summarised in Figure 1.2**.** **Chapter 2** reviews the emerging perspectives of employee engagement to understand its nature and causes. This chapter discusses some issues related to employee engagement origins, definitions, dimensions, determinants, antecedents, and measures in each perspective. Specifically, this chapter highlights the lack of professionalisation and EO as the organisational antecedents in the current employee engagement discussion.

After having clear conceptions about employee engagement, professionalisation and EO within the family firm context, some hypotheses are developed in **Chapter 3** to help answering the research questions. They hypothesise professionalisation and EO factors as

the employee engagement antecedents. Then, they add family business status and firm EO level as the moderators to enhance the structural model of professionalisation factors – employee engagement relationship. Similarly, they add the family business status and firm professionalisation level as the moderators to enhance the structural model of EO factors – employee engagement relationships.

Chapter 4 explains the research methodology. This chapter presents the operationalisation of all variables under study and methods to validate that operationalisation. Regarding the research objectives and the population characteristics, this chapter details the strategies and execution of data collection, then presents the final sample profile. Further, it explains the use of structural equation modelling as the statistical method to analyse the data.

Chapter 5 presents the findings of the hypotheses testing and offers an interpretation of those results. This chapter tries to explain why the data is consistent, or not, with the hypotheses and also attempts to contextualise the findings with regard to the cultural context of the country where the study is based. Before inferring the findings, the quality of the moderating models is assessed using multi-group invariant testing. Using Social Exchange Theory and Kahn's (1990) engagement perspective, this chapter explains why professionalisation and EO do enjoy a positive relationship with employee engagement.

Chapter 6 concludes the thesis by presenting the key findings and stating the answers of the research questions. Then, it presents the potential theoretical contributions and their practical implications. Finally, this study highlights the limitations of the present work and provides suggestions for future studies.

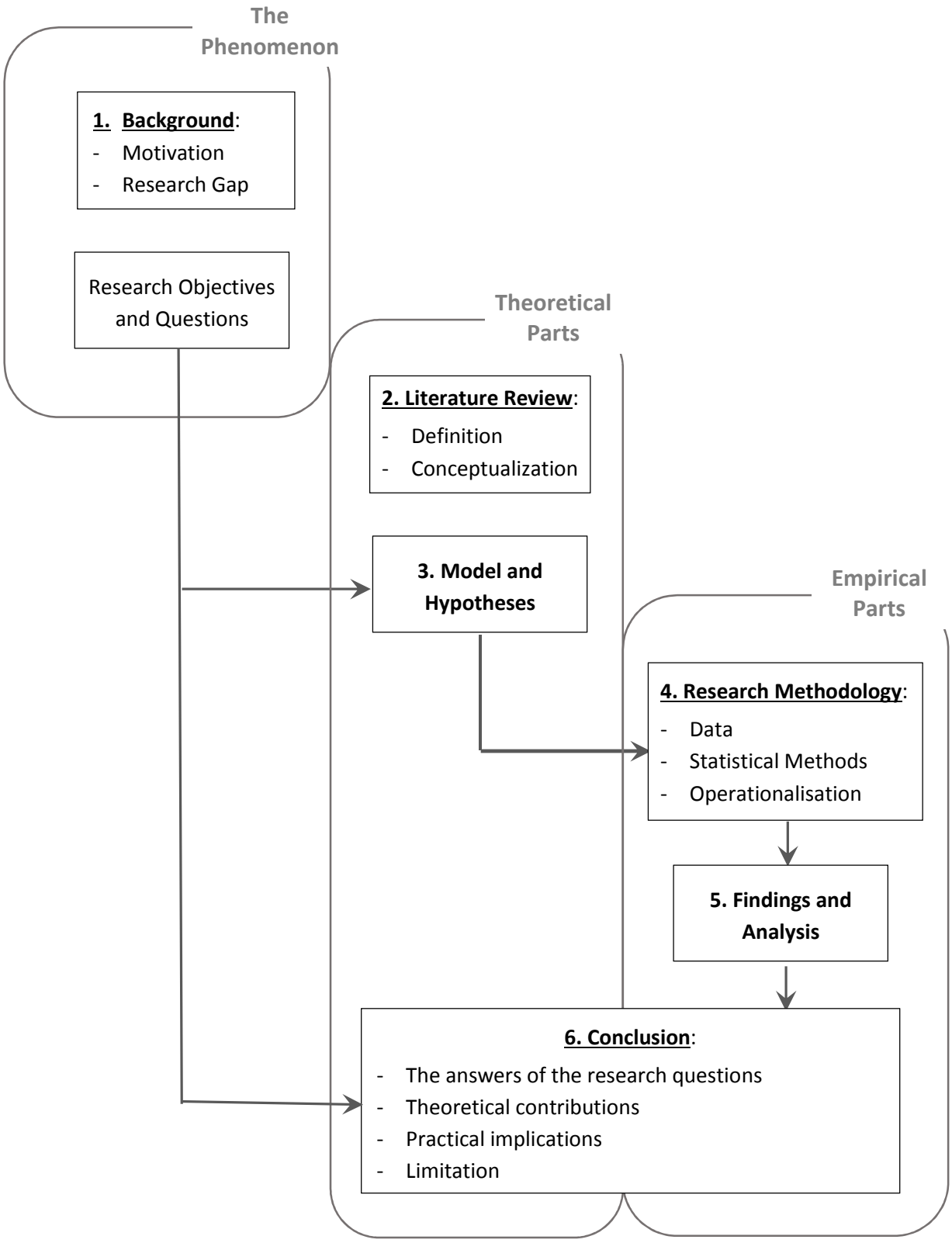


Figure 1.2 Thesis Structure

2. Theoretical Framework

2.1 Introduction

The objective of this thesis is to investigate the relationship of employee engagement, professionalisation, and EO in Indonesian family and nonfamily firms. Considering employee engagement is the main issue to understand, the discussion in this chapter starts with the conceptualisation of employee engagement. Section 2.2 presents four emerging perspectives of employee engagement. Each perspective discusses the definition, nature, origin, type/dimension, and measures of employee engagement. Also, these perspectives highlight the lack of available literature on the subject and the main contributions of each perspective.

Having sufficient knowledge about the nature and determinants of employee engagement, Section 2.3 overviews its antecedents. Then, it highlights how managerial preferences, e.g., professionalisation and EO, as important alternative antecedents, have not, unfortunately, been addressed sufficiently. Specifically, this section overviews the conception of professionalisation and EO, and how previous empirical research has not adequately considered them as employee engagement antecedents.

Finally, Section 2.4 discusses the potential roles of family firm and cultural context in the employee engagement research, and highlights the lacks of previous studies on them. Specifically, after reviewing the essence of family firms, this section discusses how family business status is relevant to the relationship of employee engagement and professionalisation. Also, after presenting the different cultural characteristics between Southern Asian and Anglo countries, this section highlights the need for using Southern Asian cases, such as Indonesian cases, for engagement research.

2.2 Conceptualising Employee Engagement

Employee engagement concept has widely attracted practitioners' attention since the 1990s and has lately been followed by theoretical attention (Saks, 2006; Shuck, 2011).

Employee engagement has become one of the three most discussed organisational issues (Welch, 2011) and is very popular in the human resource development field (Rana et al., 2014). This may have happened because scholars and business practitioners believe employee engagement to be the key to organisations' success and competitiveness (Saks and Gruman, 2014). Consequently, a significant number of academic studies on employee engagement has emerged over the past ten years (Welch, 2011).

In its evolution, employee engagement concept has come through a series of waves (Welch, 2011) to result in four emerging perspectives (Shuck, 2011). The first wave was dominated by practitioner interest. The academic debates filled the second wave with the main topic to link the qualitative concept with empirical works, for instance, linking Kahn's (1990) definition and dimensions with Gallup's measures (Harter et al., 2002). Finally, in the last wave, there were attempts to establish the status of employee engagement as an independent construct (Saks, 2006). The four emerging perspectives of engagement are Kahn's (1990) personal engagement approach, Maslach et al.'s (2001) burnout-antithesis approach, Harter et al.'s, (2002) satisfaction-engagement approach, and Saks' (2006) mutidimensional approach. Each approach has discussed conceptual issues of employee engagement definition, dimension, and measures. The following subsections present each employee engagement perspective and remark on its contribution to the current literature, as well as its conceptual gaps.

2.2.1 The Personal Engagement Approach

Grounded in previous theories and emerging perspectives, such as social identity theory, job stress theory, job design, and emotion in the workplace (Shuck, 2011), Kahn (1990) became the first one who defined engagement as a unique concept. He used the term "personal engagement" to describe a worker's involvement in various tasks at work. Kahn (1990, p. 694) defined personal engagement as "the harnessing of organisation members' selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances". He also defined personal disengagement as "the uncoupling of selves from work roles; in disengagement, people withdraw and defend themselves physically, cognitively, or emotionally during role performances". Inspired by Kahn's (1990) conception on personal engagement, recent terms and definitions were introduced to explain employee engagement. For instance, Rich et al.

(2010, p. 619) defined job engagement as the "multidimension motivational concept reflecting the simultaneous investment of an individual's physical, cognitive, and emotional energy in work performance". Shuck & Wollard (2010, p. 427) defined employee engagement as "an individual employee's cognitive, emotional, and behavioural state directed toward desired organisational outcomes".

Those definitions indicate the origin, nature, and type/dimension of engagement. Originally, engagement emerges from an individually rational decision. The essence of engagement is a motivational state representing the level of an individual's involvement in their work. The state is expressed in three dimensions: physical, cognitive, and emotional engagement. Further, this definitional approach stimulates a question: "What conditions can motivate the employees to make an individual decision toward engagement?"

Kahn (1990) proposed that personal engagement level is determined by individual experiences of three psychological conditions: psychological meaningfulness, safety, and availability. Therefore, employees having more experiences of those three psychological conditions should be more engaged in their work roles. Kahn (1990) explained those three determinants of employee engagement as follows.

Psychological meaningfulness is a sense of receiving a return on investments of one's self in a physical, cognitive, or emotional energy currency. It is gathered when an individual feels worthwhile, useful, and valuable. A work element that creates incentives or disincentives for self-investment might influence meaningfulness feelings, such as task characteristics, role characteristics, and work interactions.

Psychological safety is a sense of being able to express oneself without fear of negative image, status, or career. It is gathered when an individual feels certain, secure, and trusted. Social system elements that create more or less predictable, consistent, and non-threatening situations might influence safety feelings such as interpersonal relationships, group and intergroup dynamics, management style and process, and organisational norms.

Finally, psychological availability is a sense of possessing the physical, emotional, and psychological resources needed to perform in individual roles. It is gathered when an individual feels capable of controlling physical, intellectual, and emotional forces into role performance. When an employee is preoccupied by a distraction during a role performance, such as by physical and emotional energies, insecurity, or the employee's outside life, there

may be adverse influence to availability feelings. Table 2.1 below summarises the psychological conditions of Kahn's (1990) engagement.

Table 2.1 Psychological Conditions of Employee Engagement

	Meaningfulness	Safety	Availability
Definition	A sense of receiving a return on investments of one's self in a physical, cognitive, or emotional energy currency	A sense of being able to express oneself without fear of negative image, status, or career	A sense of possessing the physical, emotional, and psychological resources needed to perform in individual roles
Experimental components	Feels worthwhile, useful, and valuable	Feels certain, secure, and trusted	Feels capable of controlling physical, intellectual, and emotional forces into role performance
Types of influence	Work element that creates incentive or disincentives for self-investment	Social system elements that create more or less predictable, consistent, and non-threatening situations	The level of preoccupying distractions during role performances
Influences	Task characteristics: *Challenging, variety, creative, autonomy, clear* Role characteristics: *Offering attractive identities, status, power* Work interactions: *Promoting dignity, self-appreciation, sense of value*	Interpersonal relationships: *Supportive, trusted, open, flexible, lack of threat* Group and intergroup dynamics: *Informal, offering room for self-expression* Management style and process: *Supportive, resilient, consistent, competent, trusted* Organisational norms: *A shared system that encourages self-investments during role performances*	Physical energies: *The level of available physical resources to invest in role performances* Emotional energies: *The level of available emotional resources to invest in role performances* Insecurity: *The level of confidence in own abilities and status, self-consciousness, fitness with the social system* Outside life *Personal issues that influence self-investments during role performances*

(adapted from Kahn, 1990, p. 705)

Some empirical studies have appeared to examine Kahn's (1990) proposition on employee engagement determinants. Using 203 respondents, May, Gilson, & Harter (2004) gave the first empirical evidence confirming meaningfulness, safety and availability as the determinants of employee engagement. The study showed the mediating effect of all psychological conditions on the relationship of engagement with its antecedents. May et al. (2004) found job enrichment, work-role fit, physical resources, co-worker and supervisor relationships as the employee engagement antecedents. Job enrichment and work role fit linked to meaningfulness, co-worker and supervisor linked to safety, and physical resources linked to availability. Psychological meaningfulness is the strongest and availability is the weakest determinant of engagement. Clearly, May et al.'s (2004) findings proved that psychological meaningfulness, safety, and availability were truly employees' internal states determining engagement. Further, the findings also demonstrated job enrichment, work-role fit, physical resources, co-worker and supervisor relationships as the external forces (antecedents) driving employees' meaningfulness, safety, and availability experiences.

In sum, current empirical studies commonly suggested the job and the organisational aspects as the main antecedents of employee engagement (Rich et al., 2010; Shuck et al., 2011; Xu and Cooper Thomas, 2011; Rothmann and Welsh, 2013). For instance, Rich et al. (2010) found a significant positive relationship between value congruence and perceived organisational support with job engagement. Further, Shuck et al. (2011) found a significant positive relationship between job fit and organisational psychological climate (i.e., supportive management, recognition, challenge) and employee engagement. However, none of them specifically focus on managerial preferences, such as professionalisation or EO, as the potential engagement antecedents.

Some instruments were developed to assess each employee engagement dimension. For instance, May et al. (2004) created 13 items of 5-Likert points to measure the cognitive (four items), emotional (four items) and physical (five items) dimensions of engagement. Adopted and modified into several contexts (e.g., Chen, Zhang, & Vogel, 2011; Shuck, Reio, & Rocco, 2011), this measure exhibited a high reliability. More recently, arguing that existing measures were unable to fully represent Kahn's (1990) conception, Rich et al. (2010) tried to develop a more representative instrument. They produced 18 items, comprising six items for each engagement dimension.

Although Kahn's (1990) personal engagement approach started to appear in the first wave, the personal engagement approach only got wide recognition at the second wave. It was becoming popular when researchers tried to find a theoretical framework either to ground empirical findings coming from management practices (e.g., Harter et al., 2002; Luthans & Peterson, 2002) or to develop engagement measures (e.g., May et al., 2004). The popularity of Kahn's (1990) personal engagement approach had continued in the third wave (Saks and Gruman, 2014), when more researchers attempted to develop a comprehensive model by examining the antecedents and consequences of employee engagement (e.g., Rich et al., 2010; Saks, 2006; B. Shuck & Wollard, 2010).

The contribution of Kahn's (1990) personal engagement approach is very significant in providing an early theoretical framework and definition of engagement as a unique concept. While Kahn (1990) conceptually proposed the psychological conditions driving employees to be engaged, May et al. (2004) provided empirical evidence to support the propositions. Their works provided an important standpoint for further studies looking for ways to intentionally encourage employee engagement. However, although Kahn (1990) had defined personal disengagement, Kahn's (1990) approach did not specifically propose unique conditions determining employee disengagement. To know how to reduce conditions leading to employee disengagement, the following subsection presents Maslach et al.'s (2001) burnout-antithesis approach that focuses on the engagement antithesis.

2.2.2 The Burnout-antithesis Approach

The second engagement conception focussed on how employees are exposed to job-burnout, and assumed engagement to be the opposite of job burnout (Maslach et al., 2001). Burnout is thought of as the degradation of engagement, and it happens when employees must mingle with people in stressful situations. According to this approach, engagement is characterised by the opposite three burnout dimensions, i.e., exhaustion, cynicism and reduced efficacy (Maslach et al., 2001). Exhaustion is defined as “feelings of being overextended and depleted of one’s emotional and physical resources”. Cynicism is “a negative, callous, or excessively detached response to various aspects of the job”. Reduced efficacy is “feelings of incompetence and a lack of achievement and productivity at work” (Maslach et al., 2001, p.399).

Schaufeli et al. (2002, p. 74) adopted this approach to define engagement as a "…positive, fulfilling, work-related state of mind that is characterised by vigour, dedication, and absorption". Vigour refers to high levels of energy and mental resilience while working, the willingness to invest effort in one's work, and persistence in the face of difficulties. Dedication refers to a sense of significance, enthusiasm, inspiration, pride, and challenge. Absorption is characterised by being fully concentrated and happily engrossed in one's work, whereby time passes quickly, and one has difficulties with detaching oneself from work. This concept was evidenced by Schaufeli et al. (2002), who found a negative relationship between burnout and work engagement dimensions.

Coming from the argument that burnout is the origin of engagement degradation, the burnout-antithesis approach cannot explicitly demonstrate engagement as a unique concept. Instead, it only indicates engagement as a state where the burnout dimensions (i.e., exhaustion and cynicism) are absent. Therefore, according to this approach, to maintain engagement one should understand the occurrence process of burnout.

A comprehensive framework based on the burnout literature, called job-demand resource (JD-R), argued that job demands lead to burnout while a lack of job resources leads to work disengagement. Job demands refer to the job aspects requiring sustained efforts that can result in employee psychological burden (Demerouti et al., 2001), for instance, work overload, role conflict, an unpleasant work environment and demanding clients (Bakker and Demerouti, 2007). Job resources refer to the job aspects that help to achieve work goals, reduce work demands, or drive personal development (Demerouti et al., 2001). Job resources may come from the organisation, interpersonal and social relations, and job characteristics, for example, the payment system, career opportunities, job security, organisational climate, innovativeness (organisation characteristics); supervisor and co-worker support, team climate (interpersonal & social relations); role clarity, skill variety, task identity, task significance, and autonomy (job characteristics) (Bakker et al., 2007; Bakker and Demerouti, 2007).

Job demands and job resources encourage burnout and engagement through these following processes (Saks and Gruman, 2014). First, job demands withdraw employees' physical and emotional resources, leading to decreased energy and increased stress. Therefore, job demands generate health problems, burnout, and disengagement. However, not all job demands are unfavourable for engagement. Only hindrance job demands (e.g.,

role conflict, role ambiguity, role overload) are negatively related to engagement. Challenging job demands (e.g., time pressure, high levels of job responsibility) are positively related to engagement (Crawford et al., 2010). Second, job resources drive a motivational process leading to positive attitudes, well-being, and engagement. Third, job resources help the employee to buffer the effects of job demands on burnout (Bakker and Demerouti, 2007). Job resources are positively related to Schaufeli et al.'s (2002) engagement dimensions, i.e., vigour, dedication, and absorption. Those dimensions correspond to the operationalisation of Kahn's (1990) engagement dimensions, i.e., physical, emotional, and cognitive respectively (May et al., 2004; Bakker et al., 2007).

The contribution of Maslach et al.'s (2001) burnout-antithesis approach is prominent in pioneering a conceptual framework focussing on the causes of employee disengagement. While Maslach et al. (2001) proposed job burnout as a potential disengagement cause, Schaufeli et al. (2002) provided empirical evidence to support that proposition. Their works provided an important standpoint for further studies, looking for the way to intentionally prevent employee disengagement. Another important contribution coming from this approach is to bring out the Utrecht Work Engagement Scale (UWES) (Schaufeli and Bakker, 2003b; Schaufeli and Bakker, 2006) as the most popular engagement measure (Saks and Gruman, 2014).

However, both Kahn's (1990) personal engagement and Maslach et al.'s (2001) burnout-antithesis approaches only focused on the “cause” side of engagement; they did not examine the “effect” side of engagement. The following subsection presents Harter et al.’s (2002) engagement approach that focuses on the engagement consequences. As it intended to bring the engagement concept into managerial practice, the Harter et al.’s (2002) approach more directly relates employee engagement with firm performance.

2.2.3 The Satisfaction-engagement Approach

Referring to Kahn's (1990) conception, the satisfaction-engagement approach argued that the essence of engagement is a motivational state representing the level of individual involvement and satisfaction in work. From practical use, Harter et al. (2002) believed that engagement occurs when individuals are emotionally connected to others and cognitively vigilant. It will happen if employees have passed these five stages (Harter et al., 2002): First, they know what is expected of them. Second, they have what they need to do their work.

Third, they have opportunities to feel an impact and fulfilment in their work. Fourth, they perceive that they are part of something significant with co-workers whom they trust. Fifth, they have chances to be improved and developed. In this way, employee engagement was defined as “individual’s involvement and satisfaction with as well as enthusiasm for work” (Harter et al., 2002, p.269). Compared to Kahn's (1990) conception, the satisfaction-engagement approach provided more specific explanations about the process of engagement occurrence. The satisfaction-engagement approach has proposed five stages of the emotional and cognitive process toward engagement, as explained above.

Driven by practical interest, this perspective found that employee engagement and satisfaction relate to business outcome and managerial influence. Harter et al. (2002) published the first finding suggesting the positive relationship of employee engagement with business outcomes (i.e., customer satisfaction, productivity, firm profitability) and negative relationship with employee turnover. Their study was based on the positive psychology framework and tested on almost eight thousand business units in 36 companies within multi-industries. Harter et al. (2002) found that employee turnover has the strongest relationship with employee engagement, followed by customer satisfaction, employee productivity, and firm profitability respectively. Further, massive empirical research, using data from more companies and countries (Harter et al., 2013, 2002, 2009, 2006), produced similar results, therefore emphasising the relationship between employee engagement and business outcomes.

The objectives of those multi-year studies were to calculate the true relationship between employee engagement and performance, to examine the consistency of that relationship, and to find the practical meaning of that findings. The results indicated a consistent correlation between employee engagement and performance, across different organisations, with the true correlation in between 0.42 and 0.48. Importantly, having engaged employees indeed drives all performance indicators. The median difference between top and bottom-quartile engagement business was 10% - 12% in customer loyalty score, 12% - 22% in profitability, 18% - 21% in productivity, 25% - 31% in turnover (in high turnover organisations) and 49% - 65% in turnover (in low turnover organisations) (Harter et al., 2006; Harter et al., 2009; Harter et al., 2013).

In addition to Harter et al.'s (2002) findings, employee engagement evidently also has a positive relationship with other employee outcomes, such as with managerial effectiveness

(Luthans and Peterson, 2002), task performance and organisational citizenship behaviour (Soane et al., 2012). The results of the studies above clearly demonstrated the importance of establishing employee engagement as a firm performance indicator. Especially as a nonfinancial measure, employee engagement evidently has a positive relationship with financial performance, such as with firm profitability (Harter et al., 2002).

The main contribution of Harter et al.'s (2002) satisfaction-engagement approach is to bring the engagement concept into managerial practice and link employee engagement to business performance. The results of GWA multi-years studies (Harter et al., 2013, 2002, 2009, 2006) gave very strong evidence of that linkage. This approach provides an important standpoint for studies that consider employee engagement as an alternative firm performance. Particularly, this approach has validated the GWA instrument, which is practically well-proven and theoretically fits Kahn's (1990) conception.

The Kahn's (1990) personal engagement and Maslach et al.'s (2001) burnout-antithesis approach above have indicated the engagement and disengagement conditions. However, they did not explain why employees respond to those conditions with varying extents of engagement (Saks, 2006). To contribute towards a better understanding of engagement, the following subsection presents Saks' (2006) engagement concept that explains the emergence process of employee engagement. This concept fills that gap by perceiving engagement as an exchange process and evaluating its psychological conditions. Overall, while both Kahn's (1990) and Maslach et al.'s (2001) conceptions focussed on engagement's psychological conditions, Saks' (2006) multidimensional engagement concept complemented them by explaining how these psychological conditions cause engagement.

2.2.4 The Mutidimensional Approach

Using Social Exchange Theory (SET) (Cropanzano and Mitchell, 2005), Saks (2006) uncovered the occurrence process of employee engagement. SET explains a process of resource exchange through certain rules in order to bring benefits for both parties and generate high-quality relationships (Gouldner, 1960; Cropanzano and Mitchell, 2005). Resources are divided into economic and socioemotional resources (Cropanzano and Mitchell, 2005). Economic resources are likely tangible and related to financial needs, while socioemotional resources refer to one's social and esteem needs. Principally, SET posits that

relationships can flourish into trusting, loyal, and mutual commitment as long as both parties obey certain exchange rules/transactions.

In general, there are four conditions of exchange process, based on the type of transaction and relationship, i.e., social vs. economic transaction and social vs. economic relationship (see Figure 2.1). The exchange process is matched if a social relationship emerges through a social transaction. Similarly, it is also considered to match if an economic relationship emerges through an economic transaction. In fact, mismatch situations are not uncommon (Cropanzano and Mitchell, 2005). For instance, a salesperson should do certain procedures to build a closer relationship with his prospective clients. In this way, that salesperson makes an economic transaction in a social relationship context.

Type of Relationship	Type of Transaction: Social Exchange	Type of Transaction: Economic Exchange
Social Exchange	**Cell 1: Match** Social transaction in a social relationship	**Cell 2: Mismatch** Economic transaction in a social relationship
Economic Exchange	**Cell 3: Mismatch** Social transaction in an economic relationship	**Cell 4: Match** Economic transaction in an economic relationship

Figure 2.1 Transaction and Relationship in Social Exchange

(source: Cropanzano & Mitchell, 2005, p. 887)

SET is beneficial in modelling the social exchange relationship between employees and their counterparts, such as with their employing organisation (Coyle-Shapiro et al., 2004; Clercq and Rius, 2007; Wang et al., 2010). SET can help to predict how employees offer their goodwill as a response to the benefits that they receive from their employers. For example, conceptualising perceived organisational support (POS) as the quality of the social exchange relationship between an employee and an employer, SET predicts the extent of employee commitment to the organisation (Settoon et al., 1996; Wang et al., 2010). Specifically, Wang

et al.'s (2010) found the positive relationship of POS with both affective and continuance commitment with the moderating effect of perceived justice on these relationships. Similarly, engagement is a means for employees to repay the resources that they receive from the organisation, such as POS (Saks, 2006). Thus, the level of employee engagement depends on the organisation's socioemotional resources. These resources can come from experiences of meaningfulness, safety, and availability.

As the engagement determinants (psychological meaningfulness, safety, and availability) are feelings or sense, employee engagement occurrence is a process of exchanging socioemotional resources. Consequently, when an organisation gives economic resources (such as salaries), the employees may convert the socioemotional values of those economic resources; i.e., the employee might exchange them for engagement. In this way, the absolute values of those economic resources become relative according to employee perception. In summary, SET provides a theoretical foundation for predicting whether employees become more or less engaged, based on the economic and socioemotional resources they receive from the organisation (Saks, 2006).

Obviously, Saks' (2006) mutidimensional conception provides a foundation for current research looking for the antecedents of engagement. According to this conception, any external forces become engagement antecedents as long as they can produce socioemotional resources. Specifically, this may happen if those external forces evoke certain circumstances leading to employee experiences of meaningfulness, safety, and availability. From the SET view, employees who feel higher meaningfulness, safety and availability experiences from any external forces are more likely to reciprocate with a higher level of engagement. This approach should be beneficial to explain why certain conditions driven by managerial preferences, such as by professionalisation or EO, are exchangeable with employee engagement. Detailed explanations about how professionalisation or EO factors may drive employee engagement are presented in Chapter 3.

Table 2.2 The Summary of Employee Engagement Literature

Perspective and Literature		Conception				Method		Findings	
Perspective	**Literatures**	**Term**	**Theoretical Basis**	**Definition**	**Dimensions**	**Measures**	**Sample**	**EE Determinants or Antecedents**	**EE Outcomes**
Personal Engagement Approach	Kahn (1990)	Personal Engagement	Social Identity, Job Stress, Job Design, Emotion In The Workplace	The harnessing of organisation members' selves to their work roles; in engagement, people employ and express themselves physically, cognitively, and emotionally during role performances (p. 694)	Physical Cognitive Emotional	24 open-ended questions to explore the respondents' perceptions of their experiences, involvements, and roles.	16 counsellors who teach particular athletic skills in Camp Carrib, West Indies	Meaningfulness Safety Availability	
	May et al. (2004)	Work and Employee Engagement	Kahn's (1990) Engagement Conception	Kahn's (1990) definition	Physical Cognitive Emotional	Developed 14 self-items: Physical (5 items), Cognitive (5 items), Emotional (4 items)	203 employees in a large Midwestern insurance firm	Job Enrichment and Work Role Fit → Meaningfulness Co-worker and Supervisor Relations → Safety Personal Resources → Availability	
	Rich et al. (2010)	Job Engagement	Kahn's (1990) Engagement Conception	Multidimensional motivational concept reflecting the simultaneous investment	Physical Cognitive Emotional	Developed 18 self-items:	245 full-time firefighters and their supervisors, who	Value Congruence	Task Performance,

Perspective and Literature		Conception				Method		Findings	
Perspective	**Literatures**	**Term**	**Theoretical Basis**	**Definition**	**Dimensions**	**Measures**	**Sample**	**EE Determinants or Antecedents**	**EE Outcomes**
				of an individual's physical, cognitive, and emotional energy in active, full work performance (p. 619)		Physical (6 items), Cognitive (6 items), Emotional (6 items)	were employed by four municipalities	Perceived Organisational Support (POS) Core Self-evaluations	Organisational Citizenship Behaviour (OCB)
	Shuck (2011)	Employee Engagement	Kahn's (1990) Engagement Conception	An individual employee's cognitive, emotional, and behavioural state directed toward desired organisational outcomes (p. 427)		Using May's (2004) measures	283 working professionals across the fields of service, technology, healthcare, retail, banking, non-profit, and hospitality	Job Fit Affective commitment Psychological climate (supportive management, contribution, recognition, challenge)	Discretionary Effort Intention to Turnover
Burnout-antithesis Approach	Maslach et al., (2001)	Job Engagement	Burnout Theory		Energy Involvement Efficacy	It was a conceptual paper			
	Schaufeli et al. (2002)	Work Engagement	Burnout Theory	Positive, fulfilling, work-related state of mind that is characterised by vigour, dedication, and absorption (p. 74)	Vigour Dedication Absorption	Maslach Burnout Inventory (MBI-GS) and Utrecht Work Engagement Scale (UWES)'s 17 items:	314 Spanish university students and 619 Spanish employees from	All engagement dimensions (i.e., vigour, dedication, absorption) are negatively correlated with	

Perspective and Literature		Conception				Method		Findings	
Perspective	**Literatures**	**Term**	**Theoretical Basis**	**Definition**	**Dimensions**	**Measures**	**Sample**	**EE Determinants or Antecedents**	**EE Outcomes**
						Vigour (6 items), Dedication (5 items), Absorption (6 items)	private and public companies	each burnout dimension (i.e., exhaustion, cynicism, reduced efficacy)	
Satisfaction -engagement Approach	Harter (2002)	Employee Engagement	Kahn's (1990) Engagement Conception	The individual's involvement and satisfaction with work, as well as their enthusiasm for work (p. 269)	Cognitive Emotional	Gallup Workplace Audit (GWA)'s 12 items, plus 1 item for satisfaction	7,939 business units in 36 companies (from the Gallup database)		Customer Satisfaction, Employee Turnover, Employee Productivity Firm Profitability
	Luthans and Peterson (2002)	Employee Engagement	Kahn's (1990) Engagement Conception Self-efficacy (Bandura 1986, 1997), Organisation Behaviour	Kahn's (1990) definition	Cognitive Emotional	GWA 12 items: the cognitive and emotional engagement were split into two factors	170 managers and 16 employees per manager (on average) --> around 2,900 respondents in total from Gallup Leadership Institute		Manager's Self-efficacy Manager Effectiveness

Perspective and Literature		Conception				Method		Findings	
Perspective	**Literatures**	**Term**	**Theoretical Basis**	**Definition**	**Dimensions**	**Measures**	**Sample**	**EE Determinants or Antecedents**	**EE Outcomes**
	Soane et al. (2012)	Employee Engagement	Kahn's (1990) Engagement Conception	The extent to which one is intellectually absorbed in work, experiences a state of positive affect relating to one's work role and socially connects with the working environment and shares common values with colleagues	Intellectual Affective Social	The ISA Engagement Scale: Intellectual Engagement (3 items) Affective Engagement (3 items) Social Engagement (3 items)	759 UK-based employees working for a retail organisation		Turnover Intention Task Performance Organisational Citizenship Behaviour (OCB)
Multidimensional Approach	Saks (2006)	Job and Organisation Engagement	Social Exchange Theory (SET)	A distinct and unique construct that consists of cognitive, emotional, and behavioural components that are associated with individual role performance (p. 602)		Developed 5 self-items: Job Engagement (5 items); Organisation Engagement (6 items)	102 employees working in a variety of jobs and organisations	Perceived Organisational Support (POS) Job Characteristics Procedural Justice	Job Satisfaction Organisational Commitment Intentions To Quit OCB

To summarise, Table 2.2 above links the main references, various perspectives, definitions, conceptions, models, and measures of employee engagement. Various conceptions of employee engagement are rooted either from Kahn's (1990) personal engagement or Maslach et al.'s (2001) burnout-antithesis approach (Saks and Gruman, 2014). Both streams agree that employee engagement is an adaptive behaviour that attaches to the psychology of the employees. Thus, to be engaged is an individual internal decision to meet or exceed one's main responsibilities (Shuck and Wollard, 2010).

However, those who rely on Maslach et al.'s (2001) burnout-antithesis approach can encounter fundamental problems related to the construct redundancy (Cole et al., 2012). For instance, Schaufeli et al.'s (2002) engagement definition is mixed up with burnout definition (Saks and Gruman, 2014). Similarly, the items of Utrecht Work Engagement Scale (UWES) particularly overlap with the items of burnout (Crawford et al., 2010; Cole et al., 2012), as well as with job satisfaction, and organisational commitment (Newman and Harrison, 2008). These problems happen because both Schaufeli et al.'s (2002) definition and UWES are originally rooted in the burnout conception.

On the other hand, Kahn's (1990) definition indicates the uniqueness of engagement as a construct as it mentions the whole individual self, in terms of physical, cognitive, and emotional efforts, in a work role. Kahn's (1990) conception is also more encompassing as it highlights the thought of employees' personal agency (Cole et al., 2012). It proposes psychological conditions of engagement, i.e., meaningfulness, safety and availability experiences, as rational reasons for the individual decision to be engaged to some extent. Thus, this thesis adopted Kahn's (1990) approach to explaining how professionalisation and EO factors may affect the level of employee's meaningfulness, safety and availability experiences.

Empirical findings have indicated the influence of the organisational aspects of employee engagement (e.g., Rich, Lepine & Crawford, 2010; Wollard & Shuck, 2011; Xu & Cooper Thomas, 2011). However, Kahn's (1990) approach did not provide a theoretical foundation to explain why employees dedicate their engagement in exchange for the positive feeling generated by the organisation activities and circumstances. Thus, this thesis also adopts Saks' (2006) approach help to provide theoretical basis illustrating the occurrence of engagement as an exchange process of engagement and its psychological conditions. Using Social Exchange Theory (SET) (Cropanzano and Mitchell, 2005), Saks (2006) proposed

employee engagement as a feeling of obligatory to socioemotional resources that employees receive from the organisations.

A further issue is that the operationalisation of employee engagement depends on how it is being conceptualised (Sharma & Kaur, 2014). This study uses the GWA (Gallup Workplace Audit) engagement scale following Harter et al.'s (2002) approach. Built on Kahn's (1990) personal engagement concept, Harter et al.'s (2002) satisfaction-engagement concept argued that engagement represents the level of individual involvement and satisfaction in work and it occurs when individuals are emotionally connected to others and cognitively vigilant. In this light, GWA items were designed to assess the level of employees understanding about their work role, feeling of being impactful in work, and employees relationship with co-workers (Buckingham and Coffman, 1999; Harter et al., 2002). A detailed reasoning about the use of GWA scale is presented in Sub-section 4.3.1.

2.3 Professionalisation, EO, and Employee Engagement Antecedents

2.3.1 Firm Professionalisation and Employee Engagement

Originating from Weber's (1968) concept of the bureaucratic organisation, professional management is a modern, efficient, and rational way of organising economic activities (Hall and Nordqvist, 2008). These characteristics contrast with the traditional and charismatic approach. Thus, the authority comes from the objective rules, norms, rational decision-making where managerial authority relies on technical qualifications rather than individual characteristics and personal ownership rights (Stewart and Hitt, 2012).

In general, professionalisation is a process indicating a managerial transition from a founder-personal style to a functional, formal, teamwork and systemic (professional) style (Hofer and Charan, 1984). The characteristics of founder-managed firms are paternalistic, over-dependence on key individuals, centralised decision-making, and having insufficient managerial skills. Conversely, a professionalised firm has a functional structure, allows decision-making delegation, provides formal information, is independent from certain individuals, and interchanges its components (Hofer and Charan, 1984). Thus, the transition process involves multiple actions, such as inviting professional directors and managers, altering the organisational structure, and actions decision-making processes.

In the family firm context, there are various approaches in defining professionalisation (Dekker et al., 2012). The narrowest approach simply defines family firm professionalisation as involving nonfamily managers in firm governance (Dyer, 1989). Bringing specialised technical knowledge and formal management skills, these nonfamily managers can enrich family firm intangible assets. A more precise approach defines family firm professionalisation as a moment when external expertise involvement is inevitable due to the firm's growth (Gedajlovic et al., 2004). According to this approach, the external expertise should not always come from nonfamily employees, but it can come from family members also (Hall and Nordqvist, 2008). Both family and nonfamily employees can contribute cultural and formal competence respectively to serve firm needs. If family firm professionalisation represents a process to respond to organisation growth, then a narrow definition may be not sufficient to capture all activities within the process.

Although involving nonfamily managers may help to handle complexity, the organisation needs a system to keep the managerial advancement sustainable. Thus, the definition of professionalisation should cover the establishment of a managerial system. A more holistic definition of family firm professionalisation should cover nonfamily managers' involvement attempts, governance system establishment, formal control systems implementation, and authority decentralisation encouragement (Dyer, 1989; Tsui-auch, 2004; Songini, 2006; Hall and Nordqvist, 2008; Chua et al., 2009; Dekker et al., 2012; Stewart and Hitt, 2012). Thus, family firm professionalisation is a combination of professional management institutionalisation and a higher degree of control system formalisation (Dekker et al., 2012). The employment of experienced nonfamily managers is an attempt to institutionalise professional management. In short, the definition of professionalisation may contain multidimensional constructs covering formal governance structure, formal control and delegation systems (Tsui-auch, 2004; Chua et al., 2009).

Conceptualised as a combination of systemic management institutionalisation and control system formalisation (Hofer and Charan, 1984; Dekker et al., 2012), professionalisation should affect the way that employees are managed and perform their roles. Thus, professionalisation may affect employees' psychological conditions. Unfortunately, previous studies have not examined the effect of professionalisation, as a multidimensional construct, on engagement. Instead, various past empirical research has examined the relationship between professionalisation and firm performance by following three approaches.

First, they considered family firm professionalisation simply as the involvement of nonfamily managers, then they investigated the impact of nonfamily manager existence on firm financial performance. However, they did not produce consistent results (Dekker et al., 2015). Studies that found the benefit of family firm professionalisation believed that nonfamily manager involvement could overcome altruism and self-control problems (e.g., Barth, Gulbrandsen & Schønea, 2005; Sciascia & Mazzola, 2008). In contrast, studies which found negative results were convinced that hiring nonfamily managers would lead to conflicting interests (e.g., Anderson & Reeb, 2003; Miller & Le Breton-Miller, 2006).

Second, Dekker et al. (2015) opined that these inconsistency findings might be caused by the simplification of professionalisation as nonfamily manager involvement only. Thus, they operationalise professionalisation as a multidimensional construct by expanding the professionalisation factors to be the nonfamily involvement in governance, activeness of top-level management, authority decentralisation, financial and human resource control system. Examining the impacts of those professionalisation factors, they concluded that family firms should increase nonfamily involvement in their governance systems, decentralise organisational authority, and establish formal human resource control in order to improve firm financial performance. This might happen because professionalisation factors could resolve entrenchment problems and other issues related to nepotism, altruism, and self-control.

The third approach started to use nonfinancial performance, such as employee engagement, as the outcome. Unfortunately, the current studies have only focussed on human resource aspects as engagement antecedents (Schaufeli and Salanova, 2010; Shuck and Wollard, 2010; Wollard and Shuck, 2011; Alfes et al., 2013; Shuck and Rocco, 2014). For instance, drawing on social exchange theory, Alfes et al. (2013) found a link between perceived human resource management (HRM) practices and employee engagement. Specifically, there were positive relationships between employee engagement and training, career development (Schaufeli and Salanova, 2010; Shuck and Wollard, 2010), workplace learning, organisation development (Shuck and Wollard, 2010), and rewards (Wollard and Shuck, 2011). More advanced findings of the relationship of human resource aspects and other professionalisation factors with employee engagement will be presented within the development of the hypotheses in Section 3.2.

Considering the current research as described above, there is an opportunity to fill the literature gap by examining the relationship between professionalisation factors and employee engagement, and theoretically explaining why those professionalisation factors potentially affect psychological conditions of engagement.

2.3.2 Entrepreneurial Orientation and Employee Engagement

The EO construct, as it is known today, was perhaps initially discussed by Miller (1983), who recognised entrepreneurship as a multidimensional concept encompassing a firm's actions relating to technological innovation, risk-taking, and proactiveness. This definition indicates that all three EO factors, i.e., innovativeness, proactiveness, and risk-taking, should simultaneously exist in an entrepreneurial firm. Since then, scholars have tried to find the essence of EO and agreed to conceptualise EO as a behavioural phenomenon (George and Marino, 2011). Conceptualising EO as a behaviour provides some advantages. First, when behaviour is evincible, it can be objectively measured. Thus, the ability to measure EO would lead to a knowledge of entrepreneurial process level that is comparable across different firms. Second, when behaviour is manageable, the EO factors can be intervened through certain organisational strategies, systems, structures, and cultures (Covin and Slevin, 1991).

Further, holding the EO construct as an organisational behavioural phenomenon, a wide range of EO definitions have emerged, mostly referred to Miller's (1983) and Covin & Slevin's (1988) definitions. Miller's (1983) definition introduced three EO factors: innovativeness, proactiveness, and risk-taking. Covin & Slevin's (1988) definition indicated EO as a strategic posture manifested in managerial preference. The recent definitions modified these previous definitions by either reducing or extending the domain of the EO construct. Table 2.3, below, presents several EO definitions and how they have evolved from Miller's (1983) definition. The diverse definition of EO exhibits the evolution of its abstraction level, either becoming more specific (e.g., Lumpkin & Dess, 1996; Pearce et al., 2010; Zahra & Neubaum, 1998) or more general (e.g., Anderson et al., 2015; Merz & Sauber, 1995). Unfortunately, the different level of abstraction across different EO definitions did not enable them to be treated differently. Thus, it might be better to position EO as a construct family that has several kinds of contextually derived EOs. The chosen definition should be general enough to cover the context, and specific enough to examine the case sharply (George and Marino, 2011).

Table 2.3 EO Definition

References	Definitions	Notes
Miller (1983, p. 771)	Entrepreneurship is a multidimensional concept encompassing the firm's actions relating to technological innovation, risk-taking, and proactiveness	Introduced innovativeness, proactiveness, and risk-taking as EO factors
Covin & Slevin (1988, p. 218)	The extent to which top managers are inclined to take business-related risks (the risk-taking dimension), to favour change and innovation in order to obtain a competitive advantage for their firm (the innovation dimension), and to compete aggressively with other firms (the proactiveness dimension)	Indicated EO as a strategic posture manifested in managerial preference
Merz & Sauber (1995, p. 554)	The firm's degree of proactiveness (aggressiveness) in its chosen product-market unit and its willingness to innovate and create new offerings	Reduced the EO dimensions by excluding the risk-taking factor
Lumpkin & Dess (1996, p. 136)	Five dimensions-autonomy, innovativeness, risk-taking, proactiveness and competitive aggressiveness - have been useful for characterising and distinguishing key entrepreneurial processes, that is, a firm's EO	Extended the EO dimensions by adding autonomy and competitive aggressiveness factors
Zahra & Neubaum (1998, p. 125)	The total of a firm's radical innovations, proactive strategic action, and risk-taking activities that are manifested in its support of projects with uncertain outcomes	Reduced the EO scope just for a certain project
Covin, Green & Slevin (2006, p. 57)	A strategic construct whose conceptual domain includes certain firm-level outcomes and management-related preferences, beliefs,	Indicated EO as strategic preferences, beliefs, and

	and behaviours as expressed among a firm's top-level managers	behaviours of top-level management
Pearce, John, Fritz et al. (2010, p. 219)	A set of distinct but related behaviours that have the qualities of innovativeness, proactiveness, competitive aggressiveness, risk-taking, and autonomy	Extended the EO dimensions by adding autonomy and competitive aggressiveness factors
Anderson, Kreiser, Kuratko et al. (2015, pp. 1582–1583)	A second-order, firm-level construct comprised of two lower-order dimensions: entrepreneurial behaviours (encompassing innovativeness and proactiveness), and managerial attitude towards risk (risk-taking)	Conceptualised EO as firm's entrepreneurial behaviour and managerial attitude..."

Entrepreneurial orientation has been widely used and well proven as a useful construct to understand the organisational transformation process to be less bureaucratic and more entrepreneurial due to two reasons (Covin and Lumpkin, 2011). First, the EO construct fundamentally reflects the entrepreneurial degree of a firm because EO considers entrepreneurship as a behaviour instead of a singular act. In this way, the EO construct contains some behaviours that are commonly used as theoretical criteria for the existence of entrepreneurship within a firm. Second, as continuous variables, EO factors are capable of assessing and comparing the entrepreneurial level across firms. A specific entrepreneurship act (e.g., joint ventures, spin-off) may vary across firms, therefore comparing their entrepreneurial level is not possible. On the other hand, the EO construct provides a common metrics set, allowing overall entrepreneurship levels to be assessed and compared. Therefore, the EO construct is commonly accepted as a means to conceptualise what it means for a firm to be considered entrepreneurial (George and Marino, 2011).

Since EO was introduced as a strategy posture (Khandwalla, 1977; Miller and Friesen, 1978) and widely accepted to measure entrepreneurial behaviour (Covin & Slevin, 1989; Miller, 1983; Zahra, 1991, 1993), EO dimensions have consistently referred to innovation, proactiveness, and risk-taking (Miller, 1983). Innovativeness is related to the introduction of new products, services, and process through R&D, while proactiveness refers to opportunity-seeking and anticipation of future demand (Rauch et al., 2009, p.763). Moreover, risk-taking

points to venturing actions by investing significant resources under unknown and uncertain environments. Subsequently, Lumpkin & Dess (1996) identified that competitive aggressiveness and autonomy could be considered as entrepreneurial behaviour, and proposed them as EO additional dimensions. Competitive aggressiveness is exhibited when competing against a competitor in order to outperform industry rivals (Rauch et al., 2009), while autonomy refers to independent action undertaken by individuals or teams to promote and realise ideas (Lumpkin & Dess, 1996).

Regarding its dimensionality, EO is conceptualised as a unidimensional or multidimensional construct. As a multidimensional construct, EO is established as a set of independent factors, such as innovativeness, proactiveness, risk-taking, autonomy, and competitive aggressiveness (Lumpkin and Dess, 1996). According to the direction of the relationship between the construct and its factors, there are two basic forms of EO as a multidimensional construct, i.e., aggregate and superordinate constructs (Edwards, 2001). As a superordinate construct, EO represents a general concept manifested by its factors, and the relationship is considered as flowing from EO to its factors. Therefore, its factors are statistically expected to covary (George and Marino, 2011). Although the empirical research of EO mostly relies on a unidimensional approach, adopting EO as a multidimensional construct is promising (Miller, 2011). In this way, the researcher can examine the effect of individual EO factors on firm performance and find out which EO factor is more or less impactful. If each EO factor has a different effect on firm performance, then the firm can only focus on the most impactful EO factor.

Previous empirical findings demonstrated the various magnitude of EO's positive impact on firm performance. A meta-analysis by Rauch et al. (2009) suggested that the various magnitude across samples was caused by the moderating effects of firm size and technology content of the industry. The impact of EO on firm performance was higher for micro than large businesses, and higher for high-tech than for non-high-tech businesses. Comparing the individual impact of EO factors, innovativeness has the highest impact, while proactiveness has the lowest positive relationship with performance, but the difference was not statistically significant (Rauch et al., 2009). Later, Miller (2011) supposed each individual EO factor to manifest differently according to the firm context. For instance, innovativeness may be more impactful for high-tech firms, while proactiveness may be more beneficial for intrapreneurial giant firms, and risk-taking maybe stands out more in small firms.

In EO studies, various indicators were reported to measure the performance. They were commonly categorised as financial (e.g., Lumpkin & Dess, 2001; Richard, Barnett, Dwyer et al., 2004; Zahra, 1996) or nonfinancial performance factors (e.g., Li, 2001; Swierczek & Ha, 2003). There was no significant difference reported between the magnitude impact of EO on financial and on nonfinancial performance. Financial aspects (either profitability or growth) were mostly used to measure the performance. Only around one-third of EO studies used nonfinancial firm performance (Rauch et al., 2009).

There were various nonfinancial performance measures used in the EO studies, such as market performance (Li, 2001), customer service (Caruana et al., 2002), strategic alliance portfolio (Marino et al., 2002), job creation (Swierczek and Ha, 2003), spin-off performance (Walter et al., 2006), and religious congregation performance (Pearce et al., 2010). EO evidently has a positive relationship with all kinds of nonfinancial performance. Further, when EO is conceptualised as a multidimensional construct, it seems that innovativeness has the highest impact on nonfinancial performance (Li, 2001; Swierczek and Ha, 2003; Pearce et al., 2010). For instance, innovativeness is the only EO factor having a significant positive relationship with market performance (Li, 2001) and with religious performance (Pearce et al., 2010). Unfortunately, no nonfinancial performance types were related to employee engagement.

Conceptualised as a strategy to transform organisations toward being less bureaucratic and more entrepreneurial (Covin and Lumpkin, 2011), EO may affect working life and therefore affect employee engagement (Truss et al., 2006). Unfortunately, previous studies, as explained above, have not examined the effect of EO as a multidimensional construct on engagement. Relying on the burnout-antithesis framework (Maslach et al., 2001), the current studies (e.g., Bakker et al., 2007; Bhatnagar, 2012; Hakanen, Perhoniemi & Toppinen-Tanner, 2008; Huhtala & Parzefall, 2007) only examined the relationship between innovation and job demand, job resources, and work engagement. Innovativeness can work as a job demand or resource, depending on how it is managed (Huhtala and Parzefall, 2007). As a job resource, innovativeness can help employees buffering burnout effects (Bakker et al., 2007), and positively affect work engagement through personal initiatives (Jari J. Hakanen et al., 2008). More advanced findings of the relationship of innovativeness and other EO factors with employee engagement are presented within the development of the hypotheses in Section 3.3.

Obviously, only investigating innovativeness is not sufficient to understand the impact of entrepreneurial strategy on employee engagement. To fill the gap, it needs more comprehensive attempts - by examining the relationship of other EO factors with employee engagement. In addition, it also needs relevant theory to explain why EO potentially affects the psychological conditions of engagement.

2.4 The Roles of Family Firms and National Cultural Context

In entrepreneurship research, contextualisation helps to integrate existing theories (Zahra et al., 2014). First, it can link the research questions to the underlying cultural, historical setting, or another contextual background. Thus according to the different settings, contextualisation can offer alternative explanations for the same phenomenon. This situation should encourage researchers to identify key contingencies affecting that phenomenon, and thereby clarify the nature of the relationship forming that phenomenon. According to where the entrepreneurship activities happen, the context dimension has these main types, i.e., business, social, spatial, institutional (Welter, 2011), ownership and governance (Zahra et al., 2014) dimensions. The institutional dimension covers cultural and societal norms, while the ownership and governance dimension covers family business status.

Similarly, analysing the roles of context for engagement research can link the research questions to certain governance or cultural backgrounds. The unique governance or cultural circumstances may produce a typical relationship between employee engagement and its antecedents. Therefore, it offers alternative explanations for the engagement phenomenon. For instance, typical family firm governance (that is created by self-controlled, dual roles, and altruism behaviour) (Schulze et al., 2002) may be favourable or unfavourable for employee engagement. The way family firm governance encourages trust and personal relationships (Corbetta & Salvato, 2004a) may be favourable for employee engagement. However, the way family firm governance leads to moral hazard (Lubatkin et al., 2005) may be unfavourable for employee engagement. A more detailed explanation about the potential influence of family firm characteristics on the relationship between employee engagement and its antecedents is presented in sub-sections 3.2.1 and 3.3.1. In addition, a detailed explanation about the potential influence of national cultural dimensions on the relationship between employee engagement and its antecedents is presented in sub-section 2.4.3.

Considering these reasons, it is relevant to investigate employee engagement in the family firm context and enclose Southern Asian cultural context in the analysis. Specifically, considering the distinct characteristics of family firms, it is interesting to examine how they produce different effects on the relationship of employee engagement with professionalisation or EO. Also, as the conceptions of employee engagement are mostly developed in Anglo countries settings (see Harter et al., 2002; Kahn, 1990, 1992; Maslach et al., 2001; Saks, 2006; Schaufeli et al., 2002), it is important to anticipate the different results and explain them from the view of Southern Asian culture.

The following subsections discuss the lack of family firm context and the dominance of Anglo-cultural context as well as the lack of Asian-cultural context in the existing employee engagement studies. Beforehand, to have sufficient understanding of the context that is used in this thesis, they also present the typical characteristics of family firms that distinguish them from nonfamily firms, and the cultural dimensions of Southern Asian countries.

2.4.1 The Definition and Theoretical Perspective of Family Firm

Despite numerous attempts by researchers to develop conceptual and operational definitions of family firms, no consensus has emerged yet (Sharma, 2004). Extant definitions of family firms mostly distinguish family from nonfamily firms (Sharma, 2004). Thus far, two main theoretical approaches have emerged: the components-of-involvement/structure-based approach (Litz, 1995; Chua et al., 1999) and the essence/intention-based approach (Litz, 1995; Chua et al., 1999; Habbershon et al., 2003). Components-of-involvement approach perceives a firm as a family firm if some family involvement exists, such as ownership, management, governance, or succession (Litz, 1995; Chua et al., 1999). A firm is a family firm if it has at least one of familial ownership and management (Litz, 1995). Therefore, there are three combinations to qualify a firm becoming a family firm, i.e., family owned and family managed, family owned but not family managed, and family managed but not family owned (Chua et al., 1999).

Considering the inability of components-of-involvement approach in assessing intra-organisational aspirations toward or away from being family firm, the intention-based approach was introduced (Litz, 1995). According to this approach, the family firm definition should cover distinct behaviour characterising the essence of a family firm (Litz, 1995; Chua et al., 1999; Chrisman et al., 2005). For example, it should cover the family intentions and

vision (Chua et al., 1999), and/or another behaviour that characterises the essence of a family firm (Chrisman et al., 2005). Integrating those two approaches, the definition of the family firm can be stretched by considering the extent of its ownership and management concentration within a family unit, and the extent of family members strive to achieve, maintain, and/or increase intra-organisational family-based relatedness (Litz, 1995).

The intention-based approach should allow researchers and family firms themselves to classify whether firms with the same level of family involvement are family firms or not (Chua et al., 1999). Besides, the intention-based approach is more theoretical in nature and can thus potentially contribute to family firm theory elaboration (Mazzi, 2011). Nevertheless, this approach is less frequently employed by studies that evaluate family firm financial performance (Lindow, 2013). Indeed, some attempts to find a relationship between family involvement and essence were unsuccessful. For instance, Chua's et al. (1999) empirical study summarised that family involvement variables were very weak predictors of family firm intentions that pursue the vision.

Notwithstanding the two different definitional approaches, recent developments encourage a broad, multi-dimensional, and continuous definition rather than narrow, single-dimensional, and dichotomous definitions. Consequently, family firm definitions tend to rely more on the degree and dimension of family influence rather than on the cut-off point distinguishing the family firm from the non-family firm (Lindow, 2013). Following this trend, Family Power Experience Culture (F-PEC) scale (Astrachan et al., 2002) can be an alternative model to estimate the degree of family influence on business as a continuous variable. One key advantage of this approach is that continuous variables potentially uncover the type and degree of family influence. This makes comparisons across studies more straightforward.

F-PEC covers three important dimensions of family influence: power, experience, and culture. The power dimension estimates the overall influence level of family members through ownership, governance, and management. These subscales are additive and interchangeable. The experience dimension refers to succession and the number of family members involved in the firm. Experience accumulated from generational transfer follows an inverse exponential pattern. The highest experience increment is gathered from the first to second succession process. Then, it declines over the next generation. Finally, the culture dimension assesses the degree of family and business value overlapping and family firm commitment (Astrachan et al., 2002; Klein et al., 2005).

Although F-PEC does not lead to an exact definition of a family firm, it presents an instrument that enables integration of different theoretical strands and compatibility of cross-national research. F-PEC also offers a scale that supports the convergence of both components-of-involvement and intention-based definitional approaches (Klein et al., 2005). Therefore, F-PEC has been more popular over time as a proper instrument to comprehensively measure the degree of being a family firm. Since it was introduced, researchers have used F-PEC in full or in part (e.g., Jaskiewicz & Klein, 2007; Rutherford et al., 2008; Zahra et al., 2008). In a lot of cases, family firm owners, BoD members, CEO, or senior managers, are invited to provide measures of the various fill F-PEC items.

Still, while F-PEC may be a less ambiguous, broader and more dimensional definition, it provides very complex measures. It needs 22 items to assess the degree of firm familiness, i.e., four items for power subscale, six items for experience subscale, and 12 items for culture subscale (Klein et al., 2005). Besides, to have accurate information, F-PEC needs employees with high-rank managerial level as the respondents. Therefore, F-PEC may be the least practical measure, especially if the research is conducted in the developing countries that have high uncertainty and a less egalitarian culture. In these conditions, previous studies and other supporting information are rarely available, and bureaucratic procedures often constrain access to the high-rank firm representatives.

Conversely, the components-of-involvement approach provides the simplest assessment method to identify the existence of family participation in a firm's ownership or management. Particularly, the assessment process less likely needs employees with high-rank managerial level as the respondents to estimate the family involvement in the firm ownership or management. Thus, this approach is most suitable for research having a limitation regarding the availability of family firm top executives as the respondents. Having ordinary employees as respondents is sufficient to estimate the existence of family participation in the business. Further practical advantages of components-of-involvement approach are presented in subsection 4.7.2.

