The relationship between perceived leadership styles and employee engagement：The moderating role of employee characteristics

By

Tanyu Zhang

BS, MBA (OUC, China)

This thesis is presented for the degree of

Doctor of Philosophy (PhD)

Macquarie Graduate School of Management

Macquarie University

Sydney, Australia

November 2010

TABLE OF CONTENTS

iv

LIST OF TABLES

LIST OF FIGURES

ABSTRACT

Employee engagement has long been regarded as important to business performance. Numerous consultants and some academic researchers report a strong link between employee engagement and organizational performance, while other studies have suggested that up to 80 percent of workers are 'not engaged' or 'disengaged' at their workplace. Gallup estimated that disengaged workers cost US business $270–343 billion per year because of low productivity, making the topic of how to increase employee engagement of great interest to leaders and human resource practitioners. Yet, despite the practical importance of understanding employee engagement better, relatively little research has been conducted into this field by academic researchers.

To gain insight into how to enhance employee engagement levels, this study investigated the relationship between employee engagement and four perceived leadership styles – classical, transactional, visionary (transformational or charismatic), and organic (distributed). Much of the literature emphasizes that follower characteristics also influence the leader-follower relationship and, in this thesis, the roles of three employee characteristics were examined: employees' need for achievement, equity sensitivity, and need for clarity.

A sample of 439 sales assistants in Sydney, Australia, completed a questionnaire survey. Multiple item scales measured leadership styles, employee engagement, and the three moderator variables of employee characteristics. Structural Equation Modeling was used for factor, path, and multi-group analyses.

Overall, the results suggest that employee engagement is associated with an employee's perception of leadership style in his/her direct supervisor – negatively when classical or transactional leadership styles are perceived, and positively in the case of visionary or organic leadership. Moreover, the three employee characteristics moderate the relationship between perceived leadership styles and employee engagement in different ways. Regarding need for achievement, the higher employees' score on this variable is, the weaker the negative association is between employee engagement and classical or transactional leadership, and

the stronger the positive association is between perceived visionary or organic leadership styles and employee engagement. By contrast, the higher equity sensitivity is, the stronger is the negative association between perceived classical or transactional leadership styles and employee engagement, and the weaker is the positive association between visionary or organic leadership and employee engagement. Finally, the higher employees' need for clarity is, the weaker is the negative association found between perceptions of classical or transactional leadership and employee engagement, whereas where employees' need for clarity is high, the positive association between visionary or organic leadership styles and employee engagement is weakened. The above results show that, as defined, the moderating variable has a strong contingent effect on the original relationship between the independent and dependent variables.

This thesis makes three main contributions to knowledge. The first is in introducing a new scale verifying that the behavioral-outcome factors in the employee engagement construct consist of say, stay, and strive. The second contribution is the finding that perceived leadership styles are associated in varying ways with employee engagement. The third contribution is to theory by providing empirical support for leadership and followership theories that emphasize the role of the follower; specifically, this thesis demonstrates that employee characteristics moderate the relationship between perceived leadership styles and employee engagement.

The findings have three major practical applications. (1) During the recruitment process, organizations should aim to appoint employees who exhibit characteristics predicting potentially high employee engagement. (2) Direct supervisors should adopt leadership styles that drive engagement in their employees. (3) Employee characteristics should be considered when adopting leadership styles for enhancing employee engagement.
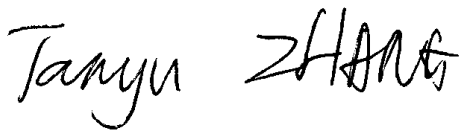
STATEMENT OF CANDIDATE

This thesis is submitted in fulfillment of the requirements of the degree of PhD, in the Graduate School of Management, Macquarie University. This represents the original work and contribution of the author, except as acknowledged by general and specific references.

Ethics committee approval was obtained for this thesis on 4 August 2009, with reference number: HE31JUL2009-D00057.

I hereby certify that this has not been submitted for a higher degree to any other university or institution.