In addition to the knowledge about its various main definitions, a deeper theoretical understanding of distinct characteristics of the family firm is necessary. Scholars employ agency and stewardship theories in the family firm context to provide evidence of family firm uniqueness in some important dimensions, i.e., agency costs, competitive advantages and

corporate governance structure (Berrone et al., 2012; Siebels & zu Knyphausen-Aufseß, 2012).

The basic tenet of agency theory is a relationship reflecting agency structure of a principal (employer) and an agent (employee) who are collaborated but have goals disagreement and different attitudes toward risk (Corbetta and Salvato, 2004a). Agency theory is built upon the model of man, assuming that an individual is a rational actor who seeks to maximise his or her individual utility (Jensen and Meckling, 1976). Consequently, the agent tends to act based on their own desires rather than to maximise principal's interest. Thus, to control agent behaviour toward aligned goals, the principal needs to implement incentive mechanisms (either reward or punishment). These mechanisms are called agency cost (Karra et al., 2006).

In the firm context, these agency problems come out when the ownership and the management are separated. For that reason, in the family firm, the overlapping tendency of ownership and management and reciprocal-symmetrical altruism behaviour potentially align the interest, reduce agency cost, and help develop an advantage (Karra et al., 2006; Schulze, Lubatkin, & Dino, 2002).

On the other hand, owner self-controlled, owner-manager dual roles, and altruism behaviour, as distinct family firm characteristics, simultaneously create a kind of typical family firm governance mechanisms that potentially lead to agency problems (Schulze et al., 2002). The typical mechanisms of family firm governance, such as nepotism in employee recruitment, subjective career promotion, and unfair reward system are unattractive factors for qualified talents and in a way discourage existing employees to contribute their best effort. These labour failures would direct firm to the first agency problem, named adverse selection, i.e., the risk of hiring less talented agents or those who use the hidden information to get hired (Lubatkin et al., 2005). Even worse, that mechanism also drives the second agency problem, i.e., moral hazard.

Agents who misuse hidden information also likely engage in shirking while unmotivated employees tend to be free riders. Managers (agents) who are also owners (principals) obviously rely on their own self-control to satisfy their individual utility, such as maximise own welfare. This circumstance tempts agents to fall into corruption and shirking manners. Altruism relates to the parents' utility function of satisfying their children interest, therefore, higher altruism level can increase the parent's tendency to spoil their children. If

this condition loosen parents' control over their children, then moral hazard increase. In this way, parental altruism may aggravate adverse selection by less willing to properly compensate and promoting talented non-family agents (Davis et al., 1997).

While agency theory mostly explores principal-agent interest discrepancy, a supplementary theory is required to explain the sources of principal-agent interest alignment. (Davis et al., 1997)(Davis et al., 1997)(Davis et al., (1997))(Davis et al., 1997)(Davis et al., 1997)(Davis et al., 1997)(Davis et al., 1997)(Davis et al., 1997)(Davis et al., 1997)(Davis et al., 1997)Based on the concept of altruism an alternative approach, named the stewardship theory, that relaxes the assumption of opportunistic agent behaviour emerged in the family business literature (Davis et al., 1997). Rooted in psychology and sociology, this theory perceives the individual as a steward who put utility of pro-organisational and collectivistic behaviours higher than individualistic and self-serving behaviours (Le Breton-Miller and Miller, 2009). This way, individuals are motivated not only by basic need such as financial matters but also by higher-level needs such as self-actualisation, social contribution, loyalty, and generosity (Corbetta and Salvato, 2004a).

Thus, while extrinsic financial impetus likely encourages agency, intrinsic non-financial impetus likely encourages stewardship behaviour (Davis et al., 1997). Further, besides the assumption of individual behaviour model, stewardship theory differs from agency theory in term of psychology aspects (i.e., motivation, social comparison, identification, power) and situational aspects (i.e., culture, and management philosophy) (Le Breton-Miller & Miller, 2009).

Consequently, based on stewardship concept, family firm owners (principals) tend to encourage trust, empowerment and involvement, as well as accentuate long-term benefits of all stakeholders rather than their own short-term financial motive (Corbetta & Salvato, 2004a). They rely on informal and personal approach rather than formal and institutional and feature performance enhancement rather than efficiency. In return, employees (stewards) will present their loyalty, high commitment and best performance for the sake of organisation goals (Siebels and zu Knyphausen-Aufseß, 2012) that are aligned with employees goals. This type of governance reduces agency costs and enhances performance within the organisation.

2.4.2 The Family Firm and Employee Engagement

The theoretical knowledge about the distinct characteristics of the family firm, as described above, should be beneficial to investigate why being a family firm affects the relationship of employee engagement with professionalisation as well as with EO. Employees may respons to family firm typical characteristics in two different ways.

First, according to the agency theory (Jensen and Meckling, 1976), employees may negatively respons to the family firm mechanisms that lead to agency problems (Schulze et al., 2002). For instance, nepotism in employee recruitment, subjective career promotion, and unfair reward systems can discourage employees' performance. These mechanisms can intervensi via incentive mechanisms for employees effort. Consequently, employees may feel less certain and less worthwhile for any effort they invest in the organisation. This situation can reduce employee meaningfulness experience and therefore reduce employee engagement. Second, according to stewardship theory (Davis et al., 1997), employees may positively respond to the family firm characteristics that typically encourage trust, empowerment, involvement, informal relationship, and long-term benefits of all stakeholders. These circumstances are important to increase employees feeling of being trustworthy and meaningful, therefore, increase employee engagement.

At the same time, having a control system, which is a professionalisation component, may help to lessen the agency problems by inhibiting unfairness situations and agency opportunistic behaviour. Although agency theory is applicable to elaborate how external forces (e.g., control systems) lessen opportunistic agent behaviour and reduce principal-agent interest discrepancy, this theory cannot capture the intrinsic motives inside individuals that potentially synchronise principal-agent interest. Stewardship theory (Davis et al., 1997) may help to explain how professionalisation and EO affects intrinsic nonfinancial motivations, such as engagement, within individuals in the firm. For instance, control system and authority decentralisation, both as professionalisation factors, may affect employee engagement in a different way. When control systems potentially reduce the feeling of being trusted, authority decentralisation can increase a sense of involvement. A more detailed analysis of the possible impacts of professionalisation and EO factors on employee engagement in family firms is presented in subsection 3.2.1 and 3.3.1.

Given the potential roles of family firm context in the relationship of employee engagement with its antecedents, unfortunately, only a few studies have discussed them.

The available engagement research in family firms has simply indicated that the higher employee engagement level for family firms (compared with that for nonfamily firms) was caused by emotional reasons (Azoury et al., 2013). They have not examined the antecedents of employee engagement. There is an opportunity, therefore, to fill this gap in the literature by examining the roles of family firm context in the relationship between employee engagement and both professionalisation and Entrepreneurial Orientation.

2.4.3 Cultural Context and Employee Engagement

As an Asian country, Indonesia has cultural characteristics that are typically attached to Eastern countries. Specifically, according to the cultural clustering, Indonesia is grouped into Southern Asian countries with Malaysia, Thailand, Philippines, India, and Iran (Gupta et al., 2002; House, 2004). This study uses Hofstede's (1983) concept of cultural dimensions to bring national cultural context due to four reasons (Minkov and Hofstede, 2011). First, while previous cross-cultural studies treated culture as a single variable, this concept unpacked culture into four independent dimensions that addressed the basic issues of most societies.

Second, those dimensions were constructed at the national level. Therefore, they are suitable for this study, which is looking for explanations from the national cultural context. Third, these dimensions have been believed to represent stable national differences. Fourth, Hofstede's (1983) work provided evidence that national culture could influence organisational behaviour and management practices. For instance, national culture evidently affects human resource management practice (Ramamoorthy et al., 2005; Cho and Yoon, 2009) and entrepreneurial orientation (Lee and Peterson, 2001; Marino et al., 2002; Kreiser et al., 2010). In addition, Hofstede's (1983) concept has been employed to explain the impacts of national cultural dimension on the relationship between employee engagement antecedents and consequences (e.g., Auh et al., 2016; Begley & Lee, 2002; Felfe et al., 2008).

Culture as a psychological characteristic of the surrounding social system has four main dimensions: power distance, collectivism, masculinity, and uncertainty avoidance (Hofstede, 1983). The definitions of these culture dimensions and their scores for Indonesia, Southern Asian, Anglo countries, and the world average are presented in Table 2.4 (Hofstede, 1984; Irawanto, 2009, p.42; Hofstede et al., 2010). According to these dimensions, Indonesia, as well as other Southern Asian countries, has significantly higher scores of power distance and collectivism than the Anglo countries' scores. Presenting the similarity of Indonesia and

Southern Asia's cultural dimension, it is expected that the results of this study reflect the relationship among employee engagement, firm professionalisation, and firm EO in the context of the Southern Asian cultural cluster as well.

Table 2.4 Cultural Dimensions Scores

Hofstede's Dimensions	Average index scores (0 – 100)			
	Indonesia	Southern Asia	Anglo	World
Power distance				
"The extent to which the less powerful members of organisations accept that the power is distributed unequally."	78	79.17	33.33	60.21
Collectivism				
"A situation in which people belong to in-groups which are supposed to look after them in exchange for loyalty."	86	69.83	16.83	58.83
Masculinity				
"The degree of assertiveness and comprehensiveness (as the opposite of modesty and caring)"	46	48.83	61.17	50.17
Uncertainty avoidance				
"The degree to which people prefer structured over unstructured situations"	48	48.50	44.00	65.06

Note: According to Gupta et al. (2002), the members of Southern Asian and Anglo cultural clusters are:
- Southern Asia: Indonesia, Malaysia, Thailand, Philippines, India, and Iran
- Anglo : USA, Canada, UK, Ireland, Australia, New Zealand, South Africa

Different practices of professionalisation aspects should influence the behaviour of individuals living in the collectivist culture to different degree. Previous findings demonstrate that although human resource management practices could improve employee performance, the improvement was more profound for employees with individualistic orientations. It might happen because these progressive human resource management practices were originally developed in western countries that emphasise individualism (Cho and Yoon, 2009). Thus, one could say that a paternalistic-based or collectivist-based human resource system is more beneficial to collectivist-orientated employees (Ramamoorthy et al.,

2005; Li et al., 2015; Chen et al., 2016). It is plausible considering that some collectivism dimensions (e.g., group self-concept, the supremacy of group goals and interest) were negatively related to progressive human resource management practices (e.g., test-based hiring, merit-based promotion, formal performance appraisal and rewards for an individual) (Ramamoorthy and Carroll, 1998).

Living in a high collectivist culture, Indonesian employees have strong feelings as a member of a group in the workplace (Irawanto, 2009; Hofstede et al., 2010). In a high collectivist culture, the relationship of a subordinate with a superior is paternalistic, the organisation's structure is built upon trust (Ertürk, 2007; Mangundjaya, 2013), and organisational activities are intended to maintain group harmony (Irawanto, 2009; Hofstede et al., 2010). Consequently, the way a control system is implemented also matters for employee engagement in a high collectivist culture. For instance, peer-review assessment approach may be more acceptable than a direct appraisal system. Thus for Indonesian employees, the implementation of a control system that considers in-groups interest may be more favourable for employee engagement.

Further, living in a high power distance culture, Indonesian employees are familiar with authority centralisation and are accustomed to power sharing inequality. Therefore, Indonesian employees are less likely to expect to participate in the decision-making process (Hofstede, 1983; Hofstede et al., 2010). Conversely, authority centralisation and formal rules are accepted as common practices by Indonesian employees in order to perform their roles effectively. Therefore, a clear guidance to do their jobs is important for Indonesian employees, but having authority may be less appreciated. Consequently, compared to control systems, authority decentralisation in a high power distance culture seems less likely to encourage engagement. In addition to their impact on professionalisation, power distance and collectivist culture are also related to entrepreneurial behaviour (Lee and Peterson, 2001; Marino et al., 2002; Kreiser et al., 2010). Societies accepting power-sharing inequality and collective decision making are likely to be more concerned about class structure, job security, and consensus decision making. They are unfamiliar with individual decision making and flat organisational structures. Entrepreneurial activities (e.g., new ideas development), however, need fast decisions, which are likely individually made and encouraged in a less bureaucratic structure (Lee and Peterson, 2001).

Previous studies have found a negative relationship of firm innovativeness with both power distance and collectivism (Shane, 1993; Mueller and Thomas, 2001; Rinne et al., 2012). This may happen because individuals in a high power distance society find it difficult to express their ideas when they discuss with individuals from different strata. Individuals with lower strata level most likely expect guidance and orders, therefore have a lower opportunity to use their imagination (Rinne et al., 2012). As a high power distance society does not provide equal opportunities for advancement (Hofstede et al., 2010), lower level individuals are less likely being motivated to offer innovation because they may not get the direct rewards for their innovation (Rinne et al., 2012). Also, collectivist societies tend to inhibit people to express their mind if it potentially invites confrontation (Hofstede et al., 2010). Controlling people's aspiration to maintain harmony thus limits their ability to express creative ideas which in turn diminishes innovation (Rinne et al., 2012).

Previous studies also exhibit a negative relationship between power distance and both proactiveness and risk-taking (Kreiser et al., 2010). These findings indicate that organisations operating in a society that has accepted unequal power distribution may be less likely to improve their industry standing and take risks than organisations in other cultures. These organisations are less likely provide freedom and autonomy for their managers to make bold decisions as high power distance environment tends to encourage conservatism within organisations (Kreiser et al., 2010). Also, since the business in high power distance cultures is less dynamic, firms may not explore opportunities and establish proactive strategies to survive (Lumpkin and Dess, 2001; Kreiser et al., 2010).

All these findings demonstrate that culture is an important variable to predict the entrepreneurial potential of a country (Mueller and Thomas, 2001). For these reasons, it seems that employees living in a high power distance and collectivist culture are less likely to expect the existence of entrepreneurial behaviour in their employing firm. Thus, even if the additional EO level helps to increase employee engagement, its magnitude may be not profound.

The characteristics of Indonesian culture may be influenced by its historical and demographic aspects. Indonesia has a very long imperialism history, even before the Western colonialism era. Indonesian history has been divided into overlapping periods of pre-history, Hindu & Buddhist kingdoms (358 – 1500), the rise of Muslim states (1200 – 1946), European colonisation (1512 – 1942), the emergence of Indonesia (1899 – 1950), and the

Independence era (1950 – now). Under imperialism and colonialism, ancient Indonesian people had to give up their freedom and human rights to the rulers' absolute power. Therefore, Indonesian people were familiar with the unequal power distribution. Although it was declared as a United Republic state in 1945, with democracy as the 4th national principle, Indonesian people have just started to be truly exposed to democracy since the reform era began in 1998. Obviously, after many centuries' experience with undemocratic systems, Indonesian people have only learnt to live in a democratic society for just less than 20 years.

Indonesian society is dominated by Javanese-Muslim ethnicity. More than 40% of Indonesia's population are members of the Javanese ethnic group, while more than 87% of Indonesians are Muslim. Further, the area density is very unbalanced: 57.5% of Indonesia population reside on Java Island, which is just 8.75% of Indonesia's land mass.

Javanese local wisdom teaches that people should be aware of others' feelings and well-being, without getting too involved in other's problems, except when being asked for help. This value is called *tepa selira*, which reflects a collectivist orientation (Sardjono, 1992). In this way, the interaction among people should avoid any conflict and accentuate honouring people to maintain togetherness and good relationships (Magnis-Suseno, 1988; Mangundjaya, 2013). Strengthened by the value of brotherhood among Muslims (Leiken and Brooke, 2007), the collectivist orientation should be even stronger. These historical facts, combined with the dominance of Javanese-Muslims in the population, might lead Indonesia to have high power distance and collectivist culture.

The conceptions of management, entrepreneurship, and family firms (Steier, 2009; Lumpkin et al., 2011), as well as employee engagement, have mostly been developed within Anglo countries settings (e.g., Kahn, 1990; Maslach et al., 2001). Accordingly, the knowledge of cultural dimensions' comparison should be beneficial in providing insightful explanations if current engagement concepts do not fully work for Indonesian cases. Unfortunately, the important roles of cultural context in the relationship of employee engagement with its antecedents have not been sufficiently studied. Having information about how certain cultural dimensions affect employee engagement should be beneficial for global corporations in order to tailor their strategies that are intended for employee engagement improvement. For instance, if power distance indeed matters for employee engagement in the way explained above, then the firm should only focus on establishing an orderly control system to improve employee engagement in a high power distance culture.

The studies using Asian cases only examined the relationship of engagement and its antecedents, without discussing the national cultural dimension impacts on that relationship (e.g., Agarwal, 2014; Bhatnagar, 2007; Biswas, Varma & Ramaswami, 2013; Chaudhary et al., 2011; Nasomboon, 2014; Suharti & Suliyanto, 2012). For instance, Suharti & Suliyanto (2012) found a relationship between employee engagement and organisational culture and leadership style. Supportive organisational culture and leadership style that fulfill employee needs will improve employee engagement (Suharti and Suliyanto, 2012). However, this empirical research did not discuss the effect of the Indonesian cultural dimension. Obviously, this is an opportunity to fill the literature gap by examining the roles of Southern Asian culture in the relationship between employee engagement and professionalisation or EO.

2.5 Summary

This chapter has elaborated the emerging perspectives of employee engagement in order to provide fundamental knowledge about its nature. Having a comprehensive understanding of employee engagement from a different perspective is important to set theoretical foundations for this study. For instance, considering that the research questions of this study are to investigate the impacts of professionalisation and EO factors on employee engagement, understanding the employee engagement determinants is therefore crucial. For that reason, Kahn's (1990) conception is preferable, as it determines the psychological conditions of engagement and the factors potentially affecting those conditions. In this way, the study can be directed to investigate the potential impacts of professionalisation and EO factors on employee engagement psychological conditions (i.e., meaningfulness, safety, and availability). In addition, this study may also need Saks' (2006) mutidimensional approach to explain why employees respond to psychological conditions with a varying level of engagement.

Further, having considered the conception of professionalisation and EO, this chapter has viewed them as potential employee engagement antecedents. However, remarking on the lack of previous research, this chapter has noticed research opportunities in the relationship between employee engagement and professionalisation or EO. Finally, in presenting fundamental information about family firms and cultural dimensions, this chapter has remarked on the roles of family firms and the cultural context of engagement research.

The following chapter is going to present the hypotheses' development, examining the relationship between professionalisation factors and employee engagement, and the moderating effects of firm EO level and family business status on that relationship. Also, it is going to present the hypotheses' development by examining the relationship between EO factors and employee engagement, and the moderating effects of firm professionalisation level and family business status on that relationship.

3. Conceptual Model and Hypotheses

3.1 Introduction

Employee engagement is an important issue nowadays, therefore understanding its emerging process and identifying its antecedents are essential. Managerial preferences, such as professionalisation and EO, can play a part as potential organisational antecedents. Unfortunately, previous empirical studies drawing from four emerging perspectives of engagement did not specifically indicate professionalisation and EO as employee engagement antecedents. Also, the important roles of family firm and national cultural context on engagement issues have not got sufficient attention.

This chapter presents the development of a new conceptual model, explaining the relationship of employee engagement with professionalisation factors and with EO factors. Further, this chapter discusses the potential moderating effect of family business status (family vs. nonfamily firm) and EO on the relationship between professionalisation factors and employee engagement, as well as the moderating effect of family business status and professionalisation on the relationship between EO factors and employee engagement. Section 3.2 presents some hypotheses that are obtained from the relationship of professionalisation factors with employee engagement. Section 3.3 presents some hypotheses derived from the relationship of EO factors with employee engagement. Finally, Section 3.4 presents the potential impacts of firm characteristics (age and size) and respondent/employee profiles (age, tenure, education, rank) as the control variables with employee engagement.

The models and hypotheses are derived step-by-step from the following theoretical backgrounds. First, following Kahn's (1990) definition and conception of personal engagement, the dimensions and determinants of employee engagement are used to frame its antecedents. Second, social exchange theory (SET) (Cropanzano and Mitchell, 2005; Clercq and Rius, 2007) and the Job Demand – Resources (JD-R) model (Demerouti et al., 2001) are used to hypothesise the impact of professionalisation and EO factors on employee engagement. This research operationalizes authority decentralisation, financial and human resource control system as professionalisation factors, and innovativeness, proactiveness

and risk-taking as EO factors. Professionalisation and EO may affect employee engagement determinants, either as independent or moderator variables. Finally, relying on the agency and stewardship theory, the moderating impacts of family business status (family vs. nonfamily firms) are evaluated. The following sub-chapters present the arguments used to develop the model and hypotheses.

3.2 The Relationship of Professionalisation and Employee Engagement

As was indicated in subsection 2.2.1, organisational factors could potentially lead to employee engagement determinants if they can encourage employees to feel worthwhile, useful, valuable (psychological meaningfulness experience), trusted, secure, consistent (psychological safety experience), and capable (psychological availability experience) (Kahn, 1990). Apart from employee-self factors, firms have significant roles in emerging employee engagement psychological conditions, such as by implementing a kind of managerial preference that has a positive relationship with employee engagement determinants.

Professionalisation - as a managerial preference - reflects the presence of formal infrastructure (Fang et al., 2012). It can promote employee engagement because formal, standardised, and well-communicated rules and procedures lead to predictable and consistent situations. These social situations, such as predictable and consistent reward distribution, may increase employees' perception of fairness regarding the compensations decision (distributive justice) and the process to determine those compensations (procedural justice) (Saks, 2006). When employees have a high perception of justice, in return they are likely to feel more responsible and perform better in their roles. Employees may feel more appreciated when they know there are fairly standardised procedures to measure and reward their efforts. Certainty, fairness, trust and challenge might improve employees' feelings of meaning, safety and availability (Kahn, 1990), leading to employee engagement.

Greenfield (2004) noticed that employee inability to understand the meaning and the impacts of their job is the main cause for employee disengagement. It happens because employees who are rarely involved in their job design are unable to relate their job to firm values. Loss of meaning in work lives might reduce psychological meaningfulness because people feel less worthwhile. Besides, less work control leads to role conflict, which is the main cause for the exhaustion dimension of burnout (Maslach and Leiter, 2008). Further,

when the final decisions are just given to the employees, they might fail to provide the best response in performing those decisions. Consequently, employee psychological availability is also diminished.

Conversely, employees' participation in decision-making positively affects self-efficacy (Latham et al., 1994), affective commitment (Brenda Scott-ladd et al., 2006; Cho et al., 2006), perceived supervisory support (Vanyperen et al., 1999) and autonomy (Brenda Scott-ladd et al., 2006). In general, when empowered employees find work meaning, their psychological meaningfulness is increased (Christian Kenan-Flagler and Slaughter, 2011), which prevents burnout (Maslach et al., 2001; Greco et al., 2006) and promotes engagement (Bakker and Demerouti, 2007). Furthermore, employees would feel more confident to express their ability if they got sufficient autonomy. Besides, autonomy and participation in decision-making are job resources that are positively related to engagement (Demerouti et al., 2001; Bakker and Demerouti, 2007; Crawford et al., 2010).

From a social exchange theory (SET) perspective (Cropanzano and Mitchell, 2005; Clercq and Rius, 2007), when authority decentralisation promotes work meaning and confidence, leading to psychological meaningfulness and availability respectively, employees perceive these as socioemotional resources received from the organisation. In return, employees repay them with more engagement and productive working. Thus, it is proposed that:

➔ *H1: The employees' perception about the implementation level of authority decentralisation has a positive relationship with employee engagement.*

A financial control system, such as budget control and financial targets, is a common manifestation of firm professionalisation (Dyer, 1989; Tsui-auch, 2004). Financial control can drive the organisation to be more efficient and disciplined in using resources, but it tends to make organisation structure and process more bureaucratic and mechanistic. However, in line with Hofstede et al (2010) and Rinne et al (2012), Indonesian employees living in a high power distance culture should welcome the more formalised context as this gives clear guidance needed to do their jobs effectively (Hofstede et al., 2010; Rinne et al., 2012). Thus, mechanistic financial control should not make Indonesian employees feel less trusted. Instead, it can help them feel more secure in performing their roles.

In addition, the financial control system can be used to communicate and evaluate firm goals more clearly, as well as to challenge employees. If financial control aspects (e.g.,

financial targets) are well communicated and evaluated through budget control, high levels of responsibility can emerge, which potentially improves engagement (Crawford et al., 2010). According to SET (Cropanzano and Mitchell, 2005; Clercq and Rius, 2007), if formal financial control system can make Indonesian employees feel secure in doing their jobs and increase their safety feeling, employees perceive these conditions as a socioemotional resource. Even more, if challenging and clear financial targets can arise their responsibility, then this can increase psychological meaningfulness. Thus, the following hypothesis is proposed:

➔ *H2: The employees' perception about the implementation level of the financial control system has a positive relationship with employee engagement.*

All human resource control aspects, i.e., employee recruitment, training programmes, assessment and payment, can encourage employee engagement. Previous empirical studies have demonstrated how job resources, such as formal performance feedback, had a positive relationship with engagement (Bakker et al., 2007; Bakker and Demerouti, 2007; Crawford et al., 2010). Likewise, talent management (Hughes and Rog, 2008), formal performance-based assessment and reward systems (Maslach and Leiter, 2008; Parkes and Langford, 2008; Moussa, 2013; Crawford et al., 2014) were also positively related to employee engagement.

Appropriate feedback improves communication quality between employees and their supervisors, preserves learning, and elevates competence (Bakker and Demerouti, 2007). In addition, well-arranged training improves the employee perception of organisational supports (Saks, 2006). It also builds up employees' confidence in the competence-trained area that encourages them to be more engaged in their job (Anitha, 2014). Importantly, well-designed training gives an opportunity for employees to grow. Although there have been studies that found a negative relationship of financial rewards with employee engagement (Fairlie, 2011), more studies have agreed about the positive effects of rewards and recognition on employee engagement (Crawford et al., 2014). Rewards reflect a return on employee investment in performing their roles. Thus this should drive meaningfulness determinants of employee engagement (Crawford et al., 2014).

Formal recruitment, assessment, and reward systems reflect organisation transparency, predictability and consistency. While these attempts lead to perceived justice and fairness, employees might feel obligated to equitably repay them with better performance in their roles by giving higher engagement (Saks, 2006). According to the SET view (Cropanzano and Mitchell, 2005; Clercq and Rius, 2007), if the human resource system

provides consistent situations to guarantee a fair return on employee self-investment and encourages other circumstances encouraging employee capability, then employees perceive them as socioemotional resources. In return, employees repay them with better performance in their roles by bringing more engagement. Therefore, it is proposed that:

➔ *H3: The employees' perception about the implementation level of the human resource control system has a positive relationship with employee engagement.*

3.2.1 The Moderating Effect of Family Business Status

According to agency theory (Jensen and Meckling, 1976), family firms gain benefit from professionalisation because control systems can prevent some typical negative features of family firms. The owner-manager dual role and asymmetric altruism commonly cause the negative characteristics of the family firm, for example, free-riding, predatory managers (moral hazard), attracting less competent employees (adverse selection) (Songini, 2006). Formal budgeting, reporting, and an incentive system can help restrict the opportunistic behaviour of the agent, while the official communication channel is beneficial for principals to inform their objectives. In short, the control system can reduce the agency cost stemming from dual role and altruism behaviour.

However, according to the stewardship theory, individuals are not merely driven by basic needs such as financial matters. Instead, they are also motivated by higher level needs, such as self-actualization, social contribution, loyalty, and generosity (Corbetta and Salvato, 2004a). If individuals (owners and employees) put the utility of pro-organisational and collectivistic behaviours above individualistic and self-serving behaviours (Le Breton-Miller and Miller, 2009), then that intrinsic impetus would align principal-agent interest. Further, considering that these intrinsic impetuses stem from informal and personal approaches, formal control mechanisms are not necessary, because they can discourage agent stewardship behaviour (Songini, 2006).

Following the discussion above, professionalisation can encourage or discourage employee engagement. It is favourable for employee engagement if it reduces the perception of unfairness towards nonfamily member employees. Conversely, it is unfavourable for employee engagement if it reduces the intrinsic motivation stemming from stewardship behaviour (Corbetta and Salvato, 2004a). According to Hofstede et al (2010),

formality is widely accepted in a high power distance culture. Indonesian employees, in particular, will generally have experienced formality in their family and education system. Thus, formal control mechanism should not necessarily hamper engagement of Indonesian employees.

However, the implementation of professionalisation in the family firm is more challenging and complicated due to the typical characteristics of the family firm (Chua et al., 2009). First, family firms pursue both financial and non-financial goals with a longer time horizon. Therefore, family firm employees may be exposed to more complex goals with more subjective decisions. Second, the altruism tendency in complement to the involvement of the family firm members in the management can interfere with the existing formal control system. Consequently, the authority decentralisation process in family firms may be less smooth than in nonfamily firms and the implementation of formal control system less effective (Gedajlovic et al., 2004; Chua et al., 2009). Considering those circumstances, the impact of each professionalisation factor - authority decentralisation, financial, and human resource controls - are examined below.

If employees do not have sufficient authority to utilise firm resources or to apply the most appropriate way to perform their roles, they might experience job burnout (Maslach et al., 2001). In contrast, when authority decentralisation invites employee participation in firm governance (Evans and Walter D. Davis, 2005; Patel and Conklin, 2012), it increases employee psychological meaningfulness. Indeed, empowerment and job autonomy are antecedents of engagement (Macey and Schneider, 2008).

However, the dual role characteristics of family firm owner-managers cause the decision-making process to be concentrated in firm owners and reduce employee involvement in firm governance (Donckels and Frohlich, 1991). Also, the legacy of family firm governance causes the authority transition more difficult. It may happen because the family firm owners obtain both financial and non-financial rewards from the ownership and leadership of their firms. Decentralising the decision authority to the employees can reduce some of those benefits. For instance, formal authority decentralisation can dilute the owners' privilege to use their leadership for activities related to parental altruism.

Accordingly, it is plausible that the owners will not fully release their influence even after an authority decentralisation system has been implemented (Gedajlovic et al., 2004). Thus, the informal power of family firm owners might restrain the positive impacts of formal

authority decentralisation on employee engagement. Consequently, as owners' authority reduces the socioemotional resources emerging from authority decentralisation mechanism, the employee repayment is also reduced. Hence, it is proposed that:

➔ *H1a: The positive relationship between the employees' perception about the implementation level of authority decentralisation and employee engagement will be weaker in the family firms.*

A formal financial control system is beneficial in reducing self-control problems, such as shirking and corruption. Therefore, it potentially reduces moral hazard (Schulze et al., 2003). In other words, financial control can reduce agency cost. This condition would prevent employees from withholding their efforts (Schulze et al., 2002), leading to a strengthening of employee engagement. However, the family firm nonfinancial goals make financial planning and performance measuring more difficult and cannot avoid owners' subjectivity. The uncertainty following family firm financial control is even apparent if the time horizon is longer. Obviously, the implementation of a financial control system in family films should compromise with the existed nonfinancial goals and the time horizon being considered (Chua et al., 2009). For the employees, this condition can reduce certainty and safety feeling. For this reason, the positive effects of the financial control system on employee engagement in family firms may less sound than in nonfamily firms. Therefore, it is proposed that:

➔ *H2a: The positive relationship between the employees' perception about the implementation level of the financial control system and employee engagement will be weaker in the family firms.*

Implementing a formal human resource control system might be useful for family businesses in some ways. Formal recruiting systems can reduce nepotism issues and adverse selection (Dyer, 2006). Formal performance evaluation systems can negate unfairness career promotion and reward distributions that are caused by parental altruism (D'Souza and Mulla, 2011). A fair evaluation is necessary to make employees better informed about their impacts and to provide an equitable growing opportunity, as well as to keep a good relationship with co-workers. These circumstances make employees feel more being appreciated and indicate procedural justice and organisational consistency. Therefore, they lead to psychological meaningfulness and safety. For these reasons, having a human resource control system should positively affect employee engagement in the family firm. However, the implementation of human resource control, especially employee assessment and reward

system, may be more complicated in family firms due to their nonfinancial goals and altruism tendency.

According to the agency theory framework (Jensen and Meckling, 1976), the assessment and rewarding process, as a way to optimise the utility accruing to both family firm owners (principals) and employees (agents) would follow these assumptions. First, agents wish to maximise compensation as they sacrifice leisure and instead expend effort. On the other hand, the principal's utility is firm performance maximisation, which is in part a function of the agent's ability and effort. Thus, the principals would design the rewards system with a purpose to entice agents to apply more effort to raise performance (Chua et al., 2009). Based on those assumptions, family firm nonfinancial goals, strategic time horizons, and altruism tendencies affect the rewards systems implementation with regard to employee engagement as explained below.

The principals should provide a transparent and fair assessment system to reward the agents for their contribution to the firm goals. It should not be a problem if the principals only consider firm financial goals achievement in the agent's assessment process. However, if family firm nonfinancial goals are also involved, then subjectivity may not be evaded in the process. In particular, the agent's assessment and reward process would be more complicated for a longer time horizon. Further, the altruism tendency would lead to the bias of assessment and reward in family firms. This is plausible as family firm owners not only need to maximise firm performance but also their family welfare. This way, family employees will likely be rewarded more than nonfamily employees, even where they contribute equally to the firm's financial performance (Chua et al., 2009).

Certainly, these circumstances would reduce employees' perception of transparency, certainty, consistency and fairness. In turn, this would weaken employees feeling of meaningfulness. As these typical behaviours are less likely to be an issue in nonfamily firms, it is proposed that:

➔ *H3a: The positive relationship between the employees' perception about the implementation level of human resource control system and employee engagement will be weaker in the family firms.*

3.2.2 The Moderating Effect of Entrepreneurial Orientation

The employees may respond to professionalisation differently, according to the entrepreneurial level of their employing firm. In the high EO firms where innovativeness is manifested, employees have more opportunities to involve themselves in any possible activities to introduce new products, services, or methods (Hornsby et al., 1993; Wolcott and Lippitz, 2007). Therefore, the employees' ideas are valued, and they find more room to actualize their authorities. Employees would be more confident of making decisions toward innovation because firms manifesting high risk-taking are willing to absorb potential risk coming from the employees' decisions (Hornsby et al., 1993). These circumstances create encouraging ambience, enabling employees to take bigger roles. Thus, employees would feel more worthwhile through the additional authority they received. This leads to psychological meaningfulness and safety. From a SET perspective (Cropanzano and Mitchell, 2005; Clercq and Rius, 2007), one could say that firm EO reinforces the firm's socioemotional resources coming from authority decentralisation, which in return reinforces employee engagement. Therefore, it is proposed that:

➔ *H1b: The positive relationship between the employees' perception about the implementation level of authority decentralisation and employee engagement is stronger in the high EO firms.*

However, high EO firms need a more flexible financial control to deliver new products or services, considering that R&D activities are less predicted and long-term oriented. Otherwise, innovation is hindered by a formal financial control system (Dess et al., 2003) because financial control tends to have a short-term orientation (Zahra et al., 2004). Further, as the proactiveness activities rely on external factors and future demands (Rauch et al., 2009), high EO firms also need more financial room to deal with uncertainty. Consequently, employees require more flexibility over firm financial resources in order to capture opportunities and to solve problems innovatively. Therefore, as formal financial control may be less favourable for high EO firms, its positive effects on employee engagement would be weaker. Thus, it is proposed that:

➔ *H2b: The positive relationship between the employees' perception about the implementation level of the financial control system and employee engagement will be weaker in the high EO firms.*

Implementing human resource control in high EO firms may be more demanding because employee entrepreneurial activities should be considered. For instance, employee recruitment and development systems should cover some entrepreneurial criteria to fulfil firm demand. Particularly, assessment and reward systems should count employee contribution on firm innovation and the risk taken by employees. In short, human resource systems should provide entrepreneurial behaviour assessment and a 'result/value-based' (rather than task/responsibility-based) reward system (Jones and Butler, 1992; Brown et al., 2001). Unfortunately, entrepreneurial behaviour assessment is complicated, takes longer time, and potentially causes disagreement on the results, due to measurement issues. This may happen because entrepreneurial impacts cannot be measured in the short term. In addition, as those long-term impacts of entrepreneurial activities come from teamwork contribution, it is very difficult to assess the individual entrepreneurial contribution of an employee (Jones and Butler, 1992). This condition can weaken socioemotional resources coming from human resource control system, and thus lessen employee engagement. Therefore, it is proposed that:

➔ *H3b: The positive relationship between the employees' perception about the implementation level of human resource control system and employee engagement is weaker in the high EO firms.*

3.2.3 The Joint Moderating Effect of Family Firm Status and EO

As discussed above, professionalisation may be less favourable for employee engagement in family firms than in nonfamily firms due to nonfinancial goals and altruism tendency of family firms (Chua et al., 2009). Decentralising decision authority to the employees can reduce some of the nonfinancial benefits that family firm owners obtain from the ownership and leadership of the firms. For instance, formal authority decentralisation can dilute the owner's privilege to subjectively promote the managerial career of family members. With an authority decentralisation system, family firm owners may strive to maintain their influence(Gedajlovic et al., 2004). Accordingly, it is plausible if the informal power of family firm owners might withstand the positive impacts of formal authority decentralisation on employee engagement. Consequently, as owners' authority reduces the socioemotional resources emerging from authority decentralisation, engagement as the

employee repayment may also be reduced, especially if the family firms have a low entrepreneurial orientation.

In low EO firms where innovativeness is lower, there are fewer activities related to new products, services, or methods development (Hornsby et al., 1993; Wolcott and Lippitz, 2007). Thus, employees have fewer opportunities to actualise their authority in implementing creative ideas. In particular, as low EO firms are less willing to absorb potential risk coming from the employees' decisions (Hornsby et al., 1993), the employees would be less confident to exercise their authority. In these circumstances, additional authority seems not enhance employees' feeling of meaningfulness and safety. From a Social Exchange Theory perspective (Cropanzano and Mitchell, 2005; Clercq and Rius, 2007), one could say that the typical characteristics of family firms and their EO level influence the socioemotional resources coming from authority decentralisation. According to the explanations above, it is proposed that:

➔ *H1c: The positive relationship between employees' perception about the implementation level of authority decentralisation and employee engagement is weakest in low EO family firms and strongest in high EO nonfamily firms*

Further, the firm's financial planning and its performance measurement are more difficult if the implementation of financial control systems must consider nonfinancial goals (Chua et al., 2009). These complexities could be higher in high EO family firms. While formal financial control systems are likely short-term oriented (Zahra et al., 2004), they may be not sufficient to support the innovation process and proactively capture future demands, considering innovativeness and proactiveness activities are long-term oriented (Rauch et al., 2009). Obviously, a high EO family firm needs a flexible financial control system to serve owners' non-financial goals and to support the firm's entrepreneurial activities. In other words, a formal financial control system may be least favourable for high EO family firms. Therefore, its positive effects on employee engagement would be weaker. Thus, it is proposed that:

➔ *H2c: The positive relationship between employees' perception about the implementation level of financial control system and employee engagement is weakest in high EO family firms and strongest in low EO nonfamily firms*

The nonfinancial goals and altruism behaviour of family firms again makes the implementation of human resource control system less favourable for employee

engagement in family firms, especially if the family firms are highly entrepreneurial. According to the agency theory framework (Jensen and Meckling, 1976), as the rewarding process should optimise both family firm owners and employees utility, the owners should design the rewards system with the purpose of enticing employees to spend more effort to raise performance (Chua et al., 2009). The employees will maximise their effort if they know well how their contributions to the firm performance are fairly counted. Certainly, a transparent and fair assessment system to reward the employees' contribution is needed. However, if the owners involve family firm nonfinancial goals, then their subjectivity can harm the transparent and fair assessment and rewarding process. Especially, if the owners prioritise their family welfare utility, such as by rewarding family employees more than nonfamily employees for their equal contribution, then it would weaken employees feeling of meaningfulness.

In high EO family firms, those situations can be more unfavourable for employee engagement if the human resource control system must consider family firm nonfinancial goals and employee entrepreneurial activities simultaneously. Entrepreneurial activities are mostly contributed by teamwork, and their impacts cannot be measured in the short term. Thus, it is very difficult to assess the individual entrepreneurial contribution of an employee (Jones and Butler, 1992). Consequently, implementing an assessment and reward system in a high EO firm is complicated, takes longer, and potentially causes disagreement on the results. According to the explanation above, it is plausible that while nonfinancial goals of family firms can reduce employees' feeling of transparency and fairness, the assessment difficulties of entrepreneurial activities can increase employees' feelings of uncertainty. These conditions can weaken socioemotional resources coming from the human resource control system, and thereby lessen employee engagement. Therefore, it is proposed that:

➔ *H3c: The positive relationship between the employees' perception about the implementation level of human resource control system and employee engagement is weakest in high EO family firms and strongest in low EO nonfamily firms.*

Overall, the individual and joint moderating effects of family firm status and firm EO level on the relationship between professionalisation factors and employee engagement are depicted in Figure 3.1 and Table 3.1.

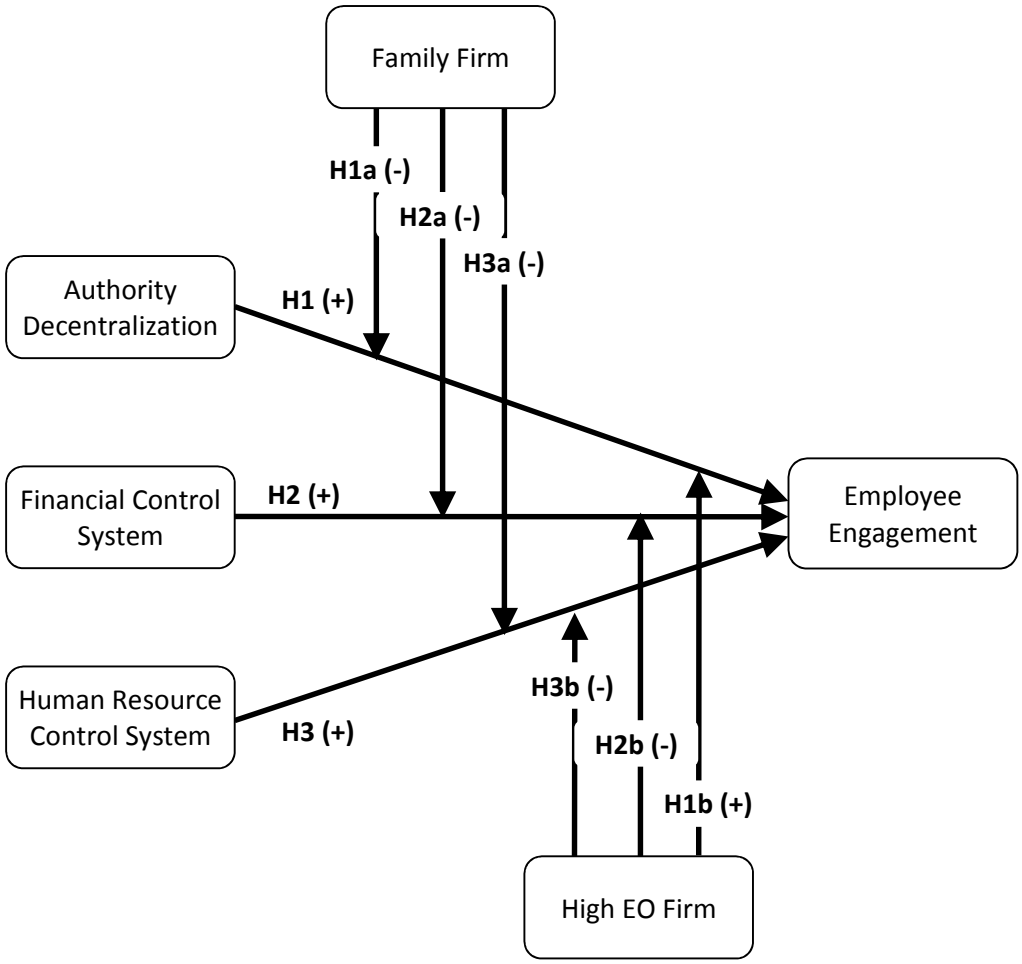


Figure 3.1 The Individual Moderating Effects of Family Business Status and EO

Table 3.1 The Joint Moderating Effects of Family Business Status and EO

Family firm status	Firm EO level	Authority decentralisation → EE	Financial control → EE	Human resource control → EE
Family firms	Low EO	Weakest (H1c)		
	High EO		Weakest (H2c)	Weakest (H3c)
Nonfamily Firms	Low EO		Strongest (H2c)	Strongest (H3c)
	High EO	Strongest (H1c)		

3.3 The Relationship of Entrepreneurial Orientation and Employee Engagement

Recently, entrepreneurial orientation (EO) has come to be associated with internal managerial preferences that affect employee feelings and behaviour as reciprocal responses toward the firm (Clercq and Rius, 2007). For instance, managerial preferences to endorse innovation and willingness to absorb risk might create challenging jobs and excitement in the workplace, resulting in employee retention (Haar and White, 2013). In other words, the firm EO level might encourage employee engagement through desirable job characteristics and workplace environment. As was discussed in Section 2.2.2, job resources and challenging job demands are positively related to employee engagement, while hindrance job demands are negatively related to employee engagement (Crawford et al., 2010).

Innovativeness may play dual roles as a job demand or resource, depending on how it is managed. Innovativeness would be a job resource if it leads to high-performance experience, improves the work environment and protects the employee from demanding aspects of work (Huhtala and Parzefall, 2007). As a job resource, innovativeness brings excitement, feelings of control, confidence, challenges and opportunities for recognition, leading to employee engagement determinants. An empirical finding by Bakker et al. (2007) showed the positive impacts of innovativeness as job resources on work engagement.

In contrast, innovativeness would be a job demand if it led to uncertainty, conflict, unnecessary disruption and unexpected changes (Huhtala and Parzefall, 2007). Uncertain results for personal resources and time that are invested in innovative projects may reduce employee psychological meaningfulness. Also, conflict and resistance to change caused by innovative activities may irritate employee psychological safety. Fortunately, entrepreneurial firms promote commitment to learning and open-mindedness (Wang, 2008) as well as support change and creativity. Thus, entrepreneurial firms can transform individual-level risk aversion into firm-level risk-taking (Monsen and Boss, 2009). Entrepreneurial firms provide more chances for employees to creatively express themselves and take risks without fear of being blamed. Therefore, high EO firms promote psychological meaningfulness and safety conditions. In this way, employees perceive firm EO factors as socioemotional resources to be exchanged with employee engagement (Cropanzano and Mitchell, 2005; Clercq and Rius, 2007). Hence, it is proposed that:

- ➔ *H4: The employees' perception about the firm innovativeness level has a positive relationship with employee engagement.*
- ➔ *H5: The employees' perception about the firm proactiveness level has a positive relationship with employee engagement.*
- ➔ *H6: The employees' perception about the firm risk-taking level has a positive relationship with employee engagement.*

3.3.1 The Moderating Effect of Family Firm Status

In terms of managing entrepreneurial behaviour and firm performance, family firms are different from nonfamily firms, due to their typical governance and unique resources stemming from family involvement and agency issues (Mckelvie et al., 2014). The typical characteristics of family firms could constrain and facilitate EO factors. Owner involvement in the management increases EO, especially for innovativeness (Gudmundson et al., 2003). This might happen because centralised decision-making and inline principal-agent interest ease the usage of firm resources by the owner's willingness (Dyer and Handler, 1994). Thus, the concentrated power of the owner-manager of the family firm would speed up the decision-making process to allocate resources for innovative projects, leading to higher entrepreneurial activities (Zahra, 2005). Long-term orientation as a family firm unique resource (Zahra et al., 2004) also leads creative strategies and builds higher innovation capacity (Cassia et al., 2012).

In another way, long-term orientation less enforces employees to work merely toward short-term financial goals. Instead, it gives sufficient room for the employee to perform their roles. In this way, when innovativeness promotes challenging and creative work, leading to meaningfulness experiences, long-term orientation provides a convenient working life, leading to psychological safety conditions. From a SET perspective (Cropanzano and Mitchell, 2005; Clercq and Rius, 2007), one could say that family firm governance amplifies socioemotional resource coming from innovativeness. Thus, it is proposed that:

- ➔ *H4a: The positive relationship between the employees' perception about firm innovativeness level and employee engagement will be stronger in the family firms.*

However, due to maintaining their socioemotional wealth and minimise risk (Berrone et al., 2012), family firms tend to avoid external financial resources in executing their

proactive and aggressive strategies. Family firms prefer to optimise internal resources rather than proactively follow external circumstances. Thus, relying on limited internal resources, the impact of proactiveness on performance is lower in family firms (Casillas and Moreno, 2010). Particularly, using internal actions, e.g., cost control and efficiency, to implement proactiveness strategies would incur more pressure for employees. Consequently, these circumstances might decrease employee psychological safety. Thus, it is proposed that:

➔ *H5a: The positive relationship between the employees' perception of firm proactiveness level and employee engagement will be weaker in the family firms.*

Owner involvement and long-term orientation discourage family firms from accepting risk (Kellermanns and Eddleston, 2006; Mckelvie et al., 2014). Therefore, family firms tend to take less risks (Zahra, 2005; Naldi et al., 2007; Short et al., 2009). The overlapping of ownership-management may discourage formal control systems in entrepreneurial activities, such as neglecting formal decision-making procedures in a risky project. When the owner-manager has less pressure from other monitoring stakeholders, the decisions might be taken merely based on owner intuition instead of objective calculation and systematic procedures. Therefore, risk-taking decisions in family firms may be more difficult to be understood, and produce less predictable outcomes (Naldi et al., 2007). For employees, a predictable and clear situation is essential to preserve their psychological safety (Kahn, 1990). Thus, consistent management style, especially in terms of the risk-taking process, helps employees to feel secure in making a risky decision. If family firm governance less likely relies on consistent procedures due to self-control problems, then it can weaken employee engagement stemming from firm risk-taking. Thus, it is proposed that:

➔ *H6a: The positive relationship between the employees' perception of the firm risk-taking level and employee engagement will be weaker in the family firms.*

3.3.2 The Moderating Effect of Professionalisation

Professionalisation would promote firm EO if it improves communication quality (Antoncic & Hisrich, 2001; Miller, 1983; Zahra, 1991), creates collaboration among different units and levels (Miller, 1983; Zahra, 1991), and increases environment scanning ability (Miller, 1983; Covin and Slevin, 1991; Brown et al., 2001). Particularly, professionalisation is

preferable for entrepreneurial firms when it supports teamwork, empowerment, change, and innovation (Guth and Ginsberg, 1990; Antoncic and Hisrich, 2001).

Formal authority decentralisation may increase firm EO because work autonomy, as one of the organisational antecedents for entrepreneurial actions (Kuratko et al., 2004), can drive middle managers to initiate innovative and calculated risk-taking actions (Hornsby et al., 2002). Importantly, when authority decentralisation is positively related with firm innovativeness (Miller and Friesen, 1982), it also amplifies the positive relationship of firm EO and firm outcome (Covin and Slevin, 1991). Specifically, when innovativeness improves employee engagement by providing work challenges and opportunities for recognition, authority decentralisation strengthens that relationship by incurring feelings of control and confidence. Further, financial control aspects (e.g., financial targets) can be considered as challenging job demands when they produce high levels of responsibility (Crawford et al., 2010). Finally, formal and standardised procedures for human resource aspects, especially assessment and rewarding, should lead to consistent and predictable situations favouring employees' fairness perception. Thus, it is proposed that:

➔ *H4b: The positive relationship between the employee perception about firm innovativeness level and employee engagement will be stronger in the high professionalised firms.*

High growth firms use external resources (Jarillo, 1989) such as financial resources, human resources, technology, and external consultants to implement proactive strategies. As external resource providers require their investment to be protected from manager-shirking behaviour, a responsible management system should be applied (Zahra et al., 2009). In other words, the control system is favourable to invite external resources. Therefore professionalisation might strengthen proactiveness. Thus, it is proposed that:

➔ *H5b: The positive relationship between the employee perception about firm proactiveness level and employee engagement will be stronger in the high professionalised firms.*

A consistent calculation and evaluation can guide the risk-taking process to produce a more predicted outcome (Naldi et al., 2007). Hence, employees who execute those risky decisions may feel more worthwhile because they can better predict the results of their efforts. This situation would increase psychological meaningfulness (Kahn, 1990). Formal

authority decentralisation and control systems, as the professionalisation factors, may help realise the procedural risk-taking process. Thus, it is proposed that:

➔ *H6b: The positive relationship between the employee perception about the firm risk-taking level and employee engagement will be stronger in high professionalised firms.*

3.3.3 The Joint Moderating Effect of Family Firm Status and Professionalisation

Innovation activities may be more favourable for employee engagement in family firms than in nonfamily firms due to two reasons. First, the concentrated power of a family firm owner-manager eases the use of firm resources through the owner's willingness (Dyer and Handler, 1994) to tackle innovative projects. Second, long-term orientation - as a unique family firm characteristic - provides sufficient room for employees to do innovative activities. In this way, employees enjoy stimulating work experiences with less pressure, thus encouraging employee meaningfulness and safety feelings.

Professionalisation factors could amplify the positive relationship of innovativeness with employee engagement by incurring feelings of control, confidence, and perceived fairness. Thus, both family firm status and professionalisation reinforce perceived socioemotional resources provided by firm innovativeness. In return, the amount of engagement as employee repayment is also amplified. Thus, it is proposed that:

➔ *H4c: The positive relationship between employees' perception of firm innovativeness and employee engagement is weakest in low professionalised nonfamily firms and strongest in high professionalised family firms.*

However, family firms' tendency to minimise risk (Kellermanns and Eddleston, 2006; Mckelvie et al., 2014) in order to preserve their socioemotional wealth (Berrone et al., 2012) impels them to squeeze their internal resources. Resource limitations can bring more pressure for employees, therefore decreasing employee psychological safety. If a family firm looks for external resources, they should implement a formal control system to convince the outside investors that the firm intends to minimise manager-shirking behaviour (Zahra et al., 2009). From the SET view, one could say that while a family firm might dilute socioemotional resources coming from firm proactiveness, professionalisation could withstand this dilution. Thus, it is proposed that:

➔ *H5c: The positive relationship between employees' perception of firm proactiveness and employee engagement is weakest in low professionalised family firms and strongest in high professionalised nonfamily firms.*

Employees need predictable circumstances to preserve their psychological safety (Kahn, 1990). Thus, employees might look for a consistent pattern of firm risk-taking process to help them feel secure in making an individual risky decision. Self-control behaviour of family firm owners-managers is less likely to encourage the use of systematic procedures for risky decision-making. The decisions might not easily be understood and thereby produce less predictable outcomes (Naldi et al., 2007). Fortunately, a formal control system might help to make the risk-taking pattern be more understandable, transparent and predictable. When family firm status and firm professionalisation moderate the relationship of firm risk-taking with employee engagement in a different direction, it is proposed that:

➔ *H6c: The positive relationship between employees' perception of firm risk-taking and employee engagement is weakest in low professionalised family firms and strongest in high professionalised nonfamily firms.*

Overall, the individual and joint moderating effects of family firm status and firm professionalisation level on the relationship of EO factors with employee engagement are depicted in Figure 3.2 and Table 3.2.

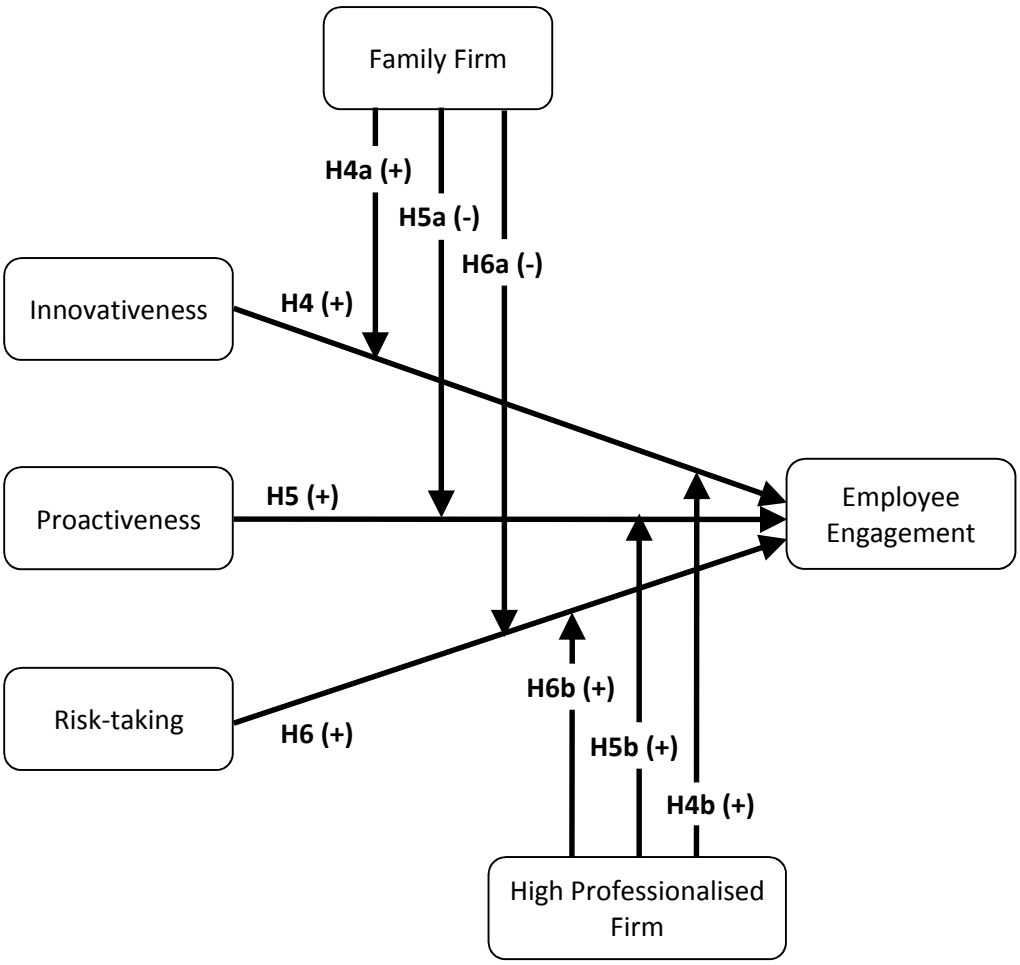


Figure 3.2 The Individual Moderating Effects of Family Business Status and professionalisation

Table 3.2 The Joint Moderating Effects of Family Business Status and Professionalisation

Family firm status	Firm professionalised level	Innovativeness → EE	Proactiveness → EE	Risk-taking → EE
Family firms	Low professionalised		Weakest (H5c)	Weakest (H6c)
	High professionalised	Strongest (H4c)		
Nonfamily firms	Low professionalised	Weakest (H4c)		
	High professionalised		Strongest (H5c)	Strongest (H6c)

3.4 Firm Characteristics, Employees' Profiles, and Employee Engagement

Besides its antecedents, firm characteristics and employee profiles may also slightly affect employee engagement. Firm age could be examined to estimate the effect of the organisational establishment. Established firms may provide a stable work environment, leading to the condition of psychological safety. However, established firms may be less innovative and less likely to invite employee participation in decision-making, thus discouraging employee-perceived meaningfulness. Similarly, larger firms may provide more task variety, job autonomy, competition, career opportunities, challenging duties, and responsibilities that are positively related to employee engagement (Fleck and Inceoglu, 2010; Crawford et al., 2014). However, larger firms may create longer distance between employer and employees, thus lessening personal interaction and raising the difficulty in aligning firm vision with employee personal values. These circumstances would discourage employee perception of meaningfulness experiences. Realising the possible opposite effects of firm maturity and size on employee engagement determinants, controlling the firm size and firm age (as a proxy of firm maturity) should help clarify the results.