Signed:

Tanyu Zhang

10 November 2010

ACKNOWLEDGMENTS

Here, I would like to express my gratitude to those who have contributed to the completion of this thesis, a difficult project that could not have been accomplished without relevant people's guidance, help, cooperation, and support and the iMURS scholarship from Macquarie University.

First and foremost, I would like to express my appreciation to my mentors, Prof. Gayle Avery, Dr. Harald Bergsteiner, and Prof. Elizabeth More at Macquarie Graduate School of Management (MGSM). My gratitude is not only for their critical guidance and enlightenment while writing this thesis and in other areas, but also for their scientific spirit and high ethical standards, which have had, and will continue to have, an everlasting positive effect on my future path.

Second, I appreciate Ms. Alison Basden for her very professional editorial advice under Australian Standards for Editing Practice, and thank Prof. Francis Buttle at MGSM for his support and help in the completion of this thesis.

My thanks are also due to Associate Prof. Suzan Burton at MGSM and Dr. Nada Endrissat of Bern, Switzerland for their suggestions and comments. In addition, Mr. Brian K. Heger of America was very helpful in kindly providing the use of his unpublished employee engagement questionnaire, and my former classmate, Mr. Jianhua Hao, also from the USA, assisted in obtaining a key article about employee engagement.

The assistance and support of Mrs. Elizabeth Thomas and Ms. Kerry Daniel in the MGSM research office is gratefully acknowledged.

Extended appreciation goes to those managers of the investigated shopping malls, respondents in the research, as well as to my research assistants. Without their permission, participation, and hard work, it would have been impossible to finish this thesis.

Last but not least, this completed thesis is the best gift for my parents, Mrs. Jie Wang and Mr. Zhenkun Zhang, and other family members, for their unconditional love and support to my long-distance adventure.

CHAPTER 1

INTRODUCTION

1.1 Overview of Chapter 1

This chapter introduces the background and significance of this research (Section 1.2), identifies the research questions (Section 1.3), and outlines the thesis structure (Section 1.4).

1.2 Research background and significance

Nowadays, organizations and leaders must cope with changes resulting from globalization, business markets becoming unstable, customer needs and desires changing, and information flows becoming more diverse and complex (Masood, Dani, Burns, and Backhouse, 2006). At the same time, people are more and more performance- or success-oriented. Retaining and engaging employees is becoming more difficult. The so-called talent war is accelerating. More and more 'free agents' are appearing in the talent market (Gubman, 2003). Employees are becoming more diverse. Demographic changes mean that three to four different generations with different values will necessarily remain in the workforce at the same time, for example as employers seek to retain baby boomers to meet the labor and talent shortage (Dychtwald, Erickson, and Morison, 2006). Organizations need appropriate strategies to meet these challenges in turbulent times. Engaging employees to make them more productive and have a stronger intent to stay is one such strategy, and is the subject of this thesis.

1.2.1 Why study employee engagement?

Employee engagement is defined as 'a heightened emotional and intellectual connection that an employee has for his/her job, organization, manager, or co-workers that, in turn, influences him/her to apply additional discretionary effort to his/her work' (Gibbons, 2006, p.5) (see Section 2.4 in Chapter 2 for further discussion). Meere (2005) identified three levels of engagement: (1) Engaged – employees who work with passion and feel a profound

connection to their organization, and who drive innovation and move the organization forward; (2) Not engaged – employees who attend and participate at work but are timeserving and put no passion or energy into their work; and (3) Disengaged – employees who are unhappy at work and who act out their unhappiness at work, undermining the work of their engaged co-workers on a daily basis.

Employee engagement has substantial effects on some important indices in practice, yet many organizations currently have very low levels of employee engagement. Notwithstanding its importance, the field of employee engagement contains several large gaps in knowledge. Therefore, studying employee engagement has both academic and practical benefits to heighten employee engagement levels. The following sections underscore the importance of further research into employee engagement in more detail.

1.2.1.1 Impacts of employee engagement

The literature indicates that the impact of employee engagement is wide-ranging and apparent at the individual, organizational, and macro-economic levels (Luthans and Peterson, 2002; Gibbons, 2006; Ellis and Sorensen, 2007; 4-consulting and DTZ Consulting & Research, 2007; Gallup Consulting, 2007). Three types of impacts are discussed below, namely individual, organizational, and economic performance; customer service outcomes; and employee retention.