Experienced employees are likely to perform their daily roles better, thus increase their psychological meaningfulness and availability. However, employees doing similar jobs for a longer time were less favourable to development (Allen and Poteet, 1998). Therefore, employee tenure was reported as having a negative relationship with employee engagement (Avery et al., 2007; Wang and Hsieh, 2013). Further, employee age diversity potentially affects employee engagement in different ways (James et al., 2011). Relying on social exchange theory, older employees might be more engaged in an exchange with job security and regular pay increases (D'Amato and Herzfeldt, 2008). In contrast, they may be less engaged when they feel that their bargaining period has ended. In fact, previous empirical findings exhibit contradictory results on the relationship between employee age and engagement, either positive (e.g., Wang & Hsieh, 2013) or negative (e.g., Avery et al., 2007).

Employees that have received higher education find it easier to get jobs that match their qualifications, therefore are less likely to suffer from role ambiguity. Instead, they feel psychological meaningfulness (Avery et al., 2007). However, they have more opportunities to get a better job in another firm, therefore are less engaged to their current organisation. Previous empirical findings exhibited a positive (Haar & White, 2013; Ugwu, FO; Onyishi, IE;

Rodriguez-Sanchez, 2014), or negative (Azoury, Daou, & Sleiaty, 2013; James et al., 2011) relationship between employee education level and engagement. Higher rank employees have more opportunity to get higher autonomy and a greater variety of jobs (Salanova et al., 2005). In this way, they have liberty to express their roles and make greater contributions. These circumstances should lead to psychological safety and meaningfulness (Kahn, 1990; Zhu et al., 2009). Considering the possible opposite effects of these employee profiles on employee engagement, controlling them should help clarify the results.

3.5 Summary

This chapter has tried to link professionalisation and EO factors with employee engagement psychological conditions. This study proposes the positive relationship of professionalisation and employee engagement, considering that authority decentralisation and control systems severally encourage work meanings and the perceived justice of employees. However, these positive relationships might be reduced by the discretion of family firm owners, which can easily cancel out the employees' formal authority and firm control system. Therefore, family business status might weaken the positive relationship of professionalisation factors and employee engagement. Further, firm EO level affects each professionalisation factor uniquely. While firm EO might open bigger opportunities for employees to exercise their authority, the characteristics of EO and formal control systems are conflicting. Therefore, while firm EO level might strengthen the relationship of authority decentralisation with employee engagement, it might weaken the relationship of both financial and human resource control system with employee engagement. Relying on the moderating effects of family business status and firm EO level, this study then proposes the joint moderating effects of them.

This study also proposes the positive relationship of EO and employee engagement, because EO can produce job resources and challenging job demands, such as bringing excitement, feelings of control, confidence, challenge and opportunities for recognition. The entrepreneurial firm also reduces job demands (e.g., job uncertainty and ambiguity) by converting employee risk into organisational risk. Further, family business status uniquely affects the relationship of employee engagement with each EO factor. The discretion power of family firm owners can speed up the decision toward innovative activities. However, family firms tend to avoid external resources to fund their proactive projects and are less likely to

be transparent about risk-taking decision processes. Therefore, when family business status might increase the relationship of innovativeness with employee engagement, it might decrease the relationship of both proactiveness and risk-taking with employee engagement. Firm professionalisation level strengthens the positive relationship between EO factors with employee engagement. It happens because the formal system is favourable in emerging employees' fairness perception and safety feelings on how their innovative and risky efforts are counted. This study proposes the joint moderating effects of the family business status and firm professionalisation level.

Finally, considering the cultural context surrounding the Indonesian respondents, this study anticipates producing these following results. First, due to the high power distance culture, the positive relationship of employee engagement with authority decentralisation may be lower than with control systems. Second, as power distance and collectivist culture are unfavourable for entrepreneurial behaviour (Lee and Peterson, 2001; Kreiser et al., 2010; Rinne et al., 2012), this study anticipates a less profound relationship of employee engagement and EO factors in this study. A more detailed discussion of the potential impacts of cultural dimension on the relationship between employee engagement and professionalisation factors is presented in Section 5.3. Later on, the empirical activities to test those hypotheses are presented in the next chapter.

4. Research Methodology

4.1 Introduction

This study investigates the relationship between employee engagement, professionalisation, and EO in Indonesian family and nonfamily firms. The conceptual frameworks and specific hypotheses were formulated in the previous chapters to proceed with that research objective. According to those frameworks and hypotheses, the present chapter outlines the methods and methodological considerations for the empirical part of the study.

This study follows Saunders, Lewis & Thornhill's (2012) research onion approach to discuss the methodological choice in Section 4.2. According to that chosen research methodology, Section 4.3 conveys the population characteristics and the unit of analysis, followed by the presentation of sampling protocol, data collection methods, and data screening in Section 4.4. Sections 4.5 and 4.6 respectively describe how all the variables used in this study were operationalized and validated. Finally, Section 4.6.1 and Section 4.7.3 presents the data screening procedures, data profile, and statistical methods used to analyse the collected data.

4.2 Methodology Choice

The research objective, along with the philosophical assumptions and the theoretical development approach, affects the choice of research methodology. The philosophical standpoints are crucial in the research because one's perception of the reality and one's communication of what they think of as knowledge will direct how they conduct the research. Burrell & Morgan (1979) conceptualised the nature of social science as a contention set comprising ontology, epistemology, human nature and methodology. The ontological assumption is related to one's beliefs about the nature of 'reality' under investigation. Accordingly, a basic ontological contradiction question would be: "*whether the reality is naturally given in the world, therefore, independent of an individual or the product of one's mind*?" Epistemology assumption discusses how to communicate an understanding of the

reality as knowledge. Thus, the epistemological way manages what is to be regarded as 'true' from what is to be considered as 'false'. Furthermore, the human nature model makes assumptions about the relationship between people and their environment. For instance, the assumption that people encounter situations in their external worlds in a mechanical, or even deterministic, way.

Under objective–subjective dimension assumption of nature science, each set of these contention stands in between a polarised perspective of realism and nominalism ontology, positivism and anti-positivism epistemology, determinism and voluntarism human nature model, nomothetic and ideographic methodology. The first three contention sets have a direct impact on the methodological approach (Burrell and Morgan, 1979). Consequently, a standpoint on a combination of certain ontology, epistemology and human nature models will direct a research toward distinct methodology possibilities. Table 4.1 below compares the assumptions of the objectivist and subjectivist contention approach.

Table 4.1 The Assumptions of Objectivist and Subjectivist Contention Approach

Contention	**Dimension**	
	Objectivist Approach	**Subjectivist Approach**
Ontology	**Realism:** - The social world is made up of a concrete and immutable structure. - The social world exists independently of individual perception. - Individuals do not create the social world. Instead, it naturally exists.	**Nominalism:** - The social world is made up of no more than names, concepts and labels to structure the reality. - Those labels are artificial creations for describing, making sense of and negotiating the external world.
Epistemology	**Positivism:** - Searching for regularities and causal relationships to explain the phenomenon in reality. - The explanations can be gathered by hypothesised (falsification approach) regularities or by experiments (verification approach). - Belief that knowledge grows by a cumulative process. Thus, new	**Anti-positivism:** - Against the approach of searching for regularities. - The social world is relative and can be understood only by individuals who are involved in the study. - Rejects the standpoint of the observer as a valid vantage point for understanding human activities. Instead, researchers should involve

Contention	Dimension	
	Objectivist Approach	**Subjectivist Approach**
	insights add to the existing knowledge and eliminate false hypotheses.	into the frame of reference of the participant in the action. - One should understand knowledge internally not externally. - Social science is seen as a subjective enterprise. - Science cannot generate objective knowledge of any kind.
Human nature	**Determinism:** - The located situation or environment completely determines people and their activities.	**Voluntarism:** - Human beings are entirely autonomous and free-willed.
Methodology	**Nomothetic:** - Based on systematic protocols and techniques. - Tests the hypotheses with the standard of scientific rigour. - Uses a quantitative technique for data analysis.	**Ideographic:** - The social world can be understood only by obtaining first-hand knowledge of the subject under investigation. - Gets close to the subject to explore its detailed background and life history. - Get inside situations and involved in the flow of the subject's everyday life. - Let the subject unfold its nature and characteristics during the process of investigation.

(summarised from Burrell & Morgan, 1979, pp. 4–7)

This study searches for regularities by testing the hypotheses of the relationship between professionalisation, EO and employee engagement. This study philosophically believes in the natural existence of employee engagement, firm professionalisation and firm EO. However, this study uses employee's perception to measure those variables. It argues that the actual level of firm professionalisation and firm EO are in place to some extent and

are not the product of an employee's mind. For instance, two employees may each have a completely different perception of the EO level of a firm, but in reality, that EO level is only one at a certain value. The employees' perception in this study is used only to measure the value of the variable, not to create those values. Conversely, there is some discourse about the philosophical existence of employee engagement as a social object, either employee engagement naturally existed, or it was constructed by the human mind and their interaction (Valentin, 2014). Mainstream management literature relies on the realist assumption that social objects, such as employee engagement, have an ontological existence and is thus accessible to analyse (Ezzamel and Willmott, 2008; Valentin, 2014). Indeed, previous studies have treated employee engagement as a measurable object (Buckingham and Coffman, 1999; Schaufeli and Bakker, 2003a; Rich et al., 2010), and link it with performance (Harter et al., 2002). The studies claimed that there are conditions determining employee engagement (May et al., 2004) and argued that those conditions can be driven by the individual, the job, or aspects of the organisation (Wollard and Shuck, 2011; Rana et al., 2014; Saks and Gruman, 2014). Clearly, according to principle literature on employee engagement, employee engagement is predictable and actually exists.

In short, relying on the realism ontology, this study assumes the inherent existence of firm professionalisation, firm EO, employee engagement and their respective relationships. Further, this study relies on the positivist epistemology and deductive approach of theoretical development. Therefore, to find the relationship between those variables and to answer the research questions, this study develops and tests the hypotheses based on previous theories and findings. The results should demonstrate a new insight to the existing knowledge.

Having realism ontology and positivist epistemology contention along with the deductive approach of theoretical development, this study believes that generalizable claims might happen through systemic protocol and technique. Consequently, this study will analyse the data quantitatively to test the hypotheses. Relying on the nomothetic methodology, this study uses a survey method to collect the cross-sectional data and conducts a post-findings interview to confirm the results. Finally, this study employs the structural equation modelling (SEM) technique to analyse the data. The detailed explanations and rationale for the data collection and analysis methods used in this study are presented in Section 4.4 and Section 4.7.3.

4.3 Population and Unit of Analysis

The population selected for this empirical study was limited to Indonesian *highly educated* employees. The population are employees working in a formal sector who have studied or are studying at diploma and university level. The population proportion is around 10.69% (4.90 million) of the total Indonesian workforce employed in formal sectors (45.83 million) and 4.14% of the total Indonesian workforce (118.41 million) (https://www.bps.go.id). Expanding the population range to all Indonesian employees, unfortunately, resulted in some technical obstacles occurring in the data collection process. Regarding time and financial limitations, this study was hard to find an effective channel leading to a sample that was representative of the entire Indonesian employee population. Conversely, finding a sample for Indonesian *highly educated* employees was more affordable, such as by inviting alumni and student-employees of some Indonesian universities to be respondents. Therefore, this study excluded employees who have never studied at higher degree level. Unfortunately, the secondary data concerning other characteristics of Indonesian employees (e.g., age, tenure, managerial ranks) is not available.

Besides, employee education was positively correlated to managerial rank (e.g., Avery et al., 2007; Ugwu et al., 2014). Therefore, *highly educated* employees are more likely to hold higher managerial rank. Considering higher ranked employees have more access to firm information (Michael and Yukl, 1993), having *highly educated* employees as respondents should be advantageous because they can provide more accurate firm information. As presented in Table 4.19 (sub-section 4.7.2), around 65% respondents (353 out of 545 cases) used in this study have a variety of managerial positions, from junior manager to director.

This study operationalised employee engagement at the individual level of analysis for two reasons. First, employee engagement consisted of a behavioural component (Saks, 2006) and employee behaviour typically measured at the individual level (Glavas and Piderit, 2009). Besides, employee engagement was originally conceptualised as an individual phenomenon (Kahn, 1990; Maslach et al., 2001; Schaufeli et al., 2002; Saks, 2006; Rich et al., 2010). Hence, most empirical studies on engagement were conducted at the individual level (Hakanen et al., 2006; Arakawa and Greenberg, 2007; Bhatnagar, 2007; Schaufeli et al., 2009; Xanthopoulou et al., 2009; Fairlie, 2011; Havenga et al., 2013). Second, the use of engagement at the level of a business unit (e.g., Harter et al., 2013, 2002), organisation (e.g., Bal et al., 2013; Luthans & Peterson, 2002) or country (e.g., Belousova, Groen, & Gailly, 2012)

relied on the individual levels of engagement measures. The individual cases were aggregated to have a higher level of analysis. Therefore this approach needs a big number of data to perform an effective multi-level analysis. Besides, the number of cases for every group should be proportional. Unfortunately, no sufficient database of employee engagement in Indonesia exists. Meanwhile, collecting primary data for this study is constrained both by time and finances. Therefore, the individual level of analysis is the most realistic for this study.

Widely understood as a firm-level phenomenon, EO is recognised as a strategic posture that is manifest in managerial preference (Covin and Slevin, 1988). Similarly, covering formal governance structure, formal control and a delegation system (Tsui-auch, 2004; Chua et al., 2009), professionalisation is also a firm-level phenomenon. Therefore, this study measures EO and professionalisation of the firm. However, due to a lack of top management level respondents, this study uses employee perceptions to measure the firm EO and its professionalisation. Although this method is not the best practice in the EO and professionalisation studies, it is not uncommon (see Belousova et al., 2012; Monsen & Boss, 2009). Besides, owner bias toward organisation EO can be reduced, and insight regarding the important influence of individual opinion on organisation functioning might emerge (Monsen and Boss, 2009; Wales et al., 2011).

Having identified the target population and having set the unit of analysis as presented in this section, the next section outlines the sample gathering process and describes some methods used to screen the sample.

4.4 Sampling Protocol and Data Collection

The research objective was to identify the factors (professionalisation, EO, and family business status) that influence the outcome (employee engagement). Hence, this study conducted a research method procedure to help to generalise a sample set of factors for a chosen population. Further, the data collection employed a close-ended questionnaire in a self-administered way to gather cross-sectional data. Specifically, it ran both paper-based group administration and internet (web-based) surveys.

There are two common techniques used for a survey, i.e., interview and self-administered. In general, the advantages and disadvantages of the main alternative data

collection methods (interview vs. self-administered) are compared in Table 4.2 below (Fowler Jr, 2009). Especially, among the many alternative methods of self-administered surveys, each has strengths and weaknesses that are presented in Table 4.3.

Table 4.2 A Comparison of Main Data Collection Methods

Data collection methods	Advantages	Disadvantages
Interview	✓ Highest cooperation rate ✓ Having accurate responses due to allowing respondent the opportunity to ask questions and the interviewers can probe relevant answers ✓ Building confidence to answer sensitive questions ✓ Most preferable for long and complex survey instruments	✓ Most expensive ✓ Need trained interviewers who are geographically near the sample ✓ Need long periods for data collection ✓ Less accessible to respondents who are based distantly (e.g., remote areas, disaster-prone areas)
Self-administered	✓ Most inexpensive ✓ Most acceptable for similar questions ✓ Having valid responses for sensitive questions as the respondents are alone whilst responding	✓ Least useful for open questions ✓ Need good reading skills to understand the questions ✓ Hard to control the quality of the replies and to ensure that all questions are answered

Table 4.3 A Comparison of Self-administered Methods

Self-administered methods	Advantages	Disadvantages
Group administration	The cooperation rate is high	Need additional effort to bring the respondents into a group
Internet survey	✓ The unit cost of data collection is lowest ✓ Having high speed of returns ✓ Allows time for thoughtful answers	✓ Limited to internet users ✓ Low cooperation rate

The main survey was undertaken from February to May 2015 following ethical approval. This study sampled alumni and postgraduate students of six Business Schools in Indonesia. A good relationship between the researcher and these Business Schools provided access to their networks, such as their alumni and postgraduate students. Collecting data from this circle was effective, efficient, and potentially most fruitful (Fowler Jr, 2009). Therefore, this study used a convenience sample by sampling Indonesian employees comprising students and alumni. The sample from ongoing student-employees was mostly group-administered using paper-based questionnaires while the sample from alumni was mostly collected using web-based questionnaires (internet survey).

While the self-administered convenience sampling method employed by this study ensured cost and time efficiencies, there is a risk of selection bias due to the sample being non-random (Heckman, 1979). In particular, the use of convenience sampling might lead to potential bias due to under-representation of subgroups in the sample (Cooper et al., 2006). Still, the use of convenience sampling in this study was deemed acceptable for purposes of the present study for two reasons.

First, secondary data of the population profiles of Indonesian highly educated employees were not available, which is a common problem in developing countries (Bulmer and Warwick, 1993). Without a reliable sampling frame, even a random sampling attempt could not guarantee similarity representative sample. Second, this study gathered the information of respondents' importance profiles, such as respondents' age, education level, tenureship and managerial rank, then used this information as control variables in the analysis. As presented in Subsection 4.7.2, the sample in this study consisted of diverse respondents, in term of their profiles. Also, the respondents worked for various firms with diverse firm age, size and industry and there was a fair balance in the number of respondents from the various firms. Considering that selection bias is a specification issue (Heckman, 1979), controlling for respondents' profiles and firms' profiles in the analysis should help mitigate the potential effect of selection bias.

The paper-based and web-based self-report questionnaires were distributed to the potential respondents. The potential respondents were told that this survey was valid only for employees and its purpose was to examine the relationship of firm professionalisation, EO and employee engagement for the benefit of doctoral research. The invitation to

participate in the web survey was personally sent to the potential respondents through a mailing list, SMS, BlackBerry, WhatsApp, Line and the Facebook Messenger platform. They were invited to participate in web-based questionnaires. Further, with the courtesy of some lecturers, the paper-based questionnaires were distributed to the student-employees before lecture sessions commenced. They were told that their participation was voluntary, anonymous and confidentiality was assured. Some questions about the profile of each respondent and the organisation for which they worked was explained simply as being for demographic purposes and information validation. They were also told that there were no right or wrong answers and they just needed to answer based on their knowledge and personal perception.

While enjoying the time and cost efficiency from convenience sampling methods, this study was aware of creating a potential selection bias due to the non-random collected sample (Heckman, 1979). Limiting the respondents to employee-student and alumni of certain business schools did not produce a random sample that wholly represented Indonesian higher-educated employees. However, collecting an appropriate random sample for an employee survey in developing countries is rarely possible because a proper sampling frame is far less likely to exist (Bulmer and Warwick, 1993). Frequently, government databases fail to supply up-to-date and accurate national population data. Thus, even having a random sample fails to eliminate the potential selection bias for the social research in developing countries (Bulmer and Warwick, 1993).

4.5 Operationalisation

4.5.1 Employee Engagement

The way operationalising employee engagement works depends on how employee engagement is being conceptualised (Sharma & Kaur, 2014). Following Kahn's (1990) engagement concept, this study used the GWA (Gallup Workplace Audit) Q^{12} scale (Buckingham and Coffman, 1999), because this scale conceptually fits with Kahn's (1990) emotional and cognitive engagement dimensions. Therefore, it has the theoretical grounding to operationalize and measure employee engagement (Luthans and Peterson, 2002). In addition, originally raised from practitioners use, this scale has been well-established to measure employee engagement as the firm’s performance and has widely used in

management practice (Saks and Gruman, 2014). According to a meta-analysis study by Harter et al. (2013), GWA measure was tried out by at least 263 research studies to 49,928 business/work units. They have included 1,390,941 employees across 192 organisations in 49 industries and 34 countries. This meta-analysis study demonstrated that GWA is a highly generalizable and robust employee engagement instrument. This scale consists of 12 items. Buckingham & Coffman (1999) created their scale to measure employee perception of work characteristics, such as people-related management practices (Harter et al., 2002).

According to Kahn's (1990) engagement conceptualization, there are three engagement aspects, i.e., physical, emotional and cognitive. GWA Q^{12} scale measures emotional and cognitive aspects of employee engagement. The items below refer to emotional and cognitive engagement aspects, i.e.,

Cognitive aspects:

- *I know what is expected of me at work.*
- *I have the materials and equipment I need to do my work right.*
- *At work, I have the opportunity to do what I do best every day.*
- *The mission/purpose of my company makes me feel my job is important.*
- *In the last six months, someone at work has talked to me about my progress.*
- *This last year, I have had opportunities at work to learn and grow.*

Emotional aspects:

- *In the last seven days, I have received recognition or praise for doing good work.*
- *My supervisor, or someone at work, seems to care about me as a person.*
- *There is someone at work who encourages my development.*
- *At work, my opinions seem to count.*
- *My associates (fellow employees) are committed to doing quality work.*
- *I have a best friend at work.*

For those items, respondents were asked to indicate on a 7-point Likert scale if those statements represented their feelings, from 1=strongly disagree to 7=strongly agree. An unscored item (*don't know*) was also provided.

Some scholars proposed the GWA as a multidimensional scale, consisting of cognitive and emotional engagement aspects (e.g., Luthans & Peterson, 2002). However, it was consistently reported as an appropriate unidimensional scale. For instance, conducting a factor analysis of the 12 GWA items, Harter et al., (2002) found that the first to second

eigenvalues to be 5.9 times the ratio of the second to third eigenvalues, indicating the appropriateness of the GWA scale as a unidimensional scale. In this study, the ratio is 5.10. Further, to have a better factor structure, the 12 items should not necessarily be used simultaneously as long as the reduced version still represents employee engagement dimensions (e.g., Belousova, Groen, & Gailly, 2012).

The GWA was designed to identify employee attitudinal outcomes (e.g., satisfaction, loyalty, pride, and the intention to stay with the company) (Harter et al., 2002). Therefore, employee engagement measured by the GWA scale is widely associated with customer satisfaction, employee productivity, firm profits and employee turnover (Harter et al., 2002; Harter et al., 2009; Harter et al., 2013). More detail explanations about the scale validation and the list of GWA items used for this study are presented in Chapter 4.6 and Appendix A respectively.

4.5.2 Professionalisation Factors

Existing literature showed the common use of nonfamily managers involvement to assess the existence of family firm professionalisation (e.g., Chua et al., 2009; Dyer, 1989; Gedajlovic et al., 2004; Hall & Nordqvist, 2008; Stewart & Hitt, 2012; Tsui-auch, 2004). However, it needs a multidimensional construct to operationalise the comprehensive definition of family firm professionalisation. Dekker et al. (2012) proposed nonfamily member involvement, formal governance establishment, authority decentralisation, financial control system and a human resource control system as family firm professionalisation constructs. Authority decentralisation refers to the involvement of employees in major organisation decision-making, strategy and work methods choice (Hofer and Charan, 1984; Chua et al., 2009). Further, the financial control system refers to the use of financial planning (budgeting) and controlling (Gedajlovic et al., 2004; Songini, 2006; Chua et al., 2009). Finally, human resource control systems address formal processes on employee recruitment, training programmes, assessments and payment (Perren et al., 1998; Tsui-auch, 2004; Dyer, 2006; De Kok et al., 2006; Sonfield and Lussier, 2009).

This study employs the scales developed by Dekker et al. (2012). These consist of five factors to measure employee perception on firm professionalisation. They are family involvement in governance system (four items), authority decentralisation (three items), financial control (four items), human control (five items) and top-level activeness (two items).

When this research focused on formal control systems as professionalisation norms, only authority decentralisation, financial control, and human control were employed. Considering that most of the respondents work in established firms, the professionalisation factors were assumed to exist to some degree in the firm. Therefore, it uses a 7-point Likert scale to indicate respondents' perception of the firm professionalisation factors' level.

Professionalisation represents a transition of managerial style from founder centred to teamwork. Authority decentralisation could be considered as an action to reduce the paternalistic behaviour, over-dependence on key individuals and centralised decision-making. Thus, the questions were designed to indicate the level of employee involvement in important decision-making, such as (Dekker et al., 2012):

- *My Director makes all major decisions autonomously and then communicates those decisions down to the staff.*
- *My Director individually decides which work methods must be followed.*
- *All employees within my company directly report to my Director (without using an intermediary).*

Further, professionalisation is also a managerial style transition towards a more functional, formal and systemic style (Hofer and Charan, 1984). Thus, as financial and human resource control systems could be considered as two kinds of managerial functions, the questions were designed to indicate the level of firm formalisation and standardisation, such as (Dekker et al., 2012):

Financial control:

- *Proposed budgets are strictly compared with actual figures*
- *Deviations from budgeted targets are carefully monitored*
- *The company's financial targets are fully and accurately computed*
- *The company's performance is well evaluated*

Human resource control:

- *Recruitment procedures for new staff are well documented and implemented*
- *My employing company provides formal internal and external training programmes for employees*
- *My employing company uses incentive payments based on performance*
- *The company's periodical performance reviews are well documented*
- *Staff meetings are usually formally prepared and planned in advance*

More detailed explanations about the scale validation, along with the list of Dekker et al.'s (2012) professionalisation items used for this study, are presented in Chapter 4.6 and Appendix A respectively.

Firm professionalisation is conceptualised as a unidimensional construct when it is used as a moderator for the relationship between EO factors and employee engagement. Conversely, professionalisation is conceptualised as a superordinate multidimensional construct to examine the independent relationship of each of the professionalisation factors (authority decentralisation, financial and human resource control) with employee engagement.

4.5.3 Entrepreneurial Orientation Factors

With reference to subsection 2.3.2, this study employs EO as unidimensional and multidimensional constructs. EO is operationalised as a unidimensional construct when it is used as a moderator for the relationship of professionalisation factors and employee engagement. In operationalising EO as a unidimensional construct, this study employed summated scales and the cut-point split method to classify the firm's EO level into low or high. In this way, the firm's EO level is an average score of innovativeness, proactiveness and risk-taking. Using the summated scale method is popular in recent academic research due to its ability to represent complex concepts into a single measurement in a very simple fashion (Distefano et al., 2009). Particularly, the average score maintains comparison across factors with differing numbers of items per factor (Distefano et al., 2009). Subsequently, the median-split technique was used to divide the data into two parts based on EO average scores. Moreover, EO is conceptualised as a superordinate multidimensional construct to examine the independent relationship of each EO factor (innovativeness, proactiveness, risk-taking) with employee engagement. Further, as a multidimensional construct, each of the EO factors is treated as a separate construct in which their corresponding items manifested.

This study combines Covin & Slevin's (1989) EO scales and Lumpkin & Dess's (1996, 2001) EO scales to measure employees' perception about the level of firm EO factors. When Covin & Slevin (1989) used three items for each of the EO factors, Lumpkin & Dess (2001) used two items for innovativeness and three items each for proactiveness and risk-taking. Further, Lumpkin & Dess (1996) used five items for innovativeness, three items for proactiveness, and four items for risk-taking. Respondents were asked to indicate on a 7-

point Likert scale if the sample statements represented their perception, from 1=strongly disagree to 7=strongly agree.

Referring to innovativeness as the firm attempts to introduce new products, services, and process through R&D (Rauch et al., 2009), the following questions are the examples of items used to indicate the level of firm innovativeness (Lumpkin and Dess, 2001).

Regarding new services or products in the past five years, my employing company has…

- *introduced many new products, services or methods*
- *made dramatic changes in services or product lines*

Moreover, referring to proactiveness as the opportunity-seeking and anticipation of future demand (Rauch et al., 2009), the following questions are the examples of items to indicate the level of the firm's proactiveness (Covin and Slevin, 1989).

In dealing with its competitors within the same industry, my employing company…

- *typically initiates actions which competitors then respond to*
- *typically initiates actions which competitors then respond to*
- *is very often the first to introduce new products/services, administrative techniques, operating technologies, etc.*
- *typically adopts a very competitive, 'undo the competitors' posture*

Finally, risk-taking refers to the venturing actions of investing significant resources under unknown and uncertain environments. The following questions are the examples of items indicating the level of firm's risk-taking (Lumpkin and Dess, 1996).

In general, my head of department. . .

- *typically adopts a bold, aggressive posture in order to maximise the probability of exploiting potential opportunities*
- *has a strong tendency for high-risk projects (with chances of very high returns)*
- *strongly emphasised on R&D, technological leadership, and innovation*
- *believes that bold, wide-ranging acts are necessary to achieve the department's objectives*

Further, an exploratory factor analysis (EFA) was conducted to extract the most appropriate measurement model. The EFA produced eight items to represent three EO factors, i.e., two items for innovativeness, three items for proactiveness, and three items for

risk-taking. More detailed explanations about the scale validation and the list of EO items used for this study are presented in Chapter 4.6 and Appendix A respectively.

4.5.4 Family Business Status

This research relied on the component-of-involvement approach (Litz, 1995; Chua et al., 1999) to determine the family business status. Specifically, this study used Handler's (1989) "family ownership-management components" method to determine the family business status. This approach considers a firm to be a family firm if there is at least one family dominantly owning or managing that firm. Thus, a multiple choice questionnaire was given to identify the firm's ownership, i.e., "Is there one family who dominates the firm's shares' ownership?" The following represented the answer options, i.e., "yes, by more than 75%; yes, by 50-75%; yes, but less than 50%; yes, but I can't guess the ownership percentage; no, there is not". Another probing question was posed to identify the level of family management, i.e., "Is there one family who dominantly manages the firm?" Among 267 firms identified as family firms, 189 (70.79%) were dominantly owned and managed, 73 (27.34%) only dominantly owned, and 5 (1.87%) only dominantly managed by the family.

4.5.5 Control Variables

Following previous engagement research, this study used the following conditions as control variables, i.e., firm age and size (Leung et al., 2011; Haar and White, 2013) along with employee education (Bhatnagar, 2007; Schaufeli, Bakker, & Rhenen, 2009), age, tenure (Kahn, 1990; Schaufeli and Bakker, 2004; Bakker et al., 2007), and employee managerial rank (Clercq and Rius, 2007).

Anticipating that most of the respondents would not be senior managers who were very familiar with specific details of the firm's information, instead of giving absolute numbers, ranges were used to estimate firm age and size. In this way, respondents who did not possess precise details about the firm's age and size would still have an opportunity to provide information. Firm age was measured by an approximate number of years the firm had been established, while the firm size was measured by the approximate number of full-time employees. Thus, the questions and alternative answers were "According to your estimation, how long has the firm been established? (Less than five years, 5-10 years, 10-20

years, 20-40 years, more than 40 years, don't know); according to your estimation, how many employees work for the firm? (1-10, 11-50, 51-100, 101-250, 251-1000, 1001-5000, more than 5000, don't know).

Employee tenure should not necessarily reflect employee age considering that employees with similar ages do not always start their career at the same time. Thus, controls using employee tenure and age separately was necessary. Following the common working and retirement ages in Indonesia, the employee age coding was 1 = 20–25 years old, 2 = 25–30, 3 = 30–35, 4 = 35–40, 5 = 40–45, 6 = 45–50, 7 = 50–55, and 8 = above 55 years old. In addition, considering employment turnover patterns in Indonesia, the tenure coding is 1 = less than 1 year, 2 = 1–3 year, 3 = 3–5, 4 = 5–10, 5 = 10–15, 6 = 15–20, 7 = above 20 years. Regarding the Indonesian education's degree system, employee education was coded as follow: 1 = less than high school, 2 = high school, 3 = first to third diploma, 4 = bachelor or fourth diploma, 5 = master or first specialist, 6 = doctoral or second specialist. Finally, the managerial rank was coded as follow: 1 = staff, 2 = junior manager, 3 = manager, 4 = senior manager, 5 = director.

Table 4.4 The Variables Operationalisation

	Latent Factors	Operationalisation
1	Authority Decentralisation	7=if respondent strongly agrees with statements indicating the level of their involvement in important decision-making; 1=if strongly disagrees with those statements
2	Financial Control	7=if respondent strongly agrees with statements indicating the level of formalisation and standardisation in firm's financial management, such as budget control; 1=if strongly disagrees with those statements
3	Human Resource Control	7=if respondent strongly agrees with statements indicating the level of formalisation and standardisation at human resource management, such as employee performance and reward controls; 1=if strongly disagrees with those statements
4	Professionalisation	The average score of authority decentralisation, financial control, human resource control
5	Innovativeness	7=if respondent strongly agrees with statements indicating firm attempts to introduce new products, services and processes; 1=if strongly disagrees with those statements
6	Proactiveness	7=if respondent strongly agrees with statements indicating that their employers seek opportunities and anticipates future demand; 1=if strongly disagrees with those statements
7	Risk-taking	7=if respondent strongly agrees with statements indicating that their HoD/CEO invests significant resources under unknown and uncertain environments; 1=if strongly disagrees with those statements

	Latent Factors	Operationalisation
8	Entrepreneurial Orientation	The average score of innovativeness, proactiveness, risk-taking
9	Employee Engagement	7=if respondent strongly agrees with statements representing engagement feeling, such as: “The mission of my company makes me feel my job is important”, “My supervisor, or someone at work, seems to care about me as a person”; 1=if strongly disagrees with those statements
10	Firm Age	The number of years that the firm is established
11	Firm Size	The number of employees working for the firm
12	Employee Age	Ranges in intervals of 5 years from 20 to 55 years old
13	Employee Education	High school, diploma, bachelor, master, and doctoral degree
14	Employee Rank	Managerial rank held by respondent
15	Employee Tenure	The number of years in current employment
16	Family Business Status	The dummy variable with value=1 if the respondent’s employing firm is a family firm; value=1 if not a family firm

4.6 Accuracy of Operationalisation

Following Anderson & Gerbing's (1988) first step of SEM, this section presents the process of finding the most appropriate factor structure of the scales (i.e., employee engagement, professionalisation, and EO) and systematically reports the results. A more detailed information about the validation techniques is carried forward to Appendix D.

First, assuming that all scales were previously established from an existing concept, CFA procedures using AMOS 22.0 were run on the sample to examine the GOF parameter scores of the original factor (scale) structures. Second, recurring EFA procedures using the principal axis factoring method and oblique (Promax) rotation using SPSS 22.0 were run to find better factor structures (called revised scales). Third, CFA was run to examine the GOF parameter scores of the revised scales and then compared those scores with the GOF scores from the original scales. Finally, the correlation of each original and the revised scale was calculated to ensure that the revised scale still represented the concept. Regarding the profile diversity of the respondents, the measurement invariant was assessed to ensure that the respondents similarly perceived the scales. Common method variance (CMV) testing was also conducted to ensure that the extent of CMV did not bias the relationship between the targeted scales (Podsakoff et al., 2003; Siemsen et al., 2010).

4.6.1 Original Measurement Model Validity

This research employed professionalisation scales originally introduced by Dekker et al. (2012), three kinds of EO scales created by Covin & Slevin (1989), (Lumpkin and Dess, 1996) and Lumpkin & Dess (2001) respectively, and Q^{12} employee engagement scales (Buckingham and Coffman, 1999). Thus, there were three measurement models examined using CFA procedures. The first model involving 12 items of three professionalisation factors (Dekker et al., 2012), nine items of three EO factors (Covin and Slevin, 1989), and 12 items of employee engagement unidimensional construct (Buckingham and Coffman, 1999). The factors structure in the second and third models were similar to the structure in the first model, except the EO factors were replaced by Lumpkin & Dess' (1996) and Lumpkin & Dess' (2001) items respectively. The factor structures (Table 4.5) were analysed simultaneously in a correlational relationship (Figure 4.1) to enable the discriminant validity test.

Table 4.5 Original Factor Structures in the Measurement Models

	Professionalisation Factors			**EO Factors**			**Employee Engagement items**
	AD (Authority Decentralisation) **items**	**FI** (Financial Control System) **items**	**HR** (Human Resource Control System) **items**	**IN** (Innovativeness) **items**	**PR** (Proactiveness) **items**	**RT** (Risk-taking) **items**	
Model 1	AD_1, AD_2, AD_3	FI_1, FI_2, FI_3, FI_4	HR_1, HR_2, HR_3, HR_4, HR_5	EO1_1, EO1_2, EO4_5	EO2_2, EO2_3, EO 2_4	EO3_1, EO4_1, EO4_6	EE_1, EE_2, EE_3, EE_4, EE_5, EE_6, EE_7, EE_8, EE_9, EE_10, EE_11, EE_12
Model 2				EO1_1, EO1_2, EO3_2, EO4_3, EO4_5	EO2_2, EO2_3, EO4_2	EO3_1, EO4_1, EO4_4, EO4_6	
Model 3				EO1_1, EO1_2	EO2_2, EO2_3, EO 2_4	EO3_1, EO4_5, EO4_6	

Notes: please refer to Appendix A for item descriptions

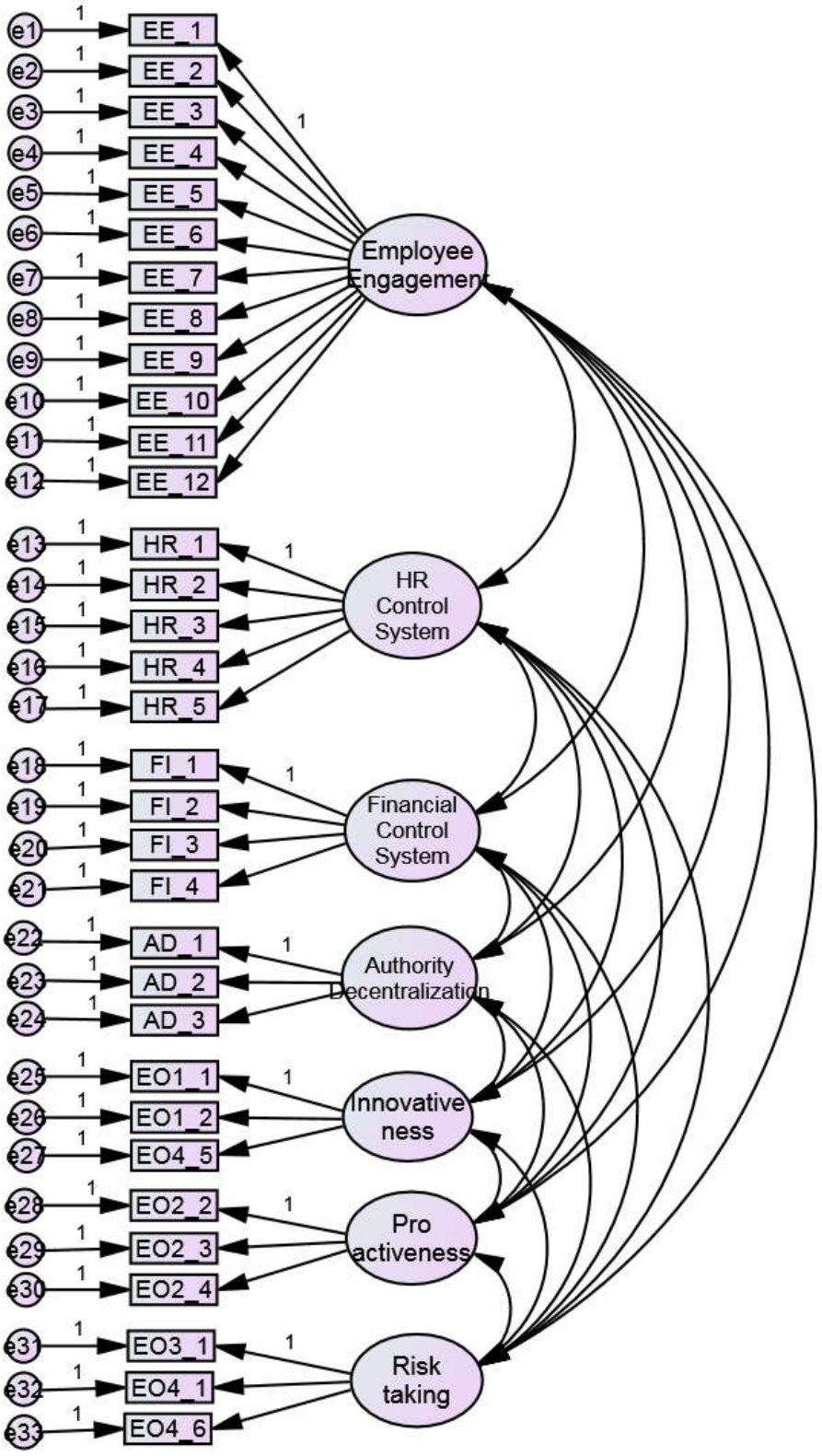


Figure 4.1 Original Factor Structures with Covin & Slevin's EO version

The results presented in Table 4.6 exhibit that none of the measurement models meets the convergent, discriminant or overall fit criteria. For instance, employee engagement items demonstrate their reliability, but they do not converge to a single factor as expected. Most of their standardised factor loadings are below the recommended value (>|0.7|), and the EE's AVE is considerably lower than the recommended value (>0.50). It indicates that an average of less than 50% of variance is explained by the latent factor structure (Hair et al., 2010). The higher value of square correlation between EE and HR than EE's AVE indicates discriminant validity problems. Thus employee engagement cannot be considered as a truly distinct scale. In fact, as some employee engagement items evidently have significant cross-loadings to other factors (such as to HR), those items should not uniquely represent employee engagement. Therefore, some items having low factor loadings and cross-loadings should be eliminated through EFA procedures as presented in the next subsection.

Table 4.6 Validity Scores of the Original Measurement Model

Parameters		Good Value	Factors	Model 1	Model 2	Model 3
Convergent Validity	Factor Loadings	> .70	AD	0.807, 0.851, 0.311	0.818, 0.838, 0.311	0.806, 0.851, 0.311
			FI	0.687, 0.806, 0.866, 0.789	0.687, 0.806, 0.865, 0.79	0.686, 0.805, 0.866, 0.79
			HR	0.76, 0.782, 0.72, 0.831, 0.745	0.76, 0.782, 0.722, 0.832, 0.745	0.761, 0.783, 0.721, 0.830, 0.746
			IN	0.807, 0.842, 0.368	0.511, 0.549, 0.605, 0.76, 0.695	0.836, 0.835
			PR	0.759, 0.78, 0.74	0.668, 0.666, 0.688	0.756, 0.734, 0.573
			RT	0.582, 0.71, 0.719	0.55, 0.661, 0.666, 0.836	0.533, 0.804, 0.813
			EE	0.597, 0.533, 0.658, 0.522, 0.704, 0.741, 0.711, 0.704, 0.567, 0.436, 0.539, 0.539	0.596, 0.533, 0.659, 0.522, 0.703, 0.742, 0.71, 0.703, 0.569, 0.437, 0.539, 0.633	0.598, 0.533, 0.658, 0.522, 0.703, 0.741, 0.711, 0.704, 0.567, 0.436, 0.539, 0.633

Parameters		Good Value	Factors	Model 1	Model 2	Model 3
	Cronbach's Alpha	> .70	AD	0.657	0.657	0.657
			FI	0.866	0.866	0.866
			HR	0.877	0.877	0.877
			IN	0.657	0.768	0.822
			PR	0.803	0.717	0.717
			RT	0.705	0.758	0.748
			EE	0.874	0.874	0.874
	CR	> .70	AD	0.717	0.716	0.717
			FI	0.868	0.868	0.868
			HR	0.878	0.878	0.878
			IN	0.730	0.764	0.822
			PR	0.804	0.714	0.732
			RT	0.711	0.777	0.766
			EE	0.879	0.879	0.879
	AVE	> .50	AD	0.491	0.489	0.490
			FI	0.624	0.623	0.623
			HR	0.591	0.592	0.591
			IN	0.499	0.398	0.698
			PR	0.577	0.454	0.480
			RT	0.453	0.470	0.530
			EE	0.383	0.383	0.383
Discriminant Validity	Square correlation of two factors must be less than AVE of each of those factors		AD <-> FI	0.074	0.075	0.074
			AD <-> HR	0.149	0.15	0.149
			AD <-> IN	0.153	0.148	0.155
			AD <-> PR	0.091	0.091	0.097
			AD <-> RT	0.084	0.062	0.088
			AD <-> EE	0.188	0.192	0.188
			FI <-> HR	0.595	0.596	0.596
			FI <-> IN	0.33	0.279	0.265
			FI <-> PR	0.358	0.231	0.214
			FI <-> RT	0.157	0.123	0.165

Parameters		Good Value	Factors	Model 1	Model 2	Model 3
			FI <-> EE	0.547	0.547	0.547
			HR <-> IN	0.33	0.385	0.309
			HR <-> PR	0.358	0.365	0.358
			HR <-> RT	0.297	0.252	0.284
			HR <-> EE	0.632	0.632	0.632
			IN <-> PR	0.774	0.958	0.792
			IN <-> RT	0.487	0.875	0.332
			IN <-> EE	0.401	0.402	0.385
			PR <-> RT	0.561	0.602	0.535
			PR <-> EE	0.333	0.352	0.33
			RT <-> EE	0.323	0.253	0.278
Overall Fit (GOF parameters)	X^2(df)		Absolute fit index	1517.149 (474)	2141.627 (573)	1209.008 (443)
	X^2/df	1 - 3		3.201	3.738	2.729
	RMSEA	< .06		0.064	.071	.056
	SRMR	< .09		0.0618	0.0648	0.0542
	GFI	> .95		0.859	.811	.878
	CFI	> .90	Incremental fit index	0.869	.827	.899
	NFI(Delta 1)	> .90		0.821	.779	.850
	IFI(Delta 2)	> .90		0.870	.828	.899
	AGFI	> .90	Parsimony	0.834	.781	.855

The EO construct validity tests also show that all alternative factor structures lack convergent and discriminant validity. Interestingly, each factor structure has unique validity problems. For instance, while measurement model 1 produces sufficient convergent and discriminant validity scores only for the proactiveness factor, model 3 does so only for innovativeness. Therefore, the EFA procedures are expected to produce revised innovativeness and proactiveness structures that are similar to Lumpkin & Dess' (2001) innovativeness (model 3) and Covin & Slevin's (1989) proactiveness (model 1) factor

structure. Likewise, a revised risk-taking structure might be closer to Lumpkin & Dess' (2001) risk-taking structure as it has only a few convergent validity problems related to the low first item loading.

Validity tests for the professionalisation construct indicate that only the authority decentralisation factor has significant convergent validity problems. This appears to be caused by the severe low loading on its third item. Thus, eliminating that third item is an alternative remedy. Although this attempt reduces the number of measured items to be less than three, the identification problem might not occur because the total of items in the measurement model is sufficient.

In summary, the original factor structures failed to meet the construct-validity or overall fit criteria. Fortunately, the recurring EFA process, as explained in the following subsection, successfully produced a factor structure that met the construct validity and overall fit criteria.

4.6.2 Revised Measurement Model Validity

EFA procedures are conducted on the original measured items to find a better measurement model. This extraction uses common factor analysis (Principle Axis Factoring) with an oblique rotational (Promax) method to simultaneously produce seven latent factors. The process is repeated to produce a structure that maximises factor loadings and minimises cross-loadings, along with considering total variance that is explained by latent factors. Importantly, each item should converge to a factor that is theoretically robust. Thus, the decision to retain or eliminate an item does not simply rely on the statistical results. Rather, considered discretion is also required to ensure that the factor is in line with the conceptual foundations (Hair et al., 2010).

First, extracted from 38 items representing professionalisation (12 items), EO (14 items), and employee engagement (12 items), the final EFA process produces seven latent factors represented by 24 items. They are authority decentralisation (2 items), financial control (3 items), human resource control (5 items), innovativeness (2 items), proactiveness (3 items), risk-taking (3 items), and employee engagement (6 items). Second, with a KMO measure of sampling adequacy of 0.863, it would appear that every factor is built from sufficiently intercorrelated measured variables to justify the EFA application. Third, when this

research uses *a priori* criteria to determine the number of extracted factors, examining the cumulative variance extracted is beneficial to ensure the practical significance of the derived factors. In fact, the EFA procedures produce 60.65% total variance explained, which is satisfactory for social studies (Hair et al., 2010).

Second, as discussed above, the elimination process does not merely base its findings on the results of the statistics, but should also consider the concept represented by each item. For instance, the EE items selection during the EFA process should consider the representativeness of cognitive and emotional dimensions of employee engagement (Luthans and Peterson, 2002). In our results, out of six EE selected items, three of them represent the cognitive dimension (EE_3, EE_12, EE_12) while the others represent the emotional dimension (EE_5, EE_6, EE_7) of engagement (Luthans and Peterson, 2002). The use of only some GWA items is not uncommon (e.g., Belousova, Groen, & Gailly, 2012). However, following the original version and its common usage (Buckingham and Coffman, 1999; Harter et al., 2002; Harter et al., 2013), employee engagement is maintained as a unidimensional construct.

Further, as was expected, the revised innovativeness and proactiveness structure is identical to Lumpkin & Dess (2001)'s and Covin & Slevin's (1989) factor structures respectively. The revised risk-taking structure is similar to Lumpkin & Dess (2001)'s, except for its first item that comes from the third item of Lumpkin & Dess's (1996) risk-taking. Finally, the revised professionalisation factor structures are similar to the original ones except for the following items. The third item of revised authority decentralisation and the fourth item of revised financial control factor were deleted to meet the convergent validity and to improve the overall fit. Having a new measurement model (Figure 4.2), CFA procedure is applied to test the convergent and discriminant validity along with the overall fit of the revised model. The results are presented in Table 4.7.

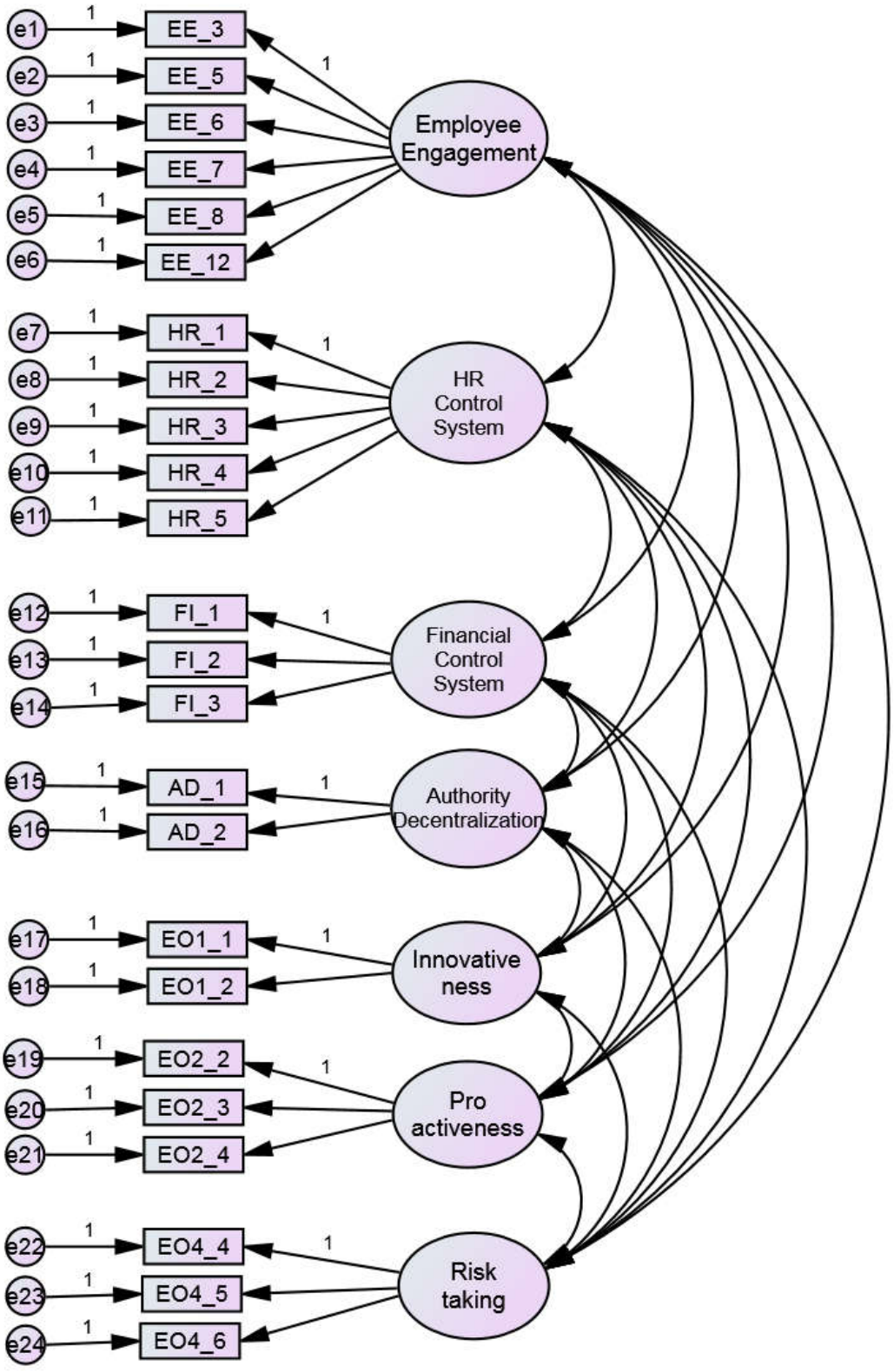


Figure 4.2 Revised Measurement Model

Table 4.7 Validity Scores of the Revised Measurement Model

Parameters		Good Value	Factors	Revised Model
Convergent Validity	Factor Loadings	> .70	AD → AD_1, AD_2	0.965, 0.71
			FI → FI_1, FI_2, FI_3	0.746, 0.888, 0.797
			HR → HR_1, HR_2, HR_3, HR_4, HR_5	0.758, 0.784, 0.723, 0.832, 0.743
			IN → EO1_1, EO1_2	0.815, 0.856
			PR → EO2_2, EO2_3, EO2_4	0.759, 0.783, 0.736
			RT → EO4_4, EO4_5, EO4_6	0.699, 0.749, 0.89
			EE → EE_3, EE_5, EE_6, EE_7, EE_8, EE_12	0.633, 0.718, 0.779, 0.741, 0.678, 0.632
	Cronbach's Alpha	> .70	AD	0.813
			FI	0.848
			HR	0.877
			IN	0.822
			PR	0.803
			RT	0.817
			EE	0.847
	CR	> .70	AD	0.832
			FI	0.853
			HR	0.878
			IN	0.822
			PR	0.803
			RT	0.825
			EE	0.851
	AVE	> .50	AD	0.718
			FI	0.660
			HR	0.591

Parameters		Good Value	Factors	Revised Model
			IN	0.698
			PR	0.577
			RT	0.614
			EE	0.489
Discriminant Validity	Square correlation of two factors must be less than AVE of each of those factors		AD <-> FI	0.027
			AD <-> HR	0.138
			AD <-> IN	0.131
			AD <-> PR	0.093
			AD <-> RT	0.047
			AD <-> EE	0.225
			FI <-> HR	0.511
			FI <-> IN	0.225
			FI <-> PR	0.198
			FI <-> RT	0.095
			FI <-> EE	0.410
			HR <-> IN	0.313
			HR <-> PR	0.357
			HR <-> RT	0.231
			HR <-> EE	0.578
			IN <-> PR	0.357
			IN <-> RT	0.279
			IN <-> EE	0.366
			PR <-> RT	0.395
			PR <-> EE	0.300
			RT <-> EE	0.214
Overall Fit (GOF parameters)	X^2(df)		Absolute fit index	486.681 (231) / *363.851 (231)*
	X^2/df	1 – 3		2.107 / *1.575*
	RMSEA	< .06		0.045 / *0.035*
	SRMR	< .09		0.0429 / *0.0362*
	GFI	> .95		0.930 / *0.935*

Parameters		Good Value	Factors	Revised Model
	CFI	> .90	Incremental fit index	0.957 / *0.977*
	NFI(Delta 1)	> .90		0.922 / *0.941*
	IFI(Delta 2)	> .90		0.957 / *0.977*
	AGFI	> .90	Parsimony	0.909 / *0.925*

Note: the GOF parameters in *italics* are calculated from normal-distributed data without multivariate outliers (N=480)

The results presented in Table 4.6 and Table 4.7 exhibit the superiority of the revised measurement model over the original ones. Convincingly, the revised measurement model meets most of the convergent, discriminant and overall fit criteria. Most of the factor loadings reached 0.7, most of the factor's AVE reached 0.5, and all factors' Cronbach's Alpha score exceeded 0.7. This demonstrates convergent validity. Although the involvement of three EE items, i.e., EE_3, EE_8, E_12 reduces the convergent validity, it was determined that those items are retained to allow the representation of the cognitive dimension of employee engagement. Besides, their factor loadings are close to the preferable value (|0.7|), and are still considered significant based on the amount of data. Similarly, although the EE's AVE does not meet the recommended minimum value (0.5), it is only 2.2% of that value. Moreover, as any square correlation of two factors was less than their AVE, it demonstrated the discriminant validity of the revised factor structure (Hair et al., 2010).

Further, the GOF scores (RMSEA=0.045, SRMR=0.0429, CFI=0.957, AGFI=0.909) ensured that the revised factor structure represented a fit model. Regarding the non-normal data condition, the X^2 value should receive particular attention. As explained in the methodology chapter, the use of maximum likelihood estimation for non-normal data can inflate the X^2 value, leading to mistakenly fit model rejection (Benson and Fleishman, 1994). Table 4.7 shows that X^2(df) and X^2/df inflates from 1.575 and 363.851(231) for non-normal data to 1.575 and 363.851 (231) for normal data. Other GOF parameters for non-normal data are also inflated. However, the value of X^2/df is still within good criteria. Besides, at least one GOF parameter from each GOF type (absolute, incremental, parsimony) exhibits a good value. For these reasons, the revised model is maintained for further analysis.