(1) Individual, organizational, and economic performance

Evidence from a range of studies suggests that employee engagement has an impact on performance and productivity at individual and organizational levels, and even for the wider economy. The difference in performance between low and high engagement occurs irrespective of how that performance is defined and measured (Frank, Finnegan, and Taylor, 2004; Gibbons, 2006; 4-consulting and DTZ Consulting & Research, 2007).

At the individual level, the Corporate Leadership Council (2002) surveyed more than 50,000 employees in 59 organizations worldwide, and found that high employee engagement produced a 20 per cent improvement in individual performance on average. Bates (2004)

demonstrated that those who were engaged outperformed disengaged employees by 28 per cent and the 'not engaged' by 23 per cent in terms of revenue.

At the organizational level, a series of studies has confirmed the association between high-performance companies and company-wide high employee engagement levels (Gibbons, 2006). For instance, Hewitt Associates (2004) studied the employee engagement and various financial indicators of multiple companies over five years and found positive correlations between engagement and performance, although the sizes of the correlations were not reported.

Recently, Towers Watson (2009) analyzed employee data of 40 global companies in its normative database and found that, over a period of three years, companies with a high-engagement employee population turned in significantly better financial performance (a 5.75 per cent difference in operating margins and a 3.44 per cent difference in net profit margins) than did low-engaged workplaces.

Meere (2005) reported on the costs of employee disengagement based on a survey of 360,000 employees from 41 companies in the world's 10 largest economies. Over three years, both operating margins and net profit margins decreased in companies with low levels of engagement, while both these indicators increased in companies with high engagement.

At the country level, Frank et al. (2004) argued that a lack of engagement also has serious consequences for their economies. The cost of disengagement in the UK is calculated to be billions of pounds. The US economy is estimated to operate at only about 30 per cent efficiency due to a lack of engagement (Bates, 2004). Gallup estimated that disengaged workers cost US business $270–343 billion per year because of low productivity (Shaw and Bastock, 2005).

It can be seen from the abovementioned studies that employee engagement can have a large effect on individual, organizational, and national economic performance.

(2) Customer service outcomes

Bates (2004) examined the link between employee engagement and customer engagement, that is, a willingness to make repeat purchases and recommend the store to friends. He found

that customers scored higher in customer engagement measures when they were served in departments with engaged employees. This link between employee engagement and customer engagement is not surprising, given Right Management's (2006) survey, which found that 70 per cent of engaged employees had a good understanding of how to meet customer needs, whereas only 17 per cent of non-engaged employees scored high on this indicator.

Oakley (2005) discovered the most startling link between employee engagement and customer service outcomes: high levels of employee engagement corresponded to increases in customer engagement levels, even in cases where there was no direct contact between the customers and the employees. As Melcrum (2004, p.14) stated, 'the strategies that drive growth are typically very people intensive, and employers are finding that, to retain their customers, they must have engaged employees in all the positions that affect the customer experience'.

(3) Employee retention

Since 2003, studies have begun to demonstrate a direct measurable relationship between employee engagement and the intention of employees to leave their company (Gibbons, 2006).

Towers Perrin (2003) revealed that 66 per cent of engaged employees have no plans to leave their company, compared with just a third of the 'not engaged', and a mere 12 per cent of the disengaged. They therefore concluded that an engaged workforce is a more stable workforce. They also pointed out that, while organizations can lose critical employees by not successfully engaging them, there is a risk to the employer from the disengaged, especially from those who are not actively looking for other employment opportunities and continue in their current jobs, but are disaffected and unproductive. Towers Perrin (2003) suggested that retaining the disengaged can have as serious potential negative effects for other employees and overall organizational performance as losing the engaged.