This study calculated the correlation between the original and revised scales to confirm that the revision still represented the original scales. As the revised items of human resource control, innovativeness, and proactiveness are the same as the original ones, Table 4.8 only presents the correlation coefficient of authority decentralisation, financial control, risk-taking, and employee engagement scales. An average scores method is used to calculate each scale value due to its ability to maintain comparisons across scales having a different number of items per scale (Distefano et al., 2009). The results prove that each revised scale is likely to represent its original version as they are closely correlated.

Table 4.8 Correlation of the Original and Revised Scales (N=545)

Scales	Correlation Coefficients
Authority Decentralisation	0.896**
Financial Control System	0.974**
Risk-taking	0.889**
Employee Engagement	0.944**

Notes: †p ≤ .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001

After validating the revised measurement model and legitimising the revised scales to represent the original concepts, other methodological concerns related to measurement invariance and common method variance (CMV) are addressed in the following section.

4.6.3 Measurement Model Invariance

The various respondent profiles might lead to different interpretations of the questionnaire items. Measurement invariance analysis examines whether a measured variable operationalises differently across different circumstances, such as over respondent demographic or questionnaire administration (Kline, 2011). For instance, respondents of different education or managerial level might respond differently to certain constructs.

This study respectively referred to Monsen & Boss's (2009) and Whitaker & McKinney's (2007) procedures to anticipate statistical variance caused by demographics, data sources and data gathering method differences. In this way, some levels of measurement invariant analysis were tested, i.e., configural, metric, scalar, factor, and uniqueness measurement invariants. For this purpose, CFA procedures were run on the multiple-group data based on respondent age, education, managerial rank and tenure (Kline, 2011). The invariant test in

this study used CFI degradation (ΔCFI) criteria, in which ΔCFI less than -0.01 indicates invariant across multi-groups samples (Cheung and Rensvold, 2002; Cole and Bruch, 2006). In fact, the varying levels of invariant testing only produced ΔCFI in the range of -0.012 to 0.001 (see Table 4.19). These results indicated a negligible systematic bias in answering the questionnaires due to respondents' varied profiles, data sources and data gathering method difference.

As the most basic form of measurement invariance test, a configural (unconstrained) test assumes that the factor structure used across data groups is equal (Kline, 2011). Thus, the number of factors and indicators/items are the same. If the configural test produces acceptable GOF scores, then the process can move forward to a stronger (more rigid) invariance test procedure, i.e., a metric (measurement weights) test. This invariant test assumes identical factor structures and factor loadings values across data groups. Further, the scalar (measurement intercepts) invariant test needs the *factors-mean* to be equal on top of the metric invariant test criteria. The more rigid test, i.e., invariant factor (structural covariance), requires covariance amongst factors to be equal besides all scalar test requirements. Finally, on top of factor test criteria, the uniqueness test (measurement residuals) requires the items error variance to be equal across data groups.

Besides measurement-invariant analysis, the structural invariant test is required to verify the existence of a moderating effect. It examines the significant difference of factors regression weight across data groups. The structural coefficients invariant test is conducted by constraining the factor regression weight equally across data groups. If it produces statistical significant chi-square difference (ΔX^2), then a moderating effect exists. Further, a search to find which particular factors differ should be held.

Considering that the respondents possess diverse demographic profiles (see Table 4.19), the measured variables might be perceived differently by various respondents. For instance, respondents with higher and lower managerial levels may have a different concept in mind when they report about EO items, as well as respondents with longer and shorter tenure may respond differently to EE items. Also, respondents who work for family and nonfamily firms may have a different perception of professionalisation items. Also, the way respondents fill the items, either by paper-based or web-based questionnaire, may affect their answers. Thus, CFA procedures are applied for multiple-group data to test for invariance between groups. For this purpose, the data is grouped based on the level of respondent's

age, education, managerial rank, tenure, employment (family or nonfamily firms), questionnaire administering (paper or web-based), and the university origin of the respondents. The results are presented in Table 4.9 and Table 4.10.

Table 4.9 Invariance Test on Revised Measurement Structures

GOF Parameter	Good value	Overall Data	By Age	By Education	By Rank	By Tenure	By University Origin	By Hardcopy or Online	By FB Employment
	Configural (Unconstrained)								
X^2(df)		486.681 (231)	842.905 (462)	844.459 (462)	822.120 (462)	809.740 (462)	844.096 (462)	826.788 (462)	830.117 (462)
X^2/df	1 - 3	2.107	1.824	1.828	1.779	1.753	1.827	1.790	1.797
RMSEA	< .06	.045	0.039	0.039	0.038	0.037	0.039	0.038	0.038
SRMR	< .09	0.0429	0.0536	0.0423	0.0468	0.0550	0.0467	0.0518	0.0550
CFI	> .90	0.957	0.937	0.937	0.941	0.942	0.938	0.940	0.939
IFI(Delta 2)	> .90	0.957	0.938	0.938	0.942	0.943	0.939	0.941	0.940
	Metric (Measurement Weights)								
X^2(df)		486.681 (231)	875.409 (479)	859.32 (479)	864.662 (479)	835.193 (479)	881.204 (479)	851.950 (479)	840.075 (479)
X^2/df	1 - 3	2.107	1.828	1.794	1.805	1.744	1.840	1.779	1.754
RMSEA	< .06	.045	0.039	0.038	0.039	0.037	0.039	0.038	0.037
SRMR	< .09	0.0429	0.0526	0.0430	0.0471	0.0559	0.0464	0.0518	0.0562
CFI	> .90	0.957	0.935	0.938	0.937	0.941	0.934	0.938	0.940
IFI(Delta 2)	> .90	0.957	0.936	0.939	0.937	0.942	0.939	0.939	0.941
	Scalar (Measurement Intercepts)								
X^2(df)		486.681 (231)	939.622 (503)	882.276 (503)	919.465 (503)	882.458 (503)	937.011 (503)	925.920 (503)	887.983 (503)
X^2/df	1 - 3	2.107	1.868	1.754	1.828	1.754	1.863	1.841	1.765
RMSEA	< .06	.045	0.04	0.037	0.039	0.037	0.040	0.039	0.038
SRMR	< .09	0.0429	0.0519	0.0430	0.0471	0.0559	0.0465	0.0519	0.0565

GOF Parameter	Good value	Overall Data	By Age	By Education	By Rank	By Tenure	By University Origin	By Hardcopy or Online	By FB Employment
CFI	> .90	0.957	0.928	0.938	0.931	0.937	0.929	0.930	0.937
IFI(Delta 2)	> .90	0.957	0.929	0.938	0.932	0.938	0.930	0.931	.937
	Factor (Structural Covariance)								
X^2(df)		486.681 (231)	964.464 (531)	913.698 (531)	970.627 (531)	916.926 (531)	962.537 (531)	992.999 (531)	931.830 (531)
X^2/df	1 - 3	2.107	1.816	1.721	1.828	1.727	1.813	1.870	1.755
RMSEA	< .06	.045	0.039	0.036	0.039	0.037	0.039	0.040	0.037
SRMR	< .09	0.0429	0.0558	0.0463	0.0534	0.0659	0.0526	0.0772	0.0646
CFI	> .90	0.957	0.929	0.937	0.928	0.936	0.930	0.924	0.934
IFI(Delta 2)	> .90	0.957	0.929	0.938	0.928	0.936	0.930	0.924	0.934
	Uniqueness (Measurement Residuals)								
X^2(df)		486.681 (231)	1052.153 (555)	958.837 (555)	1005.268 (555)	969.548 (555)	1019.205 (555)	1088.448 (555)	999.931 (555)
X^2/df	1 - 3	2.107	1.896	1.728	1.811	1.747	1.836	1.961	1.802
RMSEA	< .06	.045	0.041	0.037	0.039	0.037	0.039	0.042	0.038
SRMR	< .09	0.0429	0.0579	0.0475	0.0540	0.0650	0.0534	0.0740	0.0640
CFI	> .90	0.957	0.918	0.934	0.926	0.931	0.924	0.912	0.927
IFI(Delta 2)	> .90	0.957	0.918	0.934	0.926	0.931	0.924	0.912	0.927

Table 4.10 Chi-Square Comparison across Criteria and Invariance Model

Invariant Model	Δdf	Critical value	ΔX^2 By Age	ΔX^2 By Education	ΔX^2 By Rank	ΔX^2 By Tenure	By University Origin	ΔX^2 By Hardcopy / Online	ΔX^2 By FB Employment
Configural → Metric	17	27.59	32.498	14.861	42.542	25.453	37.108	25.163	9.958
Metric → Scalar	24	36.42	64.213	22.956	54.803	25.453	55.807	73.970	47.908
Scalar → Factor	28	41.34	24.842	31.422	51.162	34.468	25.526	67.079	43.847
Factor → Uniqueness	24	36.42	87.689	45.139	34.641	52.622	56.668	95.449	68.101

Note: *p<.05*

Following Monsen & Boss's (2009) example, the results in Table 4.9 demonstrate that the measurement variance is not an issue. First, CFA on all multiple-group data produces acceptable RMSEA and SRMR (< 0.06 and < 0.09 severally) (Hu and Bentler, 1999) for the unconstrained model, confirming configural invariance. Second, although most of the chi-square change in (ΔX^2) is significant (Table 4.10), the CFI and IFI scores degradation are negligible (Table 4.11), suggesting metric invariance (Cheung and Rensvold, 2002). The chi-square difference test was overly sensitive to evaluate model fit with equality constraint (Cheung and Rensvold, 2002). Alternatively, the change in the comparative fit index (ΔCFI) was recommended as the most robust multi-group invariant assessment (Cheung and Rensvold, 2002; Cole and Bruch, 2006). It was reported that the degradation of CFI equal or less than 0.01 indicates invariants across multi-group samples (Cheung and Rensvold, 2002; Cole and Bruch, 2006). In this way, the results presented in Table 4.11 demonstrate negligible systematic bias in answering the questionnaires according to respondent variants in respondent demographics, administration, and the employing firm's status.

Table 4.11 CFI Comparison across Criteria and Invariance Model

Invariant Model	ΔCFI By Age	ΔCFI By Education	ΔCFI By Rank	ΔCFI By Tenure	By University Origin	ΔCFI By Hardcopy / Online	ΔCFI By FB Employment
Configural → Metric	-0.002	0.001	-0.004	-0.001	-0.004	-0.002	0.001
Metric → Scalar	-0.007	0.000	-0.006	-0.004	-0.005	-0.008	-0.003
Scalar → Factor	0.001	-0.001	-0.003	-0.001	0.001	-0.006	-0.003
Factor → Uniqueness	-0.011	-0.003	-0.002	-0.005	-0.006	-0.012	-0.007

4.6.4 Common Method Variance

CMV (Common Method Variance) is a systematic error variance shared among variables that emanate from the same source and are measured by the same approach (Richardson et al., 2009, p.2). Some researchers are cautious of CMV because it can yield in bias (inflated or deflated) relationships between targeted scales, leading to misleading conclusions (Podsakoff et al., 2003; Siemsen et al., 2010). Generally, CMV is potentially sourced from a common rater, item characteristics, item context and a measurement context (Podsakoff et al., 2003).

There are two approaches to manage CMV, i.e., the study's procedure design and statistical controls, that could be adapted to fit into a specific research setting (Podsakoff et al., 2003). According to the procedure's design, such attempts are needed to improve item scales, such as anonymity and by reducing the item ambiguity technique.

Further, a statistical approach was taken by first implementing Harman's single-factor test to identify the existence of severe CMV. By involving all measured variables into EFA unrotated factor solution procedures, the number of extracted factors is counted. A substantial amount of CMV exists if only one factor emerges. However, the emergence of multiple factors does not guarantee the absence of CMV (Podsakoff et al., 2003). According to Podsakoff et al., (2003), the additional statistical remedy should be taken based on the research setting. For instance, when dependent and independent variables use the same data sources, and they were measured in the same context, single-common method-factor (also known as unmeasured latent method construct/ULMC) (Widaman, 1985; Williams et al., 1989) should be the most relevant statistical approach.

This study implemented Harman's single-factor test to identify the existence of severe CMV and ULMC (unmeasured latent method construct) to examine the extent of CMV presence. Evidently, EFA on the 24 items produced 6 latent factors that individually explain between 4.5% and 27% of the total variance, with eigenvalues from 1.08 to 6.48, and cumulatively explain 58.52 of the total variance. This result indicated unsubstantial CMV existence.

Further, to investigate the contribution of CMV on measured items variances, a ULMC test was run following Williams et al.'s (1989) procedures. These procedures previously were adopted by Choi & Chen (2007) and Diefendorff & Mehta (2007). First, a new factor (named the CMV factor) is added to the revised measurement model and assumed to be responsible for the method variance of all professionalisation, EO, and EE factors measured items. Therefore, those items should be loaded to the CMV factor as well as to their respective latent factors (Figure 4.3). Second, CFA results of the revised measurement model with the CMV factor are compared with the model without CMV factor. If the model with the CMV factor is a better fit, then CMV might exist, even in unsubstantial amounts. The model with the CMV factor should be tested under two conditions to estimate whether CMV presents on all measured items equally (non-congeneric) or not (congeneric). The first condition constraints all CMV factors loadings to be of equal value, while the second condition frees

their value. If the CFA procedures for the second condition produce better GOF index, then the CMV factor loadings are not equal across the measured items (Williams et al., 2010). Third, if CMV exists, then the square of the CMV factor loadings and revised latent factor loadings are calculated to examine the portion of variance that is contributed to by the CMV factor. Table 4.12 presents the CFA comparison of revised measurement and CMV model.

Table 4.12 CFA Comparison of Revised Measurement and CMV Model

GOF Parameter	Good value	Revised Measurement Model	CMV Model (Non-congeneric)	Δ	CMV Model (Congeneric)	Δ
X^2		486.681	474.497	12.184	345.124	129.373
Df		231	230	1	207	23
X^2/df	1 - 3	2.107	2.063		1.667	
RMSEA	< .06	.045	0.044		0.035	
SRMR	< .09	0.0429	.0433		.0286	
CFI	> .90	0.957	0.959		0.977	
NFI(Delta 1)	> .90	0.922	0.924		.945	
IFI(Delta 2)	> .90	0.957	0.959		0.977	

Note: *p<.001*

As the chi-square difference of the CMV model and measurement model (12.184) was higher than the X^2 critical value for 1 degree of freedom at 0.05 (3.84), thus the measured items were considered contaminated by sources of method variance captured by the CMV factor. Further, the chi-square difference of the non-congeneric and congeneric CMV model (129.373) was much higher than the X^2 critical value for 23 degrees of freedom at 0.035 (35.17). This significant chi-square difference indicated that the CMV congeneric model provided a better fit than the non-generic model. Thus the method variance was not equal across the measured items. These conclusions were supported by the increase of the CFI, NFI, and IFI scores coupled with the decrease of RMSEA and SRMR. Finally, partitioning the variances, the average value of the squared CMV factor and main latent factors' loadings were 19.74% and 41.47% respectively. Across its significance value, the median of method variance was 0.39, and its square value was 15.21%. This method variance proportion was

less than half of the main variance and also less than the method variance reported by Williams et al.'s (1989) in their 11 studies, which was 25%. Therefore, it is reasonable to conclude that CMV should not be seen as an interference in this study.

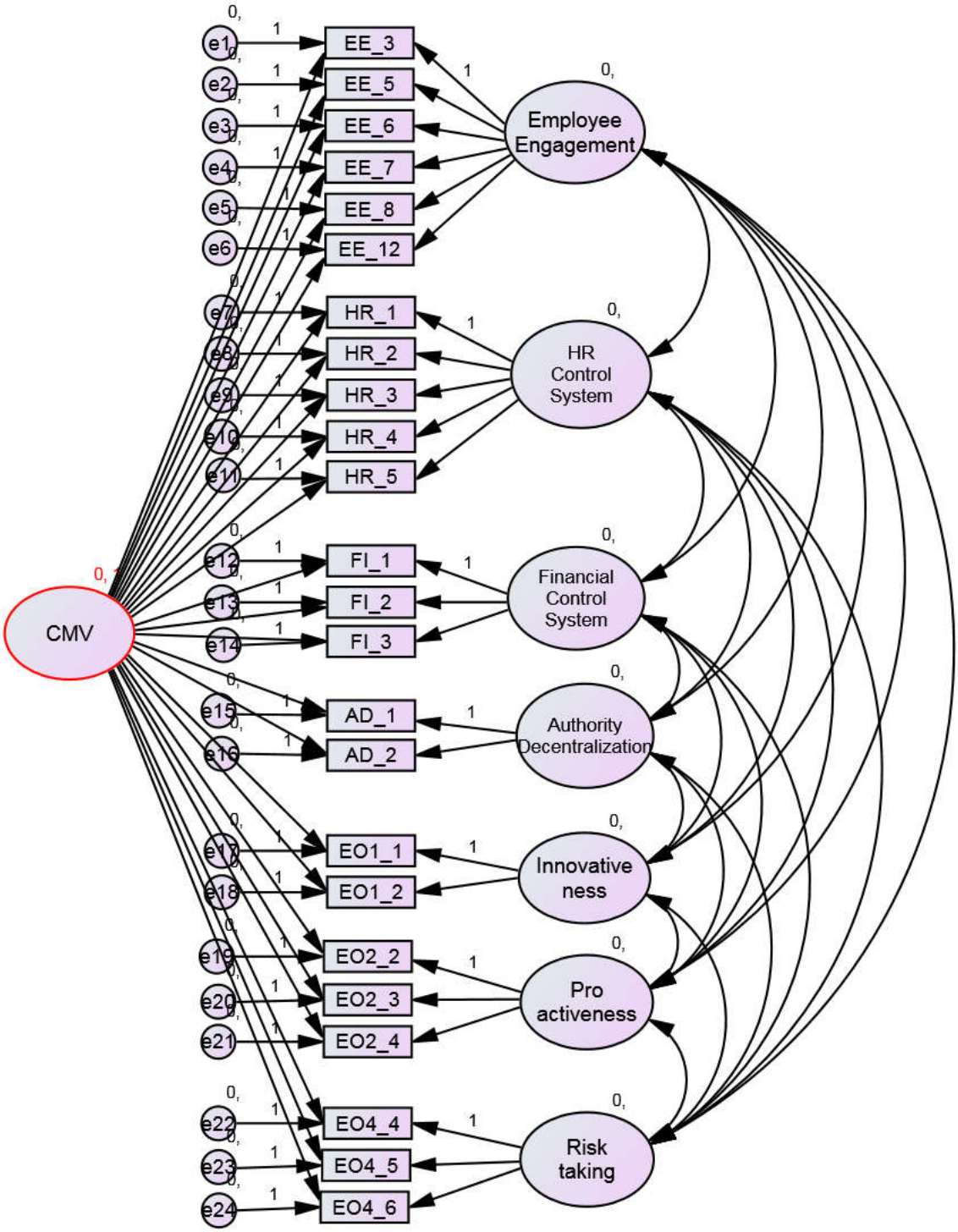


Figure 4.3 Common Method Variance (CMV) Model

4.7.1 Pilot Survey

Before running the main survey, a pilot survey was conducted for two months from August to October 2014. There were only a few studies discussing family firm professionalisation, EO, or employee engagement in the context of developing economies. Therefore, a pilot survey was needed to identify the relevance of professionalisation and EO in an Indonesian family firm context. For that purpose, five representatives were interviewed to gain insight regarding the implementation of professionalisation factors and the importance of EO for Indonesian family firms. Three of those interviewed were business owners of a listed family firm having thousands of employees across five business units, a non-listed family firm having thousands of employees and nine business units, and a non-listed family firm having hundreds of employees and three branches. The other two interviewees were a director and a junior manager of the non-listed family firm with thousands of employees and nine business units. According to the interviewees, professionalisation and EO are relevant in the Indonesian family firm context. For instance, authority decentralisation was permitted for middle managerial activities, whilst financial and human resource control systems were commonly implemented. Moreover, innovativeness was appreciated as source of competitive advantage, and risk-taking was encouraged.

Second, as established measures used in this research originally emanate from a developed economic context, some procedures were arranged to contextualise the measures. For instance, translating, pre-testing, modifying, and back-translating the questionnaire. Considering that the respondents did not use English, the questionnaires were translated into Bahasa Indonesia before pre-testing rounds. All questions had to be understandable. Thus, four respondents from a different level of education were invited to establish their understanding of each question. Their responses and suggestions were taken into account during the questionnaire refinement process. Subsequently, the questions were translated back by someone who has an excellent ability in English and Bahasa Indonesia to ensure the Bahasa Indonesia questionnaires version was the closest to the original meaning. This cycle of events was performed three times to ensure that explicit understanding of the revised questionnaires was achieved.

4.7.2 Data Screening and Data Profiles

From a distribution of 835 hard copy questionnaires and approximately 1076 potential respondents who were invited to complete identical online questionnaires, the total of 809 (42.33%) responses (551 paper-based and 258 online) were received. Running the Indonesian version questionnaire in the survey, not all questions were answered well. As presented in Table 4.6, employee engagement construct has the lowest proportion of missing items, while EO construct has the highest missing items. The proportions of missing items of employee engagement, professionalisation, and EO construct respectively are 1.19%, 3.18% and 10.67% on average.

Table 4.13 The Proportion of Missing Items

Code	Items	Valid	Missing	`% Missing
	`			
EE_1	I know what is expected of me at work	804	5	0.62%
EE_2	I have the materials and equipment I need to do my work right	806	3	0.37%
EE_3	At work, I have the opportunity to do what I do best every day	808	1	0.12%
EE_4	In the last seven days, I have received recognition or praise for doing good work	789	20	2.47%
EE_5	My supervisor, or someone at work, seems to care about me as a person	797	12	1.48%
EE_6	There is someone at work who encourages my development	801	8	0.99%
EE_7	At work, my opinions seem to count	800	9	1.11%
EE_8	The mission/purpose of my company makes me feel my job is important	804	5	0.62%
EE_9	My associates (fellow employees) are committed to doing quality work	801	8	0.99%
EE_10	I have a best friend at work	806	3	0.37%
EE_11	In the last six months, someone at work has talked to me about my progress	775	34	4.20%
EE_12	This last year, I have had opportunities at work to learn and grow?	801	8	0.99%

Professionalisation				
AD_1	My head of department (HoD)/Director makes all major decisions autonomously and then communicates down-words	795	14	1.73%
AD_2	My HoD/Director individually decides which work methods must be followed	788	21	2.60%
AD_3	All employees within my department/company directly report to my HoD/Director (without using an intermediary)	789	20	2.47%
FI_1	The proposed budgets are strictly compared with the actual figures	767	42	5.19%
FI_2	The deviations from the budgeted targets are seriously monitored	770	39	4.82%
FI_3	The department/company financial targets are fully and accurately computed	778	31	3.83%
FI_4	The department/company performance is well evaluated	784	25	3.09%
HR_1	The recruitment procedures for new staff are well documented and implemented	785	24	2.97%
HR_2	My department/company provides formal internal and external training programs for employees	789	20	2.47%
HR_3	My department/company uses incentive payments based on performance	783	26	3.21%
HR_4	The department/company periodical performance reviews are well documented	785	24	2.97%
HR_5	The staff meetings usually formally prepared and planned in advance	786	23	2.84%
Entrepreneurial Orientation				
In regard to new services or products in the past 5 years, my department/company has…				
EO1_1	introduced very many new products, services or methods	729	80	9.89%
EO1_2	made dramatic changes in services or product lines	728	81	10.01%
In dealing with its competitors within the same industry, my department/company…				
EO2_1	is very aggressive and intensely competitive with the similar department at other firms	718	91	11.25%
EO2_2	typically initiate actions which competitors then respond to	710	99	12.24%

EO2_3	is very often to be the first department/workgroup who introduce new products/services, administrative techniques, operating technologies, etc.	721	88	10.88%
EO2_4	typically adopts a very competitive, 'undo the-competitors' posture	716	93	11.50%
When confronted with decision-making situations involving uncertainty, my department/company...				
EO3_1	typically adopts a bold, aggressive posture in order to maximise the probability of exploiting potential opportunities	731	78	9.64%
EO3_2	prefers to design its own unique new processes and technique	730	79	9.77%
In general, my head of department/company...				
EO4_1	have a strong tendency for high-risk projects (with chances of very high returns)	727	82	10.14%
EO4_2	Have a strong tendency to be ahead of other competitors in introducing novel ideas or products	715	94	11.62%
EO4_3	favour experimentation and original approaches to problem-solving	724	85	10.51%
EO4_4	Are quick to spend money on potential solutions if problems are holding us back	725	84	10.38%
EO4_5	strongly emphasised on R&D, technological leadership, and innovation	723	86	10.63%
EO4_6	believe that bold, wide-ranging acts are necessary to achieve the department's objectives	721	88	10.88%
	Control Variables			
CAG	Company Age	739	70	8.65%
CZI	Company Size	750	59	7.29%
DED	Respondent Education	758	51	6.30%
DAG	Respondent Age	757	52	6.43%
DTE	Respondent Tenure	756	53	6.55%
DLE	Respondent Managerial Rank	752	57	7.05%

In general, this may happen because employee engagement items asked questions about respondents feeling and experience. As feeling and experience were likely embedded inside respondents mind, they should be easily revealed. Conversely, the information of firm professionalisation and EO were less likely attached to employees mind. Thus, as the

respondents needed more effort to reveal their perception, the missing items of firm professionalisation and EO items were higher than the missing items of employee engagement. However, the relatively high proportions of missing item EE_4 (2.47%) and EE_11 (4.20%) are interesting. It may happen because item EE_4, i.e., “In the last seven days, I have received recognition or praise for doing good work” and EE_11, i.e., “In the last six months, someone at work has talked to me about my progress” need respondents’ recall.

Further, according to the lower missing items on professionalisation than on EO construct, it seems that respondents are more exposed to the firm professionalisation than firm EO. It is plausible considering that the use of firm procedures and standards as part of professionalisation implementation should be directly related to the employees’ daily work activities. Thus, employees are easier to recognise the existence of professionalisation items. Conversely, employees may less understand the firm entrepreneurial decisions and actions. A more detailed observation on EO missing items could not find any problematic item. The proportions of EO missing items are relatively equal in between 9.64% to 12.24% (see Table 4.6). Instead, the proportion of EO missing items is likely influenced by the respondent's profiles.

According to the data in Table 4.6, it seems that managerial rank of the respondent determines their awareness of firm EO. The proportions of EO missing items respectively are 13.84%, 3.74%, 3.52%, and 3.78% on average for staff, junior manager, manager, and senior manager and above. It is reasonable as employees having managerial position have more access and involvement in firm entrepreneurial activities (Hornsby et al., 2009). Similarly, respondents education seem to affect their knowledge about firm EO (see Table 4.6). The proportions of EO missing items respectively are 13.40%, 6.96%, and 2.55% in average for respondents hold high school and diploma degree; bachelor degree; and master and doctorate. These results should be expected as more educated respondents should have a better understanding in responding complex questions. Surprisingly, more experienced employees do not make them more responsive to answer firm EO questions (see Table 4.6). Respondents who have less than five years working experience are even more responsive than those who have more than five years working experience in answering the EO items.

Table 4.14 The Proportion of EO Missing Items (Respondents Rank)

Item Code	Staff (N=287)			Junior Manager (N=172)			Manager (N=128)			Senior Manager & Director (N=119)		
	Valid	Missing	Missing (%)	Valid	Missing	Missing (%)	Valid	Missing	Missing (%)	Valid	Missing	Missing (%)
EO1_1	249	38	13.24%	169	3	1.74%	123	5	3.91%	115	4	3.36%
EO1_2	250	37	12.89%	167	5	2.91%	123	5	3.91%	115	4	3.36%
EO2_1	245	42	14.63%	162	10	5.81%	124	4	3.13%	114	5	4.20%
EO2_2	242	45	15.68%	160	12	6.98%	123	5	3.91%	113	6	5.04%
EO2_3	246	41	14.29%	163	9	5.23%	124	4	3.13%	115	4	3.36%
EO2_4	240	47	16.38%	165	7	4.07%	124	4	3.13%	113	6	5.04%
EO3_1	250	37	12.89%	167	5	2.91%	124	4	3.13%	116	3	2.52%
EO3_2	250	37	12.89%	167	5	2.91%	123	5	3.91%	116	3	2.52%
EO4_1	252	35	12.20%	167	5	2.91%	123	5	3.91%	113	6	5.04%
EO4_2	243	44	15.33%	164	8	4.65%	124	4	3.13%	114	5	4.20%
EO4_3	251	36	12.54%	165	7	4.07%	123	5	3.91%	114	5	4.20%
EO4_4	251	36	12.54%	167	5	2.91%	123	5	3.91%	115	4	3.36%
EO4_5	248	39	13.59%	167	5	2.91%	124	4	3.13%	115	4	3.36%
EO4_6	245	42	14.63%	168	4	2.33%	124	4	3.13%	115	4	3.36%
Average			**13.84%**			**3.74%**			**3.52%**			**3.78%**

Table 4.15 The Proportion of EO Missing Items (Respondents Education)

Item Code	Up to Diploma Degree (N=274)			Bachelor Degree (N=343)			Master and Doctorate Degree (N=143)		
	Valid	Missing	Missing (%)	Valid	Missing	Missing (%)	Valid	Missing	Missing (%)
EO1_1	236	38	13.87%	323	20	5.83%	140	3	2.10%
EO1_2	240	34	12.41%	320	23	6.71%	139	4	2.80%
EO2_1	234	40	14.60%	317	26	7.58%	139	4	2.80%
EO2_2	233	41	14.96%	312	31	9.04%	138	5	3.50%
EO2_3	240	34	12.41%	314	29	8.45%	139	4	2.80%
EO2_4	237	37	13.50%	314	29	8.45%	138	5	3.50%
EO3_1	240	34	12.41%	322	21	6.12%	140	3	2.10%
EO3_2	241	33	12.04%	322	21	6.12%	139	4	2.80%
EO4_1	240	34	12.41%	321	22	6.41%	140	3	2.10%
EO4_2	235	39	14.23%	315	28	8.16%	140	3	2.10%
EO4_3	238	36	13.14%	321	22	6.41%	140	3	2.10%
EO4_4	239	35	12.77%	321	22	6.41%	140	3	2.10%
EO4_5	237	37	13.50%	322	21	6.12%	139	4	2.80%
EO4_6	232	42	15.33%	324	19	5.54%	140	3	2.10%
Average			**13.40%**			**6.98%**			**2.55%**

Table 4.16 The Proportion of EO Missing Items (Respondents Tenure)

Item Code	Below 1 years (N=96)			1 to 3 years (N=266)			3 to 5 years (N=161)			5 to 10 years (N=113)			Above 10 (N=119)		
	Valid	Missing	Missing (%)	Valid	Missing	Missing (%)	Valid	Missing	Missing (%)	Valid	Missing	Missing (%)	Valid	Missing	Missing (%)
EO1_1	85	11	11.46%	252	14	5.26%	150	11	6.83%	102	11	9.73%	108	11	9.24%
EO1_2	88	8	8.33%	249	17	6.39%	149	12	7.45%	103	10	8.85%	107	12	10.08%
EO2_1	85	11	11.46%	251	15	5.64%	149	12	7.45%	97	16	14.16%	105	14	11.76%
EO2_2	86	10	10.42%	248	18	6.77%	144	17	10.56%	97	16	14.16%	105	14	11.76%
EO2_3	87	9	9.38%	251	15	5.64%	148	13	8.07%	98	15	13.27%	106	13	10.92%
EO2_4	86	10	10.42%	248	18	6.77%	149	12	7.45%	97	16	14.16%	106	13	10.92%
EO3_1	90	6	6.25%	251	15	5.64%	150	11	6.83%	102	11	9.73%	107	12	10.08%
EO3_2	91	5	5.21%	252	14	5.26%	150	11	6.83%	100	13	11.50%	107	12	10.08%
EO4_1	89	7	7.29%	253	13	4.89%	149	12	7.45%	102	11	9.73%	106	13	10.92%
EO4_2	86	10	10.42%	250	16	6.02%	147	14	8.70%	98	15	13.27%	107	12	10.08%
EO4_3	89	7	7.29%	251	15	5.64%	149	12	7.45%	102	11	9.73%	106	13	10.92%
EO4_4	87	9	9.38%	251	15	5.64%	150	11	6.83%	103	10	8.85%	107	12	10.08%
EO4_5	89	7	7.29%	250	16	6.02%	150	11	6.83%	100	13	11.50%	107	12	10.08%
EO4_6	87	9	9.38%	247	19	7.14%	152	9	5.59%	101	12	10.62%	107	12	10.08%
	Average		**8.85%**			**5.91%**			**7.45%**			**11.38%**			**10.50%**

To remedy the missing items, the listwise deletion method was employed. This approach was deemed as most appropriate for structural equation modelling (SEM), especially when the sample size was large (>250) and factor loadings were high (>0.60) (Hair et al., 2010). In this way, cases with missing responses on any measured variable (item) of dependents, independent, and control variables were discarded to produce 545 (28.52%) completed cases (322 paper-based and 223 online). Most of the respondents (503 or 92.29% out of 545 final cases) were student-employees and alumni of six business and management schools from three different cities in Indonesia. Other respondents (42 or 7.71% of 545 final cases) were alumni of other Indonesian universities. Table 4.17 shows the data source details.

As not all the collected cases were used, non-response bias may further increase (Fowler Jr, 2009). Demographic characteristics of the target population and the sample should be compared to estimate the representativeness of targeted population and to find the pattern of non-response bias (Zikmund et al., 2013). For instance, lower tenure respondents might be less aware of the professionalisation and EO levels of their employing firm. They had a tendency to answer "don't know" or simply left some items blank. Unfortunately, the demographic information (age, education level, tenure, managerial rank) of all Indonesian higher-educated employees was not available. A lack of suitable secondary data is not uncommon in the context of developing countries (Bulmer and Warwick, 1993). Therefore, this study assumes the existence of non-response bias in any possible patterns of the respondent demographics. This study controlled the demographic variables in the structural models to examine the impact on the dependent variables. If they are not significant, then the bias should not be prominent.

This study undertook outlier detection and information screening to purify the data. As 59% (322 out of 545) of cases were gathered from the paper-based questionnaire, verification was performed to anticipate procedural error, such as data entry or coding errors. These kinds of mistake can produce scores beyond an allowable range, leading to univariate outliers. A point may be a univariate outlier if its score is more than three standard deviations beyond its corresponding variable mean (Kline, 2011). Based on this criteria, none of those 545 cases contained univariate outliers. Thus they were maintained for further analysis.

Considering the majority of the respondents were not firm owners/CEOs/top managers, the information about firm profiles (age, size and family business status) would

be carefully re-checked. Fortunately, as asked in the questionnaire, there were 377 firm's names identified by 454 of the respondents (some respondents coming from the same firm). This study used this identification to start investigating the age, size and family business status of the firms. These efforts produced firm and respondent profiles of the final cases, as presented in Table 4.18 and Table 4.19 respectively. A point to note: all respondents were considered either alumni or university student-employees, those who indicated his/her education level as being below diploma degree were counted as "ongoing study at university".

Table 4.17 Data Sources

No	Sources	Respondents	Paper-based					Online				
			Distributed	Responses	Response rate	Final Sample	Final sample rate	Distributed	Responses	Response rate	Final Sample	Final sample rate
1	Prasetiya Mulya Business School	Students of Masters' degree who are employees	100	66	66.00%	54	54.00%					
2		Participants of Executive Training Programme	220	174	79.09%	118	53.64%					
3		Alumni						926	209	22.57	184	19.87%
4	Pancasila University (Management Department)	Mature Students of Bachelor degree who are employees	60	20	33.33%	13	21.67%					
5	Solo Business School	Mature Students of Bachelor degree who are employees	150	113	75.33%	42	28.00%					
6	Ciputra University	Students of Masters' degree who are employees	100	44	44.00%	22	22.00%					
7	Airlangga University (Management Department)	Students of Masters' degree and mature students of Bachelor degree who are employees	100	69	69.00%	48	48.00%					
8	Narotama University	Mature Students of Bachelor degree who are employees	100	60	60.00%	22	22.00%					
9	Alumni from Other universities		5	5	100.00%	3	60.00%	150	49		39	26.00%
		TOTAL	**835**	**551**	**65.99%**	**322**	**38.56%**	**1076**	**258**	**0**	**223**	**20.75%**

Table 4.18 Firm Profiles

	Quantity	%
Firm Age:		
< 5 years	59	10.8
5 – 10 years	68	12.5
10 – 20 years	124	22.8
20 – 40 years	131	24.0
> 40 years	163	29.9
Firm Size:		
1 – 10 employees	43	7.9
11 – 50 employees	87	16.0
51 – 100 employees	49	9.0
101 – 250 employees	55	10.1
251 – 1000 employees	114	20.9
1001 – 5000 employees	99	18.1
>5000 employees	98	18.0

Table 4.19 Employee Profiles

	Quantity	%
Employment Status		
Working for Family Firm	267	49.0
Working for Nonfamily Firm	278	51.0
Age		
20-25 years	120	22.0
25-30 years	169	31.0
30-35 years	95	17.4
35-40 years	66	12.1

	Quantity	%
Employment Status		
Working for Family Firm	267	49.0
Working for Nonfamily Firm	278	51.0
40-45 years	66	12.1
45-50 years	20	3.7
50-55 years	8	1.5
>55 years	1	0.2
Education		
Ongoing study at University & Diploma Degree	89	16.3
Bachelor Degree	304	55.8
Masters' Degree	147	27.0
Doctorate Degree	5	0.9
Tenure		
< 1 year	66	12.1
1-3 years	185	33.9
3-5 years	117	21.5
5-10 years	81	14.9
10-15 years	48	8.8
15-20 years	33	6.1
>20 years	15	2.8
Managerial Rank		
Staff	164	30.1
Junior Manager	139	25.5
Manager	114	20.9
Senior Manager	76	13.9
Director	24	4.4

	Quantity	%
Employment Status		
Working for Family Firm	267	49.0
Working for Nonfamily Firm	278	51.0
Others	28	5.2

According to the firm's profile, it seems that most of the respondents work for an established firm as more than 75% of them work for a firm that has been founded for more than 10 years. Moreover, 67% of the respondents work for a firm employing more than 100 employees. Only 10.8% of the respondents work for a firm that has been established less than 5 years, indicating they are less likely work for a start-up firm. Moreover, only 7.9% of the respondents work for a firm employing up to 10 employees. However, less than 30% of the firms were founded for more than 40 years. This is because Indonesia achieved its independence in 1945 and has enjoyed massive infrastructure development since the 1970s.

The sample proportion of respondent's age is commensurable, but their tenure period for the most part is between 1 to 5 years. These employees mostly hold a bachelor degree, which is reasonable as this research only targets alumni and student employees of some Indonesian business schools. The students taking higher degrees or following executive management programmes are likely to hold a bachelor degree. For the same reason, it is also plausible that most of the respondents (70%) hold managerial positions. In the Indonesian context, managers need formal management training, not only to upgrade their managerial knowledge and skills but also to get legitimation for the higher managerial degree.

4.7.3 Post-study Interview

Following empirical analysis, not all hypotheses were supported. This further made it difficult to use existing theory and concepts to explain the unexpected findings. Additional research efforts were therefore conducted in the form of exploratory semi-structured interviews. Their purpose was to seek feedback and explanation from the respective respondents (see De Clercq and Sapienza, 2005, 2006). The reasons for mixing quantitative and qualitative methods is to combine their strengths. While quantitative research is more

useful to generalise the relationships among variables, qualitative studies provide rich information. Thus, in this thesis, the strength of interview data was used to enhance the survey data and to improve the understanding of the research problems and complex phenomenon (Creswell and Clark, 2007).

The mixed-method approach should not cause research philosophical confusion (Azorín and Cameron, 2010). This is because most discussions of paradigm issues were not at the technical level (Morgan, 1998). Combining quantitative and qualitative methods thus allowed creative uses of various techniques for various purposes (Sandelowski, 2000). The typical purposes of mixed-method include triangulation, complementary explanation, development, initiation, and expansion (Greene et al., 1989). The purpose of using mixed-method in this thesis is to elaborate complementary explanation and insights, especially since the survey findings did not support some hypotheses.

In general, mixed-method approach combines quantitative and qualitative techniques to sampling, collection, and analysis of the data sequentially, concurrently, or in a sandwich pattern. The quantitative and qualitative methods may have different or equal priority in a study (Morgan, 1998; Sandelowski, 2000). Following Morgan's (1998) Priority-Sequence model, this study appointed quantitative method as the principal means that was followed-up by the qualitative method as the complementary means. This way, the qualitative study served as a follow-up to complement the main quantitative research effort. Then, the data from the qualitative studies, such as exploratory semi-structured interview, was used to help interpreting results from the principally quantitative study. This mixed-method research design, referred to as dominant-sequential design, is most popular in entrepreneurship research (Molina-Azorín et al., 2012), and previously used by De Clercq and Sapienza (2005, 2006), De Clercq & Sapienza (2006), Katila, Rosenberger & Eisenhardt (2008), Mackinnon, and Chapman & Cumbers (2004).

This thesis used quantitative and qualitative data collection and analysis sequentially in a quantitative study. Thus, the quantitative technique was prioritised and put in advance. Sequentially, a quantitative data collection (survey) and quantitative analysis (structural equation modelling) were firstly conducted, followed by qualitative data collection (semi-structured interview). The qualitative data was quoted to illuminate and clarify the quantitative findings. The combination of these quantitative findings and qualitative insights helped produce practical explanation and knowledge contribution.

To do this, summarised findings from the quantitative analysis were presented to the respective respondents. Three out of six respondents involved in the post-study interview process were the same interviewees previously involved in the pilot survey process, i.e.,

- Business owner of a listed family firm (identified in this study as owner 1).
- Business owner of a non-listed family firm having thousands of employees and nine business units (identified in this study as owner 2).
- A manager working for owner 2 (identified in this study as employee 4).

The other respondents were:

- A vice-director of a large family chemical corporation (identified as employee 1).
- A senior manager of an Indonesian listed mining company (identified as employee 2).
- A manager of an Indonesian educational organisation (identified as employee 3).

The respondent's opinions concerning the findings were explored to gain contextual insight. When some findings confirmed the respondents' actual experiences, reciprocally the respondents' experiences helped to provide logical explanations for the findings.

Various approaches were taken to interview and draw insight from the respondents. Some of them set aside time giving the researcher an opportunity to formally present the research findings in a power point format, whilst other respondents would only discuss the results informally. Further, some of them allowed the use of a recording device or permitted note-taking to record the conversation. However, certain respondents only felt comfortable to talk without any kind of recording tool. The respondent's name and their employer are not published in this thesis to respect respondent privacy. Whatever the approach, in general, the post-study interview process followed these steps:

1. Inform the respondents about the research
    - Outline the research objectives.
    - Explain the definition and conception of employee engagement, professionalisation factors (i.e., authority decentralisation, financial and human resource control system), and EO factors (i.e., innovativeness, proactiveness and risk-taking).
    - Explain the questionnaire used to measure the levels of employee engagement, professionalisation and EO factors.

2. Let the respondents state how important this research would be in relation to their business or employing firm by asking some questions, such as:
    - *"Would you please tell me how professionalisation is being implemented in your firm?"*
    - *"Tell me an example of innovative activity in your firm in which you have ever been involved."*

3. Discuss the findings drawing from quantitative research, by firstly telling the respondents about the main findings, then letting the respondents express their opinions. Here are the brief findings presented to the respondents:
    - All professionalisation factors are beneficial to improve employee engagement, especially human resource control systems.
    - The impact of professionalisation is weaker for the family than for nonfamily firms.
    - High EO firms gain more benefit from authority decentralisation. Conversely, low EO firms get more benefit from both control systems (financial and human resource).
    - Firms with a singular characteristic, either as a family (low EO-family firm) or entrepreneurial (high EO nonfamily firm) firm, seem to require a narrower set of professionalisation factors to increase employee engagement. They only need to maintain human resource control systems to promote employee engagement.
    - When family firms become more entrepreneurial, a financial control system matters.
    - Innovativeness impact on employee engagement is dominant when compared to other EO factors.
    - The relationship of innovativeness is weaker for the family than for nonfamily firms.
    - EO factors matter for employee engagement only for high professionalised firms.
    - For family firms, being an innovative and a risk-taking firm might improve employee engagement, but only for high professionalised-family firms.

If the respondents did not immediately offer their opinion after a finding was revealed, simple questions should be asked to prompt respondent, such as:

- *"What do you think about the finding?"*
- *"According to your experience, how do the findings match with the reality in your firm?"*

Although most of the conversation was not fully recorded, those nine findings helped to summarise the discussion better.

4. To organise the interview data for further analysis, this thesis adopted Miles, Huberman & Saldana's (1984) technique, as follows:
   - Data Reduction
     - Created the transcript summary by rephrasing the long respondents' statements (that were recorded in the notes or electronic devices) into fewer words, without losing the main points. In this stage, insightful statements were highlighted while less relevant statements were eliminated.
   - Data Display
     - Arranged the transcript summary into an excel table, with the first column displaying the main findings drawing from quantitative research and the first row displaying the respondents' name or code. Thus, each cell contained summarised statements of certain respondent about certain finding.
   - Drawing Conclusion
     - Compare the statements on a certain finding (statements in a row of the table) to find their similarity or contradiction.
     - Some interesting statements which might make sense of the quantitative results were quoted and used in Section 5.3 to gain insight and ideas about what the quantitative results revealed.

4.8 Data Analysis

With the research questions and hypotheses in mind, the final sample was analysed using structural equation modelling (SEM) methods to produce the results. SEM was chosen for the following reasons (Byrne, 2010). First, SEM takes a confirmatory approach on multiple variables that are represented by a series of regression equations. In this way, the structural models picturing the relationship of employee engagement with each professionalisation factor or each EO factor can be statistically examined in simultaneous analysis. Therefore, SEM could avoid bias due to a single relationship testing approach. Then, a set of the goodness of fit (GOF) parameters assesses the extent to which that model is consistent with the data. As a confirmatory procedure, SEM is naturally suitable for inferential purposes, therefore the best fit for hypotheses testing. Conversely, other multivariate procedures, which are naturally descriptive, are less appropriate for hypotheses testing.

Second, SEM explicitly provides information about the model's appropriateness, such as an account for measurement errors and latent variables endogeneity in the estimation process. While traditional multivariate methods neglect the measurement errors and the existence of endogeneity, SEM estimates the measurement error variance and correlations among independent variables. Therefore, the measurement model simultaneously picturing the relationship of studied latent variables (employee engagement, professionalisation, and EO factors) with their indicators (items) can be designed in such way to minimise those errors. In this way, bias due to sizeable errors can be minimised. In other ways, as the independent variables under this study are in fact moderately correlated, taking account of their covariance in the model would relieve bias due to latent scales correlation (see Monsen & Boss, 2009).

Given those advantages, SEM has been a popular method in non-experimental research. However, some assumptions underlying SEM (Kline, 2011) should be anticipated, considering that most of the social science researchers cannot satisfy all of those assumptions (Byrne, 2010). Appendix C presents how this study satisfies the SEM assumptions.

This study followed Anderson & Gerbing's (1988) recommendation to build and validate a measurement model (factor structure) in the first stage and to complete the structural model in the second stage. In the construction of a measurement model, this study followed these three steps. Considering that all scales were previously established, the first

step was applying confirmatory factor analysis (CFA) to test the data conformity to the original scale structures. As the data did not fit with the original structures, in the second step, an exploratory factor analysis (EFA) procedure was run to find better factor structures. Then, in the third phase, construct-validity procedures and CFA were applied to calculate construct-validity parameters and fit indexes of the revised scales. In Appendix D, the final measurement model and its validation results are pictured and reported.

After validating the quality of measurement models, the full structural models were built. This model portrayed the links between the latent variables (factors) and their observed variables (items). Particular attention was given to a single item factor (i.e., firm age and size; employee age, education, tenure, managerial rank) in the structural model. Following Anderson & Gerbing (1988) suggestions, this study used 10% of each item's variance and 95% of each item's standard deviation to estimate a single item's error variance and factor loading respectively. Further, the effects of multivariate outliers in the models were anticipated and managed by following Kline's (2011) procedures. Finally, following Koufteros & Marcoulides's (2006) procedures, a CFA test was run to assess invariance across data groups to formally examine the potential moderating effects of the family business status, firm EO and its professionalisation level. For this purpose, the cases were grouped based on the moderating factors (e.g., family vs. nonfamily firm, low vs. high firm EO level, low vs. high firm professionalisation level). For detailed information, the structural regression models and their validation results were pictured and reported in both Appendix E and Appendix F. Further, the magnitude and significance estimates of the relationships between the latent variables in the structural model are presented and elaborated in Chapter 5.

The relevant parameters to validate the overall model fit are goodness-of-fit (GOF) indexes. Key GOF parameters commonly used in the SEM standard practice (e.g., Hair et al., 2010; Hu et al., 2011; Monsen & Boss, 2009; Wei, O'Neill, Lee, & Zhou, 2013) were employed. They are absolute fit indices (e.g., χ^2/df, RMSEA, SRMR, GFI), incremental fit indices (e.g., CFI, NFI, IFI), and parsimony fit index (e.g., AGFI). Such criteria are taken to minimise type 1 and type 2 errors, such as combinations of RMSEA < 0.06 and SRMR < 0.09 (Hu and Bentler, 1999). Maximum likelihood (ML) as a popular SEM estimation procedure and the AMOS default technique (Hair et al., 2010; Arbuckle, 2013) were used in this study to calculate the GOF parameters. To meet the MLE requirements (Kline, 2012), the AMOS input in this study was unstandardised raw data.

Maximum likelihood estimation (MLE) maximises the likelihood that the input data (the observed covariances) were drawn from the population (Kline, 2011). Further, the criterion to be minimised, such as chi-square, is a parameter to measure the discrepancy between sample covariances and estimate covariances. The estimate covariances are calculated by the proposed model. Differing from *partial information* methods, such as two-stage least square (TSLS) that analyse a single equation at a time, MLE calculates the estimates of model parameters all at once. The detailed formula used to calculate chi-square using MLE technique is presented in Appendix C.1. The interpretation of parameter estimates produced by MLE in a path model or complete structural model are as follows (Kline, 2011):

1. Path coefficients are interpreted as regression coefficients in multiple regression analysis, either for an unstandardised or standardised solution. Therefore, this study addresses MLE path coefficients as regression coefficients, whilst AMOS addresses it as regression weights.
2. Unstandardised disturbance variances are estimated as the unexplained variance of the endogenous variable, while standardised disturbance variances are estimated as the proportion of unexplained variance.

This study used two statistics software packages to conduct the SEM procedures. SPSS was used to calculate descriptive statistics, factors correlation, Cronbach's Alpha, and to run EFA procedures. AMOS was used to calculate factor loadings, to identify multivariate outliers, to run Structural Equation Modelling (SEM), to calculate the goodness of fit (GOF) parameters of measurement and structural model, and to calculate path coefficients in the structural models.

4.9 Summary

This chapter has outlined what it needs to link the theoretical and empirical parts of the study based on the realism ontology, positivist epistemology, deductive theoretical development and quantitative methodology. To operationalize the concepts of employee engagement, professionalisation and EO factors, this study used construct validity and overall fit criteria to modify the well-known scales. For this purpose, confirmatory factor analysis (CFA) and exploratory factor analysis (EFA) procedures were run to produce quality measurement and structural models. Specifically, some issues related to the single item,

multivariate outliers, invariance across data groups, and common method variances (CMV) were carefully examined.

Regarding some typical research challenges in developing countries coupled with the limited time frame and financial resources, this study only targeted Indonesian *highly educated* employees as its population. This study has collected 814 cases through convenience surveys using the researcher's networks. The sample was self-administered using paper and web-based close-ended questionnaires. Certain remedies to overcome missing items, univariate outliers, and other procedural errors were taken to produce 545 final cases. Further, the post-study interview was conducted to make sense of the findings and to gain further insight from the respondents. Finally, this chapter has justified the use of structural equation modelling (SEM) with maximum likelihood estimation (MLE) techniques to analyse the data.

5. Findings and Analysis

5.1 Introduction

This study endeavours to investigate the relationship between employee engagement, professionalisation and EO in Indonesian family and nonfamily firms. With this purpose in mind, previous chapters have discussed a theoretical framework to develop specific hypotheses. Testing the hypotheses formulated in Chapter 3, by using samples and methods described in Chapter 4, this chapter presents the empirical results.

A structural model outlining the relationship of professionalisation factors and employee engagement (see Figure E.1) is used to test the hypotheses concerning the relationship of professionalisation factors and employee engagement (H1, H2, H3). Further, a structural model showing the relationship of EO factors and employee engagement (see Figure F.1) is used to test the hypotheses regarding the relationship of EO and employee engagement (H4, H5, H6). The findings and analysis of the hypotheses tests are presented in sections 5.2 and 5.3 respectively.

It should be noted that this study is unable to satisfy all of the structural model assumptions of causal relationship listed in Table C.3 of Appendix C. Therefore, the results of this study do not justify causality. Rather, this study only demonstrates some consistency of the proposed model and hypotheses with the available data. Further, the measurement model validity is presented in Appendix D, and the robust check against multivariate normal distribution for structural models is presented in Appendices E and F.

5.2 Findings

5.2.1 Descriptive Statistics and Correlation

Table 5.1 shows the descriptive statistics and correlation matrix for all variables used in the structural models. According to the descriptive statistics, the latent variable scores are right-skewed. There are two possible reasons why this has occurred. First, Javanesse people tend to accentuate others' feeling, honouring people and avoiding conflict to maintain good

relationships (Magnis-Suseno, 1988; Mangundjaya, 2013). Thus, they will easily give compliments and have a tendency towards giving higher scores to express their perceptions. Therefore, the latent variables under study (i.e., employee engagement, authority decentralisation, financial, human resource control, innovativeness, proactiveness and risk-taking) are right-skewed. Second, the fact that most respondents work for established firms and hold managerial positions may affect their engagement and their perception concerning the firm's professionalisation and EO.

The correlation matrix in Table 5.1, however, does not exhibit a significant association between employee engagement with both firm age and firm size. Instead, both firm age and firm size indicate a significant association with financial and human resource control systems. It is reasonable for established and large firms to have well-implemented control systems. However, previous empirical research only exhibited a significant correlation between control systems with firm size, but not with firm age (De Kok et al., 2006; Dekker et al., 2012). In addition, an established and large firm tends to be more risk-averse as indicated by the negative correlation of risk-taking with both firm age and firm size (Sebora and Theerapatvong, 2010; Miller and Le Breton-Miller, 2011).

There is evidence that employee managerial rank has a positive correlation with employee engagement, firm innovativeness and firm risk-taking. It is reasonable for employees with a higher authority to achieve more variety of posts (Salanova et al., 2005) and take bigger risks creatively expressing their roles. Therefore, they may have more attachment to the firm's innovativeness and risk-taking, and subsequently perceive this condition as a meaningful experience. Indeed, the positive correlation between employee rank, employee engagement and EO factors is in line with Clercq & Rius's (2007) findings.

The positive correlation between employee tenure and employee engagement, as presented in Table 5.1, is also in line with Clercq & Rius's (2007) findings. It is essential to retain experienced employees to avoid loss of accumulated knowledge, experience and wisdom (James et al., 2011). Having sufficient knowledge, experience and wisdom to perform their roles, experienced employees find their work more meaningful. Similarly, employees with longer tenure periods are more exposed to their firm's control systems. Therefore, Table 5.1 shows a positive correlation between employee tenure and firm professionalisation factors. However, its positive correlation with EO factors is an unexpected result considering that long tenured employees tend to maintain the status quo (Hambrick et al., 1993) and feel

threatened by organisational change (Miller, 1991). Although it was argued that employee age does not necessarily relate to employee tenure, both variables should be involved in the analysis. In fact, employee age and tenure are strongly correlated in this study. Consequently, employee age is also correlated with employee engagement as well as with employee perception on professionalisation and EO factors.

There were reasonable arguments why employee education levels should be positively or negatively associated with employee engagement. Highly educated employees are more likely to have the knowledge and skills to perform their jobs well. They may more easily secure employment roles that match with their knowledge and skills, leading to greater psychological meaningfulness and availability (Avery et al., 2007). However, skilled employees may attract better post offers from other firms, therefore risking engagement stability to their current employer. The sample in this study, in fact, does not produce significant positive or negative correlation between employee education levels and engagement. This result is not uncommon as previous empirical findings also exhibited insignificant correlation (Agarwal, 2014; Leung et al., 2011; Liao, Yang, Wang, Drown, & Shi, 2013; Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009). Overall, the significant correlation between employee engagement and the firm and respondent profiles verifies the importance of using employee demographic and the organisation's characteristics as control variables in this study.

The correlation matrix in Table 5.1 also demonstrates a significant relationship between employee engagement and all professionalisation and EO factors. Unfortunately, past empirical studies mostly only discussed human resource aspects and innovativeness as the antecedents of engagement. Human resource aspects, such as career development (Schaufeli and Salanova, 2010; Shuck and Wollard, 2010), workplace learning, organisational development (Shuck and Wollard, 2010) and rewards (Wollard and Shuck, 2011), quite clearly have a positive relationship with employee engagement. Further, innovativeness can act as a buffer reducing burnout effects (Bakker et al., 2007) and affects work engagement by means of personal initiatives (Jari J. Hakanen et al., 2008). The positive correlations between employee engagement, professionalisation and EO factors at least give a basis to investigate the structural relationships, as were hypothesised in Chapter 3.

Finally, the fact that most of the exogenous variables are correlated with each other justify structural equation modelling (SEM) as the right analysis choice for this study. While

traditional multivariate methods neglect the existence of endogeneity, SEM clearly demonstrates it. Therefore, SEM estimates the correlations among exogenous variables.

Table 5.1 Descriptive Statistics and Coefficients Matrix

	Latent Factors	Min	Max	Mean	SD	1	2	3	4	5	6	7	8	9	10	11	12	13
1	Employee Engagement	2	7	5.521	0.901													
2	Authority Decentralization	1	7	3.906	1.550	.179***												
3	Financial Control	1	7	5.572	1.146	.380***	.037											
4	Human Resource Control	1	7	5.124	1.242	.519***	.132**	.451***										
5	Innovativeness	1	7	4.829	1.358	.304***	.128**	.198***	.262***									
6	Proactiveness	1	7	4.699	1.303	.259***	.079†	.167***	.305***	.611***								
7	Risk-taking	1	7	4.057	1.372	.178***	.040	.079†	.216***	.239***	.334***							
8	Firm Age	1	5	3.497	1.323	.009	.078†	.152***	.126**	.031	.029	-.101*						
9	Firm Size	1	7	4.466	1.945	.029	.035	.168***	.127**	.099*	.056	-.104*	.631***					
10	Employee Age	1	8	2.791	1.539	.136**	.131**	.144***	.165***	.149***	.092*	.096*	.166***	.147***				
11	Employee Education	1	6	4.050	0.844	.038	.034	.040	-.066	.107*	-.005	-.043	.116**	.231***	.254***			
12	Employee Rank	1	6	2.527	1.424	.168***	.065	.030	.039	.118**	.033	.107*	-.100*	-.036	.351***	.246***		
13	Employee Tenure	1	7	3.037	1.526	.116**	.134**	.117**	.173***	.156***	.115**	.074†	.243***	.235***	.667***	.091*	.252***	
14	Family Business Status	0	1	0.490	0.500	-.007	.049	.126**	.144***	.038	.078†	.020	.194***	.216***	.160***	-.034	-.086*	.180***

Notes:

- †p ≤ .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001
- N = 545

5.2.2 Structural Regression for Professionalisation Factors – Employee Engagement Relationship

This section presents the relationship of professionalisation factors with employee engagement as well as the moderating effects of family business (FB) status and firm EO level on that relationship. This relationship was created to test the hypotheses H1(a, b, c), H2(a ,b, c), and H3(a, b, c). The model figure of AMOS version was presented in Appendix E.1.

This study applied the maximum likelihood estimation (MLE) technique to test hypotheses H1, H2 and H3. It ran in all cases (N=545) to calculate the regression coefficients of the independent and control variables. Further, to test hypotheses H1a, H2a and H3a (the moderating effects of Family Business status), the cases were split based on the ownership-management classification (Handler, 1989). Then MLE was run on that multi-group data (N_FamilyBusiness=267, N_nonFamilyBusiness=278) to estimate the regression coefficients. Similarly, to test H1b, H2b and H3b (the moderating effects of firm EO level), the cases were split using the *median-split* technique (Morris and Jones, 1993; Jambulingam and Doucette, 1999; Merlo and Auh, 2009) to produce 278 cases of low EO and 267 cases of high EO firm. Finally, combining Family Business status and firm EO level, the cases produced 143 low EO-family firms, 124 high EO-family firms, 135 low EO nonfamily firm and 143 high EO nonfamily firm cases. Then, MLE was run on that multi-group data to test hypotheses H1c, H2c, and H3c. The hypotheses and results summary of the relationship between professionalisation factors and employee engagement are summarised in Table 5.2 below.

In advance, GOF (goodness-of-fit) index scores are calculated to validate the quality of the structural models. The GOF index scores demonstrate that all structural models produce sufficient chi-square scores, and also meet Hu & Bentler's (1999) combination GOF rule of RMSEA < 0.06 and SRMR < 0.09. The details of the structural model validation are reported in Section E.1.

Table 5.2 The Hypotheses and Results of Professionalisation Factors – EE Relationship

Models			Results	
Relationships		**Hypotheses**	**Regression weights**	**Findings**
Main effects	AD →EE	H1 (+)	0.068**	Supported
	FI →EE	H2a (+)	0.142***	Supported
	HR →EE	H3 (+)	0.329***	Supported
Moderating effects of Family Business status	AD →EE	H1a (weaker for family firms)	0.054† (FB) < 0.088** (NFB)	An invariant test does not formally prove the existence of Family Business status moderating effects. However, the results are consistent with H1a, H2a and H3a
	FI →EE	H2a (weaker for family firms)	0.125* (FB) < 0.173** (NFB)	
	HR →EE	H3a (weaker for family firms)	0.054† (FB) < 0.088** (NFB)	
Moderating effects of firm EO level	AD →EE	H1b (stronger for high firm EO)	0.064* (low EO) < 0.080** (high EO)	An invariant test does not formally prove the existence of firm EO moderating effects. However, the results are consistent with H1b, H2b and H3b
	FI →EE	H2b (weaker for high firm EO)	0.152* (low EO) > 0.136* (high EO)	
	HR →EE	H3b (weaker for high firm EO)	0.352*** (low EO) > 0.300*** (high EO)	
Joint moderating effects of Family Business status and firm EO level	AD →EE	H1c (weakest for low EO family firms, strongest for high EO nonfamily firms)	FB: 0.035 (low EO), 0.029 (high EO) NFB: 0.061* (low EO), 0.02 (high EO)	An invariant test does not formally prove the existence of joint moderating effects of Family Business status and firm EO. However, according to the results, none of the hypotheses H1c, H2c and H3c are consistent with the results
	FI →EE	H2c (weakest for high EO family firms, strongest for low EO nonfamily firms)	FB: 0.113 (low EO), 0.250* (high EO) NFB: 0.219** (low EO), 0.083 (high EO)	
	HR →EE	H3c (weakest for high EO family firms, strongest for low EO nonfamily firms)	FB: 0.313*** (low EO), 0.185* (high EO) NFB: 0.361*** (low EO), 0.452*** (high EO)	

Notes: AD: authority decentralisation, FI: financial control, HR: human resource control

The Effects of Authority Decentralisation, Financial and Human Resource Control Systems

Following the standard practices of reporting SEM analysis (McDonald and Ho, 2002; Kline, 2011), the main effects of professionalisation factors on employee engagement are presented in Table 5.3 to examine the hypotheses H1, H2 and H3. They hypothesised that employee engagement might be positively related to authority decentralisation (H1) and human resource control (H3), but employee engagement may have a positive or negative relationship with financial control (H2).

Table 5.3 ML Estimates of Professionalisation Factors – EE Relationship

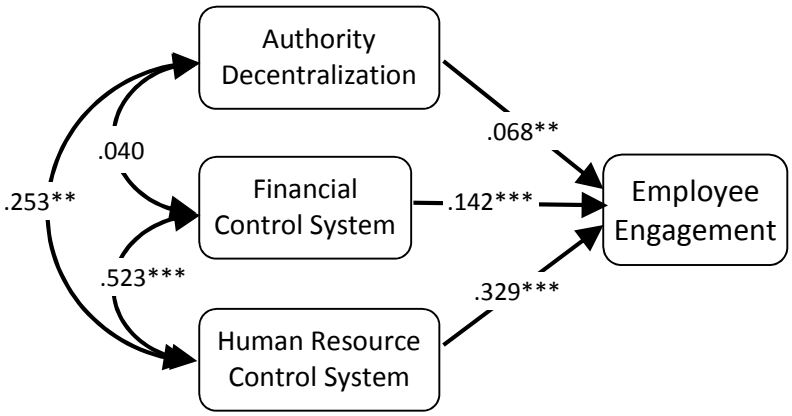
Parameters (1)	Unstandardised (2)	SE (3)	Standardised (4)
Regression coefficients (Direct effects)			
Firm Age → EE	-0.040	0.048	-0.053
Firm Size → EE	-0.032	0.049	-0.042
Employee Age → EE	-0.037	0.056	-0.049
Employee Education → EE	0.048	0.036	0.065
Employee Rank → EE	**0.121*** **	0.036	**0.162**
Employee Tenure → EE	-0.009	0.054	-0.012
Authority decentralisation → EE	**0.068** **	0.022	**0.151**
Financial control → EE	**0.142*** **	0.042	**0.176**
Human resource control → EE	**0.329*** **	0.041	**0.492**
Disturbance variances			
Employee engagement (EE)	**0.324*** **	0.044	**0.399**

Notes:

- †p ≤ .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001
- Standardised disturbance variances are proportions of unexplained variance. This is calculated as unstandardised disturbance variance/EE's SD^2
- N = 545

As discussed in section 4.7.3, the MLE technique used in this study only calculates the standard error for unstandardised regression coefficients. Thus, the statistical significance

level is actually produced for the unstandardised regression coefficients (Kline, 2011). Fortunately, all items of employee engagement, professionalisation and EO factors use the same 7 point-Likert scale. Therefore, the unstandardised regression coefficients in Figure 5.1 are comparable and simplify the interpretation. For instance, a 1-point Likert-scale increases the employee perception of human resource control implementation accounting for 0.329-point Likert-scale increase on employee engagement, holding other variables constant. According to its disturbance variance, 39.9% of employee engagement variance is not explained by its relationship with all professionalisation factors and other control variables. Further, following SEM visualisation standards, the curved line with two arrowheads (see Figure 5.1) below is the covariance of two latent variables (e.g., financial and human resource control system).



Notes:

- The score in the single arrowhead path is unstandardised regression coefficient
- The curved line with two arrowheads is covariance
- ŧp ≤ .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001
- N = 545

Figure 5.1 Professionalisation - Employee Engagement Relationship

As anticipated, all professionalisation factors have a significant positive relationship with employee engagement. H1, H2, and H3 are supported as authority decentralisation (β=0.068, p≤.01), financial (β=0.142, p≤.001), and human resource control (β=0.329, p≤.001) have a positive relationship with employee engagement. As all items of employee engagement and professionalisation factors use the same 7 point-Likert scale, these results are simply interpreted as follow:

- a 1-point Likert-scale increase in authority decentralisation implementation predicts a 0.068-point Likert-scale increase in employee engagement, holding other variables constant.
- a 1-point Likert-scale increase in financial control implementation predicts a 0.142-point Likert-scale increase in employee engagement, holding other variables constant.
- a 1-point Likert-scale increase in human resource control predicts a 0.329-point Likert-scale increase in employee engagement, holding other variables constant.

Employee rank is the only control variable having a significant regression coefficient (β=0.121, p≤.001) (see Table 5.3 column 2). This means that a 1-point increase in employee rank accounts for a 0.121-point Likert-scale increase in employee engagement. In other words, an employee having one degree higher in managerial rank may have 0.121-point Likert-scale higher in employee engagement. For instance, the engagement level of a manager may be higher than a junior manager engagement by 0.121-point Likert-scale.

Previous findings demonstrated the positive relationship between participation in decision-making with job resources (Demerouti et al., 2001) and the positive relationship between job resources and engagement (Crawford et al., 2010). Demerouti et al. (2001) used participation in decision-making as one of the observed variables (item) to measure job resources. They found both variables were related with a standardised relationship coefficient of 0.59 (p≤.05). Crawford et al. (2010) used this finding to test the relationship between job resources and engagement and found both variables were related with a relationship coefficient of 0.36 (p≤.05). The previous findings indicated that participation in decision-making and engagement might be indirectly related with a standardised relationship coefficient of about 0.212. This estimate is comparable to the standardised relationship of authority decentralisation with employee engagement in this study, which is 0.151 (see Table 5.3 column 4).

Previous empirical studies also showed the positive relationship between human resource aspects and engagement. For instance, Crawford et al. (2010), Parkes & Langford (2008), Moussa (2013) found that rewards and recognitions were positively related to engagement with a standardised relationship coefficient of 0.21 (p≤.05), 0.14 (p≤.001) and 0.26 (p≤.05) respectively. Moreover, feedback was also positively related to engagement with a standardised relationship coefficient of 0.35 (p≤.05) (Crawford et al., 2010). These numbers are around half of the standardised coefficient of human resource control –

employee engagement relationship found in this study, which is 0.492 (see Table 5.3 column 4). Overall, the results of this study are in line with previous empirical findings.

The Moderating Effects of Family Business Status

To examine statistically the potential moderating effects of family business status, the configural, metric, scalar, factor and uniqueness invariant tests are run to ensure that the structural model for family and nonfamily data groups are statistically equal. Subsequently, a structural coefficient invariant test is run by constraining the regression weight of professionalisation factors equally across family and nonfamily data groups. Should this produce a statistical significant chi-square difference (ΔX^2), then the moderating effect exists (Deng et al., 2005; Koufteros and Marcoulides, 2006; Wang, 2008). Further, a search to find which particular factor differs should be conducted. Table 5.4 below presents the invariant test of family and nonfamily data groups.

Table 5.4 Invariance Test across Family Business Status

Invariant Model (1)	**X^2/df (2)**	**X^2 (df) (3)**	**ΔX^2 (Δdf) (4)**	**Critical value (5)**	**RMSEA (6)**	**SRMR (7)**	**CFI (8)**	**ΔCFI (9)**
Configural	1.872	636.434(340)			0.040	0.0541	0.940	
Metric	1.830	644.146(352)	7.712(12)	21.03	0.039	0.0549	0.941	0.001
Scalar	1.935	723.574(374)	88.428(22)	33.92	0.041	0.0560	0.929	-0.012
Factor	1.957	819.785(419)	96.211(45)	55.76	0.042	0.0693	0.919	-0.010
Uniqueness	1.935	854.610(436)	29.420(17)	27.59	0.042	0.0687	0.915	-0.004
Structural Coef	1.960	861.067(445)	6.457(9)	16.92	0.041	0.0671	0.916	0.001

Notes: $p < .05$

Configural (unconstrained)	:	equal factor structure
Metric (measurement weight)	:	equal factor structure and loadings
Scalar (structural means)	:	equal factor structure, loadings, intercept, means; and measured variables intercepts
Factor (structural covariance)	:	equal factor structure, loadings, intercept, means, covariance; and measured variables intercepts

Uniqueness (measurement residuals)	:	equal factor structure, loadings, intercept, means, covariance, error variance; measured variables intercepts, and error variance of measured variables (indicators)
Structural Coefficient (structural weight)	:	equal factor structure, loadings, intercept, means, covariance, error variance; measured variables intercepts, error variance of measured variables (indicators); and factors regression weight

According to CFI degradation (ΔCFI) value's rule of thumb, the structural model across data groups is equal if ΔCFI higher than -0.01 (Cheung and Rensvold, 2002). As ΔCFI for all invariant models are higher or nearly below -0.01 (see Table 5.4 column 9), the structural model is considered equal for family and nonfamily data groups. Further, as the structural coefficient invariant test produces a negligible chi-square difference (**Δ**X^2 = 6.457), which is below the critical value (**Δ**X^2 = 16.92) for Δdf=9 ($p<0.05$), the moderating effects of family business status are not statistically significant. Alternatively, the moderating effects are inferred from the difference of regression coefficients and their corresponding significance level (see Cole & Bruch 2006; Monsen & Boss 2009).

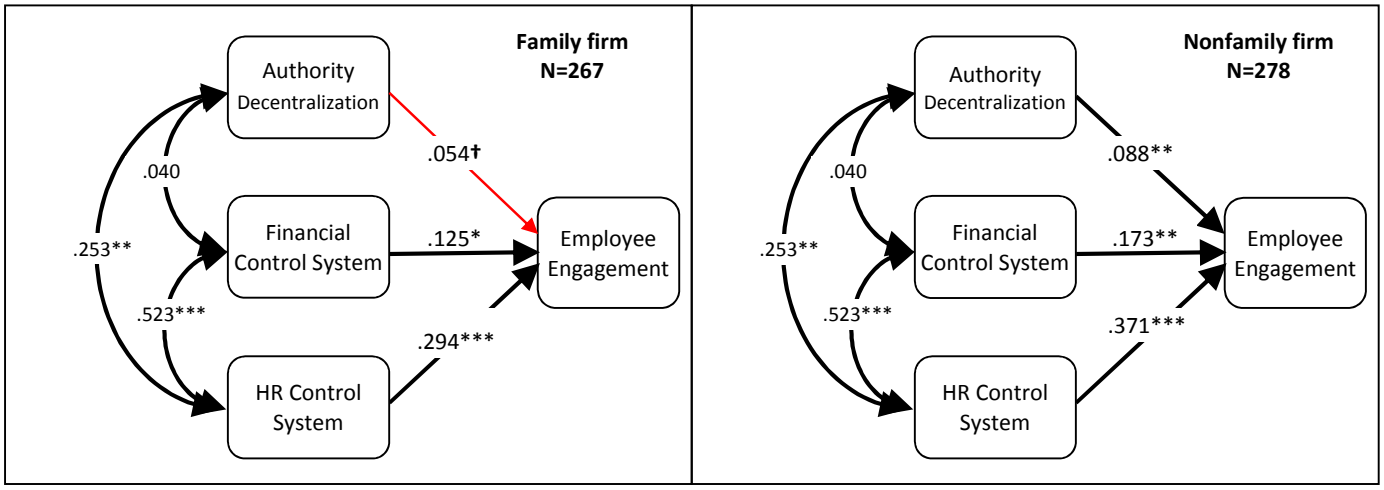
Table 5.5 ML Estimates of Professionalisation Factors – EE (Family vs. Nonfamily Firms)

Parameters (1)	Family Firms (N=267)			Nonfamily Firms (N=278)		
	Unstandardised (2)	SE (3)	Standardised (4)	Unstandardised (5)	SE (6)	Standardised (7)
	Regression coefficients (Direct effects)					
Firm Age → EE	-0.062	0.067	-0.087	-0.034	0.066	-0.043
Firm Size → EE	-0.011	0.069	-0.015	-0.041	0.068	-0.053
Employee Age → EE	-0.028	0.079	-0.039	-0.069	0.078	-0.088
Employee Education → EE	0.022	0.05	0.031	0.076	0.05	0.097
Employee Rank → EE	**0.157****	0.05	**0.221**	0.092†	0.049	0.117
Employee Tenure → EE	-0.043	0.076	-0.061	0.028	0.075	0.036
Authority decentralisation → EE	0.054†	0.028	0.124	**0.088****	0.03	**0.183**
Financial control → EE	**0.125***	0.058	**0.162**	**0.173****	0.058	**0.204**
Human resource control → EE	**0.294*****	0.052	**0.460**	**0.371*****	0.054	**0.527**
	Disturbance variances					
Employee engagement (EE)	**0.315*****	0.043	**0.388**	**0.315*****	0.043	**0.388**

Notes:

- †p ≤ .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001
- Standardised disturbance variances are proportions of unexplained variance. This is calculated as unstandardised disturbance variance/EE's SD^2
- Uniqueness invariant structural model

The results of SEM analysis across two data groups (family and nonfamily firms) are presented in Table 5.5 to test hypotheses H1a, H2a, and H3a. They were hypothesised that the positive relationship between employee engagement with authority decentralisation (H1a), financial (H2a), human resource control (H3a) might be weaker for the family firms.



Notes:

- The score in the single arrowhead path is unstandardised regression coefficient
- The curved line with two arrowheads is covariance
- †p ≤ .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001
- The structural regression models above are under uniqueness invariant model assumption

Figure 5.2 Professionalisation - Employee Engagement (Family vs. Nonfamily Firms)

The magnitude and significant level differences of the professionalisation factors regression coefficients (see Table 5.5 column 2 and Figure 5.2) indicate the potential moderating effects of family business status. As expected, regression coefficients of all professionalisation factors for the family firm are weaker than for nonfamily firm cases. Although these results basically cannot formally support or reject the hypotheses, at least the sample in this study is consistent with the hypotheses H1a, H2a and H3a. The fact that the relationship of authority decentralisation and employee engagement for family firms

(β=0.054, p=.052) is weaker and less significant than for nonfamily firms (β=0.088, p≤.01) is in line with hypothesis H1a. Similarly, when the regression coefficient of financial control for family firms (β=0.125, p≤.05) is weaker and less significant than for nonfamily firms (β=0.173, p≤.01), it is in line with hypothesis H2a. This also occurs with the relationship of human resource control and employee engagement. The relationship is weaker for family firms (β=0.294, p≤.001) than for nonfamily firms (β=0.371, p≤.001), therefore in line with hypothesis H3a. Employee rank is the only control variable having a significant regression coefficient, and is higher and more significant for family firms (β=0.157, p≤.01) than for nonfamily firms (β=0.092, p≤.062). These results are interpreted as follow:

- a 1-point Likert-scale increase in authority decentralisation implementation predicts a 0.054-point Likert-scale increase in employee engagement for family firms and a 0.088-point Likert-scale increase in employee engagement for nonfamily firms.
- a 1-point Likert-scale increase in financial control implementation predicts a 0.125-point Likert-scale increase in employee engagement for family firms and a 0.173-point Likert-scale increase in employee engagement for nonfamily firms.
- a 1-point Likert-scale increase in human resource control implementation predicts a 0.294-point Likert-scale increase in employee engagement for family firms and a 0.371-point Likert-scale increase in employee engagement for nonfamily firms.
- a 1-point increase in employee rank predicts a 0.157-point Likert-scale increase in employee engagement for family firms and a 0.092-point Likert-scale increase in employee engagement for nonfamily firms. Thus, the engagement of a manager may be higher than a junior manager engagement by 0.157-point Likert-scale in a family firm but only higher by 0.092-point Likert-scale in a nonfamily firm.

Regarding employee engagement as the outcome, these results are not in line with Dyer's (2006) proposition which suggested the advantages of professional family firms over nonfamily firms. The benefits emanating from familial resources lead to higher financial performance. Specifically, these results also contradict Miller et al.'s (2008) empirical findings that showed a higher willingness of small family firms to retain employees. Further discussion of these results is presented in subsection 5.3.1.

The Moderating Effects of Entrepreneurial Orientation

A series of CFA procedures are run to ensure the equivalence of a structural model between low and high EO firm data groups and the invariant of professionalisation factors regression weights. Configural, metric, scalar and factor invariant tests exhibit the equivalence of a structural covariance invariant model. The results of those invariant tests are presented in Table 5.6, and the results of SEM analysis across two data groups (low and high EO) are presented in Table 5.7 below. Following Cheung & Rensvold's (2002) suggestion, the structural model for low and high EO firms data groups is considered to be equal except for the uniqueness invariant model. The ΔCFI for the measurement residual invariant model is much lower than -0.01 (see Table 5.6 column 9). Therefore, the structural coefficient invariant test relies on a structural covariance (factor) instead of the measurement residual invariant model.

Table 5.6 Invariance Test across EO Level

Invariant Model (1)	X^2**/df (2)**	X^2 **(df) (3)**	**ΔX^2 (Δdf) (4)**	**Critical value (5)**	**RMSEA (6)**	**SRMR (7)**	**CFI (8)**	**ΔCFI (9)**
Configural	1.684	572.679(340)			0.036	0.0489	0.951	
Metric	1.708	601.241(352)	28.562(12)	21.03	0.036	0.0494	0.948	-0.003
Scalar	1.819	680.362(374)	79.121(22)	33.92	0.039	0.0509	0.936	-0.012
Factor	1.786	748.127(419)	67.765(45)	55.76	0.038	0.0565	0.931	-0.005
Uniqueness	1.989	867.307(436)	119.180(17)	27.59	0.043	0.0591	0.909	-0.022
*Structural Coef	1.758	752.551(428)	**4.424(9)**	**16.92**	0.037	0.0577	0.932	0.001

Notes: *p <. 05*

Configural (unconstrained)	:	equal factor structure
Metric (measurement weight)	:	equal factor structure and loadings
Scalar (structural means)	:	equal factor structure, loadings, intercept, means; and measured variables intercepts
Factor (structural covariance)	**:**	**equal factor structure, loadings, intercept, means, covariance; and measured variables intercepts**
Uniqueness (measurement residuals)	:	equal factor structure, loadings, intercept, means, covariance, error variance; measured variables intercepts, and error variance of measured variables (indicators)
*Structural Coefficient (structural weight)	:	equal factor structure, loadings, intercept, means, covariance, error variance; measured variables intercepts; and factors regression weight

The structural model invariant among multi data groups produces a negligible chi-square difference (ΔX^2 = 4.424), which is below the critical value (ΔX^2 = 16.92) for Δdf=9 (p<0.05). Therefore, the moderating effects of firm EO levels are not statistically significant (Deng et al., 2005; Koufteros and Marcoulides, 2006; Wang, 2008). Thus, the tendency of moderating effects are inferred from the difference of regression coefficients and their corresponding significance levels (see Cole & Bruch 2006; Monsen & Boss 2009) to test hypotheses H1b, H2b and H3b.

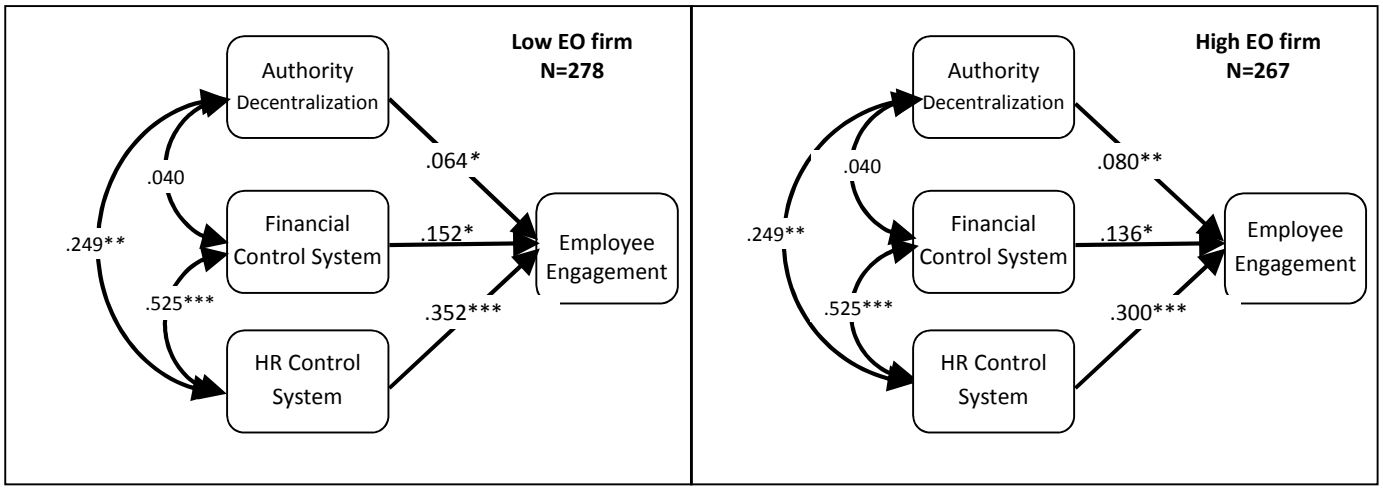
Table 5.7 ML Estimates of Professionalisation Factors – EE (Low vs. High EO Firms)

Parameters (1)	Low EO (N=278)			High EO (N=267)		
	Unstandardised (2)	SE (3)	Standardised (4)	Unstandardised (5)	SE (6)	Standardised (7)
	Regression coefficients (Direct effects)					
Firm Age → EE	-0.092	0.069	-0.12	0.019	0.065	0.026
Firm Size → EE	0.008	0.071	0.011	-0.087	0.067	-0.12
Employee Age → EE	-0.006	0.081	-0.008	-0.057	0.077	-0.079
Employee Education → EE	0.018	0.052	0.024	0.075	0.049	0.104
Employee Rank → EE	0.081	0.051	0.106	**0.152****	0.049	**0.211**
Employee Tenure → EE	-0.012	0.078	-0.016	-0.002	0.074	-0.003
Authority decentralisation → EE	**0.064***	0.03	**0.134**	**0.080****	0.029	**0.177**
Financial control → EE	**0.152***	0.061	**0.184**	**0.136***	0.056	**0.174**
Human resource control → EE	**0.352*****	0.056	**0.506**	**0.300*****	0.051	**0.456**
	Disturbance variances					
Employee engagement (EE)	**0.335*****	0.054	**0.416**	**0.309*****	0.049	**0.372**

Notes:

- †p ≤ .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001
- Standardised disturbance variances are proportions of unexplained variance. This is calculated as unstandardised disturbance variance/EE's SD^2
- Factor invariant structural model

It was hypothesised that the positive relationship between employee engagement and authority decentralisation might be stronger for high EO firms (H1b), but the positive relationship between employee engagement with financial control (H2b) and with human resource control (H3b) may be weaker for high EO firms. The authority decentralisation regression coefficient for high EO firms (β=0.080, p≤.01) is stronger and more significant than for low EO firms (β=0.064, p≤.05). It demonstrates that the sample in this study generates a result that is consistent with hypothesis H1b. Further, the regression coefficient of a financial control system for high EO firms (β=0.136, p≤.05) is slightly weaker than for low EO firms (β=0.152, p≤.05), therefore, in line with hypothesis H2b. Similarly, the slightly lower relationship of human resource control and employee engagement for high EO firms (β=0.300, p≤.001) than for low EO firms (β=0.352, p≤.001) indicates the consistency of the sample with hypothesis H3b. Finally, employee managerial rank again is the only control variable having a significant relationship with employee engagement, and its regression coefficient is significant only for high EO (β=0.152, p≤.01).



Notes:

- The score in the single arrowhead path is unstandardised regression coefficient
- The curved line with two arrowheads is covariance
- ŧp ≤ .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001
- The structural regression models above are under factor invariant structural model assumption

Figure 5.3 Professionalisation - Employee Engagement (Low vs. High EO Firms)

These results are interpreted as follows:

- a 1-point Likert-scale increase in authority decentralisation implementation predicts a 0.080-point Likert-scale increase in employee engagement for high EO firms and a 0.064-point Likert-scale increase in employee engagement for low EO firms.
- a 1-point Likert-scale increase in financial control implementation predicts a 0.136-point Likert-scale increase in employee engagement for high EO firms and a 0.152-point Likert-scale increase in employee engagement for low EO firms.
- a 1-point Likert-scale increase in human resource control implementation predicts a 0.300-point Likert-scale increase in employee engagement for high EO firms and a 0.352-point Likert-scale increase in employee engagement for low EO firms.
- a 1-point increase in employee rank predicts the increase in employee engagement, only for high EO firms, by a 0.152-point Likert-scale. This means that the engagement of a high EO firm's manager may be higher than a corresponding junior manager's engagement by 0.152-point Likert-scale.

The Joint Moderating Effects of Family Business Status and Entrepreneurial Orientation

A series of CFA procedures, to ensure the equivalence of the structural model among four data groups (low EO-family firms, high EO-family firms, low EO nonfamily firms, high EO nonfamily firms), exhibits an equivalence at the level of the *metric invariant*. Only the metric invariant test produces a chi-square difference (ΔX^2=50.934) below the critical value ($\Delta X^2(36)$=55.76, $p<0.05$) (see Table 5.8 column 4) and CFI difference (ΔCFI=-0.003) above the critical value (i.e., ΔCFI=-0.01) (see Table 5.8 column 9). Therefore, the structural coefficient invariant test relies on the metric rather than the uniqueness invariant model.

The structural coefficient invariant test produces a negligible chi-square difference (ΔX^2=19.248), which is below the critical value (ΔX^2=40.11, Δdf=27, $p<0.05$). Therefore, the joint moderating effects of family business status and firm EO levels are not statistically significant (Deng et al., 2005; Koufteros and Marcoulides, 2006; Wang, 2008). Hence, the moderating effects are inferred from the difference of regression coefficients and their corresponding significance levels (see Cole & Bruch 2006; Monsen & Boss 2009) to test the hypotheses H1c, H2c and H3c.

Table 5.8 Invariance Test across Family Business Status and EO Level

Invariant Model (1)	**X^2/df (2)**	**X^2 (df) (3)**	**ΔX^2 (Δdf) (4)**	**Critical value (5)**	**RMSEA (6)**	**SRMR (7)**	**CFI (8)**	**ΔCFI (9)**
Configural	1.587	1078.986(680)			0.033	0.0677	0.919	
Metric	1.547	1129.92(716)	50.934(36)	55.76	0.033	0.0681	0.916	-0.003
Scalar	1.638	1307.584(782)	177.664(66)	79.08	0.035	0.0722	0.893	-0.023
Factor	1.678	1567.614(917)	260.03(135)	124.3	0.036	0.0813	0.868	-0.025
Uniqueness	1.772	1746.08(968)	178.466(51)	67.5	0.039	0.0801	0.842	-0.026
*Structural Coef	1.578	1149.168(743)	**19.248(27)**	**40.11**	0.032	0.0685	0.918	0.002

Notes: *p < .05*

Configural (unconstrained)	:	equal factor structure
Metric (measurement weight)	**:**	**equal factor structure and loadings**
Scalar (structural means)	:	equal factor structure, loadings, intercept, means; and measured variables intercepts
Factor (structural covariance)	:	equal factor structure, loadings, intercept, means, covariance; and measured variables intercepts
Uniqueness (measurement residuals)	:	equal factor structure, loadings, intercept, means, covariance, error variance; measured variables intercepts, and error variance of measured variables (indicators)
*Structural Coefficient (structural weight)	:	equal factor structure, loadings, and factors regression weight

The results of SEM analysis across four data groups (low EO-family firms, high EO-family firms, low EO nonfamily firms, high EO nonfamily firms) are presented in Table 5.9 and expressed in Figure 5.4 below. It was hypothesised that:

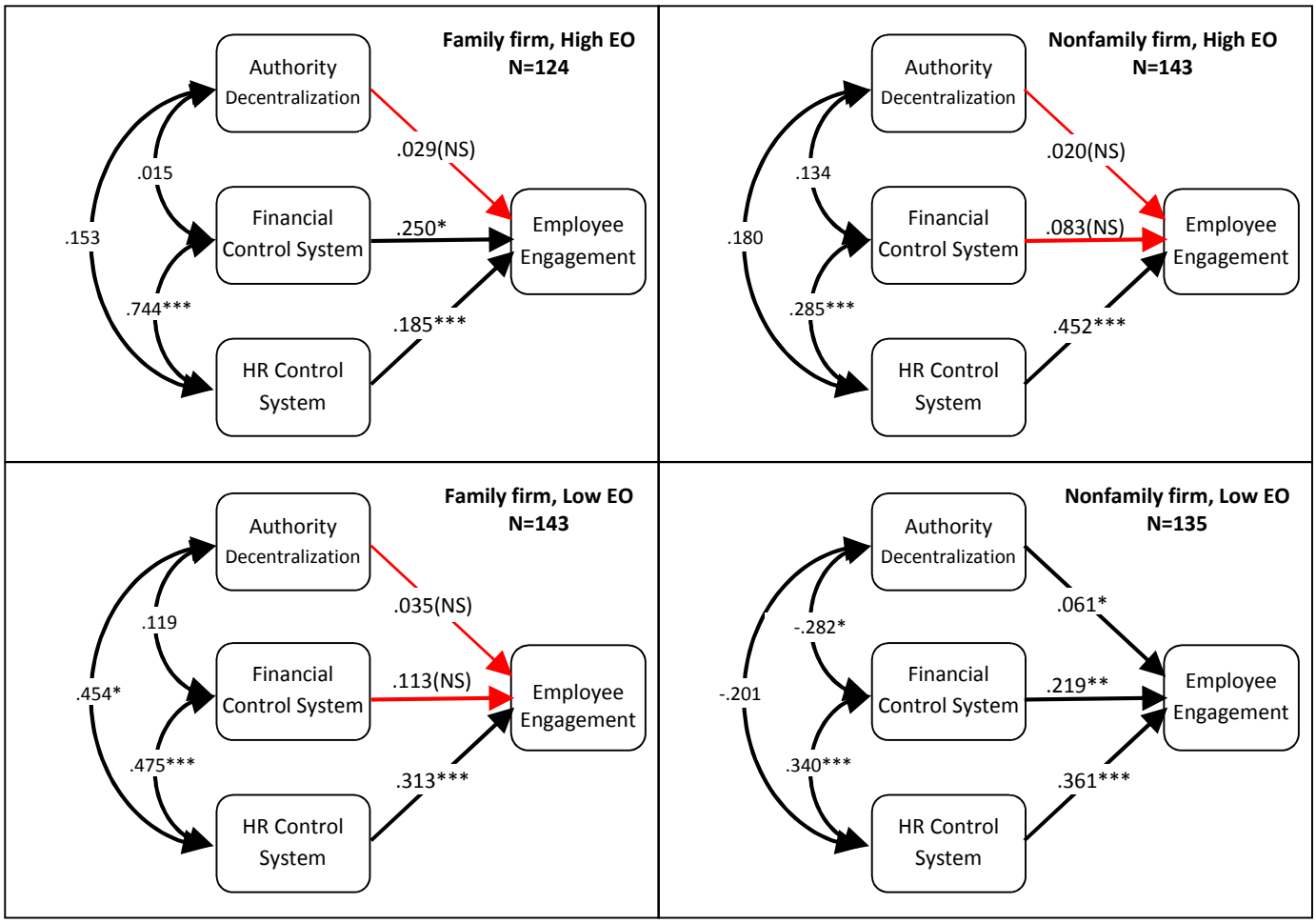
- The positive relationship between authority decentralisation and employee engagement may be weakest for low EO family firms and strongest for high EO nonfamily firms (H1c).
- The positive relationship between financial control and employee engagement may be weakest for high EO family firms and strongest for low EO nonfamily firms (H2c).
- The positive relationship between human resource control and employee engagement may be weakest for high EO family firms and strongest for low EO nonfamily firms (H3c).

Table 5.9 ML Estimates of Professionalisation – EE (Family vs. Nonfamily and Low vs. High EO)

Parameters (1)	Family, Low EO (N=143)			Family, High EO (N=124)			Nonfamily, Low EO (N=135)			Nonfamily, High EO (N=143)		
	Unstandardised (2)	SE (3)	Standardised (4)	Unstandardised (5)	SE (6)	Standardised (7)	Unstandardised (8)	SE (9)	Standardised (10)	Unstandardised (11)	SE (12)	Standardised (13)
Regression coefficients (Direct effects)												
Firm Age → EE	-0.076	0.097	-0.094	-0.02	0.105	-0.031	-0.02	0.108	-0.025	0.108	0.104	0.151
Firm Size → EE	0	0.094	0	-0.022	0.105	-0.036	-0.085	0.135	-0.108	-0.208	0.133	-0.261
Employee Age → EE	0.054	0.092	0.065	-0.108	0.132	-0.149	-0.397	0.276	-0.495	-0.044	0.121	-0.065
Employee Education → EE	-0.017	0.075	-0.022	0.023	0.072	0.036	0.117	0.101	0.16	0.123	0.079	0.169
Employee Rank → EE	0.133†	0.071	0.172	**0.142***	0.069	**0.214**	0.032	0.081	0.043	**0.159***	0.079	**0.217**
Employee Tenure → EE	-0.101	0.1	-0.104	0.071	0.134	0.095	0.347	0.229	0.474	-0.017	0.103	-0.027
Authority decentralisation → EE	0.035	0.024	0.101	0.029	0.021	0.094	**0.061***	0.028	**0.172**	0.020	0.02	0.062
Financial control → EE	0.113	0.08	0.144	**0.250***	0.098	**0.37**	**0.219****	0.08	**0.278**	0.083	0.102	0.086
Human resource control → EE	**0.313*****	0.068	0.482	**0.185***	0.089	**0.301**	**0.361*****	0.071	**0.528**	**0.452*****	0.102	**0.512**
Disturbance variances												
Employee engagement (EE)	**0.342*****	0.067	**0.539**	**0.233*****	0.05	**0.266**	**0.275*****	0.061	**0.359**	**0.366*****	0.068	**0.449**

Notes:

- †p ≤ .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001
- Standardised disturbance variances are proportions of unexplained variance. This is calculated as unstandardised disturbance variance/EE's SD^2
- Metric invariant structural model



Notes:

- The score in the single arrowhead path is unstandardised regression coefficient
- The curved line with two arrowheads is covariance
- ŧp ≤ .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001
- The structural regression models above are under metric invariant structural model assumption

Figure 5.4 Professionalisation - EE (Family vs. Nonfamily and Low vs. High EO)

According to the results presented above, employee engagement has a significant relationship with human resource control for all data groups. The relationship with authority decentralisation emerges only for low EO-nonfamily firms, while the relationship with financial control is only significant for high EO-family firms and low EO-nonfamily firms. Moreover, none of the hypotheses H1c, H2c or H3c are in line with the results. The sample in this study produces the strongest relationship of authority decentralisation with employee engagement for low EO nonfamily firms (β=0.061, p≤.05). Therefore this is not in line with hypothesis H1c. Hypothesis H1c predicted that the strongest and weakest relationship should

be for high EO nonfamily firms and low EO-family firms respectively. Further, the highest relationship of financial control and employee engagement (β=0.250, p≤.05) occurs in the high EO-family firm. This opposes hypothesis H2c. Finally, although the weakest relationship of human resource control and employee engagement occurs in high EO-family firms as was predicted by hypothesis H2c, unfortunately, the strongest relationship does not match hypothesis H3b. This was predicted in low EO-nonfamily firms, but in this study, it occurred rather in high EO nonfamily firms (β=0.452, p≤.001).

5.2.3 Structural Regression for EO Factors – Employee Engagement Relationship

This section presents the relationship of EO factors on employee engagement as well as the moderating effects of the family business (FB) status and the firm's professionalisation level on that relationship. This relationship was built to test hypotheses H4 (a, b, c), H5 (a, b, c) and H6 (a, b, c). The model of AMOS version is presented in Appendix F.1.

This study applied the maximum likelihood estimation (MLE) technique on the sample (N=545) to test hypotheses H4, H5 and H6. Further, to test hypotheses H4a, H5a and H6a (the moderating effects of Family Business status), the cases were split based on the ownership-management classification (Handler, 1989). Then MLE was run on that multi-group data (N_FamilyBusiness=267, N_nonFamilyBusiness=278) to estimate the regression coefficient. Similarly, to test H4b, H5b and H6b (the moderating effects of the firm's professionalisation level), the cases were split using the *median-split* technique to produce 278 cases of low and 267 cases of high professionalised firms. Finally, combining the family business status and the firm's professionalisation level, the cases produced 151 low professionalised-family firms, 116 high professionalised-family firms, 127 low professionalised-nonfamily firm and 151 high professionalised-nonfamily firm cases. Then, MLE was run on the multi-group data to test hypotheses H4c, H5c and H6c. The hypotheses and results summary about the relationship of professionalisation factors and employee engagement are presented in Table 5.10. More detailed information about hypotheses testing for the main and moderating effects are presented in the following subsections.

Table 5.10 The Hypotheses and Results of EO Factors – EE Relationship

Models			Results	
Relationships		**Hypotheses**	**Regression weights**	**Findings**
Main effects	IN →EE	H4 (+)	0.181**	Supported
	PR →EE	H5 (+)	0.017	Rejected
	RT →EE	H6 (+)	0.065†	Marginally supported
Moderating effects of Family Business status	IN →EE	H4a (stronger for family firms)	0.164* (FB) < 0.209** (NFB)	An invariant test does not formally prove the existence of Family Business status moderating effects. The results also are not consistent with any of H4a, H5a and H6a
	PR →EE	H5a (weaker for family firms)	None of the results are significant: 0.061 (FB), -0.031 (NFB)	
	RT →EE	H6a (weaker for family firms)	None of the results are significant: 0.058 (FB), 0.068 (NFB)	
Moderating effects of firm professionalisation level	IN →EE	H4b (stronger for high professionalised firms)	0.163 (low PRO), 0.157* (high PRO)	An invariant test does not formally prove the existence of firm EO moderating effects. At least, the results are consistent with H6b.
	PR →EE	H5b (stronger for high professionalised firms)	None of the results are significant: 0.127 (low PRO), -0.51 (high PRO)	
	RT →EE	H6b (stronger for high professionalised firms)	-0.070 (low PRO) < 0.089* (high PRO)	
Joint moderating effects of Family Business status and firm professionalisation level	IN →EE	H4c (weakest for low professionalised nonfamily firms, strongest for high professionalised family firms)	FB: 0.082 (low PRO), 0.195*** (high PRO) NFB: 0.219 (low PRO), 0.074 (high PRO)	An invariant test does not formally prove the existence of joint moderating effects of Family Business status and firm EO. Also, none of the hypotheses H4c, H5c and H6c are consistent with the results
	PR →EE	H5c (weakest for low professionalised family firms, strongest for high professionalised nonfamily firms)	FB: 0.298† (low PRO), -0.115 (high PRO) NFB: -0.059 (low PRO), 0.027 (high PRO)	
	RT →EE	H6c (weakest for low professionalised family firms, strongest for high professionalised nonfamily firms)	FB: -0.079 (low PRO), 0.151** (high PRO) NFB: 0.124 (low PRO), -0.010 (high PRO)	

Notes: IN: innovativeness, PR: proactiveness, RT: risk-taking

In advance, GOF (goodness-of-fit) index scores are calculated to validate the quality of the structural models. The GOF index scores demonstrate that all structural models produce sufficient chi-square scores, and also meet Hu & Bentler's (1999) combination GOF rule of RMSEA < 0.06 and SRMR < 0.09. The details of the structural model validation are reported in Section F.1.

The Effects of Innovativeness, Proactiveness and Risk-taking

The main effects of EO factors on employee engagement are presented in Table 5.11 to test hypotheses H4, H5 and H6. It was hypothesised that employee engagement might be positively related to innovativeness (H4), proactiveness (H5) and risk-taking (H6). Relying on the unstandardised regression solution eases the interpretation of the results in this study. Considering the independent and dependent latent variables are composed of items using the same 7-point-Likert scale, the unstandardised regression coefficients in Figure 5.5 are comparable.

Table 5.11 ML Estimates of EO Factors – EE Relationship

Parameters (1)	Unstandardised (2)	SE (3)	Standardised (4)
Regression coefficients (Direct effects)			
Firm Age → EE	0.01	0.053	0.013
Firm Size → EE	0.009	0.054	0.012
Employee Age → EE	0.04	0.062	0.055
Employee Education → EE	-0.024	0.04	-0.033
Employee Rank → EE	**0.107****	0.04	**0.147**
Employee Tenure → EE	-0.02	0.06	-0.027
Innovativeness → EE	**0.181****	0.059	**0.294**
Proactiveness → EE	0.017	0.063	0.027
Risk-taking → EE	**0.065†**	0.034	**0.103**
Disturbance variances			
Employee engagement (EE)	0.441***	0.06	**0.543**

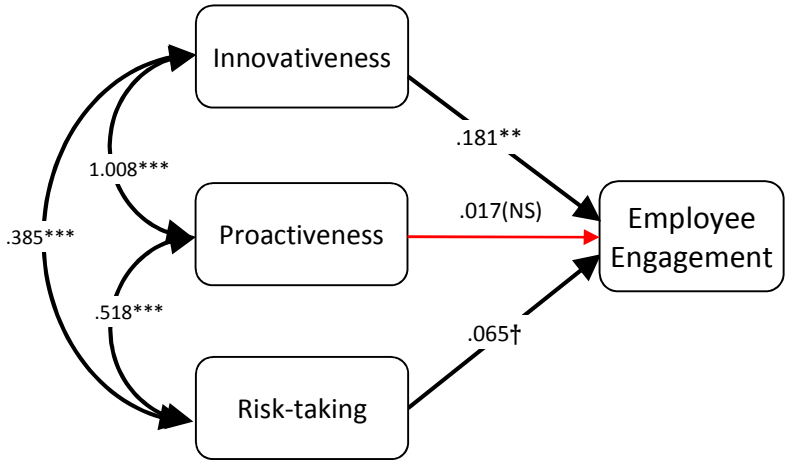
Notes: N=545

- **†**p ≤ .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001
- Standardised disturbance variances are proportions of unexplained variance. This is calculated as unstandardised disturbance variance/EE's SD^2

As presented in Figure 5.5 column 2, only innovativeness has a significant positive relationship with employee engagement (β=0.181, p≤.01), thus supporting hypothesis H4. The relationship of risk-taking with employee engagement is also positive but marginally significant (β=0.065, p≤.059). Therefore, hypothesis H6 is marginally accepted. However,

hypothesis H5 is rejected as the relationship of proactiveness with employee engagement is not significant. Employee rank is the only control variable having a significant regression coefficient (β=0.107, p≤.01). These results are interpreted as follows:

- a 1-point Likert-scale increase in firm innovativeness predicts a 0.181-point Likert-scale increase in employee engagement, holding other variables constant.
- a 1-point Likert-scale increase in firm risk-taking predicts a 0.065-point Likert-scale increase in employee engagement, holding other variables constant.
- a 1-point increase in the employee rank predicts a 0.107-point Likert-scale increase in employee engagement. This means that the engagement of a manager may be higher than a junior manager engagement by 0.107-point Likert-scale.



Notes:

- The score in the single arrowhead path is unstandardised regression coefficient
- The curved line with two arrowheads is covariance
- †p ≤ .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001
- N=545

Figure 5.5 EO - Employee Engagement Relationship

These results are in line with Bakker's et al., (2007) empirical findings, showing the positive impact of innovativeness as a job resource on work engagement dimensions. Bakker et al. (2007) found that innovativeness was positively related to work engagement dimensions, i.e., vigour, dedication and absorption engagement with a standardised relationship coefficient of 0.21 (p≤.001), 0.25 (p≤.001) and 0.08 (p≤.05) respectively. The relationship of innovativeness with vigour and dedication in the previous empirical study,

therefore, is comparable to the standardised relationship of innovativeness with employee engagement in this study, which is 0.294 (see Table 5.11 column 4).

The Moderating Effects of Family Business Status

A series of invariant tests was run using CFA procedures to ensure the equivalence of a structural model between family and nonfamily data groups. The results of those invariant tests are presented in Table 5.12, and the results of SEM analysis across two data groups (family and nonfamily) are presented in

Among EO factors, only innovativeness has a significant relationship with employee engagement (see Figure 5.6). The regression coefficient of innovativeness for family firms (β=0.164, $p \leq .05$) is weaker and less significant than for nonfamily firms (β=0.209, $p \leq .01$). This means that a 1-point Likert-scale increase in firm innovativeness predicts a 0.164-point Likert-scale increase in employee engagement for family firms and a 0.209-point Likert-scale increase in employee engagement for nonfamily firms. These results exhibit that the available data is not consistent with any of the hypotheses H4a, H5a and H6a. It was hypothesised that the positive relationship between employee engagement and innovativeness (H4a) might be stronger for family firms, but the positive relationship between employee engagement with proactiveness (H5b) and with risk-taking (H6b) may be weaker for family firms.

Table 5.13. Satisfying the uniqueness invariant test, in which ΔCFI for the all invariant model is higher than or is around -0.01 (see Table 5.12 column 9), the structural model is considered equal for family and nonfamily data groups at the uniqueness-invariant level (Cheung and Rensvold, 2002).

Subsequently, a structural coefficient invariant test was run by constraining the regression weight of professionalisation factors equally across family and nonfamily data groups. Should this produce a statistical significant chi-square difference (ΔX^2), then a moderating effect exists (Deng et al., 2005; Koufteros and Marcoulides, 2006; Wang, 2008). Unfortunately, the coefficient-invariant test produced a negligible chi-square difference ($\Delta X^2(9)=7.149$), which is below the critical value ($\Delta X^2(9)= 16.92$). Therefore, the moderating effects of family business status on the relationship of EO factors and employee engagement are not statistically proven. Thus, the tendency of the moderating effects is inferred from the

difference between regression coefficients and their corresponding significance level (see Cole & Bruch 2006; Monsen & Boss 2009).

Table 5.12 Invariance Test across Family Business Status

Invariant Model (1)	X^2/df (2)	X^2 (df) (3)	ΔX^2 (Δdf) (4)	Critical value (5)	RMSEA (6)	SRMR (7)	CFI (8)	ΔCFI (9)
Configural	1.655	433.690(262)			0.035	0.0427	0.957	
Metric	1.612	438.470(272)	4.780(10)	18.31	0.034	0.0434	0.959	0.002
Scalar	1.74	508.220(292)	69.750(20)	31.41	0.037	0.044	0.946	-0.013
Factor	1.728	582.413(337)	74.193(45)	55.76	0.037	0.0516	0.939	-0.007
Uniqueness	1.779	626.219(352)	43.806(15)	25.00	0.038	0.053	0.932	-0.007
Structural Coef	1.754	633.368(361)	7.149(9)	16.92	0.037	0.0551	0.932	0

Notes: *p< .05*

Configural (unconstrained)	:	equal factor structure
Metric (measurement weight)	:	equal factor structure and loadings
Scalar (structural means)	:	equal factor structure, loadings, intercept, means; and measured variables intercepts
Factor (structural covariance)	:	equal factor structure, loadings, intercept, means, covariance; and measured variables intercepts
Uniqueness (measurement residuals)	:	equal factor structure, loadings, intercept, means, covariance, error variance; measured variables intercepts, and error variance of measured variables (indicators)
Structural Coefficient (structural weight)	:	equal factor structure, loadings, intercept, means, covariance, error variance; measured variables intercepts, error variance of measured variables (indicators); and factors regression weight

Among EO factors, only innovativeness has a significant relationship with employee engagement (see Figure 5.6). The regression coefficient of innovativeness for family firms (β=0.164, p≤.05) is weaker and less significant than for nonfamily firms (β=0.209, p≤.01). This means that a 1-point Likert-scale increase in firm innovativeness predicts a 0.164-point Likert-scale increase in employee engagement for family firms and a 0.209-point Likert-scale increase in employee engagement for nonfamily firms. These results exhibit that the available data is not consistent with any of the hypotheses H4a, H5a and H6a. It was

hypothesised that the positive relationship between employee engagement and innovativeness (H4a) might be stronger for family firms, but the positive relationship between employee engagement with proactiveness (H5b) and with risk-taking (H6b) may be weaker for family firms.

Table 5.13 ML Estimates of EO Factors – EE (Family vs. Nonfamily Firms)

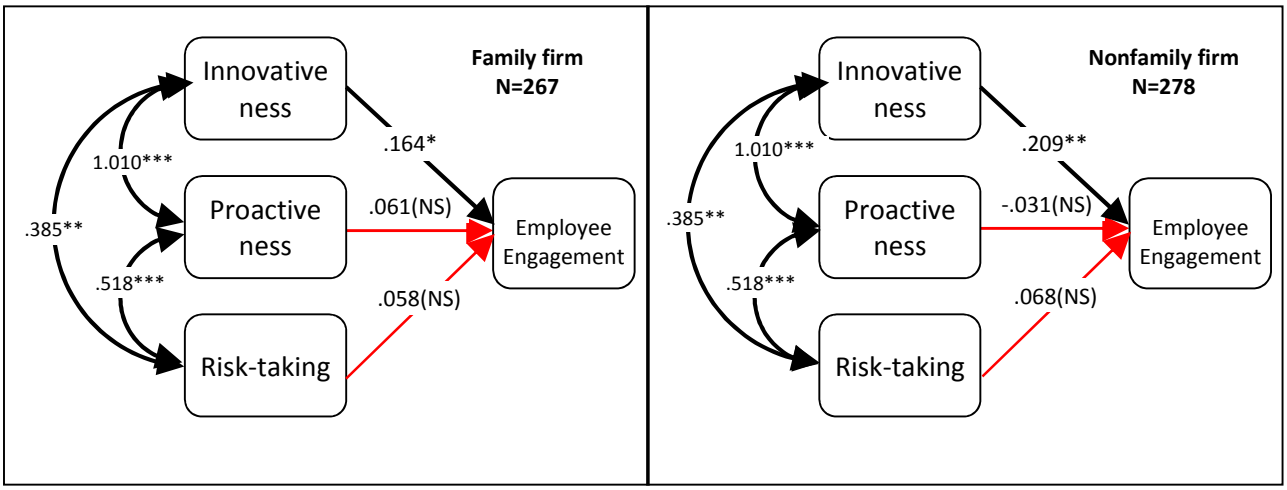
Parameters (1)	Family Firms (N=267)			Nonfamily Firms (N=278)		
	Unstandardised (2)	SE (3)	Standardised (4)	Unstandardised (5)	SE (6)	Standardised (7)
	Regression coefficients (Direct effects)					
Firm Age → EE	-0.004	0.075	-0.006	0.003	0.074	0.004
Firm Size → EE	0.021	0.077	0.029	0.021	0.076	0.029
Employee Age → EE	0.024	0.088	0.033	0.073	0.086	0.102
Employee Education → EE	-0.066	0.057	-0.089	0.013	0.055	0.018
Employee Rank → EE	**0.186*** **	0.057	**0.250**	0.018	0.055	0.025
Employee Tenure → EE	-0.069	0.085	-0.092	0.009	0.083	0.013
Innovativeness → EE	**0.164***	0.082	**0.263**	**0.209****	0.081	**0.345**
Proactiveness → EE	0.061	0.09	0.093	-0.031	0.088	-0.048
Risk-taking → EE	0.058	0.048	0.092	0.068	0.047	0.11
	Disturbance variances					
Employee engagement (EE)	0.433***	0.059	**0.533**	0.433***	0.059	**0.533**

Notes:

- †p ≤ .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001
- Standardised disturbance variances are proportions of unexplained variance. This is calculated as unstandardised disturbance variance/EE's SD^2
- Uniqueness invariant structural model

Finally, employee managerial rank is the only control variable having a significant relationship with employee engagement, and its regression coefficient is significant only for family firms (β=0.186, p≤.001). This means that a 1-point increase in employee rank predicts

an increase in employee engagement, but only for family firms, by a 0.186-point Likert-scale. Therefore, the engagement of a family firm's manager may be higher than a junior manager engagement by 0.186-point Likert-scale.



Notes:

- The score in the single arrowhead path is unstandardised regression coefficient
- The curved line with two arrowheads is covariance
- ŧp ≤ .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001
- The structural regression models above are under uniqueness invariant structural model assumption

Figure 5.6 EO - Employee Engagement Relationship for Family vs. Nonfamily Firms

The Moderating Effects of Professionalisation

A series of CFA procedures to ensure the equivalence of the structural model across firm professionalisation levels exhibits the equivalence of the metric invariant model (Table 5.14). The metric invariant model is the only invariant test producing a CFI difference (ΔCFI=-0.004) above the suggested requirement for invariant (ΔCFI>-0.01) (Cheung and Rensvold, 2002) (see column 9). Therefore, the structural coefficient invariant test relies on a metric instead of uniqueness invariant model. In this way, only factor loadings are equally constrained for both low and high-professionalised firm data groups.

Table 5.14 Invariance Test across Professionalisation Level

Invariant Model (1)	X^2/df (2)	X^2 (df) (3)	ΔX^2 (Δdf) (4)	Critical value (5)	RMSEA (6)	SRMR (7)	CFI (8)	ΔCFI (9)
Configural	1.672	437.955(262)			0.035	0.0431	0.953	
Metric	1.707	464.295(272)	26.340(10)	18.31	0.036	0.0442	0.949	-0.004
Scalar	2.034	593.782(292)	129.487(20)	31.41	0.044	0.0508	0.920	-0.029
Factor	1.995	672.388(337)	78.606(45)	67.50	0.043	0.0721	0.911	-0.009
Uniqueness	2.270	798.998(352)	126.610(15)	23.68	0.048	0.0751	0.881	-0.030
*Structural Coef	1.703	478.453(281)	14.158(9)	16.92	0.036	0.0505	0.948	-0.001

Notes: *p < .05*

Configural (unconstrained)	:	equal factor structure
Metric (measurement weight)	:	equal factor structure and loadings
Scalar (structural means)	:	equal factor structure, loadings, intercept, means; and measured variables intercepts
Factor (structural covariance)	:	equal factor structure, loadings, intercept, means, covariance; and measured variables intercepts
Uniqueness (measurement residuals)	:	equal factor structure, loadings, intercept, means, covariance, error variance; measured variables intercepts, and error variance of measured variables (indicators)
*Structural Coefficient (structural weight)	:	equal factor structure, loadings, and factors regression weight

The results of SEM analysis across two data groups (low and high professionalised firms) are presented and expressed in Table 5.15 and Figure 5.7. The regression coefficient of innovativeness is only significant for high professionalised firms (β=0.157, p≤.05) but the magnitude was not stronger than the regression coefficient for low professionalised firms. The relationship of risk-taking and employee engagement is significant only for high professionalised firms (β=0.089, p≤.05). However, the result is unable to demonstrate a significant relationship between proactiveness and employee engagement in any data group. These results demonstrate that the available data is only consistent with hypothesis H6b. It was hypothesised that the positive relationship between employee engagement with innovativeness (H4b), proactiveness (H5b) and risk-taking (H6b) might be stronger for high EO firms.