The Corporate Leadership Council (2004) found that engaged employees were 87 per cent less likely to leave their companies than their disengaged counterparts. Shaw and Bastock (2005) reported that in the UK, disengaged employees are 12 times more likely to say they have the intent to leave their organizations within a year (48 per cent) than engaged staff (4

per cent). Right Management (2006) supported this finding by reporting that 75 per cent of engaged employees plan to stay with the organization for at least five years, while only 44 per cent of non-engaged employees plan to stay. Baumruk, Gorman Jr., Gorman, and Ingham (2006) and Ellis and Sorensen (2007) drew a similar conclusion, that organizations with higher engagement levels also tend to have lower employee turnover. Jones, Jinlan, and Wilson (2009) also found that employee engagement is negatively correlated with perceived discrimination and absenteeism, and positively correlated with intent to remain. It could be argued that employee turnover brings new blood, rejuvenates the organization, and is therefore good. The disadvantages of higher employee turnover do not support this view. Companies with high employee turnover suffer from high costs (Dess and Shaw, 2001) and low morale (O'Connell and Kung, 2007), investment in training employees can be wasted, and valuable critical employees are lost (Martins and Remenyi, 2007). However, detailed discussion of this topic is beyond the scope of this thesis.

In short, the substantial practical impact of employee engagement on the foregoing important indices highlights the importance of further research into employee engagement.

1.2.1.2 Current level of employee engagement

How engaged are employees? Table 1.1 summarizes employee engagement levels found in seven different research studies, though as Gibbons (2006, p.7) pointed out, 'comparing the studies' overall engagement results is complicated by their use of different definitions of engagement and somewhat different research methods'.

Table 1.1 Employee engagement levels

Country	Year	Engaged	Not engaged	Disengaged	Surveying firm	Source
Global	2005	14%	62%	24%	Towers Perrin	Towers Perrin, 2006
US	2003	29%	54%	17%	Gallup	Jamrog, 2004
	2003	17%	64%	19%	Towers Perrin	Towers Perrin, 2003
	2004	26%	55%	19%	Gallup	Meere, 2005
UK	2003	19%	61%	20%	Gallup	Meere, 2005
Canada	2005	17%	66%	17%	Towers Perrin	Towers Perrin, 2006
Australia and New Zealand	2000−2008	51−57% (Other organizations) / 72−82% (Best employers)	Not available	Not available	Hewitt	Hewitt, 2008

As reported by Towers Perrin and Gallup, only a relatively small proportion (14−29 per cent) of employees can be described as engaged, with a far greater proportion of respondents to surveys either not engaged (around 60 per cent) or disengaged (about 20 per cent).

However, according to studies in Australia and New Zealand during 2000−2008, Hewitt's Best Employers had employee engagement levels as high as 72−82 per cent. In contrast, engaged employees accounted for 51−57 per cent of employees in 'other organizations' (Hewitt Associates, 2008). The Best Employer results far exceed the 20 per cent reported by Gallup and Towers Perrin. Different methodologies make comparison of the outcomes virtually impossible, but the reported differences between Best Employers and all other studies in employee engagement raise many questions about the appropriate or ideal levels of employee engagement.

In summary, many major research studies into employee engagement have identified the overall percentage of engaged employees as typically quite low. Definitional and methodological problems in employee engagement research are discussed in the next section.

1.2.1.3 Problems in previous research into employee engagement

Several large research gaps exist in the field of employee engagement, including lack of rigorous academic research, unclear definitions, and problematic methodologies.

Employee engagement has become a popular topic in recent years among consulting firms and in the business press. However, as pointed out by Bakker and Schaufeli (2008) and Watt and Piotrowski (2008), it has rarely been studied in the academic literature. Consultants' insights are valuable, but their research may lack rigor (Macey and Schneider, 2008), is not subject to peer review, and lacks transparency (Robert, 2006; Phelps, 2009). For example, consultants rarely report strict construct reliability and validity analyses, and lack of transparency prevents independent verification in most cases.

Definitions of employee engagement in the literature tend to be unclear (Smythe, 2007; Macey and Schneider, 2008). For instance, as discussed in Section 2.4 in Chapter 2, the concepts of employee engagement, work engagement, and personal engagement tend to be confused in the literature (Towers Perrin, 2003; CIPD, 2006b; Ellis and Sorensen, 2007; Attridge, 2009). Moreover, again as discussed in Section 2.4, the behavioral-outcome factors in the construct of employee engagement have not been universally accepted.

Methodologies vary across studies and have severe shortcomings. For example, as discussed in Section 3.4.3 in Chapter 3, the various questionnaires in the literature measuring employee engagement (Schneider, Macey, Barbera, and Martin, 2009) all contain some serious defects (Little and Little, 2006). Macey and Schneider (2008) argued that most engagement measures failed to get the conceptualization correct, so the measures are inadequate.

In summary, employee engagement has wide-ranging effects on some important indices in practice, such as organizational performance. In view of the impact that engagement can have on an organization, and the relatively widespread disengagement found in various employee surveys, many organizations recognize the importance of employee engagement and have acted to improve employee engagement and leverage the organizational benefits (4-consulting and DTZ Consulting & Research, 2007). Studying employee engagement has significant implications for employers, management consultants, and academics. Nevertheless, employee engagement studies are hampered by problems of rigor and transparency, as well as definition and methodology issues. The resulting gap in understanding for both practitioners and researchers strengthens the urgency of further

research into employee engagement. Independent academic research is needed to clarify the field. This thesis aims to contribute to enhancing knowledge and understanding in the field of employee engagement by clarifying its concept, developing a new scale, and empirically linking it with perceived leadership styles and employee characteristics, as discussed next.

1.2.2 Why study the relationship between perceived leadership styles and employee engagement?

Leadership, with its varied definitions as discussed in Section 2.3.1 in Chapter 2, is one of the most studied fields in the social sciences. It has gained importance in every walk of life, from politics to business, and from education to social organizations. Leadership has not only been well recognized as a critical component in the effective management of employees (Liu, Lepak, Takeuchi, and Sims, 2003), but has also been suggested as one of the single biggest elements contributing to employee perceptions in the workplace and workforce engagement (Wang and Walumbwa, 2007; Macey and Schneider, 2008). In particular, Attridge (2009) asserted that leadership style is crucial for encouraging employee engagement.

However, there has been little published research into the relationship between leadership styles and employee engagement. This area would benefit from empirical research into what type of leadership style can foster more employee engagement. Such a study would both fill a gap in the literature and have an important potential effect on practice.

Yet, leadership does not exist separately from followers' perceptions (Avery, 2004). All we can measure are their perceptions of leadership styles. Therefore, this thesis investigates the relationship between perceived leadership styles and employee engagement.

1.2.3 Why study the direct supervisor (under certain leadership styles)?

Although a controversy continues over the distinctions between leadership and management (Yukl, 1989), consistent with Yukl (1989), we see considerable overlap between leadership and management. For the purpose of this thesis, the broad concepts of manager and leader are covered by supervisor as a more generic term and are used interchangeably.

In this thesis, the direct supervisor refers to the person who directly supervises and monitors employees' daily work (Pinsonneault and Kraemer, 1997). Leadership may be exhibited at many tiers in an organization (Dulewicz and Higgs, 2005). The hierarchical distance between leaders and followers generally affects how leaders are perceived and the effects those perceptions have on attitudinal and performance outcomes (Lord and Maher, 1991; Antonakis and Atwater, 2002; Avolio, Zhu, Koh, and Bhatia, 2004). Organizational characteristics occurring at higher tiers are likely to be mediated by local, managerial leadership because the 'immediate supervisor is the most salient, tangible representative of management actions, policies, and procedures' (Kozlowski and Doherty, 1989, p.547).

Many consultants and academics agree that an employee's direct supervisor plays a key role in influencing his or her level of employee engagement (Frank et al., 2004; Gopal, 2004; Gibbons, 2006; Sardo, 2006; Stairs, Galpin, Page, and Linley, 2006; Jones, Wilson, and Jones, 2008; Amos, Ristow, Ristow, and Pearse, 2009; Schneider et al., 2009). In fact, Buckingham and Coffman (1999) claimed that an individual's relationship with his/her supervisor is the strongest influencer of his/her engagement. Besides being taken as a predictor of employee engagement (see Section 2.6.2 in Chapter 2), direct supervisors also have some indirect effects on employee engagement by affecting other engagement predictors, such as expansive communication, trust and integrity, and a rich and involving job (Towers Perrin, 2003; Robinson, Perryman, and Hayday, 2004; Shaw and Bastock, 2005; Baumruk et al., 2006; CIPD, 2006a; Stairs et al., 2006; Schneider et al., 2009).