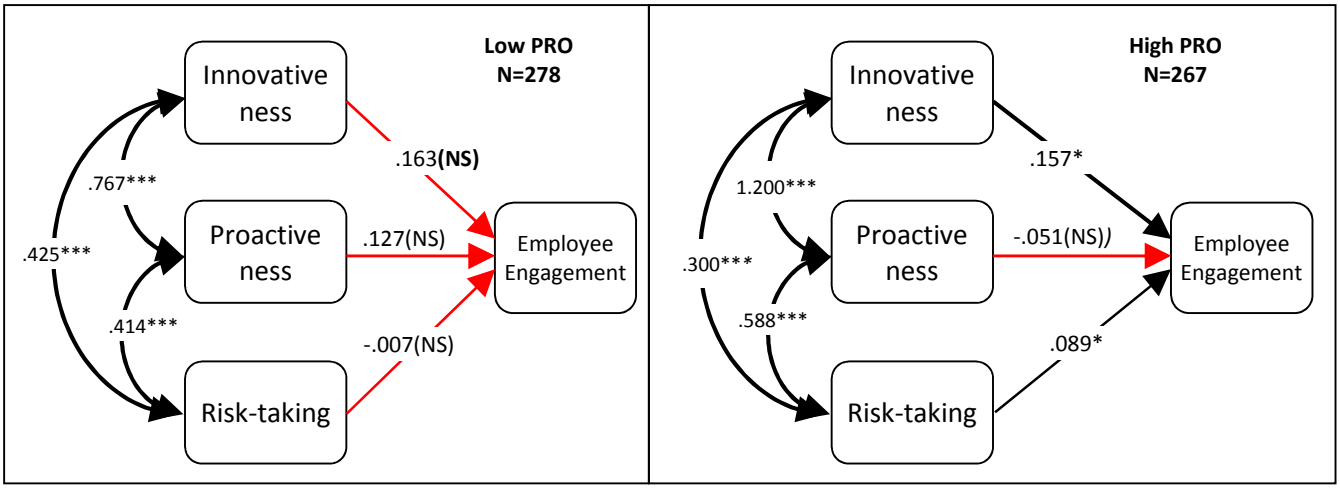
Table 5.15 ML Estimates of EO Factors – EE (Low vs. High Professionalised Firms)

Parameters (1)	Low Professionalised (N=278)			High Professionalised (N=267)		
	Unstandardised (2)	SE (3)	Standardised (4)	Unstandardised (5)	SE (6)	Standardised (7)
	Regression coefficients (Direct effects)					
Firm Age → EE	-0.118	0.076	-0.156	0.132	0.072	0.201
Firm Size → EE	0.079	0.08	0.101	-0.12	0.071	-0.188
Employee Age → EE	0.004	0.094	0.005	0.009	0.079	0.016
Employee Education → EE	-0.012	0.058	-0.016	0.018	0.056	0.027
Employee Rank → EE	**0.141***	0.056	**0.189**	0.071	0.056	0.108
Employee Tenure → EE	-0.076	0.093	-0.08	-0.021	0.076	-0.037
Innovativeness → EE	0.163	0.105	0.222	**0.157***	0.065	**0.331**
Proactiveness → EE	0.127	0.114	0.161	-0.051	0.072	-0.101
Risk-taking → EE	-0.007	0.057	-0.01	**0.089***	0.04	**0.183**
	Disturbance variances					
Employee engagement (EE)	**0.488*****	0.078	0.577	**0.326*****	0.052	0.589

Notes:

- †p ≤ .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001
- Standardised disturbance variances are proportions of unexplained variance. This is calculated as unstandardised disturbance variance/EE's SD^2
- Metric invariant structural model

Finally, employee rank is the only control variable having a significant regression coefficient, and this is only significant for low professionalised firms (β=0.141, p≤.05). It means that a 1-point increase in employee rank predicts the increase in employee engagement, but only for low professionalised firms, by a 0.141-point Likert-scale. Therefore, the engagement of a family firm's manager may be higher than a junior manager engagement by 0.141-point Likert-scale.



Notes:

- The score in the single arrowhead path is unstandardised regression coefficient
- The curved line with two arrowheads is covariance
- ŧp ≤ .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001
- The structural regression models above are under metric invariant structural model assumption

Figure 5.7 EO – Employee Engagement (Low vs. High Professionalised Firms)

The Joint Moderating Effects of Family Business Status and Entrepreneurial Orientation

A series of CFA procedures, to ensure the equivalence of the structural model among four data groups (low professionalised-family firms, high professionalised-family firms, low professionalised nonfamily firms, high professionalised nonfamily firms), exhibits the equivalence of the metric invariant model (Table 5.16). Only the metric invariant test produces a CFI difference (ΔCFI=-0.006) above the suggested requirement for invariant (ΔCFI>-0.01) (Cheung and Rensvold, 2002) (see column 9).

Table 5.16 Invariance Test across Family Business Status and Professionalisation Levels

Invariant Model (1)	X^2/df (2)	X^2 (df) (3)	ΔX^2 (Δdf) (4)	Critical value (5)	RMSEA (6)	SRMR (7)	CFI (8)	ΔCFI (9)
Configural	1.484	777.702(524)			0.030	0.054	0.935	
Metric	1.497	829.207(554)	51.505(30)	43.77	0.030	0.0557	0.929	-0.006
Scalar	1.696	1041.203(614)	211.996(60)	79.08	0.036	0.0644	0.89	-0.039
Factor	1.670	1250.787(749)	209.584(135)	124.3	0.035	0.0914	0.871	-0.019
Uniqueness	1.815	1441.048(794)	190.261(45)	67.5	0.039	0.0945	0.833	-0.038
*Structural Coef	1.491	866.178(581)	36.971(27)	40.11	0.030	0.0661	0.927	-0.002

Notes: $p < .05$

Configural (unconstrained)	:	equal factor structure
Metric (measurement weight)	:	equal factor structure and loadings
Scalar (structural means)	:	equal factor structure, loadings, intercept, means; and measured variables intercepts
Factor (structural covariance)	:	equal factor structure, loadings, intercept, means, covariance; and measured variables intercepts
Uniqueness (measurement residuals)	:	equal factor structure, loadings, intercept, means, covariance, error variance; measured variables intercepts, and error variance of measured variables (indicators)
*Structural Coefficient (structural weight)	:	equal factor structure, loadings, and factors regression weight

Therefore, the structural coefficient invariant test relies on a *metric* rather than a *uniqueness* invariant model. As the structural coefficient invariant test produces a negligible chi-square difference (ΔX^2=36.971), which is below the critical value (ΔX^2=40.11, Δdf=27, p<0.05), the joint moderating effects of family business status and firm professionalisation level are not statistically significant (Deng et al., 2005; Koufteros and Marcoulides, 2006; Wang, 2008). Thus, the moderating effects are inferred from the difference of regression coefficients and their corresponding significance levels (see Cole & Bruch 2006; Monsen & Boss 2009) to test hypotheses H4c, H5c and H6c. It was hypothesised that:

- The positive relationship between innovativeness and employee engagement may be weakest for low professionalised-nonfamily firms and strongest for high professionalised-family firms (H4c).

- The positive relationship between proactiveness and employee engagement may be weakest for low professionalised-family firms and strongest for high professionalised-nonfamily firms (H5c).
- The positive relationship between risk-taking and employee engagement may be weakest for low professionalised-family firms and strongest for high professionalised-nonfamily firms (H6c).

The results of SEM analysis across four data groups are presented in Table 5.17 and expressed in Figure 5.8 below. It seems that EO factors only matter for family firms, and this depends on their professionalisation level. When family firms have low professionalisation, firm proactiveness is only marginally related to employee engagement (β=0.298, $p \leq .073$). Moreover, for high professionalised family firms, only innovativeness (β=0.195, $p \leq .001$) and risk-taking (β=0.151, $p \leq .01$) have a significant relationship with employee engagement. These results are interpreted as follows:

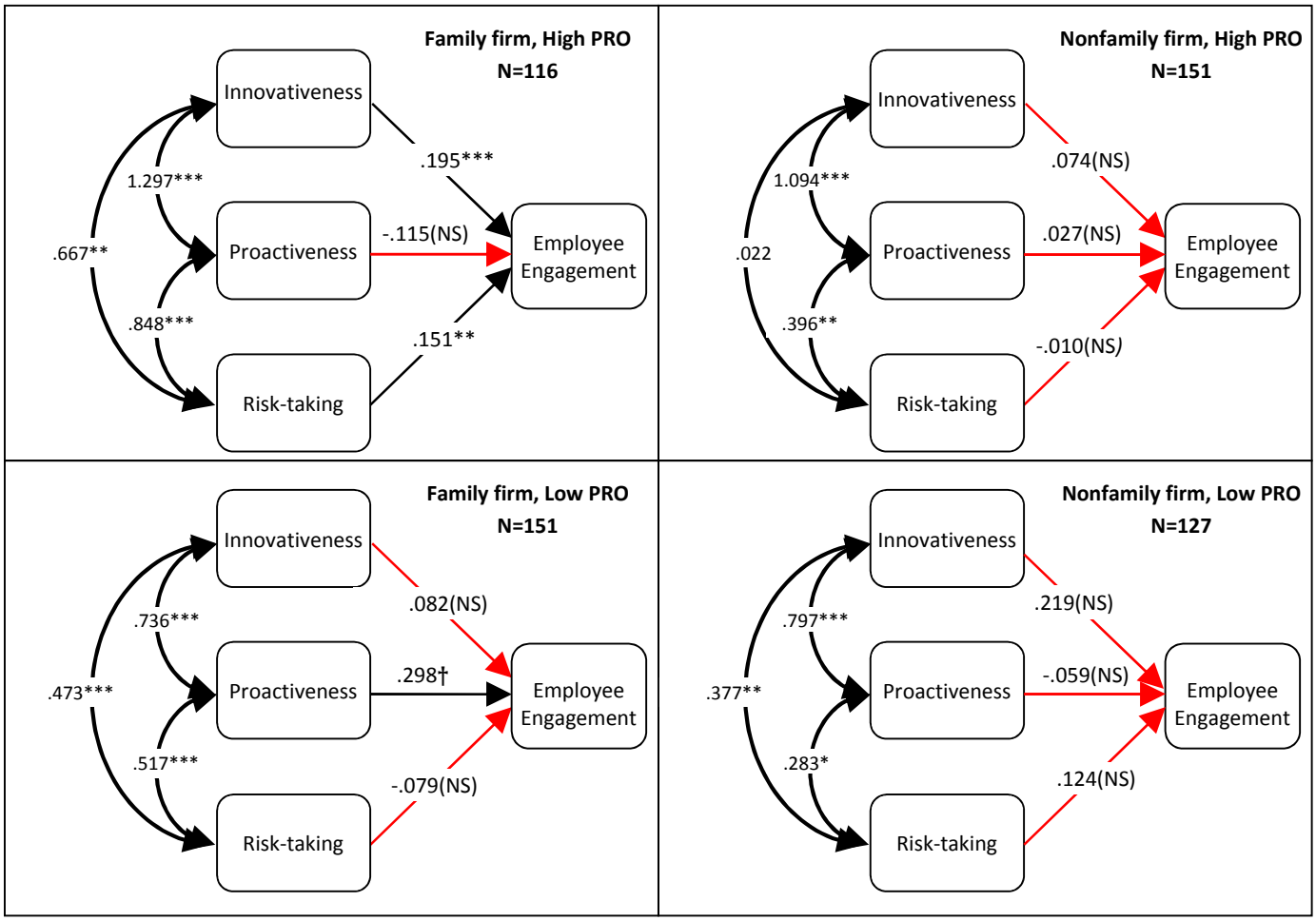
- a 1-point Likert-scale increase in innovativeness predicts a 0.195-point Likert-scale increase in employee engagement for high professionalised-family firms.
- a 1-point Likert-scale increase in proactiveness predicts a 0.298-point Likert-scale increase in employee engagement for low professionalised-family firms.
- a 1-point Likert-scale increase in proactiveness predicts a 0.51-point Likert-scale increase in employee engagement for high professionalised-family firms.
- a 1-point increase in the employee rank predicts the increase in employee engagement, only for low professionalised-family firms, by a 0.175-point Likert-scale.

Table 5.17 ML Estimates of EO – EE (Family vs. Nonfamily and Low vs. High Professionalised)

Parameters (1)	Family, Low Professionalised Firm (N=143)			Family, High Professionalised Firm (N=124)			Nonfamily, Low Professionalised Firm (N=135)			Nonfamily, High Professionalised Firm (N=143)		
	Unstandardised (2)	SE (3)	Standardised (4)	Unstandardised (5)	SE (6)	Standardised (7)	Unstandardised (8)	SE (9)	Standardised (10)	Unstandardised (11)	SE (12)	Standardised (13)
Regression coefficients (Direct effects)												
Firm Age → EE	-0.07	0.104	-0.09	0.054	0.113	0.091	-0.221†	0.12	-0.291	0.099	0.108	0.128
Firm Size → EE	-0.025	0.106	-0.031	0.012	0.108	0.021	0.22	0.145	0.268	-0.085	0.113	-0.112
Employee Age → EE	0.126	0.109	0.135	-0.186	0.118	-0.328	-0.234	0.2	-0.268	0.204	0.13	0.331
Employee Education → EE	-0.049	0.088	-0.061	0.011	0.072	0.02	0.026	0.086	0.039	0.008	0.092	0.01
Employee Rank → EE	**0.175***	0.077	**0.224**	0.117†	0.071	0.198	0.084	0.084	0.116	-0.018	0.1	-0.025
Employee Tenure → EE	-0.174	0.12	-0.158	0.075	0.121	0.127	0.186	0.187	0.22	-0.082	0.113	-0.142
Innovativeness → EE	0.082	0.147	0.109	**0.195****	0.068	**0.494**	0.219	0.152	0.297	0.074	0.129	0.13
Proactiveness → EE	0.298†	0.166	0.37	-0.115	0.087	-0.263	-0.059	0.16	-0.076	0.027	0.129	0.048
Risk-taking → EE	-0.079	0.07	-0.122	**0.151****	0.048	**0.385**	0.124	0.105	0.15	-0.01	0.07	-0.017
Disturbance variances												
Employee engagement (EE)	**0.441*****	0.087	0.521	**0.201*****	0.046	0.423	**0.490*****	0.1	**0.577**	**0.395*****	0.071	**0.644**

Notes:

- †p ≤ .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001
- Standardised disturbance variances are proportions of unexplained variance. This is calculated as unstandardised disturbance variance/EE's SD^2
- The structural regression models above are under metric invariant structural model assumption



Notes:

- The score in the single arrowhead path is unstandardised regression coefficient
- The curved line with two arrowheads is covariance
- †p ≤ .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001
- The structural regression model above is under metric invariant structural model assumption

Figure 5.8 EO - EE Relationship (Family vs. Nonfamily and Low vs. High Professionalised)

None of the hypotheses H4c, H5 and H6c, unfortunately, are supported by the results. The cases in this study are only partly consistent with hypothesis H4c. The result shows that the strongest relationship between innovativeness and employee engagement occur in the high professionalised-family firms, as was hypothesised.

5.3 Analysis

Based on the findings and literatures, this section presents the practical explanation of the phenomenon and the knowledge contribution. Following De Clercq & Sapienza's (2006, 2005) analysis style, this thesis highlights the quantitative findings, quotes some relevant interview data to practically make sense the findings, and uses previous studies to discusses the knowledge contribution.

5.3.1 The Relationship of Professionalisation Factors and Employee Engagement

All professionalisation factors have a significant positive relationship with employee engagement. Authority decentralisation has the weakest and human resource control system has the strongest positive relationship with employee engagement. These results support hypotheses H1, H2, and H3, i.e.:

H1: The employees' perception about the implementation level of authority decentralisation has a positive relationship with employee engagement.

H2: The employees' perception about the implementation level of the financial control system has a positive relationship with employee engagement.

H3: The employees' perception about the implementation level of the human resource control system has a positive relationship with employee engagement.

The positive relationship of authority decentralisation with employee engagement is supported by the *post-study interview*. A senior manager of an Indonesian listed mining company indicated the importance of giving sufficient authority to the employees and involving them in an important decision making process to encourage their engagement.

> *"…to attain my target, I should freely decide how I do my job. When my boss starts to dictate how should I achieve my target, then I feel my target going further from my hand…"* ***(employee 2)***

Further, the manager explained how her employer retained the 'high flyers' (competent employees who could potentially be hijacked by competitors), i.e.:

"…even the high-flyers are often invited to the BoD meetings. Although they are not involved in the decision-making, having knowledge about the process of important decisions making causes them to feel happy…" ***(employee 2)***

Also, the positive relationship of control system with employee engagement is supported by a *post-study interview*. A vice director of a big family corporation in the chemical business discussed the importance of financial control, i.e.,

"*…for me budget control is crucial. We should be very careful when managing our firm's money. Some senior employees had experienced discomfort due to financial mismanagement. No, that should never happen again. Besides, if employees know that the firm allocates significant budgets to develop them, then they feel appreciated.*" ***(employee 1)***

Further, the role of human resource control aspects in driving employee engagement was emphasised by the statement of the senior manager of the mining company, i.e.,

"…a kind of scorecard to measure the energy I spend makes me more passionate when performing my role. On the contrary, I lose purpose if there is no specific assessment of what I did. Especially if the assessment is unfair or not transparent…" ***(employee 2)***

Overall, the relationship of professionalisation factors and employee engagement is illustrated in Figure 5.9 below.

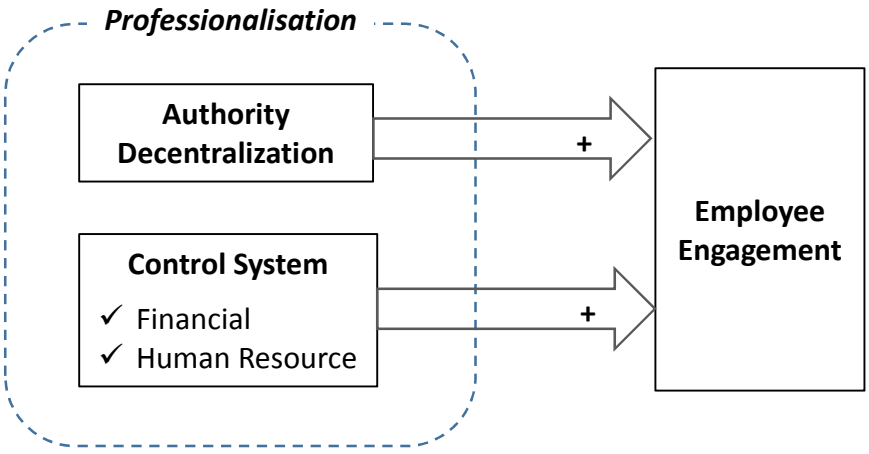


Figure 5.9 Professionalisation Factors – EE Relationship

If authority decentralisation drives employee participation in decision-making, it may positively relate to work meaning through self-efficacy (Latham et al., 1994), affective commitment (Scott-ladd, Travaglione, & Marshall, 2006) and perceived supervisory support (Vanyperen et al., 1999). From a SET perspective (Cropanzano and Mitchell, 2005; Clercq and Rius, 2007), if authority decentralisation incurs work meaning and confidence leading to psychological meaningfulness (Christian Kenan-Flagler and Slaughter, 2011), then employees may perceive these circumstances as socioemotional resources received from the organisation. In return, employees repay them with more engagement and productive work.

Financial control can be used to communicate and evaluate firm goals more clearly as well as to challenge employees. If financial control aspects promote job responsibility, then financial control potentially improves engagement (Crawford, Lepine, & Rich, 2010). Especially if the job responsibility is well communicated and well assessed through budget control, it provides more transparent and predictable situations. In this way, a financial control system elicits positive feelings toward employee engagement that overcomes the negative feelings of not being trusted. Further, formal recruitment, training, assessment and reward systems can lead to employee perception of justice and fairness (Saks, 2006). In this way, employees are aware that the investment in self-roles is properly recognised by a standardised assessment and reward system. Moreover, employees have more confidence to perform better when a systematic training system is available. In return, employees are likely to reward those positive feelings of meaningfulness and safety with a willingness to contribute greater work effort for the organisation.

The cultural context should be relevant to explain the weakest relationship of authority decentralisation and the strongest relationship of human resource control with employee engagement. Having a higher power distance index score, Indonesian employees seem receptive to inequality between higher and lower ranks in a hierarchical organisation. Power centralisation is common practice in the workplace. On the other hand, employees surrounded by higher power distance social systems need clear guidance to perform their roles. Therefore the establishment of formal rules is common. Formal and standardised procedures, such as human resource control systems, are anticipated by employees to sustain their feelings of safety. Moreover, as employees tend to accept power inequality, they cannot be guaranteed to experience procedural justice (Begley and Lee, 2002). Therefore, employees in higher power distance organisations might rely on formal rules to

achieve fairness and uphold feelings of meaningfulness. In short, higher power distance might strengthen the positive relationship of the control system with employee engagement, but it attenuates the positive relationship of authority decentralisation with employee engagement. Maybe due to this reason, human resource control has the strongest positive relationship with employee engagement.

Among the control variables, only employee managerial rank has a significant relationship with employee engagement. These findings support the argument of Clercq & Rius (2007) that employees with a higher managerial rank are more devoted to organisational commitment because they are more exposed to a higher variety and autonomy jobs and enjoy a more trusted relationship with a view to long-term goals. Employees tend to reciprocate their commitment with a positive experience that is facilitated by an organisation (Clercq and Rius, 2007; Wang et al., 2010).

The Moderating Effects of Family Business Status

All professionalisation factors have a positive relationship with employee engagement, both for family and nonfamily firms. While this study does not find statistically significant evidence that family business status moderates the relationship between all professionalisation factors with employee engagement, the results show that the relationships tend to be weaker for the family firm than for nonfamily firm. Therefore, this study finds support for hypotheses H1a, H2a, and H3a, i.e.:

H1a: The positive relationship between the employees' perception about the implementation level of authority decentralisation and employee engagement will be weaker in the family firm.

H2a: The positive relationship between the employees' perception about the implementation level of the financial control system and employee engagement will be weaker in the family firms.

H3a: The positive relationship between the employees' perception about the implementation level of human resource control system and employee engagement will be weaker in the family firms.

Possible causes of the weaker relationship of authority decentralisation with employee engagement for family firms were uncovered in the post-study interviews. One manager working for a large non-listed family firm highlights the intervention of the family firm ownersas follows:

> ***"…****the owner's decisions are always final. Why should I involve myself too much in the decision-making?"* ***(employee 4)***

The owner of the large non-listed family firm confirms:

> *"…honestly, I sometimes ignore the executives' decisions. I often rely on my own experience and feelings instead of any detailed calculations… Basically, my decisions are made to protect my assets and investment…"* ***(owner 2)***

Also, a vice director for human resources in a chemical family firm said:

> *"…although it is considered as a big company with an annual revenue of trillions of rupiah (hundreds of millions of USD), employee assessment and rewards are not calculated merely based on firm performance. I genuinely performed a detailed assessment of each employee and calculated their rewards based on their performance. But, these were just recommendations for the owner. Sometimes, the owner followed my recommendation, but, on some occasions, his decisions were entirely different. For instance, he increased the basic salary of some employees three times a year for an employee who has just got married or for someone having a baby…"*
>
> *"…there was a period when this company was handed over to the son of the owner (the 2nd generation). He became the head of this company just after finishing studying abroad. Without seriously trying to understand the company culture, he pushed his own working style, especially on how to manage employees. Consequently, many experienced employees resigned"* ***(employee 1).***

Overall, the moderating effects of family business status on the relationship of professionalisation factors and employee engagement is illustrated in Figure 5.10 below.

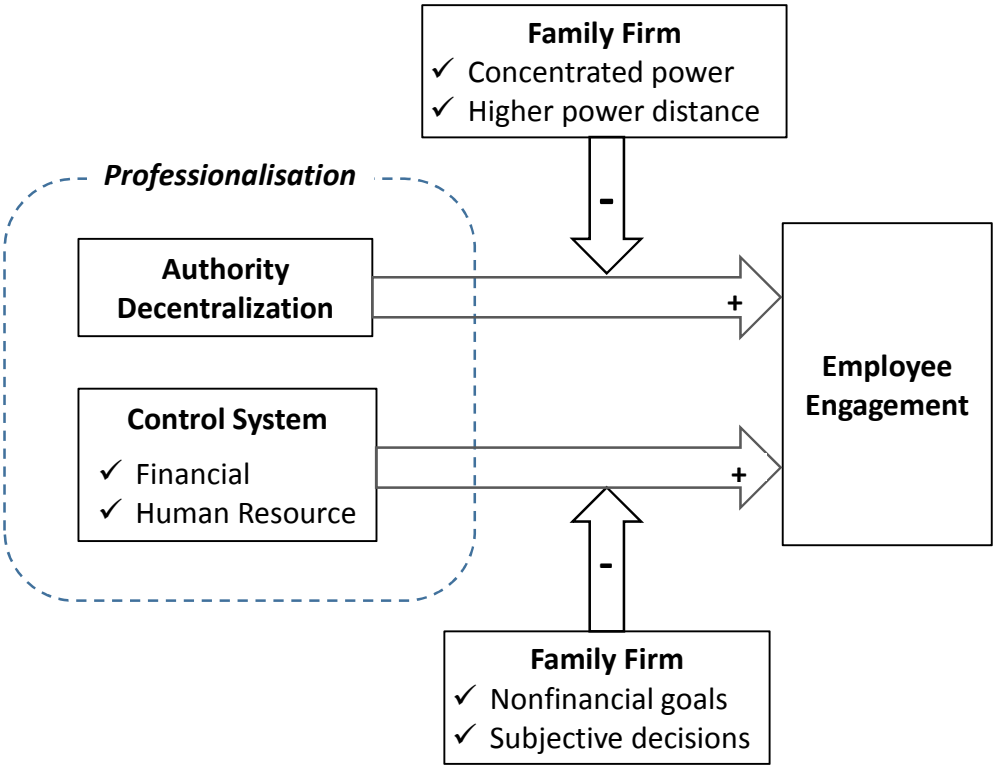


Figure 5.10 Professionalisation – EE Relationship, Moderated by Family Business Status

As already articulated, family businesses have a range of distinctive characteristics which sets them apart from other organisations. For example, the dual role owner-manager may cause the decision-making process to concentrate on the firm owners, therefore preventing employee involvement in the firm's governance (Donckels and Frohlich, 1991). Thus, although formal authority decentralisation can be implemented in the family firm, the natural power of family firm owners might prevent a positive impact on employee engagement. In addition, the family firm governance that establishes the financial and nonfinancial benefit for the owners cause the authority transition more difficult. Formal authority decentralisation can reduce the owners privilege to retain activities related to parental altruism. Accordingly, it is plausible if the owners have never fully released their influence even authority decentralisation system has been implemented (Gedajlovic et al., 2004). Thus, the informal power of family firm owners might restrain the positive impacts of formal authority decentralisation on employee engagement. Consequently, as owners'

authority reduces the socioemotional resources emerging from authority decentralisation mechanisms, employee reciprocation is also reduced.

From a stewardship theory perspective (Davis et al., 1997; Corbetta and Salvato, 2004a; Le Breton-Miller and Miller, 2009), family firm employee commitment is most likely to be driven by robust and solid values within the organisation rather than by any formal control system. For instance, generosity (as an essential family firm value) can enhance employee loyalty whilst the humility of family firm owners brings positive emotional and psychological energy for the employees. Strong emotional, fundamental, humane and nonfinancial values can elicit a sense of pride in an organisation and thereby in employee commitment. Thus according to the stewardship theory, when the values of the family firm are more people oriented and nonfamily firm's values are more result oriented, professionalisation consisting of formal and systemic activities would be less likely to encourage employee engagement in family firms. In family firms, engagement is driven by informal and personal relationships instead of formal and systemic activities. Besides, the stewardship theory suggests that any control system could reduce employee pro-organisational motivation (Corbetta and Salvato, 2004a).

According to the agency theory (Jensen and Meckling, 1976), the implementation of control system may be more complicated in family firms due to their nonfinancial goals and altruism tendency. The assessment and rewarding system, as a way to optimise both family firm owners and employees utility, should be transparently and fairly designed with a purpose to entice agents to spend more effort to raise firm performance (Chua et al., 2009). Providing transparent and fair human resource control system should not be a problem if the principals only consider firm financial goals in the assessment process. Otherwise, subjectivity and complication cannot be avoided in the assessment and rewarding process, especially if the time horizon is longer. Moreover, the altruism tendency and the owners need to maximise the utility of their family members would lead to the bias, less transparent and unfairness (Chua et al., 2009). These circumstances would weaken employees' feeling of meaningfulness and less favourable for employee engagement.

Conforming to the cultural context, the weaker relationship of authority decentralisation with employee engagement indicates the higher power distance for family firms than for nonfamily firms. It is reasonable because employees should be aware of owner

discretion. The employees of a family firm realise that their superior is the owner who is equipped with “unlimited” power. Conversely, the employees of nonfamily firms consider that their superior is just a higher ranked employee who is equipped with “limited” power. Thus, employees of the family firm are more likely to accept the inequality of power distribution. Consequently, they will rely on control systems to gain fairness and being engaged. However, why are the relationships of control systems (both financial and human resource), and the employee engagement relationship observed in this study, also shown to be weaker for family firms? Control systems should be stronger in the higher power distance circumstance. To understand this phenomenon, one should consider the influence of the collectivist culture on employee attitude.

Living in a highly collectivist culture, Indonesian employees take into consideration the in-group interest and maintain a good relationship (Irawanto, 2009; Hofstede et al., 2010). Thus, managing Indonesian employees should be considered as managing a group of employees. For instance, hiring and career promotional decisions should take the employees’ in-group into account. Further, as relationships prevail over any task in a collectivist culture, a subordinate direct appraisal is a risk to group harmony. A peer-review assessment approach may be more acceptable. The way a control system is implemented seems to matter for employee engagement. The implementation of a control system that only focuses on individual interest may be less favourable for employee engagement. Conversely, the implementation that considers in-group interest may be more favourable for employee engagement. Indonesian employees may perceive the implementation of a control system in the family firm as being less considerate of in-group interest.

Further, employee rank is positively related to employee engagement, but this is only significant for family firms. Managerial positions in family firms are difficult to access by nonfamily members (Westhead and Howorth, 2006) because the assignment of managerial positions is not solely based on professional reasons. It most likely considers the alignment of kinship, loyalty and values. Thus, higher ranked employees may have greater loyalty and higher values, and are therefore more engaged.

The Moderating Effects of Firm Entrepreneurial Orientation Level

While firm EO level does not statistically moderate the relationship between all professionalisation factors with employee engagement, the results indicate the different moderating effects of EO level for each professionalisation factor. EO strengthens the relationship of innovativeness with employee engagement, but weakens the relationship between the control systems (financial and human resource) with employee engagement. Therefore, the sample in this study are in line with hypotheses H1b, H2b and H3b, i.e.,

H1b: The positive relationship between the employees' perception about the implementation level of authority decentralisation and employee engagement is stronger in high EO firms.

H2b: The positive relationship between the employees' perception about the implementation level of the financial control system and employee engagement will be weaker in high EO firms.

H3b: The positive relationship between the employee's perception about the implementation level of human resource control system and employee engagement is weaker in high EO firms.

The quantitative findings indicated the different moderating effects of EO level for each professionalisation factor were highlighted by the *post-study interview*. A manager of an Indonesian property firm said:

> *"…faster decisions need inherent authority, especially when making a creative decision. For instance, some of the Indonesian people perceive numbers 4 and 13 as unlucky voodoo numbers. Conversely, they like numbers 5 and 8. Therefore, they avoid buying houses numbered 4 or 13. Thus, I decided to change house number 4 to number 5a and number 5 to number 5b. Similarly, I changed houses numbered 13 and 14 to numbers 12a and 12b respectively. …This company values innovation. Thus, more authority is better for me, because I have sufficient authority to implement my creative ideas and show them to my boss. If this company does not seriously appreciate creative ideas, perhaps my authority is useless…"*
>
> *"…basically, I need sufficient 'space' to be creative and to perform entrepreneurial activities. Thus, rigid control systems hamper my ideas. If a control system must be established, it should be designed in a way to accelerate the implementation of my creativity…"* ***(employee 4)***

The moderating effect of firm EO level on the relationship of professionalisation factors and employee engagement is illustrated in Figure 5.11 below.

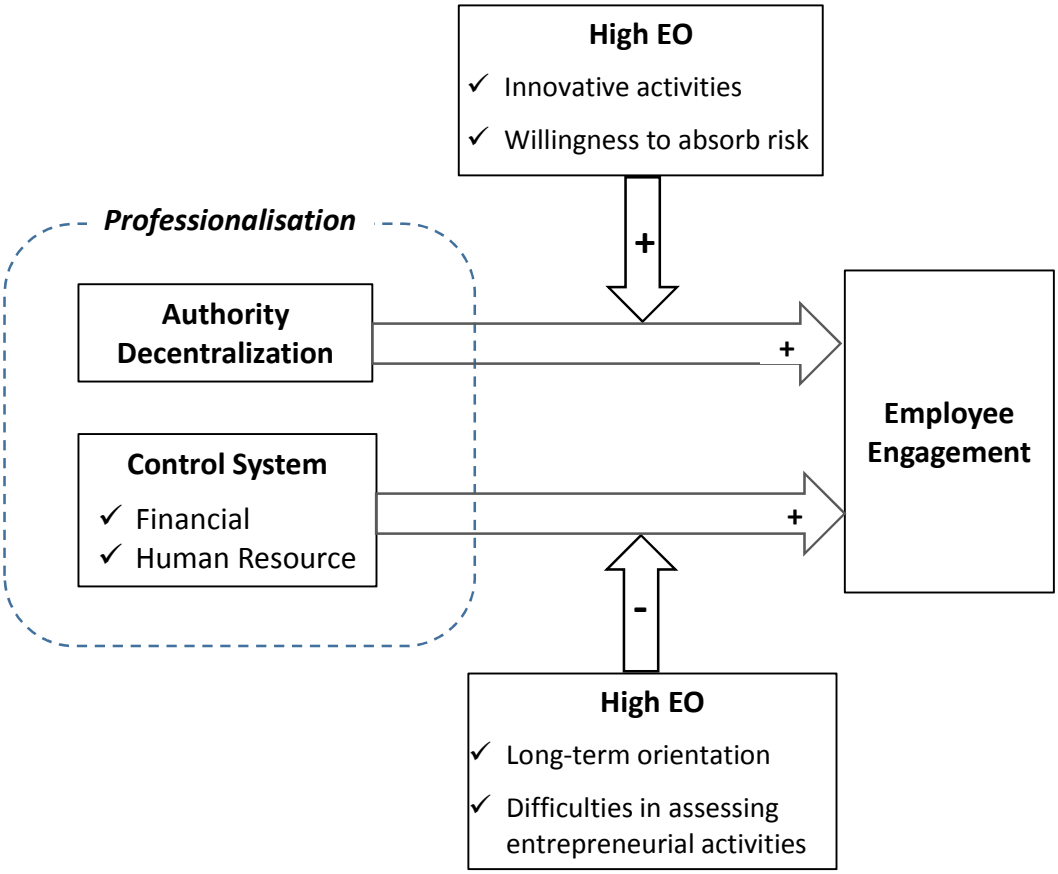


Figure 5.11 Professionalisation – EE Relationship, Moderated by EO

In firms with high innovativeness, employees have more opportunity to be involved in new products, services or working methods' development, especially if they receive adequate support (Hornsby et al., 1993; Wolcott and Lippitz, 2007). Therefore, employees are more confident making decisions around innovations because firms with high risk-taking attitudes are willing to absorb any potential risk from the employees' decisions (Hornsby et al., 1993). These circumstances create supportive environments for employees to take on bigger roles and produce more effort for the organisation. In short, both authority decentralisation and firm EO leads to higher psychological meaningfulness and safety. From the Social Exchange Theory perspective (Cropanzano and Mitchell, 2005; Clercq and Rius,

2007), one could say that firm EO reinforces the firm's socioemotional resources coming from authority decentralisation, which in return invites greater employee engagement.

The long-term orientation of high EO firms might not match the short-term objective nature of financial control objectives (Zahra, Hayton, & Salvato, 2004). Thus, traditional financial control mechanisms might not provide sufficient flexibility needed by high EO firms. According to the Social Exchange Theory perspective, a strict financial monitoring system can withdraw socioemotional resource in high EO firms.

Implementing human resource control in high EO firms should consider employee entrepreneurial activities, such as assessing entrepreneurial behaviour and providing a result based reward system. However, assessing entrepreneurial behaviours is complicated, takes more time and potentially causes disagreements on the results due to three issues (Jones and Butler, 1992). First, the assessment system must consider the influences of environmental, organisational, and task conditions uncertainty that are frequently attached to high EO firms. Second, the impact of entrepreneurial behaviour may only be visible in the long term. Third, any entrepreneurial impact may be the result of the activities of many employees in the firm rather than a single individual. Therefore, evaluating the entrepreneurial contribution of any one employee within a group setting is complicated, and the organisation would struggle to implement a formal rewards system for entrepreneurial employees (Jones and Butler, 1992). These conditions could weaken socioemotional resources coming from a human resource control system and thus lessen employee engagement.

Further, these results show that employee rank only matters for employee engagement in high EO firms. As previous research has found that employees with a higher rank are more entrepreneurial (Hornsby et al., 2009), they might conclude that high EO firms provide more support to expressions of entrepreneurial aspirations. These organisational supports, i.e., top management support and work discretion (Kuratko et al., 1990; Hornsby et al., 2002) in fact are more accessible for higher ranked employees (Hornsby et al., 2009). Further, employees with a higher perception of organisational support are likely to repay their employer with a higher engagement level (Saks, 2006). Using the SET perspective (Cropanzano and Mitchell, 2005; Clercq and Rius, 2007), an organisation with perceived support, as socioemotional resources are more available in high EO firms and more accessible

for the higher ranked employee, it is reasonable to assume that employee rank is positively related to employee engagement.

The Joint Moderating Effects of Family Business Status and Firm EO Level

Although none of the hypotheses H1c, H2c and H3c is supported, more important insights have been drawn from the following patterns, i.e.,

1. In all circumstances, the impact of human resource control on employee engagement is dominant compared to other professionalisation factors.
2. Firms with a singular characteristic, either as a familial (low EO-family) or entrepreneurial (high EO-nonfamily) firm, seem to require a narrower set of professionalisation factors. For instance, they only need to maintain human resource control systems to drive employee engagement.
3. Conversely, firms without a specific characteristic of either familial or entrepreneurial firms (low EO-nonfamily firms) seem to consider all professionalisation factors to promote employee engagement.
4. Finally, when low EO-family firms become more entrepreneurial, they should consider financial control as a factor related to employee engagement.

Some respondent statements from the *post-study interviews* emphasise the importance of human resource control. They agree that among professionalisation factors, human resource control is most relevant to employee interest. One founder of an Indonesian listed family firm revealed his feelings:

> *"…. Well, employees are simply aware of how they are being managed, especially regarding the financial benefits they receive from the firm. They do not really care about the firm's financial condition. Whatever the financial condition of the firm, they are only concerned with its impact on their benefits schemes…."* ***(owner 1)***

From the employee perspective, a manager working in the educational sector stated:

"…. Of course, human resource control is most important to me because it is directly related to my performance appraisal, whilst authority decentralisation and financial issues are my boss's business…" ***(employee 3)***

However, they realise that firm owner discretion makes it easier to grant managerial positions to their family members.

"….My boss is always happy to give me more work, trust and authority, but not a higher managerial position...In fact, there are only a few managerial positions, and of course, those positions are likely set aside for family members. NOT for me, unfortunately…" ***(employee 2)***

First, the dominant roles of human resource control over authority decentralisation and financial control could be explained by examining the organisational level antecedents of employee engagement (Wollard and Shuck, 2011). Most of the employee engagement organisational antecedents relate to human resource development activities. For example: adequate rewards, compensation (Maslach and Leiter, 2008; Parkes and Langford, 2008; Moussa, 2013; Crawford et al., 2014), performance feedback (Bakker et al., 2007; Bakker and Demerouti, 2007; Crawford et al., 2010), opportunities for learning (Wollard and Shuck, 2011), and talent management (Hughes and Rog, 2008). These antecedents relate to the most important employee engagement determinant, i.e., psychological meaningfulness. As the human resource control items in this study address formal recruitment, training, rewards and performance assessment systems, the findings confirm these antecedents' impact on employee engagement.

Second, the disappearance of authority decentralisation and financial control effects on employee engagement might be caused by different issues, according to the types of firm-specific characteristics. For familial (low EO-family) firms, this finding indicates that the natural power and discretion of firm owners and family members might cancel out the positive impact of formal authority and the financial control system on employee engagement. Drawing insight from employee 2 statement above, employees also relate authority decentralisation to career enhancement. Employees expect higher managerial positions for those having more formal authority. Thus, as family firm employees perceive

that authority decentralisation does not relate to career enhancement, they are less likely to return authority decentralisation with engagement.

Third, when employees have adapted well to uncertainty in the entrepreneurial (high EO-nonfamily) firms, procedural activities related to formal authority and financial controls might disturb them. For these reasons, professionalisation factors that impact on employee engagement only fully appear in low EO-nonfamily firms. Finally, although financial control might disturb employees of entrepreneurial firms, it might be needed to counterbalance owner intervention in a high EO family firm. When the short-term orientation of mechanistic financial control does not fit with the long-term orientation of entrepreneurial behaviours, financial control should be beneficial to prevent additional uncertainty coming from arbitrary decisions made by the owner.

5.3.2 The Relationship of EO Factors and Employee Engagement

Innovativeness is the only EO factors having a significant positive relationship with employee engagement, while risk-taking has only a marginally significant positive relationship, and proactiveness is not significantly related to employee engagement. Therefore, hypothesis H4 is accepted, H5 is rejected, and H6 is marginally accepted.

H4: The employees' perception about the firm innovativeness level has a positive relationship with employee engagement.

H5: The employees' perception about the firm proactiveness level has a positive relationship with employee engagement.

H6: The employees' perception about the firm's risk-taking level has a positive relationship with employee engagement.

Overall, the analysis of the relationship between EO factors and employee engagement is illustrated in Figure 5.12 EO Factors – EE Relationship below.

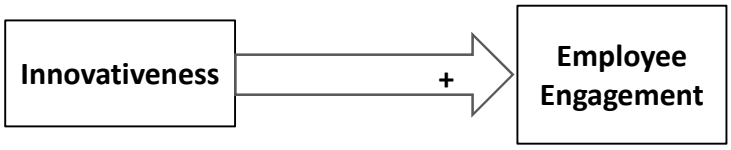


Figure 5.12 EO Factors – EE Relationship

Innovativeness was previously presumed to play a dual role both as a job demand or resource depending on how it was managed (Huhtala and Parzefall, 2007). As a job resource, innovativeness brings excitement, confidence, feelings of control, stimulates work, assists problem-solving and creates opportunities for recognition (Thamhain, 2003; Huhtala and Parzefall, 2007). When the firm involves employees in the introduction of new products, services or methods, opportunities for employees to reveal their potential are opened up. The benefits of innovativeness go beyond financial values. Indeed, this has been proposed as a mechanism to improve job satisfaction, interpersonal relationships, personal growth and general well-being (Janssen et al., 2004). For instance, an empirical study by Bakker et al. (2007) demonstrated how important innovativeness is in keeping teachers' work challenging, providing opportunities for growth whilst countering work demands coming from pupil misbehaviour. In this way, innovativeness corresponds to engagement dimensions, i.e., vigour, dedication and absorption (Bakker et al., 2007).

From the Social Exchange Theory perspective, when innovativeness brings positive feelings and buffers negative feelings coming from job demands, it produces socioemotional resources corresponding to meaningfulness (Kahn, 1990). In return, employees repay with greater engagement. This result, therefore, indicates that the accumulative benefits of innovativeness overcome any potential negative effects, such as uncertainty, conflict, unnecessary disruption, unexpected changes and role ambiguity (Huhtala and Parzefall, 2007; Monsen and Boss, 2009). Entrepreneurial firms are likely to provide more space to exercise new ideas. Hence, employees are encouraged to dedicate more effort and go above and beyond what is expected from them (Cropanzano and Mitchell, 2005; Clercq and Rius, 2007), especially if employees' individual risk aversions might be absorbed by the firm's risk-taking (Monsen and Boss, 2009).

When making any decision, employees would rely on their salient beliefs, information perception as well as available information relating to financial and nonfinancial influences in an organisation (Antoncic, 2003). When employees take innovative decisions to perform their roles, they often perceive that these decisions might be financially or nonfinancially risky. These risk perceptions are salient beliefs that attenuate employees' attitudes towards risk-taking (Antoncic, 2003). Therefore these beliefs may withhold employees from taking innovative decisions. In other words, employees' perception of risk attached to their decisions could withdraw socioemotional resources coming from any innovative situations.

Proactiveness is commonly described as a firm's process of opportunity-seeking and future demand anticipation to pioneer something in its industry by seizing the initiative and acting opportunistically (Rauch et al. 2009; Lumpkin & Dess 1996). When innovativeness is oriented to internal business process, proactiveness is more oriented to external market (Wang, 2008). Consequently, proactiveness may be least directly related to employees' daily activities, although proactiveness conduct innovativeness activities to introduce new products, services or methods (Miller and Friesen, 1978) in shaping the industry. Therefore, firm proactiveness is not significantly related to employee engagement because employees are less likely to be aware of firm proactive strategies. Further, in the higher power distance environment where the organisational structure is highly bureaucratic, employees across managerial levels encounter formal barriers to collaboratively execute proactive strategies. Besides, they tend to maintain their social status in the firm so as to not violate group norms (Hofstede, 1984). Thus, they are unwilling to take bold and risky decisions that can jeopardise their position in the organisation and harm a good relationship with their peers (Kreiser et al., 2010). Considering that employees living in a higher power distance culture may be less likely to expect the existence of entrepreneurial behaviour, it is plausible that proactiveness and risk-taking do not have a significant relationship with employee engagement in this study.

However, in a collectivist culture, people have "*concern for others*", therefore they are committed to be tied to each other (Hui and Triandis, 1986). This value motivates people to affiliate for pursuing collective goals (Pinillos and Reyes, 2011). For instance, employees in a collectivist culture may be willing to affiliate to acquire, recombine and integrate knowledge and skills in the innovation process (Du et al., 2017). Thus, it is reasonable to say that a collectivist orientation helps to establish a positive relationship between innovativeness and employee engagement, although its magnitude is not profound (see Finding 3).

Being an entrepreneurial firm, potentially, has two different effects on employee engagement. It might reduce employee engagement due to feelings of insecurity coming from uncertainty and the nature of risk in an entrepreneurial firm. Conversely, it might improve employee engagement due to meaningfulness and availability feelings coming from excitement, confidence, and stimulating work, and therefore the opportunity for recognition and personal growth. These empirical results demonstrate how the positive experiences of an entrepreneurial atmosphere can overcome the negative effects of perceived risk and

uncertainty on employee engagement, especially when the firm is willing to backup an employee's individual risk. Interestingly, the governance (e.g., family business status) and management style (e.g., firm professionalisation level) affects the relationship of EO factors on employee engagement, as discussed in the following sub-chapters.

The Moderating Effects of Family Business Status

Innovativeness is the only EO factor having a significant positive relationship with employee engagement. Whilst family business status, statistically, does not moderate that relationship, the results show that the relationship of innovativeness with employee engagement tends to be weaker for the family firm than for the nonfamily firm. Therefore, none of the following hypotheses H4a, H5a and H6a are in line with the sample in this study.

H4a: The positive relationship between the employees' perception about firm innovativeness level and employee engagement will be stronger in the family firms.
H5a: The positive relationship between the employees' perception of firm proactiveness level and employee engagement will be weaker in the family firms.
H6a: The positive relationship between the employees' perception of the firm risk-taking level and employee engagement will be weaker in the family firms.

Previous studies show the positive effects of family management on innovativeness (Gudmundson et al., 2003) and the potential effect of long-term orientation as a dimension of family firm culture to strengthen the positive effect of innovativeness on firm growth (Zahra et al., 2004; Casillas and Moreno, 2010). However, if innovativeness is expected to affect engagement, then employees should be involved in the innovation process (Zhou et al., 2013). Similarly, employee involvement in the innovation process of the family firm should be encouraged to elicit employee engagement because employees need to understand the meaning and impact of their job (Greenfield, 2004). This could occur when employees are involved in the design of their role, rather than simply doing their job. Involving employees in their job design prevents job conflict and prevents exhaustion or burnout (Maslach and Leiter, 2008). Instead, it drives self-efficacy (Latham et al., 1994) and effective commitment (Brenda Scott-ladd et al., 2006; Cho et al., 2006). In this way, employees psychology towards meaningfulness in the workplace would be increased

(Christian Kenan-Flagler and Slaughter, 2011) to promote full engagement (Bakker and Demerouti, 2007).

Unfortunately, highly committed owners of family firms are less likely to involve their employees in the decision-making process, thus discouraging employee creativity. Family firm owners have a high commitment to the firm because they are emotionally tied to its existing assets and organisational structures (König et al., 2013). It may be true that the owner-manager dual role and centralised decision-making characteristics of family firms ease the use of the firm's resources to promote innovative activities (Dyer and Handler, 1994; Zahra, 2005), but these features could reduce employee involvement in firm governance (Donckels and Frohlich, 1991).

Innovativeness emerges more readily in the family firm because any resources needed to promote innovation are more accessible due to owner-manager interest. However, to protect their domination, family firm owners are less likely to encourage the involvement of their employees in the decision-making process. Thus, when positive experience comes from firm innovativeness and is perceived as a socioemotional resource that is expected to be repaid by further engagement, the emotional resources diminish due to lack of involvement in the innovation process. In this way, the positive relationship of a firm's innovativeness linking to employee engagement in the family firm is lower than for a nonfamily firm. Overall, the analysis of the moderating effects of family business status on the relationship of EO factors and employee engagement is illustrated in Figure 5.13 below.

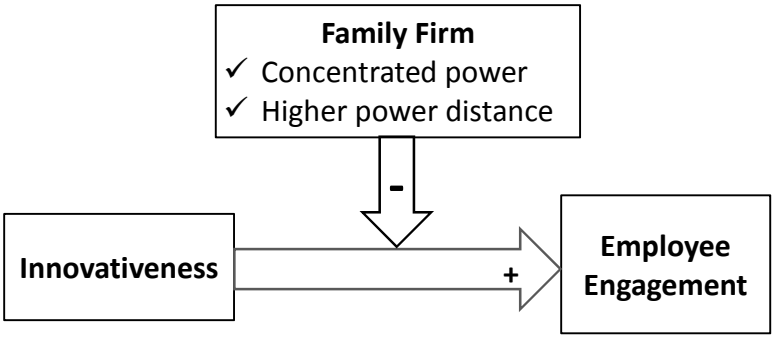


Figure 5.13 EO – EE Relationship, Moderated by Family Business Status

The weaker positive relationship of innovativeness with employee engagement for family firms confirms the higher power distance for family firms than for nonfamily firms. As employees are aware of owner discretion, they more readily accept the inequality of power distribution. This result confirms Rinne et al.'s (2012) conclusion, stating that higher power distance is not favourable for innovativeness.

The Moderating Effects of Firm Professionalisation Level

Whilst a firm's professionalisation level, statistically, does not moderate the relationship between EO factors and employee engagement, the results demonstrate that the positive relationship between EO factors and employee engagement only happens in high professionalised firms. Specifically, only innovativeness and risk-taking enjoy a significant relationship. However, the magnitude of the innovativeness regression coefficient for high professionalisation firms is weaker than for low professionalisation firms. Therefore, the samples in this study are in line only with hypothesis H6b, i.e.,

H4b: The positive relationship between the employee perception about firm's innovativeness level and employee engagement will be stronger in the high professionalised firms.
H5b: The positive relationship between the employee perception about firm's proactiveness level and employee engagement will be stronger in the high professionalised firms.
H6b: The positive relationship between the employee perception about the firm's risk-taking level and employee engagement will be stronger in the high professionalised firms.

When employees are involved in the decision-making process, they may feel exposed to the risks accompanying those decisions. Thus, the firm's willingness to assume responsibility for the risks (risk-taking) could help the employees to be released from those burdens, leading to psychological safety. Therefore, firm risk-taking is positively related to employee engagement. Furthermore, how those risks are fairly distributed between the employees and the organisation is crucial to maintaining employee perception of fairness and their feelings of security. Thus, control systems attached to professionalisation might help to distribute risks and making them more predictable. Thus retaining employee safety experiences.

Employee entrepreneurial activities need to be formally administered. Thus, employees must be convinced that their cognitive, emotional and physical investment when performing their roles will be recognised. The manager of an educational organisation stated:

> *"…without transparent assessment, how can my creativity and sacrifice for the organisation be visible, let alone be appreciated…"* ***(employee 3)***

Overall, the analysis of the moderating effects of firm professionalisation on the relationship of EO factors and employee engagement is illustrated in Figure 5.14 below.

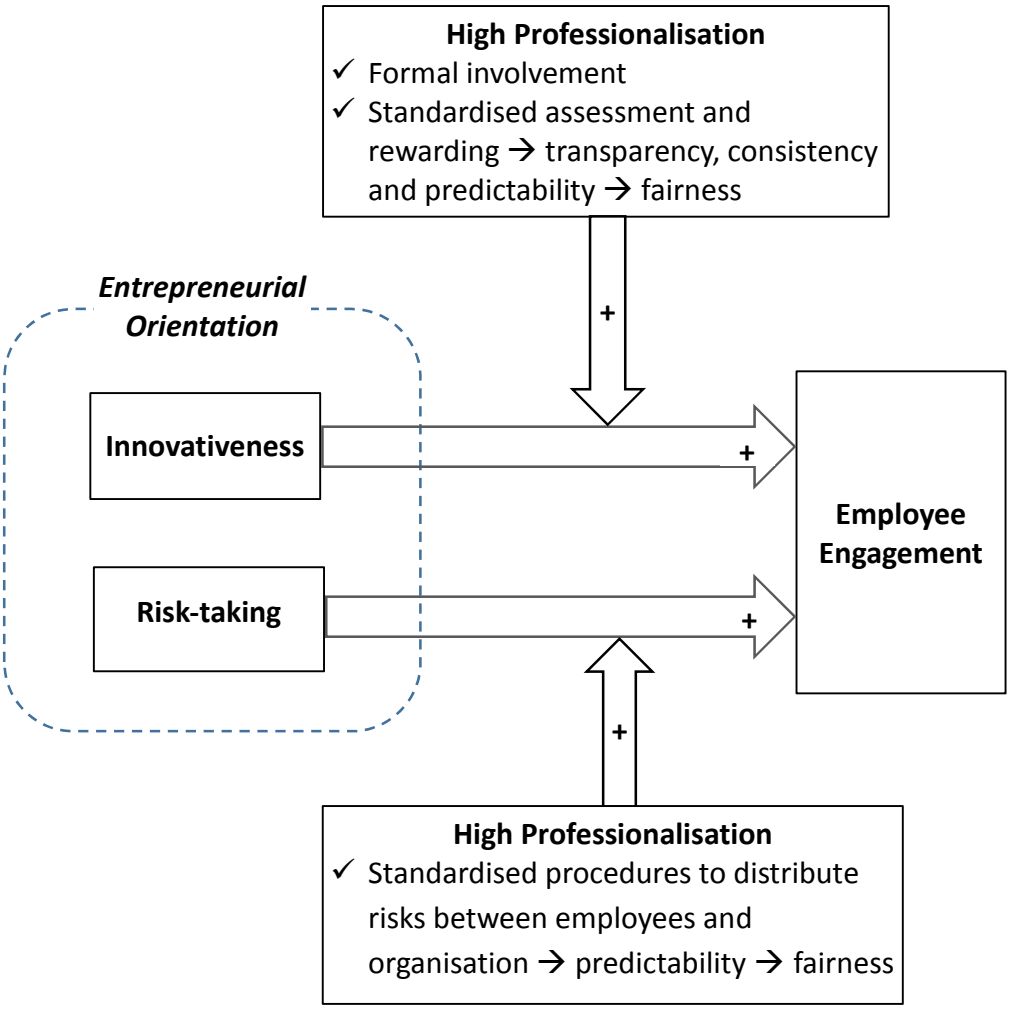


Figure 5.14 EO – EE Relationship, Moderated by Professionalisation

Further, an employee's rank is positively related to employee engagement, but only for low professionalised firms. In low professionalised organisations, individual discretion sometimes overcomes formal rules. When higher ranked employees have more power, they have more freedom to take those decisions necessary to execute their ideas and are less restricted by the formal rules of the organisation. Therefore, they would have more psychological meaningfulness and safety, leading to better engagement.

The Joint Moderating Effects of Family Business Status and Firm Professionalisation Level

Comparing the relationship of EO factors with employee engagement at four data groups formed by the combination of family business status and professionalisation level, none of the hypotheses H4c, H5c and H6c are supported. However, important insights emerge from the following patterns, i.e.,

1. EO factors are positively related to employee engagement only for the family firm data group.
2. The positive relationship of each EO factor with employee engagement for the family firm data group follows these patterns, i.e.,
    - The relationship of innovativeness and risk-taking with employee engagement are only significant for high professionalised family firms
    - The positive relationship of proactiveness with employee engagement is only marginally significant for low professionalised family firms.
3. As a note, when innovativeness is significantly related to employee engagement for nonfamily firms (Figure 5.6) but neither for low nor high EO-nonfamily firms (Figure 5.8), these results indicate that innovativeness matters only if the nonfamily firms are moderately professionalised.

Centralised decision-making by the family firm owner-manager would ease the usage of the firm's resources due to owner willingness (Dyer and Handler, 1994), such as for innovative projects (Zahra, 2005). Moreover, long-term orientation as a family firm's unique resource (Zahra et al., 2004) builds even higher innovation capacity (Cassia et al., 2012). With respect to employee engagement, long-term orientation reveals more opportunities for the employees to perform their roles. Thus, when innovative activities within the family firms

provide challenging work leading to meaningfulness experiences, long-term orientation provides a less pressured atmosphere leading to a secure environment. Also, authority decentralisation as a professionalisation factor might strengthen the meaningfulness experience by incurring feelings of control and confidence. In other words, the combination of the owner's power and employees' authority would increase employee engagement. Again, the concentrated power of the family firm owner eases the resource availability for innovation, and the decentralisation of formal authority increases employee confidence in performing innovative activities. Particularly if the employees' effort towards innovative activities are transparently assessed and rewarded, then it would favour the employees' fairness perception. Obviously, the firm should allocate sufficient budget for the purposes of the reward scheme. Employees might perceive the fair treatment of their cognitive, emotional and physical investment as socioemotional resources given by the firm. In return, employees would repay this investment with more engagement (Cropanzano and Mitchell, 2005).

The tendency to take decisions based on the owner's intuition instead of systematic procedures makes a risk-taking decision in family firms less understood and produces less predictable outcomes (Naldi et al., 2007). As unpredictable situations discourage employee psychological safety (Kahn, 1990), the positive relationship of risk-taking with employee engagement would diminish in a less systemized organisation. In other words, to keep the positive relationship of risk-taking with employee engagement significant, family firms should be professionalised, as demonstrated by the results in Figure 5.8.

Low professionalised-family firms tend to focus their internal resources on the pursuit of proactiveness strategies. For instance, the process of finding new opportunities is likely to begin internally, therefore involving employees more intensively. It seems that, rather than being exploited, employees enjoy being involved in those activities. In other words, as long as family firm proactiveness can increase employee involvement, it might also improve the employees' feelings of meaningfulness, leading to employee engagement. Thus, to maintain employee engagement, family firms should communicate their proactiveness strategy as the firm's willingness to promote innovation and to absorb the attached risk.

5.4 Summary

This chapter presented the empirical findings and analysed them to confirm the hypotheses. Some respondent statements from the post-study interview were also presented to enrich the insights. The descriptive statistics and correlation matrix indicates the relationship of employee engagement to professionalisation and EO factors, as well as emphasising the importance of demographic control variables and the use of structural equation modelling. This study examines the relationship of professionalisation factors with employee engagement and the potential moderating effects of family business status and firm EO levels to answer the first research question. Moreover, this study examines the relationship of EO factors to employee engagement and the potential moderating effects of family business status and firm professionalisation levels to answer the second research question. The differences of regression coefficient magnitude and significant level between data groups were used to infer the potential moderating effects. Also, the potential influences of higher power distance and a collectivism culture were analysed to gain insight from a national cultural context.

The next chapter overviews what has been done in the previous chapters and summarises the key findings. Then, it offers the theoretical contributions and practical implications before considering the research limitation and suggesting the future research directions.

6. Conclusion

6.1 Thesis Overview

Employee engagement has had a clear impact on employee and organisational performance (Harter et al., 2002; Baumruk, 2004). Therefore, employee engagement research is both practically and theoretically important (Saks, 2006; Shuck, 2011). Considering that engaged employees tend to decline (Richman, 2006), researchers should explore organisational antecedents of employee engagement. For instance, professionalisation and EO have been well-identified as organisational variables positively affecting firms' financial performances (Lumpkin and Dess, 1996; Lumpkin and Dess, 2001; Rauch et al., 2009; Wales et al., 2013; Chang and Shim, 2014; Lien and Li, 2014; Dekker et al., 2015). Unfortunately, previous studies neglected these variables as potential employee engagement antecedents. The facts stated above create more opportunity to bridge the literature gap by examining the relationship between employee engagement and professionalisation or EO.

Further, previous studies proposed professionalisation as a way to overcome problems within growing family firm that stem from altruism and self-control behaviour (Dyer, 1989; Gnan and Songini, 2003; Fang et al., 2012; Stewart and Hitt, 2012). This could be the result of objectivity and rationality where the professionalisation feature could reduce unfair decisions caused by altruism behaviour. Unfortunately, there are few studies that compare employee engagement in family and nonfamily firms. Especially, the relationship of professionalisation and EO with employee engagement has not been examined. This gap opens an opportunity to bring the family firm context into the study of professionalisation, EO and employee engagement. Finally, considering that current studies on employee engagement mostly focus on the Anglo-countries culture context (e.g., Haar & White, 2013; Kahn, 1990; Saks, 2006), it is necessary to gain a more general insight by exploring cases from other national cultural contexts, such as the case of Indonesian employees.

Therefore, the main objective of this study was to investigate the relationship of employee engagement, professionalisation and EO with regards to the family business status

and the Southern Asian cultural context. Specifically, this study endeavours to answer two main research questions, i.e.,

1. What is the impact of professionalisation factors (authority decentralisation, financial and human resource control) on employee engagement and what are the moderating effects of the family business status and firm EO level on that relationship?
2. What is the impact of EO factors (innovativeness, proactiveness and risk-taking) on employee engagement and what are the moderating effects of the family business status and firm professionalisation level on that relationship?

This study investigated the emergence of employee engagement through professionalisation and EO in the family and nonfamily firms. The principle idea of employee engagement was discussed in **Chapter 2** and explained in what way it is beneficial for this study. Kahn's (1990) personal engagement concept introduced meaningfulness, safety and availability as the psychological conditions for positive employee engagement. This study, therefore, presumed professionalisation and EO as managerial preferences that potentially encourage psychological meaningfulness, safety and availability of the employees. Further, Saks's (2006) mutidimensional approach explained why employees respond to those psychological conditions with a varying extent of engagement. Saks's (2006) approach made the way professionalisation and EO factors encourage employee engagement to appear plausible. Finally, Harter et al.'s (2002) satisfaction-engagement approach brought engagement concept into managerial practice and directly linked employee engagement to business performance. Thus, Harter et al.'s (2002) approach offered a convincing argument concerning the position of employee engagement as a firm performance and a proxy of business outcomes. Chapter 2 also presented the concepts of professionalisation, EO and the family firm. It went on to highlight the lack of research concerning the relationship between employee engagement, professionalisation and EO. It also highlighted the lack of research on the roles of the family firm and the impact of the national cultural context on those relationships.

Based on these theoretical frameworks, Indonesian typical cultural characteristics, and previous findings, some hypotheses were built into **Chapter 3**. To answer the first main research question, this study hypothesises the positive relationship between professionalisation factors and employee engagement. This could result due to the

emergence of employee work meaningfulness and perceived justice within the workplace. Further, this study anticipated the subjectivity and informal power interference of family firm owner on the implementation of professionalisation due to family firm's nonfinancial goals and altruism tendency. Therefore, this study hypothesises that the positive relationship of professionalisation factors with employee engagement might be weaker within the family firm context. Further, this study also anticipates varying moderating effects of EO on each professionalisation factor. This study hypothesises that the positive relationship of authority decentralisation with employee engagement might be stronger for high EO firms, but the positive relationship between the control system (financial and human resource) with employee engagement may be weaker for high EO firms.

To answer the second main research question, this study hypothesises that EO factors have a positive relationship with employee engagement. Further, this study expected the benefit of formal systems to encourage the fairness perception of the employees surrounding how their entrepreneurial activities are taken into account. Therefore, this study hypothesises that the positive relationship between EO factors with employee engagement might be stronger for high professionalised firms. Conversely, this study anticipated a different moderating effect of the family business status on each EO factor. This study hypothesises that the positive relationship of innovativeness with employee engagement might be stronger for family firms, but the positive relationship of proactiveness and risk-taking with employee engagement may be weaker.

To empirically test these hypotheses, **Chapter 4** described the methodology employed in the study in terms of method choice, variable operationalisation and its accuracy testing procedures, targeted population, data collection processes and statistical methods for data analysis. Specifically, this chapter also presented the cultural characteristics of the targeted population. This study used Buckingham & Coffman's (1999) items to operationalize employee engagement and used Dekker et al.'s (2012) items to measure authority decentralisation and control systems (i.e., financial and human resource). This study used three established EO dimensions, i.e. innovation, proactiveness and risk-taking (Miller, 1983) and adopted Covin & Slevin's (1989), Lumpkin & Dess's (1996, 2001) items to operationalize EO factors. Finally, considering the feasibility of the respondents, this study relies on the components-of-involvement approach (Litz, 1995; Chua et al., 1999) to operationalize the family firm status.

Chapter 5 presented a correlation matrix and coefficient regression weight to confirm the hypotheses. Subsequently, an empirical analysis was proposed to interpret the findings. This study showed that not all hypotheses could be statistically proven. The structural regression analysis produced a statistically significant relationship between employee engagement with either professionalisation factors or EO factors. However, a formal test failed to exhibit any significant moderating effects on those relationships. Thus, this study used the difference between the regression coefficient magnitude and the significant level between data groups to infer any potential moderating effects (see Cole & Bruch 2006; Monsen & Boss 2009).

The empirical analysis frequently used the Social Exchange Theory (Cropanzano and Mitchell, 2005; Saks, 2006; Clercq and Rius, 2007) to explain why employees exchange their engagement with socioemotional resources stemming from professionalisation and EO factors. In addition, Kahn's (1990) conception concerning employee engagement psychological conditions was used to justify how employee experiences of meaningfulness, safety and availability could be converted into employee engagement. In between, previous findings (e.g., Christian Kenan-Flagler & Slaughter, 2011; Demerouti, Bakker, Nachreiner et al., 2001; Huhtala & Parzefall, 2007; Latham, Winters & Locke, 1994; Monsen & Boss, 2009; Saks, 2006) were employed to infer how professionalisation and EO factors can produce meaningfulness, safety and availability experiences. The moderating effects of the family business status were basically explained by considering the impact the dual role of an owner-manager(Donckels and Frohlich, 1991). The analysis in this chapter provided interesting insight coming from the moderating effect of the family business status with either firm EO or professionalisation levels. Finally, the possible impact of the cultural context was analysed by taking Indonesia as a country having a high power distance and collectivist culture Hofstede et al.'s (2010).

Overall, key findings drawn from this study were presented in section 6.2. As valuable lessons could be gathered from those key findings, Section 6.3 discusses the significance of this study, in terms of its theoretical contributions and practical implications. Finally, Section 6.4 considers the limitations of this study and gives recommendations for future research.

6.2 Key Findings

The findings of this study are arranged in this section in such a way as to answer each research question. According to the relationship between firm professionalisation with employee engagement, this study offers some important findings in response the first research questions, i.e.,

1. ***What is the impact of professionalisation factors on employee engagement?***

   The significant positive relationship between authority decentralisation, financial control, and human resource control with employee engagement indicates the benefit of the implementation of professionalisation to encourage employee engagement. This may result because from authority decentralisation work meaning can emerge (Latham et al., 1994) and control systems may encourage perceived justice (Saks, 2006), leading to positive psychological conditions of employee engagement. Amongst those professionalisation factors, the impact on employee engagement of the human resource control system is found to be dominant. Conversely, authority decentralisation has the least effect on employee engagement. It may happen because Indonesian employees, who are surrounded by high power distance culture, have been familiar with power inequality, therefore, they do not expect for power authority. Instead, they need clear guidance to do their jobs and formal rules to secure fairness. As the answer to research question 1, all professionalisation factors (particularly the human resource control system) have the potential to improve employee engagement.

1a. What are the moderating effects of the family business status on the relationship between professionalisation and employee engagement?

Professionalisation might help to improve employee engagement for family and nonfamily firms, but has less impact for family firms. This finding is indicated by the weaker relationship resulting from authority decentralisation, financial control and human resource control with employee engagement for the family firm data group. This might be because the discretion of the owner cancels out any formal authority of the employees (Donckels and Frohlich, 1991), whilst natural nepotism and subjective decisions could overstep any formal control system. Further, to lead to employee engagement in the high collectivist culture, any system should help

Indonesian employees to maintain in-group interest and good relationship. This finding indicates that Indonesian family firm employees may perceive the implementation of a formal control system as being less considerate of in-group interest. To answer research question 1a, the family business status negatively moderates the relationship of professionalisation with employee engagement.

1b. What are the moderating effects of the firm's EO level on the relationship between professionalisation and employee engagement?

In terms of employee engagement encouragement, authority decentralisation might have more impact for high EO firms, but both control systems (financial and human resource) might have less impact for high EO firms. This finding is indicated by a stronger relationship of authority decentralisation with employee engagement and the weaker relationship between the control system (financial and human resource) and employee engagement for high EO firm data group. This may be due to the fact that high EO firms can provide more opportunities for the employee to be involved in innovative projects (Hornsby et al., 1993; Wolcott and Lippitz, 2007) and at the same time be willing to absorb any potential risk from employee decisions (Hornsby et al., 1993). From these circumstances, meaningfulness and safety experiences for employees would emerge. However, the difficulties in implementing any formal assessment and a rewards system for entrepreneurial activities (Jones and Butler, 1992) could lessen meaningfulness feelings of the high EO firm's employees. To answer research question 1b, the firm's EO positively moderates the relationship of authority decentralisation with employee engagement, whereas the firm's EO negatively moderates the relationship of both control systems (financial and human resource) with employee engagement.

1c. What are the joint moderating effects of family business status and firm EO level on the relationship between professionalisation and employee engagement?

There are three specific answers for research question 1c. First, firms having a singular characteristic, either being a familial (low EO-family) or an entrepreneurial (high EO-nonfamily) firm, seem to require a narrower set of professionalisation

factors to increase employee engagement. They only need to effectively manage human resource systems to maintain employee engagement. This finding is indicated by the results shown in Figure 5.4, showing that only human resource control has a significant relationship with employee engagement for the familial and entrepreneurial firm data group.

Second, firms without any specific familial or entrepreneurial characteristic (low EO-nonfamily firms) appear to consider all professionalisation factors to promote employee engagement. This finding is indicated by the results in Figure 5.4, showing that all professionalisation factors are significantly related to employee engagement for the low EO-nonfamily firm data group.

Third, when family firms become more entrepreneurial, they should consider a financial control system to encourage employee engagement. This finding is indicated by the results in Figure 5.4, showing that both human resource and financial controls have a significant relationship with employee engagement for the high EO-family firm data group.

According to the relationship between the firm's EO and employee engagement, this study offers some important findings to answer the second research questions, i.e.,

2. What is the impact of EO factors on employee engagement?

Employee engagement has a significant positive relationship with innovativeness, a marginal-significant positive relationship with risk-taking, and an insignificant relationship with proactiveness. This may be because innovativeness is the only EO factor directly relevant to employees' feeling of meaningfulness. Innovativeness might bring excitement, confidence, feelings of control, stimulating work, problem-solving and opportunities for recognition (Thamhain, 2003; Huhtala and Parzefall, 2007). Therefore positive feelings emerge that correspond to an experience of meaningfulness for the employees. Especially if the firm is willing to absorb the potential risks emanating from innovations, then safety feeling of the employees also emerges from this situation. Also, living in a high collectivist culture, Indonesian employees need innovation projects as a means for them to collaborate and being tied to each other. As the answer to research question 2, innovativeness and risk-taking potentially improve employee engagement, but innovativeness is the most promising.

2a. What are the moderating effects of the family business status on the relationship between EO and employee engagement?

Innovativeness might help to improve employee engagement for family and nonfamily firms, but has less impact for family firms. This finding is indicated by the weaker relationship between innovativeness and employee engagement for the family firm data group. This might be because committed family firm owners could be less likely to involve employees in the decision-making process, thus discouraging employee creativity (Donckels and Frohlich, 1991; König et al., 2013). In answer to research question 2a, the family business status negatively moderates the relationship of innovativeness with employee engagement.

2b. What are the moderating effects of firm professionalisation level on the relationship between EO and employee engagement?

Innovativeness and risk-taking are helpful ways to improve employee engagement but only for high professionalised firms. The results of this study show that the significant positive relationship between innovativeness and risk-taking with employee engagement only happens for the high professionalised firm data group. This may be because employees need formal authority to perform entrepreneurial activities. Also, they need transparent and consistent procedures to assess entrepreneurial activities and manage the risks. The answer to research question 2b, states that firm professionalisation positively moderates the relationship of innovativeness and risk-taking with employee engagement.

2c. What are the joint moderating effects of the family business status and firm professionalisation levels on the relationship between EO and employee engagement?

This study has two specific answers for research question 2c. First, for family firms, innovativeness and risk-taking might encourage employee engagement only if the family firms have been high professionalised. This finding is indicated by the results in Figure 5.8, showing that the relationship of innovativeness and risk-taking with

employee engagement is only significant for high professionalised-family firms. This may be due to the power of the family firm owner to facilitate the availability of resources for innovative projects whilst formal procedures help to guarantee fairness for the assessment of the employees' entrepreneurial activities.

Second, none of EO factors has a significant positive relationship with employee engagement either for low or high professionalised-nonfamily firms (see Figure 5.8). However, according to the results in Figure 5.7, both innovativeness and risk-taking have a significant relationship with employee engagement. Thus, both innovativeness and risk-taking may encourage employee engagement but only for mid-professionalised-nonfamily firms.

This study crystallises its findings as follows. **First, firm professionalisation and EO levels are not dichotomous, but can mutually promote employee engagement**, either one can produce complementary socioemotional resources. Professionalisation factors (especially human resource control) provide predictability, transparency and perceived justice to compensate for any uncertainty that may be attached to the entrepreneurial firm. In this way, professionalisation factors might guide employees to deal effectively with uncertainty and disruption, as well as to overcome their fears when taking innovative and risky decisions. From these positive circumstances, psychological safety and availability could emerge. Alternatively, EO factors (especially innovativeness) provide challenging and stimulating work to compensate for inflexibility that may be attached to the professionalised firm. EO factors help employees to unleash their aspirations, ideas and creativity. Therefore, firm EO might help employees not to perceive regulation and formality as a burden, but rather as a means to keep their creativity directed towards a higher purpose. Indeed, entrepreneurial efforts need a focus to yield benefits (Wang, 2008). From circumstances such as these, psychological meaningfulness emerges.

Second, the family business status seems to reduce the positive impact of professionalisation and EO factors on employee engagement. This may be due to the typical behaviours in the family firm (e.g., self-control, dual-roles, and altruism) that could intervene in the firm's procedures and formalities. These conditions reduce employee perceptions of predictability, transparency and justice. Especially, family firm owners having dual roles may

reduce employee involvement in the decision-making process, thereby discouraging employee creativity. Finally, these key findings bring theoretical and practical contributions together as described in the following sub-chapters.

6.3 Contributions

The contributions are sourced from two fresh perspectives. First, this study put nonfinancial (employee engagement) as a performance measurement. Consequently, its focus is on the agent's (employee's) point of view rather than the principal's (e.g., owners, family member, shareholders). This perspective leads to theoretical contributions related to SET, agency and the stewardship theory. Second, this study simultaneously examines the impact of professionalisation and EO factors on employee engagement in the context of family and nonfamily firms. This approach leads to practical contributions on how family and entrepreneurial-oriented firms can utilise certain configurations of professionalisation factors to enhance employee engagement within their organisations.

6.3.1 Theoretical Contributions

Building upon the issues and literature gaps as presented in Chapter 1 and Chapter 2, this thesis makes a number of contributions to the literature. First, previous studies have only focused on employee personality and job characteristics as employee engagement antecedents (Wollard and Shuck, 2011; Rana et al., 2014; Saks and Gruman, 2014). They have given less attention to organisational antecedents, especially those which were related to managerial preference. The available literature mostly elaborated leadership styles and working life as the organisational antecedents of employee engagement (Truss et al., 2006; Wollard and Shuck, 2011; Saks and Gruman, 2014). To add to this literature, this thesis introduces firm professionalisation and EO factors as the organisational antecedents of employee engagement that are related to management preference.

Second, in expanding the analysis on the potential impacts of all professionalisation factors (i.e., authority decentralisation, financial and human resource control), this thesis also complements current knowledge which has mostly only used human resource management as the engagement antecedent (Schaufeli and Salanova, 2010; Shuck and Wollard, 2010;

Wollard and Shuck, 2011; Alfes et al., 2013; Shuck and Rocco, 2014). Using Social Exchange Theory (SET), this thesis explains why employees respond those professionalisation factors with engagement. Third, importantly this thesis clearly highlights the effect of culture to explain why Indonesian employees respond each professionalisation factors with varying extents of engagement.

Positing the norms of reciprocity within a social relationship, SET argued that employees who obtain socioemotional advantage from their employing organisation would feel obliged to respond to it with equitable kind (Eisenberger et al., 1986; Cropanzano and Mitchell, 2005; Alfes et al., 2013). According to the findings of this thesis, professionalisation mechanisms incur several socioemotional resources, especially predictability, transparency and perceived justice, that are exchangeable with employee engagement. Interestingly, although professionalisation is naturally systemic and designed on purpose for economic activity efficiency (Hall and Nordqvist, 2008), but can also evidently produce socioemotional resources. If these socioemotional resources can invite employees' responses, such as by reciprocating with their engagement, then resource exchange happens. In short, from the SET perspective (Cropanzano and Mitchell, 2005), one could say that professionalisation can drive a process of resources exchange to generate beneficial relationships for employee and employers.

Further, this thesis supports Hofstede's (1983) argument about the influence of national culture characteristics on organisational behaviour and management practices. Specifically, this thesis enhances current knowledge about the impacts of cultural dimensions to the relationship between employee engagement antecedents and consequences (e.g., Auh et al., 2016; Begley & Lee, 2002; Felfe et al., 2008). Previously, most employee engagement studies that used Asian cases only examined the relationship of engagement and its antecedents. They did not discuss the national cultural dimension impacts on that relationship (e.g., Agarwal, 2014; Bhatnagar, 2007; Biswas, Varma & Ramaswami, 2013; Chaudhary et al., 2011; Nasomboon, 2014; Suharti & Suliyanto, 2012). This thesis avers that the differences between Indonesian and Anglo-culture employees are due to differences in the power distance and collectivism index.

Anglo-culture employees who are surrounded by low power distance expect for more authority equality, therefore perceive authority decentralisation as a mechanism resulting

socioemotional resource to be reciprocated by their engagement (e.g., Crawford et al., 2010; Demerouti et al., 2001) or commitment (e.g., Brenda Scott-ladd, Travaglione & Marshall, 2006; Julia Cho, Laschinger & Wong, 2006). Conversely, Indonesian employees who have been familiar with power inequality can easily accept centralisation as a common practice in the workplace. Even having more authority can be a burden for individuals who are living in a collectivist culture if it potentially hampers their good relationship with their peers (Hofstede, 1983; Hofstede et al., 2010). Therefore, Indonesian employees may less likely perceive authority decentralisation as a mechanism resulting socioemotional resource to be reciprocated by their engagement, especially if it is compared to human resource control.

In an environment where power inequality is well accepted, procedural justice cannot be guaranteed(Begley and Lee, 2002). Therefore employees need a formal system to secure fairness and meaningfulness feelings. For these reasons, formal and standardised procedures, such as human resource control systems, have a greater chance than authority decentralisation to be perceived as socioemotional resources adequate for employee engagement.

Interestingly, compared to results from Anglo cases (e.g., Crawford et al., 2010; Parkes & Langford, 2008), this thesis finds a higher positive relationship of human resource practices with employee engagement. This finding is not in line with previous studies that demonstrated a more profound benefit of progressive human resource practices for employees having individualistic orientations (Ramamoorthy et al., 2005; Li et al., 2015; Chen et al., 2016). It may be true that some collectivism dimensions (e.g., group self-concept, the supremacy of group goals and interest) do not fit well with progressive human resource practices (e.g., test-based hiring, merit-based promotion, formal performance appraisal and rewards for an individual) (Ramamoorthy and Carroll, 1998). However, when the employees are also surrounded by high power distance in addition to high collectivist culture, they seem to need a formal system and standardisation to maintain feelings of safety and meaningfulness.

With regard to the national cultural aspects, this thesis provides useful insights for the implementation of professionalisation. For instance, for Anglo employees who live in a low power distance and individualist culture, authority decentralisation would be more perceived as an important socioemotional resource than control system. Conversely, for Southern

Asian individuals, such as Indonesian employees, who live in a high power distance and collectivist culture, the control system would be more perceived as an important socioemotional resource than authority decentralisation. However, future research should investigate the relationship of professionalisation factors with employee engagement in various other national culture settings. For instance, low power distance – collectivist, and high power distance – individualist culture settings.

This study's findings regarding the EO factors – employee engagement relationship, reinstate current knowledge about the role of innovativeness as a job resource (Demerouti et al., 2001; Bakker and Demerouti, 2007; Jari J. Hakanen et al., 2008; Bhatnagar, 2012). Moreover, from the cultural dimension perspective, this thesis contributes knowledge about the way each EO factors affects employee engagement. In a collectivist culture, individuals tend to associate and pursue collective goals (Pinillos and Reyes, 2011) because they are committed to being tied to each other (Hui and Triandis, 1986). This way, any innovation process within the firm provides a reason for collectivist individuals to affiliate because they need to acquire, recombine and integrate knowledge and skills (Du et al., 2017). Collectivist individuals may perceive togetherness feelings, resulting from that innovation process, as a kind of a socioemotional resource.

The cultural perspective approach is also used in this study to explain why proactiveness and risk-taking do not have a significant relationship with employee engagement. Living in a high power distance culture, Indonesian employees need to maintain their social status in the firm and therefore tend to avoid situations that can jeopardise their position in the organisation (Hofstede, 1984; Kreiser et al., 2010). Proactiveness may need employees to take risky decisions which could be unfavourable for them even though entrepreneurial firms can transform individual-level risk aversion into firm-level risk-taking (Monsen and Boss, 2009)."

According to the discussion above, this study extends the SET literature (Settoon et al., 1996; Saks, 2006; Clercq and Rius, 2007) in these ways. First, this study proposes professionalisation as a kind of mechanism that can catalyse the exchange process of intangible resources, such as the exchange of perceived justice with employee engagement. Generally, the intangible resources are exchanged in a less definite manner (Cropanzano and Mitchell, 2005). However, a kind of mechanisms such as authority decentralisation and

control system might drive the exchange process of socioemotional resources in a more predictable manner. For instance, when professionalisation factors produce conditions favourable for meaningfulness, safety and availability experiences, then employees are likely to exchange those experiences with their engagement.

Second, this study helps to explain the relevance of socioemotional and economic resources. If professionalisation is intended for economic purposes, this study complements previous examples of the *beneficial mismatch exchange process*, as it was introduced by Cropanzano & Mitchell (2005). Specifically, this study brings social exchange relationship into an economic transaction context. Professionalisation mechanisms (e.g., reward, financial target) produce socioemotional resources through encouraging employee perception of certainty and justice. These circumstances bring psychological conditions of employee engagement, i.e., feelings of meaningfulness, safety and availability. When employees are more engaged, their productivity and retention increases, and this in turn, benefits business outcomes and brings economic value (Harter et al., 2002).

Third, this study emphasises the relationship of culture with employee outcomes and attitudes (Saari and Judge, 2004). Thus, the use of SET to explain the relationship between employees and their counterparts should consider the cultural context. The same organisational mechanism may produce different employees' experience based on their culture. For instance, a mechanism that encourages employees to exercise more authority may produce a more meaningful experience for those who live in Anglo cultures (Brenda Scott-ladd et al., 2006). Thus, they would perceive this experience as a socioemotional resource that they feel obliged to respond to, such as with their engagement (Demerouti et al., 2001; Crawford et al., 2010). Conversely, authority decentralisation may produce a less meaningful experience for employees living in Southern Asian countries leading to less socioemotional resources and employee engagement. Thus, the influences of certain organisational mechanisms in producing employee engagement may vary depending on the cultural context.

Further, considering typical characteristics of family firms (Lubatkin et al., 2005), this study adds to previous discussions about the advantages and disadvantages of family firm professionalisation according to the agency and stewardship perspectives with regard to the cultural context. Agency theory highlights the benefits of formalisation and control systems

in aligning owner-manager interests and actions (Songini, 2006). Emerging from this alignment would be interest and actions due to certainty and confidence for employees to perform their roles, thus leading to psychological safety and availability. Especially, if a system to monitor and take employee efforts into account had been well established, employees would find solid guidance to estimate the returns of their self-investment in performing their roles. Assuming employees are self-serving individuals who tend to maximise their self-investment (Jensen and Meckling, 1976), employees need a way to manage their efforts toward maximisation of the benefits. Therefore, a predictable condition brought about by transparent control systems should be favourable for an employee to guarantee fair and appropriate appreciation for their efforts. Also, control systems can suppress typical negative characteristics of the family firm, such as free-riding, moral hazards and unfair compensation. Control systems could create circumstances that are favourable to employees' psychological meaningfulness. Due to these reasons, a human resource control system has a consistently positive relationship with employee engagement for any level of familial or entrepreneurial firms, perhaps because a human resource control system is the most relevant way to satisfy individual self-serving behaviour. From the agency theory perspective, this study supports and sharpens Songini's (2006) proposition concerning the benefits of professionalisation for family firms.

However, this study does not fully support Songini's (2006) proposition about the disadvantages of professionalisation for family firms from a stewardship theory perspective. According to the stewardship theory, the functions of formal control can be substituted by a good relationship among individuals in the family firms, such a relationship is established due to the aligned values and objectives of the organisation and its people. Therefore, individuals collaboratively pursue the organisation's goals. In this context, the agents (managers) are good stewards who are intrinsically motivated by higher level needs, such as by self-actualization, loyalty, trust and generosity (Corbetta and Salvato, 2004a). Therefore, formal control mechanisms potentially discourage the stewardship behaviour of the employees. However, the findings of this study show that financial and human resource control systems have a positive relationship with employee engagement although those relationships are weaker for family firms. It further indicates the impacts of culture. Both in the education and family system, Indonesians have been taught how to use formality as a way to express their respect and acceptance to the higher power. As formality has been widely accepted in a high

power distance culture (Hofstede et al., 2010), formal control mechanism should be expected and not necessarily hamper stewardship behaviour.

In addition, this thesis provides additional knowledge about the interaction of organisational aspects and employee engagement. Previous studies mostly focused on the interaction of employee personality, job characteristics, and employee engagement (Rana et al., 2014). This thesis demonstrates how an organisational mechanism or orientation can potentially strengthen or weaken a socioemotional resource exchange. For instance, investigating the moderating effects of EO on the relationship of professionalisation with employee engagement, this study showed how an entrepreneurial environment could provide employees with more support. Employees reciprocate with more engagement for the additional authority they get from the organisation. Conversely, as the long-term objectives of entrepreneurial orientation might not match the short-term objectives of the control system (Jones and Butler, 1992; Zahra et al., 2004), employees working in an entrepreneurial firm would receive less perceived justice from control system implementation. Therefore, they would reciprocate with less engagement.

6.3.2 Practical Implications

The implications for practice arising from this study are clear. To maintain employee engagement effectively, the firm owners or managers should implement only appropriate factors of professionalisation or EO according to their firm's characteristics. Indeed, each professionalisation and EO factor has a different impact depending on each firm's category. Therefore, this study gives different recommendations on how to implement professionalisation and encourage EO for each firm group. The firm-groups below are arranged based on the combination of family business status and EO level (see Figure 5.4) and the combination of family business status and professionalisation level (see Figure 5.8), i.e.,

1. Low EO-family firms
2. High EO-family firms (entrepreneurial-family firms)
3. High EO-nonfamily firms (entrepreneurial firms)
4. Low EO-nonfamily firms
5. Low professionalised-family firms

6. High professionalised-family firms (professional-family firms)
7. High professionalised-nonfamily firms (professional firms)
8. Low professionalised-nonfamily firms

First, the findings show the importance of human resource controls on employee engagement for all firm groups. Therefore, this study recommends that both family and nonfamily firms (group 1, 2, 3, 4) have robust and fair human resource controls in place that encourage transparency, predictability and perceived justice in their operations. For instance, a human resource system should provide a standard procedure for training, assessment and a reward system based on task challenges and risk levels. Especially for low EO-family firms (group 1) and entrepreneurial firms (group 3), they need only to focus on human resource control in maintaining employee engagement.

Second, authority decentralisation is less likely to lead to employee engagement improvements in family firms (group 1 and 2). Any attempt to establish a formal empowerment system for employees in a family business might not prove fruitful if the informal owner's power is dominant. Therefore, this study does not suggest spending much effort on the authority decentralisation aspect for family firms. Indeed, investment in human resource control is the most beneficial way for family films to enhance employee engagement.

Third, when family firms become more entrepreneurial (group 2), they should consider introducing financial control aspects to drive employee engagement. Clear financial targets and a budget implementation system should take precedence over owner discretion if the intention is to increase employee engagement.

Fourth, all professionalisation factors may be beneficial for low EO-nonfamily firms (group 4). Therefore, this study encourages any effort to establish authority decentralisation and control systems (financial and human resource) for low EO-nonfamily firms.

Fifth, according to the EO factor impact, it seems only innovativeness and risk-taking can drive employee engagement. However, these factors may only influence employee engagement for professional-family firms (group 6). Therefore, this study recommends that family firms provide innovative projects when they become more professionalised. These innovative projects are needed to keep the employees stimulated and challenged, perhaps to compensate for the rigidity of control mechanisms. In addition to innovative projects,

professionalised family firms also should be willing to absorb certain risks accompanying those projects. In this way, employees would experience both meaningfulness as well as safety, leading to better engagement.

Sixth, innovativeness and risk-taking may be beneficial for nonfamily firms as well, but neither for low nor high-EO family firms. Perhaps, innovativeness and risk-taking improve employee engagement for mid-professionalised-nonfamily firms. Finally, all recommendations are summarised in Table 6.1 below.

Table 6.1 Recommendation Summary

No	Firm Group	Professionalisation			EO Factors		
		AD	FI	HR	IN	PR	RT
1.	Low EO-family firms			X			
2.	High EO-family firms (entrepreneurial-family firms)		X	X			
3.	High EO-nonfamily firms (entrepreneurial firms)			X			
4.	Low EO-nonfamily firms	X	X	X			
5.	Low professionalised-family firms						
6.	High professionalised-family firms (professional-family firms)				X		X
7.	High professionalised-nonfamily firms (professional firms)						
8.	Low professionalised-nonfamily firms						

Notes:
AD: Authority Decentralisation; FI: Financial Control System; HR: Human Resource Control System
IN : Innovativeness; PR: Proactiveness RT: Risk-taking

6.4 Limitations and Future Research Directions

First, as this study was developed on cross-sectional data, it would be dangerous to draw conclusions about causality in the structural model (Brough et al., 2013). In particular, the cross-sectional approach does not capture whether the employee works in a stable or

changing work environment (Brauchli et al., 2013). In fact, research has shown that firm EO reflects the CEO's experience, and this effect is less pronounced in family than in nonfamily firms (Boling et al., 2015). Future research should utilise a longitudinal approach to overcome the limitations of cross-sectional data in this study. This would gain a deeper understanding of the effects of professionalisation and EO on employee engagement in family and nonfamily firms over time. Fortunately, as 46% of the respondents (249 respondents) provided their e-mail address, there is an opportunity to ask them to complete the same questionnaires for longitudinal research purpose.

Second, only moderating models and no alternatives of mediating models are presented in this study. Future studies should consider any mediating models that are theoretically possible. For instance, investigating the EO mediating effect on the relationship of professionalisation factors with employee engagement. Thus, future studies should consider alternative configurations of antecedents, mediators and moderators to determine the best causal model and bring together more comprehensive literature contributions and practical implications. However, as involving mediator variables will increase the model complexity, more cases are needed to run the SEM technique for the mediating models. A mediating model is best examined using longitudinal data to demonstrate the causality effects of the mediator variables. More cases are also needed to pursue better structural model validation and more robust results. Even in this study, not all moderating models achieved a good GOF index under the uniqueness invariant constraint. For instance, the joint moderating models in this study produced a good GOF index only under metric invariant constraints.

Third, relying on the individual level of analysis and the use of self-reported data, this study investigates only the perception of employees and not the actual level of firm professionalisation and EO. This method might lead to erroneous results due to a common method variance (CMV). Fortunately, following justification articulated by Monsen and Boss (2009), Choi & Chen (2007) and Diefendorff & Mehta (2007), it was found that CMV is not a major issue. Testing for CMV (Podsakoff et al., 2003), an unrotated factor analysis of 24 items produced six unique factors with the first factor explaining only 27% of the total variance. Further, running the *unmeasured latent method construct* (ULMC) test, the median of method variance square value is 15.21%, which is less than 25% as the rule of thumb critical value (Williams et al., 1989). Even if a serious common method bias had been presented, this

would tend to depress the correct estimation of moderation effects and lead to more conservative statistical inferences (Siemsen et al., 2010). Nonetheless, future studies may wish to link the employee and management perceptions of firm professionalisation and EO, to better evaluate the robustness of the findings. Fortunately, some respondents (454) provided the name of their employing firms. As some respondents work for the same firm, there are only 377 different firms in the database. Future study can start from these firms' name to gather the management reports of firm professionalisation and EO. However, other considerations should be given to the potential random sampling and non-response bias respectively due to the use of a convenience method for data collection and the discharge of cases with missing item values.

In addition, if the questionnaires ask for respondents' feeling (such as employee engagement items) and perception (such as employee perception of firm professionalisation or EO), future research should anticipate a lower response for perception's items than for feeling's items. Specifically, the researchers should consider the influence of respondents' profile in answering complex questions. For instance, in this study, respondents having higher managerial position or education seem able to manage the EO items. It is plausible as higher rank employees have more involvement in firm entrepreneurial activities and more educated employees should have a better understanding of responding complex questions. To test whether or not cultural context influence missing items would need a further comparison with similar studies using cases from various national culture backgrounds. Thus, future studies may wish to report and analyse missing values as well.

Fourth, this study shows the dominant impact of human resource control and innovativeness amongst other professionalisation and EO factors respectively. A more accurate investigation of the interaction of human resource control, innovativeness and employee engagement in the context of family and nonfamily firms might sharpen the insight. Especially, if employee engagement is also specified based on its dimensions (cognitive and emotional engagement), and its determinants (meaningfulness, safety and availability). For instance, future study may wish to investigate the joint moderating effects of the family business status, and firm innovativeness levels on the relationship of human resource control, either with cognitive or emotional employee engagement. Moreover, a specific examination of a mediating model might also be insightful. For instance, future study may wish to investigate the mediating effect of innovativeness on the relationship between

human resource control either with cognitive or emotional employee engagement for family and nonfamily firms.

Fifth, as a control variable, employee rank exhibits a significant positive relationship with employee engagement. However, this study does not consider employee rank as an independent or moderator variable. Employee rank may be a major variable as prior research has found that managerial perception of the firm EO factors varies based on employee rank (Hornsby et al., 2009). Therefore, future studies may wish to investigate the interaction amongst professionalisation, employee rank and employee engagement in the family and nonfamily firms. This would provide added insight into the nepotistic behaviours of family firms and the effect it can have on the entrepreneurial capacity of the business.

Finally, a comparative study based on different cultural dimensions might be insightful. For that purpose, additional cases should be collected from various cultural clusters. In this way, future research can investigate the moderating effects of each or joint cultural dimensions on the relationship of professionalisation or EO factors on employee engagement.

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Appendix

A. Original Items

A.1 Employee Engagement

Previously, some researchers used the items of GWA (Gallup Workplace Audit's) Q^{12} measure (Buckingham and Coffman, 1999) to assess the type of Kahn's (1990) employee engagement dimensions (Luthans and Peterson, 2002) and psychological conditions (Avery et al., 2007). Practically, those items were also used to assess the level of employee engagement (Buckingham and Coffman, 1999; Harter et al., 2002). For instance, employees emotionally and cognitively engage when they know what is expected of them, have what they need to do their work, have opportunities to feel an impact and fulfilment in their work, perceive that they are part of something significant with co-workers whom they trust, and have chances to improve and develop to (Harter et al., 2002; pp. 269). The connection of GWA items, employee engagement dimensions, employee engagement psychological conditions (determinants), and the level of employee engagement is mapped in Table A.1 below.

Table A.1 Employee Engagement Items, Dimensions, Determinants, and Level

Code		**Items**	**employee engagement Dimensions** (Luthans and Peterson, 2002)	**Psychological Conditions** (Kahn, 1990; Avery et al., 2007)	**employee engagement Level** (Buckingham and Coffman, 1999)	**employee engagement Level** (Harter et al., 2002)
Q1	EE_1	I know what is expected of me at work	Cognitive Engagement	meaningfulness	What do I get?	know what is expected of them
Q2	EE_2	I have the materials and equipment I need to do my work right	Cognitive Engagement	meaningfulness		have what they need to do their work

Code		Items	**employee engagement Dimensions** (Luthans and Peterson, 2002)	**Psychological Conditions** (Kahn, 1990; Avery et al., 2007)	**employee engagement Level** (Buckingham and Coffman, 1999)	**employee engagement Level** (Harter et al., 2002)
Q3	EE_3	At work, I have the opportunity to do what I do best every day	Cognitive Engagement	meaningfulness	What do I give?	
Q4	EE_4	In the last seven days, I have received recognition or praise for doing good work	Emotional Engagement	safety		have opportunities to feel an impact and fulfilment in their work
Q5	EE_5	My supervisor, or someone at work, seems to care about me as a person	Emotional Engagement	safety		
Q6	EE_6	There is someone at work who encourages my development	Emotional Engagement	safety		
Q7	EE_7	At work, my opinions seem to count	Emotional Engagement	safety	Do I belong here?	
Q8	EE_8	The mission/purpose of my company makes me feel my job is important	Cognitive Engagement	meaningfulness		
Q9	EE_9	My associates (fellow employees) are committed to doing quality work	Emotional Engagement	safety		perceive that they are part of something significant with co-workers whom they trust
Q10	EE_10	I have a best friend at work	Emotional Engagement	safety		
Q11	EE_11	In the last six months, someone at work has talked to me about my progress	Cognitive Engagement	safety	How can we all grow?	have chances to improve and develop
Q12	EE_12	This last year, I have had opportunities at work to learn and grow?	Cognitive Engagement	availability		

A.2 Professionalisation

The professionalisation original-scales use binary to assess the presence of authority decentralisation, financial, and human resource control system (Dekker et al., 2012). Realising that the respondents work in established firms, the professionalisation factors should exist to some degree in their employing firms, not merely exist or not exist. For that reason, 7-point Likert is more appropriate than binary to weigh professionalisation factor items. Table A.2 below presents the original and revised items professionalisation factor.

Table A.2 The Original and Revised Items of Professionalisation

Professionalisation Factors	**Code**	**Original Items** (Dekker et al., 2012)	**Revised Items**
Authority Decentralisation	AD_1	Are all major decisions within the company autonomously made by the CEO, and then communicated downwards? YES/NO* (reversely coded; Y =0; N=1) (assessing possible delegation of control)	My head of department (HoD)/Director makes all major decisions autonomously and then communicates down-words
	AD_2	Does the CEO of the company individually decide which organisational strategy must be followed? YES/NO* (reversely coded; Y =0; N=1) (assessing centralised decision-making)	My HoD/Director individually decides which work methods must be followed
	AD_3	Do all employees within the company directly report to the CEO (without using an intermediary)? YES/NO* (reversely coded; Y =0; N=1) (assessing centralisation of authority)	All employees within my department/company directly report to my HoD/Director (without using an intermediary)
Financial Control System	FI_1	Does the company has reports to compare the proposed budgets with the actual figures? YES/NO (assessing use of budgets)	The proposed budgets are strictly compared with the actual figures
	FI_2	Are the deviations from the budgeted targets monitored to undertake the future actions? YES/NO (assessing use of budget evaluation system)	The deviations from the budgeted targets are seriously monitored

Professionalisation Factors	Code	Original Items (Dekker et al., 2012)	Revised Items
	FI_3	Is there a report or document in which the company objectives with reference to next year's sales, are fully and accurately computed? YES/NO (assessing formalised financial goals and objectives	The department/company financial targets are fully and accurately computed
	FI_4	Does management prepare quarterly reports? YES/NO (assessing use of firm performance evaluation system)	The department/company performance is well evaluated
Human Resource Control System	HR_1	Are the procedures regarding the recruitment of new staff noted down in a document? YES/NO (assessing use of formal recruitment system)	The recruitment procedures for new staff are well documented and implemented
	HR_2	Does the company provide formal internal or external training programs for their employees? YES/NO (assessing use of formal training system)	My department/company provides formal internal and external training programs for employees
	HR_3	Does the company use incentive payment based on performance, for example through bonuses? YES/NO (assessing use of incentive payment system)	My department/company uses incentive payments based on performance
	HR_4	Are the periodical performance reviews with the managers of the company drawn up in reports? YES/NO (assessing use of personnel performance evaluation system)	The department/company periodical performance reviews are well documented
	HR_5	Are the staff meetings usually formally prepared and planned in advance? YES/NO (assessing the formality of staff meetings)	The staff meetings usually formally prepared and planned in advance

A.3 Entrepreneurial Orientation

Referring to the EO items developed by Covin & Slevin (1989), Lumpkin & Dess (1996, 2001), Table A.3 below describes the pairing of those items with EO factors.

Table A.3 EO Factor Items

Code	Items	EO Factor			
		Covin & Slevin (1989)	**Lumpkin & Dess (1996)**	**Lumpkin & Dess (2001)**	**This Thesis**
In regard to new services or products in the past 5 years, my department/company has…					
EO1_1	introduced very many new products, services or methods	Innovativeness	Innovativeness	Innovativeness	Innovativeness
EO1_2	made dramatic changes in services or product lines	Innovativeness	Innovativeness	Innovativeness	Innovativeness
In dealing with its competitors within the same industry, my department/company…					
EO2_1	is very aggressive and intensely competitive with the similar department at other firms		Competitive Aggressiveness	Competitive Aggressiveness	
EO2_2	typically initiate actions which competitors then respond to	Proactiveness	Proactiveness	Proactiveness	Proactiveness
EO2_3	is very often to be the first department/work group who introduce new products/services, administrative techniques, operating technologies, etc.	Proactiveness	Proactiveness	Proactiveness	Proactiveness
EO2_4	typically adopts a very competitive, 'undo the-competitors' posture	Proactiveness	Competitive Aggressiveness	Competitive Aggressiveness	Proactiveness
When confronted with decision-making situations involving uncertainty, my department/company...					
EO3_1	typically adopts a bold, aggressive posture in order to maximise the probability of exploiting potential opportunities	Risk-taking	Risk-taking	Risk-taking	
EO3_2	prefers to design its own unique new processes and technique		Innovativeness		

Code	Items	EO Factor			
		Covin & Slevin (1989)	Lumpkin & Dess (1996)	Lumpkin & Dess (2001)	This Thesis
In general, my head of department/company...					
EO4_1	have a strong tendency for high-risk projects (with chances of very high returns)	Risk-taking	Risk-taking		
EO4_2	Have a strong tendency to be ahead of other competitors in introducing novel ideas or products		Proactiveness	Proactiveness	
EO4_3	favour experimentation and original approaches to problem-solving		Innovativeness		
EO4_4	Are quick to spend money on potential solutions if problems are holding us back		Risk-taking		Risk-taking
EO4_5	strongly emphasised on R&D, technological leadership, and innovation	Innovativeness	Innovativeness	Risk-taking	Risk-taking
EO4_6	believe that bold, wide-ranging acts are necessary to achieve the department's objectives	Risk-taking	Risk-taking	Risk-taking	Risk-taking

B. Questionnaire

Included in Appendix B parts of a questionnaire that are relevant to this thesis. The questions are in the Indonesian language. However, the English version is also available and included here.

B.1 Indonesian Version

Responden yang terhormat,

Terimakasih atas partisipasi Anda. Survey yang merupakan bagian dari penelitian doktoral saya ini bertujuan untuk melihat hubungan antara profesionalisme, corporate entrepreneurship, dan employee engagement. Mohon jawab semua pertanyaan berdasarkan persepsi dan pengetahuan Anda.

Survey ini bersifat sukarela dan identitas responden dijamin kerahasiaannya. Pertanyaan tentang nama perusahaan/ organisasi dan nama departemen/unit bisnis semata-mata hanya untuk membantu saya melakukan validasi tentang informasi terkait perusahaan yang bersangkutan. Pertanyaan tentang profil Anda semata-mata untuk analisa demografi. Bila hasil survei ini dipublikasikan dalam rupa tulisan atau presentasi ilmiah, maka hanya menggunakan data olahan secara garis besar; tidak mengarah pada identitas organisasi, departemen/bisnis unit, atau individu tertentu.

Untuk pertanyaan-pertanyaan di bawah ini, Anda boleh memilih **ruang lingkup (scope)-**nya sesuai pengetahuan Anda; apakah dalam **scope perusahaan/organisasi** atau **departemen/unit bisnis**; yang penting adalah jawaban Anda **konsisten** untuk semua pertanyaan. Bila Anda bekerja di perusahaan yang kecil dan tidak terbagi dalam beberapa departemen/unit bisnis, maka otomatis scope-nya adalah perusahaan/organisasi. Sebagian pertanyaan memerlukan pengetahuan Anda terhadap kondisi perusahaan tempat Anda bekerja. Karena itu **bila Anda karyawan baru** (bekerja kurang dari 6 bulan), Anda boleh menggunakan **seting perusahaan tempat Anda bekerja sebelumnya**. **karyawan baru** (bekerja kurang dari 6 bulan), Anda boleh menggunakan **seting perusahaan tempat Anda bekerja sebelumnya**.

Pilih/beri tanda pada salah satu lingkaran di tiap pertanyaan yang menunjukkan jawaban Anda.

1. Apa pendapat Anda tentang kondisi pekerjaan di perusahaan/ organisasi/ departemen/ unit bisnis Anda?

	Tidak Tahu	Sangat Tidak Setuju	Tidak Setuju	Agak Tidak Setuju	Netral	Agak Setuju	Setuju	Sangat Setuju
Saya mengetahui apa yang diharapkan dari diri saya di tempat kerja	❍	❍	❍	❍	❍	❍	❍	❍
Saya memiliki semua sarana yang saya perlukan untuk melakukan pekerjaan dengan baik	❍	❍	❍	❍	❍	❍	❍	❍
Saya selalu memiliki kesempatan untuk melakukan yang terbaik dalam pekerjaan saya	❍	❍	❍	❍	❍	❍	❍	❍
Dalam seminggu ini, saya menerima pujian atas apa yang sudah saya lakukan dengan baik dalam pekerjaan saya	❍	❍	❍	❍	❍	❍	❍	❍
Saya merasa diperhatikan oleh pimpinan atau rekan kerja yang lain	❍	❍	❍	❍	❍	❍	❍	❍
Di tempat kerja ada pihak yang mendorong kemajuan prestasi saya	❍	❍	❍	❍	❍	❍	❍	❍
Di lingkungan kerja, pendapat saya diperhatikan	❍	❍	❍	❍	❍	❍	❍	❍
Misi/tujuan perusahaan/organisasi/departemen/unit bisnis (tempat saya bekerja) membuat pekerjaan saya terasa penting	❍	❍	❍	❍	❍	❍	❍	❍
Rekan-rekan kerja saya punya komitmen untuk melakukan pekerjaannya dengan baik	❍	❍	❍	❍	❍	❍	❍	❍
Saya memiliki sahabat di lingkungan kerja	❍	❍	❍	❍	❍	❍	❍	❍
Dalam 6 bulan terakhir ada orang lain di tempat kerja yang bicara dengan saya tentang perkembangan saya	❍	❍	❍	❍	❍	❍	❍	❍
Dalam setahun belakangan ini saya mendapatkan kesempatan untuk belajar dan berkembang di lingkungan kerja saya	❍	❍	❍	❍	❍	❍	❍	❍

2. Apa pendapat Anda tentang desentralisasi wewenang di perusahaan/ organisasi/ departemen/ unit bisnis tempat Anda bekerja?

	Tidak Tahu	Sangat Tidak Setuju	Tidak Setuju	Agak Tidak Setuju	Netral	Agak Setuju	Setuju	Sangat Setuju
Direktur/kepala departemen saya membuat semua keputusan penting sendiri, setelah itu baru menyampaikan kepada bawahan	❍	❍	❍	❍	❍	❍	❍	❍
Direktur/kepala departemen saya sendiri yang memutuskan strategi/cara kerja yang harus dijalankan perusahaan/departemen	❍	❍	❍	❍	❍	❍	❍	❍
Semua karyawan melaporkan hasil kerjanya langsung kepada direktur/kepala departemen (tanpa perlu perantara)	❍	❍	❍	❍	❍	❍	❍	❍

3. Apa pendapat Anda tentang penerapan sistem pengawasan keuangan di perusahaan/ organisasi/ departemen/unit bisnis tempat Anda bekerja?

	Tidak Tahu	Sangat Tidak Setuju	Tidak Setuju	Agak Tidak Setuju	Netral	Agak Setuju	Setuju	Sangat Setuju
Realisasi anggaran selalu dibandingkan dengan rencana anggaran	❍	❍	❍	❍	❍	❍	❍	❍
Selisih antara realisasi dengan rencana anggaran diawasi secara ketat	❍	❍	❍	❍	❍	❍	❍	❍
Target keuangan dihitung secara cermat	❍	❍	❍	❍	❍	❍	❍	❍
Kinerja perusahaan/organisasi/departemen/unit bisnis dievaluasi dengan baik	❍	❍	❍	❍	❍	❍	❍	❍

4. Apa pendapat Anda tentang penerapan sistem pengelolaan SDM (Sumber Daya Manusia) di perusahaan/organisasi/departemen/unit bisnis tempat Anda bekerja?

	Tidak Tahu	Sangat Tidak Setuju	Tidak Setuju	Agak Tidak Setuju	Netral	Agak Setuju	Setuju	Sangat Setuju
Prosedur penerimaan karyawan baru telah didokumentasikan dan diterapkan dengan baik	❍	❍	❍	❍	❍	❍	❍	❍
Disediakan pelatihan internal dan eksternal untuk karyawan	❍	❍	❍	❍	❍	❍	❍	❍
Diterapkan sistem insentif berdasarkan kinerja karyawan	❍	❍	❍	❍	❍	❍	❍	❍
Penilaian rutin terhadap kinerja karyawan terdokumentasi dengan baik	❍	❍	❍	❍	❍	❍	❍	❍
Pertemuan-pertemuan/rapat-rapat yang melibatkan karyawan direncanakan dan dipersiapkan secara formal	❍	❍	❍	❍	❍	❍	❍	❍

Untuk pertanyaan no.5 – 8, pilih/beri tanda pada salah satu lingkaran yang menunjukkan kecenderungan Anda terhadap pasangan pernyataan yang saling bertolak belakang tersebut.

5. Dalam 5 tahun ini, perusahaan/organisasi/departemen/unit bisnis tempat saya bekerja...

	1	2	3	4	5	6	7		Tidak Tahu
tidak menghasilkan produk, layanan maupun metoda/cara kerja baru sama sekali								menghasilkan banyak produk, layanan, maupun metoda/cara kerja baru	
hanya membuat perubahan sangat kecil terhadap produk, layanan, maupun metoda/cara kerja yang sudah ada								membuat perubahan sangat besar terhadap produk, layanan, maupun metoda/cara kerja yang sudah ada	

6. Dalam menghadapi kompetitor, perusahaan/organisasi/departemen/unit bisnis tempat saya bekerja...

	1	2	3	4	5	6	7		Tidak Tahu
tidak melakukan hal khusus untuk mengambil alih bisnis dari kompetitor								sangat agresif dan kompetitif dengan departemen sejenis di perusahaan lain	
cenderung hanya merespon aktifitas yang diprakarsai kompetitor								cenderung memprakarsai aktifitas yang mengundang respon kompetitor	
sangat jarang menjadi pihak yang memperkenalkan hal baru, misalkan: produk, layanan, teknologi, metoda/cara kerja, cara pengelolaan administrasi yang baru								sangat sering menjadi pihak yang memperkenalkan hal baru, misalkan: produk, layanan, teknologi, metoda/cara kerja, cara pengelolaan administrasi yang baru	
cenderung hati-hati dan menghindari persaingan								cenderung berani menghadapi persaingan	

7. Saat dihadapkan pada pengambilan keputusan di situasi yang tidak pasti, perusahaan/ organisasi/ departemen/ unit bisnis tempat saya bekerja...

	1	2	3	4	5	6	7		Tidak Tahu
biasanya bersikap hati-hati dan menunggu untuk meminimalkan kemungkinan terjadinya kesalahan fatal								biasanya bersikap berani dan agresif untuk memaksimalkan semua kemungkinan dalam mengeksploitasi peluang	❍
lebih suka melakukan proses maupun cara yang sudah pernah dilakukan orang lain dan terbukti hasilnya								lebih suka melakukan proses maupun caranya sendiri yang unik	❍

8. Secara umum,

	1	2	3	4	5	6	7		Tidak Tahu
atasan saya cenderung mengambil pekerjaan atau tanggung jawab yang memiliki resiko kecil (yang sudah jelas hasilnya)								atasan saya cenderung berani mengambil pekerjaan atau tanggung jawab yang beresiko tinggi (yang menjanjikan hasil besar)	
atasan saya cenderung hanya menjadi pengikut dalam hal ide maupun penciptaan produk								atasan saya cenderung menjadi yang pertama dalam hal ide maupun penciptaan produk	
atasan saya lebih suka mengikuti cara-cara yang sudah pernah dilakukan pihak lain dalam menyelesaikan masalah								atasan saya lebih suka melakukan eksperimen dan pendekatan baru dalam menyelesaikan masalah	
atasan saya lebih suka mempelajari sebuah masalah secara mendalam sebelum mencari sumber daya yang diperlukan untuk memecahkannya								atasan saya cepat mengeluarkan uang untuk solusi-solusi terhadap masalah-masalah yang sangat menghambat	
atasan saya menekankan pada penggunaan produk, layanan, maupun cara yang sudah terbukti								atasan saya menekankan pada aktifitas riset maupun penggunaan cara, teknologi, dan inovasi baru	
atasan saya, berdasarkan pada kondisi yang ada, yakin pada pendekatan yang hati-hati dan bertahap								atasan saya, berdasarkan pada kondisi yang ada, yakin pada tindakan yang berani dan di luar kebiasaan untuk mencapai tujuan	

Untuk pertanyaan no.9–13 hanya menggunakan *scope* perusahaan/organisasi tempat Anda bekerja BUKAN di scope departemen/unit bisnis. Pilih/beri tanda pada salah satu lingkaran di tiap pertanyaan yang menunjukkan jawaban Anda.

9. Menurut perkiraan Anda, berapa lama perusahaan tempat Anda bekerja telah berdiri?

- ❍ Kurang dari 5 tahun
- ❍ 5-10 tahun
- ❍ 10-20 tahun
- ❍ 20-40 tahun
- ❍ Lebih dari 40 tahun
- ❍ Tidak Tahu

10. Menurut perkiraan Anda, berapa jumlah karyawan tetap yang dimiliki perusahaan tempat Anda bekerja?

- ❍ 1-10
- ❍ 11-50
- ❍ 51-100
- ❍ 101-250
- ❍ 251-1000
- ❍ 1001-5000
- ❍ Lebih dari 5000 karyawan
- ❍ Tidak Tahu

11. Menurut Anda, apa tipe kepemilikan perusahaan/organisasi tempat Anda bekerja?

- ❍ Perusahaan Privat, Institusi, atau Yayasan yang kepemilikannya dan/atau pengelolaannya TIDAK didominasi pemerintah
- ❍ Badan Usaha Milik Negara (BUMN), organisasi pemerintah atau Institusi yang kepemilikannya dan/atau pengelolaannya didominasi pemerintah
- ❍ Tidak Tahu

12. Jika perusahaan tempat Anda bekerja adalah perusahaan privat, apakah ada keluarga yang mendominasi KEPEMILIKAN-nya?

- ❍ Ya, dengan kepemilikan >75%
- ❍ Ya, dengan kepemilikan antara 50-75%
- ❍ Ya, dengan kepemilikan < 50%
- ❍ Ya, tapi saya tidak bisa memperkirakan proporsi kepemilikannya
- ❍ Tidak ada keluarga yang mendominasi kepemilikannya

13. Jika perusahaan tempat Anda bekerja adalah perusahaan privat, apakah ada keluarga yang mendominasi PENGELOLAANNYA-nya?

- ❍ Ya
- ❍ Tidak
- ❍ Tidak Tahu

Pertanyaan no.14–19 terkait dengan profil Anda dan posisi Anda di perusahaan/ organisasi tempat Anda bekerja. Pilih/beri tanda pada salah satu lingkaran di tiap pertanyaan yang menunjukkan jawaban Anda.

14. Apa pendidikan tertinggi Anda?

- ❍ Tidak sampai Sekolah Menengah Umum (SMU)
- ❍ Sekolah Menengah Umum (SMU)
- ❍ Diploma (D1-D3)
- ❍ Sarjana (S1) atau D4
- ❍ Master (S2) atau SP1
- ❍ Doktor (S3) atau SP2

15. Berapa usia Anda saat ini?

- ❍ 20-25 tahun
- ❍ 25-30 tahun
- ❍ 30-35 tahun
- ❍ 35-40 tahun
- ❍ 40-45 tahun
- ❍ 45-50 tahun
- ❍ 50-55 tahun
- ❍ Di atas 55 tahun

16. Sudah berapa lama Anda bekerja di perusahaan ini?

- ❍ Kurang dari satu tahun
- ❍ 1-3 tahun
- ❍ 3-5 tahun
- ❍ 5-10 tahun
- ❍ 10-15 tahun
- ❍ 15-20 tahun
- ❍ Lebih dari 20 tahun

17. Apakah status kepegawaian Anda?

- ❍ Pegawai tetap
- ❍ Pegawai honorer

18. Apa jenjang kepegawaian Anda dalam perusahaan?

- ❍ Staf
- ❍ Junior Manajer, Supervior, Kepala bagian
- ❍ Manager
- ❍ Senior Manager atau setingkat
- ❍ Direktur atau setingkat
- ❍ Lainnya (sebutkan) _____

19. Nama perusahaan tempat Anda bekerja: _____

B.2 English Version

Dear Valued Respondents,

I'm more than happy and appreciate for your kind participation in my survey. As part of my doctoral study, this survey aim is to find the relationship among firm professionalisation, corporate entrepreneurship, and employee engagement. Please answer the following questions according to your perceptions – the way you see things or the way you feel about them – as thoughtfully and frankly as possible. There are no right or wrong answers. Under no circumstances will only researchers who have access to your individual responses and your anonymously will be guaranteed. Some questions about the company name, department name and your email address are asked merely to help researchers validate some information related to company data (such as company age, employment number, etc.). Furthermore, even the data gathered from this survey may be reported at scientific conferences or in scientific journals, but never identify individuals or individual departments results.

The next following questions apply to your department, if you are in a large company that has departments, or apply to your company if you are working in a small company that does not have departments.

1. Please scale your opinion about your work environment in your department/company.

	Don't Know / NA	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Some what Agree	Agree	Strongly Agree
I know what is expected of me at work	○	○	○	○	○	○	○	○
I have the materials and equipment I need to do my work right	○	○	○	○	○	○	○	○
At work, I have the opportunity to do what I do best every day	○	○	○	○	○	○	○	○
In the last seven days, I have received recognition or praise for doing good work	○	○	○	○	○	○	○	○
My supervisor, or someone at work, seems to care about me as a person	○	○	○	○	○	○	○	○
There is someone at work who encourages my development	○	○	○	○	○	○	○	○
At work, my opinions seem to count	○	○	○	○	○	○	○	○
The mission/purpose of my company makes me feel my job is important	○	○	○	○	○	○	○	○
My associates (fellow employees) are committed to doing quality work	○	○	○	○	○	○	○	○
I have a best friend at work	○	○	○	○	○	○	○	○
In the last six months, someone at work has talked to me about my progress	○	○	○	○	○	○	○	○
This last year, I have had opportunities at work to learn and grow?	○	○	○	○	○	○	○	○

2. Please scale your opinion about the authority decentralisation in your department/company.

	Don't Know / NA	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Some what Agree	Agree	Strongly Agree
My head of department (HoD)/Director makes all major decisions autonomously and then communicates down-words	○	○	○	○	○	○	○	○
My HoD/Director individually decides which work methods must be followed	○	○	○	○	○	○	○	○
All employees within my department/company directly report to my HoD/Director (without using an intermediary)	○	○	○	○	○	○	○	○

3. Please scale your opinion about the implementation of financial control system in your department/company

	Don't Know / NA	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Some what Agree	Agree	Strongly Agree
The proposed budgets are strictly compared with the actual figures	○	○	○	○	○	○	○	○
The deviations from the budgeted targets are seriously monitored	○	○	○	○	○	○	○	○
The department/company financial targets are fully and accurately computed	○	○	○	○	○	○	○	○
The department/company performance is well evaluated	○	○	○	○	○	○	○	○

4. Please scale your opinion about the implementation of human resource management in your department/ company

	Don't Know / NA	Strongly Disagree	Disagree	Somewhat Disagree	Neutral	Some what Agree	Agree	Strongly Agree
The recruitment procedures for new staff are well documented and implemented	○	○	○	○	○	○	○	○
My department/company provides formal internal and external training programs for employees	○	○	○	○	○	○	○	○
My department/company uses incentive payments based on performance	○	○	○	○	○	○	○	○
The department/company periodical performance reviews are well documented	○	○	○	○	○	○	○	○
The staff meetings usually formally prepared and planned in advance	○	○	○	○	○	○	○	○

For the questions number 5 to 8, please choose only one value that indicates the degree of your tendency

5. In regard to new services or products in the past 5 years, my department/company has…

	1	2	3	4	5	6	7		Don't Know / NA
introduced no new products, services or methods								introduced very many new products, services or methods	
made only minor changes in products or services line								made dramatic changes in services or product lines	

6. In dealing with its competitors within the same industry, my department/company…

	1	2	3	4	5	6	7		Don't Know / NA
Makes no special effort to take business from the competition								Is very aggressive and intensely competitive with similar department at other firms	
typically responds to actions which competitors initiate								typically initiate actions which competitors then respond to	
is very seldom to be the first department/work group who introduce new products/services, administrative techniques, operating technologies, etc.								is very often to be the first department/work group who introduce new products/services, administrative techniques, operating technologies, etc.	
typically seeks to avoid competitive clashes, preferring a 'live-and-let-live' posture								typically adopts a very competitive, 'undo the-competitors' posture	

7. When confronted with decision-making situations involving uncertainty, my department/ company...

	1	2	3	4	5	6	7		Don't Know / NA
typically adopts a cautious 'wait and see' posture in order to minimise the probability of making a costly decision								typically adopts a bold, aggressive posture in order to maximise the probability of exploiting potential opportunities	
prefers to adapt processes and techniques that others have developed and proven								prefers to design its own unique new processes and technique	

8. In general, my head of department/company...

	1	2	3	4	5	6	7		Don't Know / NA
have a strong tendency for low-risk projects (with normal and certain outcomes)								have a strong tendency for high-risk projects (with chances of very high returns)	
Have a strong tendency to "follow the leader" in introducing new products or ideas								Have a strong tendency to be ahead of other competitors in introducing novel ideas or products	
favour imitating methods have used for problems solving								favour experimentation and original approaches to problem-solving	
Prefer to study a problem thoroughly before deploying resources to solve it								Are quick to spend money on potential solutions if problems are holding us back	
strongly emphasised on the marketing of well-proven products or services								strongly emphasised on R&D, technological leadership, and innovation	
believe that, considering the environment nature, it is best to explore it gradually via timid and incremental behaviour								believe that, considering the environment nature, bold, wide-ranging acts are necessary to achieve the department's objectives	

Questions number 9 to 13 applies to the company you are working for

9. According to your estimation, how long have the firm been established?

- Less than 5 years
- 5-10 years
- 10-20 years
- 20-40 years
- More than 40 years
- Don't know

10. According to your estimation, how many employees are working for the firm?
    - 1-10
    - 11-50
    - 51-100
    - 101-250
    - 251-1000
    - 1001-5000
    - More than 5000
    - Don’t know

11. What kind of ownership type is best described the firm you worked for?
    - Privately-owned Firm
    - State-owned Firm --> you may go to F8
    - Don’t know

12. If the firm is a privately-owned, is there a family who dominate its share ownership?
    - Yes, by more than 75%
    - Yes, by 50-75%
    - Yes, but less than 50%
    - Yes, but I can't guess the ownership percentage
    - No, there is not

13. If the firm is a privately-owned, is there a family who dominantly manage it?
    - Yes
    - No
    - Don’t know

Questions number 14 to 19 relates to you and your position in the organisation

14. What is the highest level of education you have completed?
    - Less than High School
    - High School
    - Diploma Degree
    - Bachelor's Degree
    - Master's Degree
    - Doctorate Degree

15. What is your age as of today?
    - 20-25 years
    - 25-30 years
    - 30-35 years
    - 35-40 years
    - 40-45 years
    - 45-50 years
    - 50-55 years
    - Over 55 years

16. What is your employment status?
    - Permanent Employee
    - Temporary Employee

17. Which of the following categories best describes your current position?
    - Staff
    - Junior Manager, Supervisor, Head of Department
    - Manager
    - Senior Manager
    - Director
    - Other (please describe) _____

What name is the firm where you are working for?

C. Assumptions in Structural Equation Modelling

The assumptions in SEM are related to the data and the model (Kline, 2012). The data assumptions concern distributional and other assumptions required by the estimation technique that has been used. The model assumptions concern the relationship direction in the measurement and structural models. The discussion about how this study satisfies assumptions of the maximum likelihood estimation (MLE) technique is presented in section C.1. Followed by a discussion about the assumptions related to the measurement and structural models in section C.2.

C.1 Assumptions of Maximum Likelihood Estimation

MLE, as a popular SEM estimation procedure, and the AMOS default technique (Hair et al., 2010; Arbuckle, 2013), was used in this research to calculate the GOF parameters and structural regression weights. AMOS uses MLE to minimise chi-square (χ^2) as a discrepancy function with this formula:

$$\chi^2 = [\text{N-r}] \left(\frac{\sum_{g=1}^{G} N^{(g)} f(\mu^{(g)}, \Sigma^{(g)}; \bar{\boldsymbol{x}}^{(g)}, \boldsymbol{S}^{(g)})}{N}\right)$$

$$f(\mu^{(g)}, \Sigma^{(g)}; \bar{\boldsymbol{x}}^{(g)}, \boldsymbol{S}^{(g)}) = \log|\Sigma^{(g)}| + \text{tr}(\boldsymbol{S}^{(g)}\Sigma^{(g)^{-1}}) - \log|\boldsymbol{S}^{(g)}| - p^{(g)}$$
$$+ (\bar{\boldsymbol{x}}^{(g)} - \mu^{(g)})' \, \Sigma^{(g)^{-1}} (\bar{\boldsymbol{x}}^{(g)} - \mu^{(g)})$$

where:

G	:	the number of groups
$N^{(g)}$	:	the number of observations in group-*g*
N	:	$\sum_{g=1}^{G} N^{(g)}$
r	:	The non-negative integer specified by the *chi-Correct* method. By default r=G.
$\mu^{(g)}(\gamma)$	:	The mean vector for group-*g*, according to the model
$\Sigma^{(g)}(\gamma)$	:	The covariance matrix for group-*g*
$\boldsymbol{x}_r^{(g)}$	:	The *r*-th observation in group-*g*
$\boldsymbol{S}^{(g)}$	:	The sample covariance matrix for group-*g*
$p^{(g)}$	:	The number of observed variables in group-*g*

MLE assumes the measured variables are multivariate normally distributed in the population. The use of ML estimation in this study needs justification considering that employee engagement as the endogenous variable is non-normally distributed. First, it recognises that applying MLE for non-normal data potentially produces a positive bias (inflated) on chi-square and a negative bias (underestimate) on standard error (Benson and Fleishman, 1994). These conditions can mistakenly reject the fit model and produce overestimated significance on the regression weight (Curran et al., 1996). Fortunately, they only produce a negligible bias on factor loadings estimation (Benson and Fleishman, 1994). This study examines other GOF parameters, such as RMSEA, SRMR, and CFI along with ML chi-square to overcome any mistaken rejection issues. Table 4.7, Table E.1 and Table F.1 present the complete GOF parameters of measurement and structural models. Further, this research followed common practices of bootstrapping procedures on the sample (Nevitt and Hancock, 2001; Bammens et al., 2015) to anticipate the overestimate significance problem. The original and bias-corrected p-values for the structural regression of multigroup data show a similar pattern across multi data groups. Thus, the overestimate significance of the regression weight does not affect the findings.

Second, although the majority of behavioural research is less likely to produce univariate normal distributed data (Curran et al., 1996), the use of MLE techniques are popular in employee engagement research (e.g., Biswas et al., 2013; Hakanen et al., 2006; Anne Hansen, Byrne & Kiersch, 2013; Qiao Hu et al., 2011; Liao et al., 2013; Musgrove, Ellinger & Ellinger, 2014; Nasomboon, 2014; Schaufeli & Bakker, 2004; Schaufeli et al., 2009; Xu & Cooper Thomas, 2011). The observed variables underlying endogenous variables (such as engagement) in previous studies were also Likert-scale.

Finally, a robust check demonstrated the feasibility of MLE for this study. It was conducted by removing the multivariate outliers and transforming the sample to produce a normal-distribution variable. Then, the CFA procedures using MLE were applied to the sample without outliers for the measurement and structural models. These attempts produced GOF parameters that were not massively different to the GOF parameters of the sample with outliers. The more detailed explanation about multivariate outliers is carried forward to Appendix D. The GOF comparisons between samples with and without outliers for the structural model are presented in Appendix E and Appendix F.

The use of asymptotically distribution free (ADF) might be not feasible. ADF is the only robust estimation technique available in AMOS that is able to omit non-normal distribution effects (Benson and Fleishman, 1994). It happens because ADF procedures need a large sample size to perform well, therefore is not appropriate for a model with more than 20 items, and is more sensitive to model complexity (Browne, 1984; Curran et al., 1996). For instance, running ADF in AMOS needs at least m*(m+1)/2 cases (where m is the number of measured items). Although this study has sufficient cases for this measurement model analysis, the amount will not be sufficient for structural models with multi-groups analysis. Besides, ADF produces a greater negative bias in the standard error of factor loadings and uniqueness estimation when the item number is increased (Benson and Fleishman, 1994). Further, parcelling employee engagement (the endogenous variable) also did not produce a normally-distributed variable.

In fact, the GOF scores (such as RMSEA, SRMR, and CFI) difference between the original sample (which is non-normal) and the transformed sample (which is normally distributed) is not significant (see Table E.1 and Table F.1). Therefore, MLE should be feasible for this study. Other assumptions related to the MLE requirements (Kline, 2012) are summarised in the Table C.1.

Table C.1 Satisfying the MLE Assumptions

No	Assumptions	Satisfying
1.	There are no missing values when raw data is analysed	As mentioned in section 4.5.2, the listwise deletion method was taken to produce 545 cases with completed values.
2.	The variables under estimate are unstandardised	In this study, the input for the AMOS program is raw data which is unstandardised.
3.	Independence of the exogenous variables and term errors	As depicted in Figure 4.1, Figure E.1 and Figure F.1, all exogenous variables were assumed to be uncorrelated with the measured variables (items) errors.
4.	The model is correctly recursive	As reported in Appendix E and F, all models in this study are correctly specified.

C.2 Assumptions of the Model

Table C.2 and Table C.3 below demonstrate how far this study satisfied the reflective measurement assumptions and the structural model assumptions inferring a causal relationship (Kline, 2012). When this study satisfied the measurement model assumptions, it could not satisfy all the causal relationships. Therefore, the structural regression analysis in chapter 5 has never claimed causality. Instead, the analysis only claimed that according to the structural model fit test, the hypotheses may or may not be consistent with the data.

Table C.2 Satisfying the Assumptions of the Measurement and Structural Model

No	Assumptions	Satisfying
1.	The factors and measurement errors are uncorrelated	As depicted in Figure 4.1 all factors were assumed to be uncorrelated with their items errors.
2.	The errors of different items are pairwise uncorrelated	As depicted in Figure 4.1, all item errors were assumed to be uncorrelated with each other.

Table C.3 Satisfying the Assumptions of Causal Relationship

No	Assumptions	Satisfying
1.	There is an association between variables having a causal relationship	As presented in Table 5.1, all professionalisation and EO factors as the exogenous variables are significantly correlated to employee engagement as the endogenous variable.
2.	The statistical association between variables having causal relationship must hold controlling for other variables	Some variables potentially affecting employee engagement have been set as control variables. They are: firm's age and size; employee's age, education, tenure and rank.
3.	The structural models are correctly recursive	Although a structural model with employee engagement as an independent variable, and professionalisation factors as the dependent variable is statistically fit, there is no strongly plausible concept underlying this relationship. Alternatively, when employee engagement might affect a firm's EO, this relationship is not statistically fit. Thus, structural models in this study are correctly recursive.
4.	The presumed causes must occur before the presumed effects	All measured variables (items) underlying employee engagement (presumed effect), professionalisation and EO factors (presumed causes) were observed at the same time. Therefore, the temporal precedence assumption is NOT satisfied.

D. Measurement Model Validation

D.1 Confirmatory Factor Analysis (CFA)

In this study, the objective of running the CFA procedures is to validate the original and revised factor structures. For these purposes, this study calculated factor loadings, average variance extracted (AVE), and construct reliability (CR) to examine construct validity. GOF parameters were also reported to test the overall measurement model fit.

Factor loading is preferably higher than |0.7|, AVE should be at least 0.5, and CR should be above 0.7 to meet a high convergent validity (Hair et al., 2010; Tabachnick and Fidell, 2013). Moreover, AVE for any two latent scales should be higher than the square of correlation-estimate between these two latent scales to meet the discriminant validity criteria. Finally, to validate the overall measurement model fit, χ^2/df score and one incremental fit index (e.g., CFI) were reported in addition to RMSEA and SRMR. According to Hu & Bentler's (1999) criteria, a combination of GOF parameters should be achieved to minimise type 1 and type 2 errors. For instance, a combination of RMSEA < 0.06 and SRMR < 0.09 was previously adopted by Monsen & Boss (2009), and therefore was used for this study.

D.2 Exploratory Factor Analysis (EFA)

In this study, the objective of running the EFA procedures was to find new factor structures having better GOF parameters than the original structures. Based on previous theoretical knowledge, latent scales/factors were extracted simultaneously from the measured items in such a way as to produce sufficient GOF parameters. From EFA process, this study expects to find seven latent factors, i.e., authority decentralisation, financial control, human resource control, innovativeness, proactiveness, risk-taking, and employee engagement. Following Hair et al.'s (2010) suggestion, it was emphasised that only simultaneous (not separate) extraction should be taken to guarantee the discriminant validity and to anticipate possible cross-loadings. Further, some statistic approaches were taken to meet the assumptions underlying EFA and to assess the overall fit.

First, a measure of sampling adequacy (MSA) was reported to confirm that every factor was built from sufficiently intercorrelated variables. The MSA value should be above 0.70 to proceed with the EFA (Kaiser and Rice, 1974; Hair et al., 2010). Second, as this research used

validated and conceptually distinct scales, Common Factor Analysis (known as *Principle Axis Factoring* in SPSS) was chosen as the factor extraction method. This method is often regarded as more theoretically based and only focuses on the common variance of variables in the analysis (Velicer and Jackson, 1990; Hair et al., 2010). Third, as it was already known, a priori criterion was used to determine the number of extracted factors. In this study, there were seven expected factors in total, i.e., authority decentralisation, financial control, human resource control, innovativeness, proactiveness, risk-taking, and employee engagement. Fourth, those factors theoretically were not assumed to be uncorrelated with each other. Therefore orthogonality is not required. Thus, implementing the oblique rotational method (known as Promax in SPSS) was more realistic (see Langford, 2009; Lumpkin & Dess, 2001). Finally, some iteration processes were needed to maximise factor loadings and minimise cross-loading. Factor loadings greater than |0.50| are considered practically and statistically significant at 0.05 level and 80% power level for at least 120 data (Hair et al., 2010). The complete report of EFA results is described in chapter 5.

The extracted factors then should be validated to estimate the generalizability across the population. A common practice to ensure generalizability is to distinguish the sample used for EFA process and structural analysis, either by splitting the existing sample or by using a separate sample. Splitting the sample will reduce the cases-to-variable ratio, so that lessens the structure's stability (Hair et al., 2010). For these reasons, CFA was chosen to validate the factor structures.

D.3 Construct Validity and Goodness of Fit

Construct validity refers to the degree to which measured items represent theoretical latent scales (Hair et al., 2010). For instance, in this study, construct validity assesses how far items AD_1 and AD_2 reflect authority decentralisation (AD) as a professionalisation factor. Readers should refer to Appendix A for further information about measured items and latent scales. This study arranges convergent and discriminant validity to test the construct validity.

Convergent validity assesses the extent to which two measured variables of the same latent scale are correlated. Discriminant validity indicates the distinction of a latent scale from other scales. Following the recommendations of Hair et al. (2010), factor loading value is preferably higher than |0.7|, AVE (average variance extracted) should be at least 0.5, and

the CR (construct reliability) value should be above 0.7 to meet a high convergent validity. Moreover, AVE values, for any two latent scales, should be higher than the square of the correlation estimate between these two latent scales in order to meet the discriminant validity criteria.

Key goodness of fit (GOF) parameters reflected by SEM standard practice (e.g., Hair et al., 2010; Hu et al., 2011; Monsen & Boss, 2009; Wei, O'Neill, Lee, & Zhou, 2013) are used to test the overall measurement model fit. They are absolute fit indices (e.g., χ^2/df, RMSEA, SRMR, GFI), incremental fit indices (e.g., CFI, NFI, IFI), and the parsimony fit index (e.g., AGFI). Such criteria are taken to minimise type 1 and type 2 errors, such as a combination of RMSEA < 0.06 and SRMR < 0.09 (Hu and Bentler, 1999). Other rules of thumb suggest reliance on a combination of at least one absolute fit index and one incremental fit index. The required conservative values are >0.90 for CFI, NFI, IFI, GFI, AGFI, RMSEA<0.08, SRMR<0.1, and 1< χ^2/df <3 (Byrne, 2010; Hair et al., 2010). When χ^2/df value relies on the sample size and the number of observed variables, GFI and RMSEA are less sensitive to actual sample size. Specifically, while RMSEA, as an absolute index, is widely used for a model with a large sample or a large number of observed variables, CFI is the most popular incremental index (Hair et al., 2010).

E. The Validation of the Structural Model of Professionalisation Factors – Employee Engagement Relationship

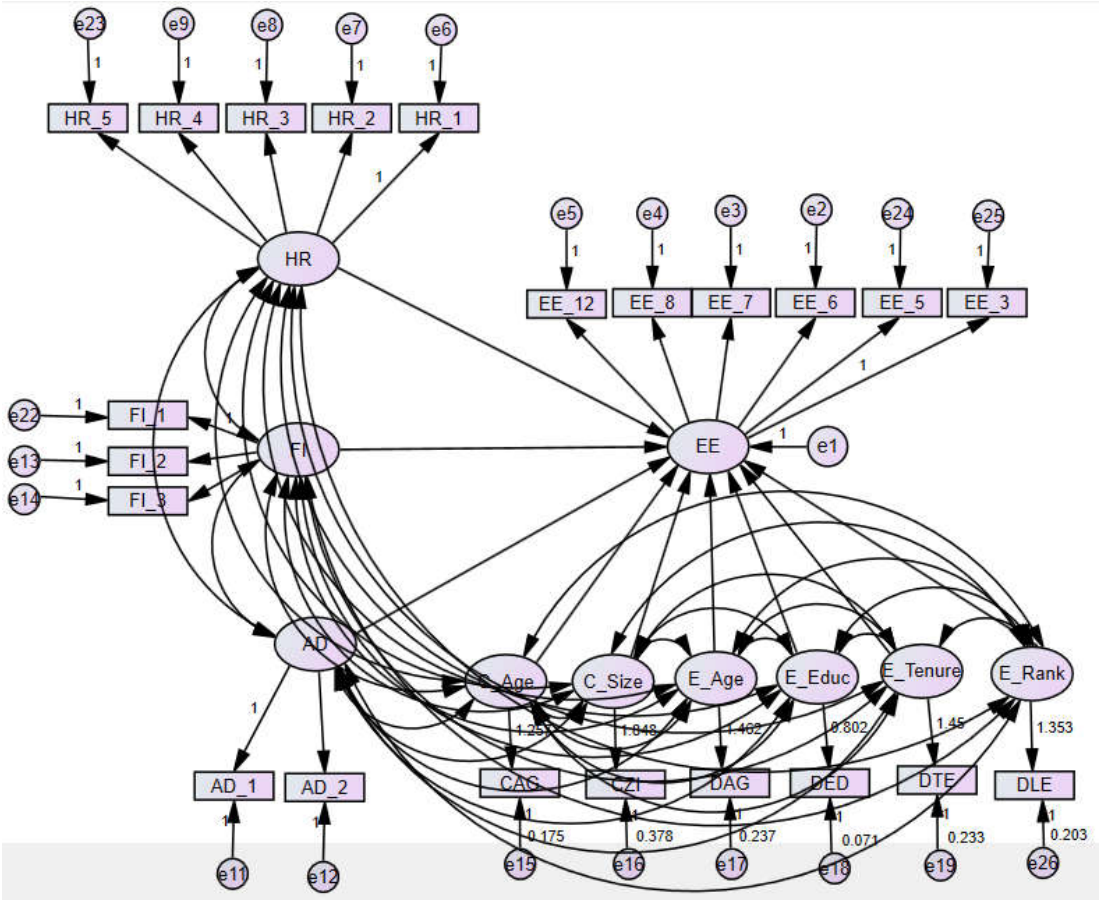

Figure E.1 The Structural Model of Professionalisation Factors – EE Relationship

E.1 Overall Fit Index

The GOF indexes for the structural models are presented in Table E.1. Columns 3 and 4 represent GOF indexes of the direct model (without moderating effect), followed by GOF indexes of Family Business status moderating model (column 5 and 6), EO moderating model (column 7 and 8) and Family Business status-EO moderating model (column 9 and 10). The moderating models (multi-groups) are constrained in such a way to follow the measurement residual invariant model. The GOF index scores demonstrate that the model meets Hu & Bentler's (1999) combination GOF rule of RMSEA < 0.06 and SRMR < 0.09 for all data group conditions. Thus, the structural model is acceptable for further analysis.

Table E.1 GOF Index for the Structural Model of Professionalisation Factors – EE

GOF Indexes	Good Value	Main effect		Moderating effects of Family Business status		Moderating effects of EO		Moderating effects of Family Business status and EO	
		w/ outliers (1)	w/o outliers (2)	w/ outliers (1)	w/o outliers (2)	w/ outliers (1)	w/o outliers (2)	w/ outliers (1)	w/o outliers (2)
X^2(df)		388.738 (170)	322.814 (170)	854.610 (436)	753.356 (436)	867.307 (436)	688.393 (436)	1746.08 (968)	1520.664 (968)
X^2/df	1 - 3	2.287	1.899	1.960	1.728	1.989	1.579	1.804	1.571
RMSEA	< .06	0.0490	0.043	0.0420	0.038	0.0420	0.034	0.0390	0.034
SRMR	< .09	0.0407	0.0363	0.0687	0.0651	0.0591	0.0555	0.0801	0.0757
GFI	> .95	*0.938*	*0.945*	NA	NA	NA	NA	NA	NA
CFI	> .90	0.956	0.969	0.915	0.934	.909	0.947	*.842*	*0.885*
NFI	> .90	0.924	0.937	*0.842*	*0.858*	*0.834*	*0.867*	*.702*	*0.736*
IFI	> .90	0.956	0.969	0.916	0.935	0.910	0.947	*.841*	*0.884*
AGFI	> .90	0.908	0.918	NA	NA	NA	NA	NA	NA
Δ GOF Index		**1 -> 2**		**1 -> 2**		**1 -> 2**		**1 -> 2**	
X^2		16.96%		11.85%		20.63%		12.91%	
X^2/df		16.97%		11.84%		20.61%		12.92%	
RMSEA		12.24%		9.52%		19.05%		12.82%	
SRMR		10.81%		5.24%		6.09%		5.49%	
GFI		0.74%		NA		NA		NA	
CFI		1.34%		2.03%		4.01%		4.86%	
NFI		1.39%		1.86%		3.81%		4.62%	
IFI		1.34%		2.03%		3.91%		4.86%	
AGFI		1.09%		NA		NA		NA	
Δ GOF Index (Avg)		**7.724%**		**6.340%**		**11.158%**		**8.355%**	

Notes:

N	All	Family Firms	Nonfamily firms	Low EO	High EO	Family Firms, Low EO	Family Firms, High EO	Family Firms, Low EO	Family Firms, High EO
With Outliers	545	267	278	278	267	143	124	135	143
Without Outliers	498	244	254	245	253	127	117	118	136

E.2 Robustness Check against Multivariate Outliers

A case contains a multivariate outlier if it has extreme scores on more than one variable, or its scores' pattern is anomalistic (Kline, 2011). For instance, a case having variables with a score in between two and three standard deviations above the mean might contain multivariate outliers if this pattern is uncommon in the sample. The existence of multivariate outliers might influence the results.

This study detects multivariate outliers by applying an iterative procedure to meet Mahalanobis Distance's criteria (Tabachnick and Fidell, 2013). In this way, cases having Mahalanobis's d^2 score above the critical value are considered as multivariate outliers. The Mahalanobis's d^2 critical score is determined based on the number of observed variables in the model and a significance threshold of $p < 0.001$. After removing the worst outliers, the procedure should be repeated to find less severe outliers, until all outliers disappear.

The structural model figuring the relationship of professionalisation factors and employee engagement contains 22 measured items. It corresponds to Mahalanobis' d^2 critical score of 48.268 ($p < .001$). This study conducts a regression analysis to ensure the existence of systematic differences between outliers and a sample without outliers. It uses case ID as an independent variable with the remaining variables in the structural model as independent variables (Tabachnick and Fidell, 2013). Case ID is less likely to be related to any dependent variable. Therefore, this method is convenient. The identification and removal process was carried out step-by-step from the most significant outliers. After conducting four iterations, 47 multivariate outliers (8.62% out of all cases) were finally identified.

Subsequently, a series of t-tests were run to compare the mean difference of the outliers and the sample without outliers. The outlier bias analysis (Table E.2) demonstrates a significant mean difference between the outliers and the sample without outliers of the financial control, HR control and employee engagement. Particularly, the significance of Levene's test scores indicates that the outliers, and the variance of the sample without outliers, of financial control and employee engagement variables in the population, is different. Thus, involving outliers potentially deflates the values of financial control, human resource control and employee engagement. Further, removing multivariate outliers can improve GOF indexes for all structural models (Table E.1). For instance, chi-square (X^2) of the

main effect, Family Business status moderation, EO moderation, and the Family Business status-EO moderation model improves 16.96%, 11.85%, 20.63%, and 12.91% respectively. It also improves SRMR and RMSEA by 5.24% up to 12.24%. However, handling multivariate outliers needs particular consideration.

Table E.2 Bias Analysis Due to Multivariate Outliers Removal

Scales	Sample w/o Outliers (N=498)		Outliers (N=47)		Effect Size		Independent t-Test		Levene's of Variance F-Test
	Mean	SD	Mean	SD	Cohen's *d*	*r*	Equal Var	Non-equal Var	
Authority Decentralisation	3.912	1.513	3.851	1.919	0.035	0.018	0.256	.210	4.248*
Financial Control	5.661	1.059	4.631	1.556	**0.773**	**0.361**	6.079***	4.439***	14.967***
HR Control	5.257	1.155	3.719	1.265	**1.270**	**0.536**	8.651***	8.027***	0.604
Employee Engagement	5.586	0.837	4.837	1.229	**0.713**	**0.336**	5.597***	4.090***	19.753***
Firm Age	3.484	1.329	3.638	1.258	-0.119	-0.060	-0.764	-.800	1.063
Firm Size	4.442	1.961	4.723	1.766	-0.151	-0.075	-0.949	-1.035	2.876+
Employee Age	2.805	1.538	2.638	1.552	0.108	0.054	0.711	.705	0.080
Employee Education	4.034	0.844	4.213	0.832	**-0.213**	**-0.106**	-1.388	-1.405	1.254
Employee Rank	2.514	1.387	2.660	1.785	-0.091	-0.045	-0.669	-.544	8.055*
Employee Tenure	3.060	1.544	2.787	1.318	0.190	0.095	1.173	1.336	2.493

Notes:

- †p ≤ .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001 (two-tailed tests)
- For non-random data, Cohen's *d* and *r* are appropriate to test the mean difference of two sample groups
- Cohen's *d* = $\frac{mean\ difference}{pooled\ standard\ deviation}$; *d* : small > 0.2, medium > 0.5, large > 0.8
- Pooled standard deviation = $\sqrt{\frac{(n_1-1)s_1^2+(n_2-1)s_2^2}{n_1+n_2-2}}$; $s_1^2 = \frac{1}{n_1-1}\sum_{i=1}^{n_1}(x_{1,i} - mean(x_1))^2$
- *r* = $\sqrt{(\frac{d^2}{d^2+\frac{1}{PQ}})}$; P = $\frac{A}{A+B}$; Q = 1 – P ; *r* : small > 0.100, medium > 0.243, large > 0.371
- t-Tests provided for informational purposes only, assume random data

There are three alternative treatments for multivariate outliers, i.e., to do nothing, modify their scores to reduce their influence on the analysis, or to discard them (Kline, 2011). Before deciding to maintain, modify, or remove the multivariate outliers, it is necessary to know the reasons why those 47 cases become outliers. First, examining each case of those outliers, no extreme individual score was found. Second, when analysing the demographic variables, there is no indication that the outliers belong to a specific population of a certain organisation or to individual characteristics. Thus, there is no strong evidence that the outliers and the sample without outliers come from a different demographic.

Further, a closer analysis of some individual cases having extreme Mahalanobis's d^2 scores exhibit that their relational pattern among variables is not an anomaly. For instance, the 697th respondent having the highest Mahalanobis's d^2 score (i.e., 71.40) has an EE level and a perception concerning the implementation of control system that is below average. The 697th respondent has 3.33 score for EE level, 1 for financial control level and 4.80 for human resource control level. These numbers are below the average expected of EE level (5.52), financial (5.57) and human resource controls (5.124). Hence, this case still follows the pattern in which a respondent with a low perception of firm financial and human resource control implementation has low engagement. Besides, a visual inspection on the univariate (Table E.3) and the correlation statistics' analysis (Table E.4, Table E.5, and Table E.6) demonstrates that the samples, both with and without outliers, are comparable yet different with the outliers. It specifically shows that the correlations among employee engagement, financial and human resource control for the sample with and without outliers follow the same direction. Therefore, they could be considered to be following the same pattern. In results, the outliers are retained for further structural regression analysis. Pointless outliers' removal would lead to an unnecessary sampling bias. Therefore, it should be avoided.

Table E.3 Univariate Statistics of Sample with Outliers, without Outliers, and the Outliers

Scales		Min	Max	Mean	SD	Skewness	Skewness/ SE	Kurtosis	Kurtosis/ SE
Authority Decentralisation	w/	1	7	3.906	1.550	0.013	0.128	-0.996	-4.768
	w/o	1	7	3.912	1.513	0.031	0.288	-1.041	-4.765
	o/	1	7	3.851	1.919	-0.053	-0.154	-1.048	-1.539
Financial Control	w/	1	7	5.572	1.146	-1.063	-10.155	1.159	5.550
	w/o	1	7	5.661	1.059	-0.968	-8.849	0.777	3.556
	o/	1	7	4.631	1.556	-0.558	-1.609	-0.125	-0.184
Human Resource	w/	1	7	5.124	1.242	-0.822	-7.857	0.181	0.866
	w/o	1	7	5.257	1.155	-0.880	-8.041	0.413	1.889
	o/	1	6	3.719	1.265	-0.062	-0.179	-0.432	-0.634
Employee Engagement	w/	2	7	5.521	0.901	-0.930	-8.884	1.128	5.401
	w/o	2	7	5.586	0.837	-0.883	-8.067	1.264	5.788
	o/	2	7	4.837	1.229	-0.273	-0.788	-0.716	-1.052
Firm Age	w/	1	5	3.497	1.323	-0.472	-4.511	-0.904	-4.326
	w/o	1	5	3.484	1.329	-0.453	-4.138	-0.931	-4.263
	o/	1	5	3.638	1.258	-0.703	-2.029	-0.444	-0.652
Firm Size	w/	1	7	4.466	1.945	-0.323	-3.083	-1.165	-5.578
	w/o	1	7	4.442	1.961	-0.310	-2.829	-1.197	-5.481
	o/	1	7	4.723	1.766	-0.425	-1.226	-0.752	-1.104
Employee Age	w/	1	7	2.791	1.539	0.737	7.042	-0.238	-1.139
	w/o	1	7	2.805	1.538	0.703	6.420	-0.367	-1.682
	o/	1	7	2.638	1.552	1.150	3.319	1.568	2.303
Employee Education	w/	1	6	4.050	0.844	-0.941	-8.989	1.507	7.216
	w/o	1	6	4.034	0.844	-0.971	-8.869	1.579	7.230
	o/	2	6	4.213	0.832	-0.661	-1.908	0.691	1.016
Employee Rank	w/	1	6	2.527	1.424	0.789	7.537	-0.085	-0.408
	w/o	1	6	2.514	1.387	0.761	6.953	-0.107	-0.490
	o/	1	6	2.660	1.785	0.829	2.391	-0.463	-0.680
Employee Tenure	w/	1	7	3.037	1.526	0.791	7.560	-0.024	-0.114
	w/o	1	7	3.060	1.544	0.762	6.966	-0.105	-0.480
	o/	1	7	2.787	1.318	1.126	3.248	1.434	2.106

Note: with outliers, N=545*;* without outliers, N=498*;* the outliers, N=47

Table E.4 Correlation Coefficients of the Sample with Outliers

	Latent Factors	1	2	3	4	5	6	7	8	9	10	11
1	Authority Decentralisation											
2	Financial Control	.037										
3	HR Control	.132**	**.451***									
4	Employee Engagement	.179***	**.380***	**.519***								
5	Firm Age	.078†	.152***	.126**	.009							
6	Firm Size	.035	.168***	.127**	.029	.631***						
7	Employee Age	.131**	.144***	.165***	.136**	.166***	.147***					
8	Employee Education	.034	.040	-.066	.038	.116**	.231***	.254***				
9	Employee Rank	.065	.030	.039	.168***	-.100*	-.036	.351***	.246***			
10	Employee Tenure	.134**	.117**	.173***	.116**	.243***	.235***	.667***	.091*	.252***		
11	EO	.107*	.191***	.337***	.320***	-.019	.021	.146***	0.025	.113**	.149***	
12	Family Business status	-.049	-.126**	-.144***	.007	-.194***	-.216***	-.160***	0.034	.086*	-.180***	-.058

Notes: †p ≤ .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001; N=545

Table E.5 Correlation Coefficients of the Sample without Multivariate Outliers

	Latent Factors	1	2	3	4	5	6	7	8	9	10	11
1	Authority Decentralisation											
2	Financial Control	.063										
3	HR Control	.147***	**.457***									
4	Employee Engagement	.202***	**.369***	**.506***								
5	Firm Age	.070	.194***	.177***	.067							
6	Firm Size	.033	.171***	.166***	.059	.640***						
7	Employee Age	.107*	.152***	.165***	.122**	.192***	.179***					
8	Employee Education	.001	.064	-.054	.062	.123**	.252***	.244***				
9	Employee Rank	.039	.071	.027	.178***	-.080	-.023	.348***	.251***			
10	Employee Tenure	.131**	.122**	.182***	.130**	.265***	.252***	.693***	.096*	.231***		
11	EO	0.081†	.197***	.296***	.305***	.010	.054	.138**	.040	.072	.137**	
12	Family Business status	.025	.154***	.165***	.013	.203***	.227***	.184***	-.037	-.129**	.187***	.042

Notes: †p ≤ .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001; N=498

Table E.6 Correlation Coefficients of the Outliers

	Latent Factors	1	2	3	4	5	6	7	8	9	10	11
1	Authority Decentralisation											
2	Financial Control	-.119										
3	HR Control	.059	.035									
4	Employee Engagement	.062	.202	.329*								
5	Firm Age	.157	-.033	-.172	-.369*							
6	Firm Size	.065	.313*	-.012	-.111	.512***						
7	Employee Age	.332*	.070	.171	.212	-.113	-.212					
8	Employee Education	.326*	.012	.017	-.004	.013	-.048	.397**				
9	Employee Rank	.239	-.145	0.244†	.194	-.298*	-.168	.394**	.196			
10	Employee Tenure	.176	-.004	-.013	-.076	-.021	.030	.344*	.082	.495***		
11	EO	.302*	-.073	.418**	.252†	-.259†	-.256†	0.196	-0.017	.471***	.218	
12	Family Business status	0.249†	-.032	.052	-.149	.092	.089	-.092	-.005	0.269†	.101	.220

Notes: †p ≤ .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001; N=47

F. The Validation of the Structural Model of EO Factors – Employee Engagement Relationship

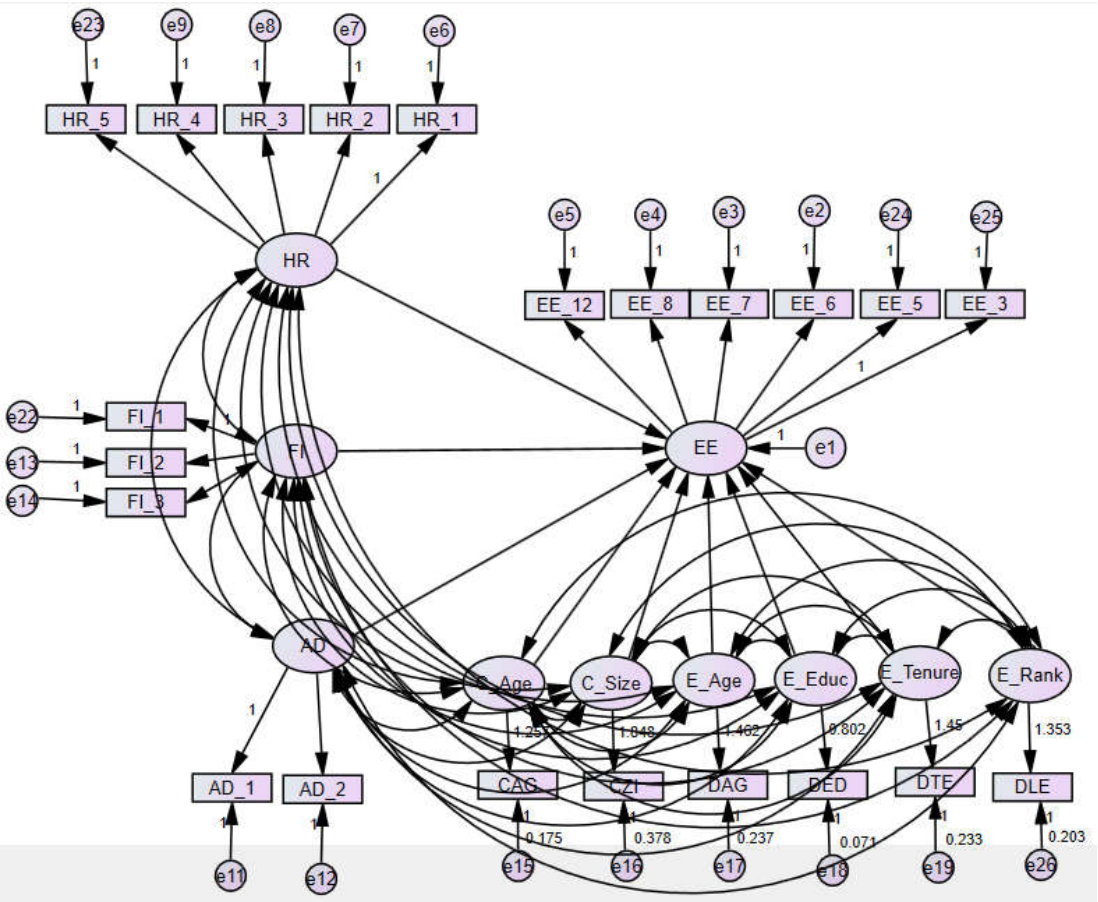

Figure F.1 The Structural Model of EO Factors – EE Relationship

F.1 Overall Fit Index

The GOF indexes for the structural models are presented in Table F.1. Columns 3 and 4 represent GOF indexes of the direct model (without the moderating effect), following by GOF indexes of the Family Business status moderating model (column 5 and 6), the EO moderating model (column 7 and 8) and the Family Business status-EO joint moderating model (column 9 and 10). The moderating models (multi-groups) are constrained in such a way as to follow the measurement residual invariant model. The GOF index scores demonstrate that the model meets Hu & Bentler's (1999) combination GOF rule of RMSEA <

0.06 and SRMR < 0.09 for all data group conditions. Thus, the structural model is acceptable for further analysis.

Table F.1 GOF Index for the Structural Model of EO Factors – EE Relationship

GOF Indexes	Good Value	Main effect		Moderating effects of Family Business status		Moderating effects of EO		Moderating effects of Family Business status and EO	
		w/ outliers (1)	w/o outliers (2)	w/ outliers (1)	w/o outliers (2)	w/ outliers (1)	w/o outliers (2)	w/ outliers (1)	w/o outliers (2)
X^2(df)		388.738 (170)	322.814 (170)	626.219 (352)	587.486 (352)	798.998 (352)	744.204 (352)	1441.048 (794)	1345.514 (794)
X^2/df	1 - 3	2.287	1.899	1.779	1.669	2.270	2.114	1.815	1.695
RMSEA	< .06	0.049	0.043	0.038	0.036	0.048	0.047	0.039	0.037
SRMR	< .09	0.0407	0.0363	0.0530	0.0507	0.0751	0.0739	*0.0945*	*0.0939*
GFI	> .95	*0.938*	*0.945*	NA	NA	NA	NA	NA	NA
CFI	> .90	0.956	0.969	0.932	0.944	*0.881*	0.901	*0.833*	*0.863*
NFI	> .90	0.924	0.937	*0.858*	*0.872*	*0.807*	*0.828*	*0.689*	*0.719*
IFI	> .90	0.956	0.969	0.932	0.944	*0.882*	0.901	*0.832*	*0.862*
AGFI	> .90	0.908	0.918	NA	NA	NA	NA	NA	NA
Δ GOF Index		**1 -> 2**		**1 -> 2**		**1 -> 2**		**1 -> 2**	
X^2		4.29%		6.19%		6.86%		6.63%	
X^2/df		4.64%		6.18%		6.87%		6.61%	
RMSEA		2.33%		5.26%		2.08%		5.13%	
SRMR		2.19%		4.34%		1.60%		0.63%	
GFI		0.00%		NA		NA		NA	
CFI		0.51%		1.27%		2.22%		3.48%	
NFI		0.64%		1.61%		2.54%		4.17%	
IFI		0.41%		1.27%		2.11%		3.48%	
AGFI		-0.11%		NA		NA		NA	
Δ GOF Index (Avg)		**1.875%**		**3.731%**		**3.468%**		**4.305%**	

Notes:

N	All	Family Firms	Nonfamily firms	Low PRO	High PRO	Family Firms, Low PRO	Family Firms, High PRO	Family Firms, Low PRO	Family Firms, High PRO
With Outliers	545	267	278	278	267	151	116	127	151
Without Outliers	514	251	263	257	257	140	111	117	146

F.2 Robustness Check against Multivariate Outliers

Having 20 measured items, which correspond to Mahalanobis's d^2 critical score of 45.315 ($p < .001$), three iteration processes finally identified 31 multivariate outliers (5.69% out of all cases). The outlier bias analysis (Table F.2) demonstrates a significant mean difference between the outliers and the sample without outliers of the innovativeness, proactiveness, risk-taking, employee engagement and firm age. However, according to Levene's test, only employee engagement has a different variance in the population between its outliers and the sample without outliers. Thus, involving the outliers potentially deflates the values of employee engagement only, whilst removing the outliers only slightly improves GOF indexes for all structural models (Table F.1).

Before deciding to maintain, modify or remove the multivariate outliers, it is necessary to know the reasons why those 31 cases become outliers. First, examining each case of those outliers, no extreme individual score was found. Second, by analysing the demographic variables, there is no indication that the outliers belong to a specific population of a certain organisation or to any individual characteristic. Thus, there is no powerful evidence that the outliers and the sample without outliers come from a different demographic. Besides, a visual inspection on the univariate (Table F.3) and the correlation statistics analysis (Table F.4, Table F.5 and Table F.6) demonstrates that the samples with and without outliers are comparable, but they are different with the outliers. Specifically, the correlation among innovativeness, proactiveness, risk-taking, employee engagement and firm age for the sample with and without outliers follows a similar pattern. Thus, the outliers are retained for further structural regression analysis.

Table F.2 Bias Analysis Due to Multivariate Outliers Removal

Scales	Sample w/o Outliers (N=514)		Outliers (N=31)		Effect Size		Independent t-Test		Levene's of Variance F-Test
	Mean	SD	Mean	SD	Cohen's *d*	*r*	Equal Var	Non-equal Var	
Innovativeness	4.858	1.346	4.355	1.484	**0.355**	**0.175**	2.009*	1.842+	.117
Proactiveness	4.729	1.299	4.204	1.293	**0.405**	**0.198**	2.184*	2.193*	.029
Risk-taking	4.093	1.367	3.473	1.341	**0.458**	**0.223**	2.453*	2.496*	.057
Employee Engagement	5.561	0.867	4.860	1.186	**0.675**	**0.320**	4.273***	3.238**	7.335**
Firm Age	3.471	1.333	3.935	1.063	**-0.385**	**-0.189**	-1.904+	-2.327*	5.698
Firm Size	4.457	1.936	4.613	2.108	-0.077	-0.038	-0.433	-0.40111	.960
Employee Age	2.796	1.525	2.710	1.774	0.052	0.026	0.302	0.264255	.617
Employee Education	4.049	0.823	4.065	1.153	-0.016	-0.008	-0.102	-0.07553	4.812*
Employee Rank	2.516	1.395	2.710	1.865	-0.118	-0.059	-0.737	-0.56986	9.162**
Employee Tenure	3.043	1.513	2.935	1.750	0.066	0.033	0.380	0.333997	.703

Notes:

- ŧp ≤ .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001 (two-tailed tests)
- For non-random data, Cohen's *d* and *r* are appropriate to test the mean difference of two sample groups
- Cohen's $d = \frac{mean\ difference}{pooled\ standard\ deviation}$; *d* : small > 0.2, medium > 0.5, large > 0.8
- Pooled standard deviation = $\sqrt{\frac{(n_1-1)s_1^2+(n_2-1)s_2^2}{n_1+n_2-2}}$; $s_1^2 = \frac{1}{n_1-1}\sum_{i=1}^{n_1}(x_{1,i} - mean(x_1))^2$
- $r = \sqrt{(\frac{d^2}{d^2+\frac{1}{PQ}})}$; $P = \frac{A}{A+B}$; Q = 1 – P ; *r* : small > 0.100, medium > 0.243, large > 0.371
- t-Tests provided for informational purposes only, assume random data

Table F.3 Univariate Statistics of Sample with Outliers, without Outliers, and the Outliers

Scales		Min	Max	Mean	SD	Skewness	Skewness/ SE	Kurtosis	Kurtosis/ SE
Innovativeness	w/	1	7	4.829	1.358	-0.552	-5.274	0.019	0.089
	w/o	1	7	4.858	1.346	-0.584	-5.419	0.071	0.332
	o/	1	7	4.355	1.484	-0.041	-0.097	-0.052	-0.064
Proactiveness	w/	1	7	4.699	1.303	-0.324	-3.093	-0.387	-1.850
	w/o	1	7	4.729	1.299	-0.352	-3.269	-0.339	-1.578
	o/	1	7	4.204	1.293	0.116	0.276	-0.478	-0.583
Risk-taking	w/	1	7	4.057	1.372	-0.004	-0.035	-0.561	-2.685
	w/o	1	7	4.093	1.367	-0.032	-0.299	-0.529	-2.458
	o/	1	6	3.473	1.341	0.535	1.272	-0.280	-0.341
Employee Engagement	w/	2	7	5.521	0.901	-0.930	-8.884	1.128	5.401
	w/o	2	7	5.561	0.867	-0.943	-8.749	1.305	6.070
	o/	2	7	4.860	1.186	-0.187	-0.444	-0.417	-0.507
Firm Age	w/	1	5	3.497	1.323	-0.472	-4.511	-0.904	-4.326
	w/o	1	5	3.471	1.333	-0.447	-4.152	-0.948	-4.411
	o/	1	5	3.935	1.063	-0.755	-1.797	0.208	0.253
Firm Size	w/	1	7	4.466	1.945	-0.323	-3.083	-1.165	-5.578
	w/o	1	7	4.457	1.936	-0.318	-2.953	-1.149	-5.342
	o/	1	7	4.613	2.108	-0.431	-1.025	-1.400	-1.706
Employee Age	w/	1	7	2.791	1.539	0.737	7.042	-0.238	-1.139
	w/o	1	7	2.796	1.525	0.712	6.607	-0.350	-1.627
	o/	1	7	2.710	1.774	1.085	2.581	1.144	1.394
Employee Education	w/	1	6	4.050	0.844	-0.941	-8.989	1.507	7.216
	w/o	1	6	4.049	0.823	-0.953	-8.845	1.518	7.059
	o/	2	6	4.065	1.153	-0.831	-1.976	0.830	1.011
Employee Rank	w/	1	6	2.527	1.424	0.789	7.537	-0.085	-0.408
	w/o	1	6	2.516	1.395	0.774	7.188	-0.054	-0.252
	o/	1	6	2.710	1.865	0.750	1.784	-0.874	-1.065
Employee Tenure	w/	1	7	3.037	1.526	0.791	7.560	-0.024	-0.114
	w/o	1	7	3.043	1.513	0.771	7.153	-0.038	-0.179
	o/	1	7	2.935	1.750	1.102	2.621	0.325	0.395

Note: with outliers, N=545*;* without outliers, N=514*;* the outliers, N=31

Table F.4 Correlation Coefficients of the Sample with Outliers

	Latent Factors	1	2	3	4	5	6	7	8	9	10	11
1	Innovativeness											
2	Proactiveness	**.611*****										
3	Risk-taking	**.239*****	**.334*****									
4	Employee Engagement	**.304*****	**.259*****	**.178*****								
5	Firm Age	**.031**	**.029**	**-.101***	**.009**							
6	Firm Size	.099*	.056	-.104*	.029	.631***						
7	Employee Age	.149***	.092*	.096*	.136**	.166***	.147***					
8	Employee Education	.107*	-.005	-.043	.038	.116**	.231***	.254***				
9	Employee Rank	.118**	.033	.107*	.168***	-.100*	-.036	.351***	.246***			
10	Employee Tenure	.156***	.115**	.074†	.116**	.243***	.235***	.667***	.091*	.252***		
11	Professionalisation	.281***	.258***	.157***	.506***	.169***	.151***	.214***	.006	.068	.208***	
12	Family Business status	.038	0.078†	.020	.007	-.194***	-.216***	-.160***	0.034	.086*	-.180***	.149***

Notes: †p ≤ .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001; N=545

Table F.5 Correlation Coefficients of the Sample without Multivariate Outliers

	Latent Factors	1	2	3	4	5	6	7	8	9	10	11
1	Innovativeness											
2	Proactiveness	**.628*****										
3	Risk-taking	**.235*****	**.344*****									
4	Employee Engagement	**.304*****	**.260*****	**.151*****								
5	Firm Age	**.038**	**.027**	**-.084†**	**.037**							
6	Firm Size	.103*	.065	-.105*	.038	.644***						
7	Employee Age	.131**	.084†	.114**	.137**	.165***	.166***					
8	Employee Education	.130**	.010	-.049	.052	.119**	.206***	.273***				
9	Employee Rank	.123**	.056	.085†	.169***	-.075†	-.036	.393***	.251***			
10	Employee Tenure	.135**	.100*	.096*	.114**	.248***	.251***	.677***	.100*	.277***		
11	Professionalisation	.286***	.253***	.169***	.503***	.188***	.155***	.216***	.010	.097*	.199***	
12	Family Business status	.029	.072	.025	-.005	.193***	.225***	.163***	-.042	-.085†	.167***	.156***

Notes: †p ≤ .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001; N=514

Table F.6 Correlation Coefficients of the Multivariate Outliers

	Latent Factors	1	2	3	4	5	6	7	8	9	10	11
1	Innovativeness											
2	Proactiveness	**.285**										
3	Risk-taking	**.184**	**.034**									
4	Employee Engagement	**.188**	**.106**	**.313+**								
5	Firm Age	**.047**	**.244**	**-.313+**	**-.170**							
6	Firm Size	.072	-.064	-.059	-.018	.405*						
7	Employee Age	.382*	.196	-.188	.123	.220	-.102					
8	Employee Education	-.140	-.188	.030	-.074	.085	.518**	.058				
9	Employee Rank	.105	-.214	.465**	.247	-.565***	-.038	-.107	.195			
10	Employee Tenure	.433*	.320+	-.280	.124	.213	.020	.541**	.002	-.016		
11	Professionalisation	.107	.196	-.184	.399*	.131	.168	.203	-.022	-.148	0.308+	
12	Family Business status	.163	.166	-.103	-.059	.245	.087	.124	.059	-.093	.374*	.063

Notes: †p ≤ .10; *p ≤ .05; **p ≤ .01; ***p ≤ .001; N=31