Bates (2004) believes that the role of direct supervisors is increasingly regarded as significant in driving engagement because first-line supervisors reside at the point of contact of the changing relationship between organizations and employees. He explained that the nature of employment has shifted in the post-industrial era from one of 'paternalism' to one of 'partnership'. This partnership replaces the traditional ideas of strictly authoritarian styles of leadership with ones that feature an emotional bond between the supervisor and employee that includes shared values, goals, mutual caring, and respect. This assertion needs empirical support.

In summary, there is a strong consensus, borne out in the research, that direct supervisors are crucial to driving employee engagement. On the other hand, there is also a shortage of empirical investigations into the relationship between them, especially leadership styles of direct supervisors and employee engagement. To address this research gap, in this thesis,

under classical, transactional, and visionary leadership, an employee's perception of his or her direct supervisor's leadership style was investigated. Under organic leadership, because there can be no formal leader, but multiple, changing leaders within a group, an employee's perception of his or her group's leadership style was investigated.

The next section explains the reasons for studying the moderating role of employee characteristics between perceived leadership styles and employee engagement.

1.2.4 Why may employee characteristics moderate the relationship?

A moderating variable has a strong contingent effect on the independent variable - dependent variable relationship. That is, the presence of a third variable (the moderating variable) modifies the original relationship between the independent and dependent variables. Moderators can be classified as pure moderators, quasi moderators, and homologizers. A pure moderator enters into interaction with the independent variable, while having a negligible correlation with the dependent variable itself. By contrast, a quasi moderator variable interacts significantly with the independent variable and is also associated with the dependent variable. A homologizer influences the strength of the relationship, does not interact with the predictor variable, and is not significantly related to either the predictor or criterion variable (Sharma, Durand, and Gur-Arie, 1981).

Similarly, in an extension of earlier work, Howell, Dorfman, and Kerr (1986) proposed a typology of moderators based on the mechanisms by which they operate. Their substitute typology was refined to contain neutralizers and enhancers of the relationship between leader behavior and related outcomes. Neutralizers interrupt the predictive relationship between a leader behavior and criteria (dependent variable), but have little or no impact on the criteria themselves, thus, representing a negative moderating influence on the relationship. Conversely, enhancers augment the relationship between leader behaviors and criteria with their own predictive power over the criteria, thus, representing a positive moderating influence on the relationship (Whittington, Goodwin, and Murray, 2004).

The relationship between perceived leadership styles and employee engagement is influenced by many factors: organizational characteristics, employee characteristics, and job characteristics (Corporate Leadership Council, 2004; 4-consulting and DTZ Consulting & Research, 2007). In particular, as discussed below, both theoretical and empirical works highlight the important moderating role that employee characteristics may play in the

relationship between leadership styles and employee engagement. This suggests a more systemic or interactive view of leadership.

Contingency theories, such as path-goal theory (House, 1971), Least Preferred Coworker (LPC) contingency theory (Fiedler, 1967), leadership substitute theory (Kerr and Jermier, 1978), normative decision theory (Vroom and Yetton, 1973), and multiple linkage model (Yukl, 1981), suggest that leader effectiveness depends on leaders as well as situational characteristics, such as the characteristics of the task, the subordinates, and the environment (Liu et al., 2003; Turner and Müller, 2005). For instance, path-goal theory suggests that the most effective leader behavior in any given instance depends on attributes of the situation and characteristics of the followers. The theory identifies three subordinate factors: locus of control, experience, and perceived ability. That is, subordinates' attributes and aspects of the situation moderate the effectiveness of leader behaviors (Mathieu, 1990; Turner and Müller, 2005).

The theoretical predictions that followers' characteristics modify leadership relations are also supported by empirical studies. For example, Podsakoff, MacKenzie, Paine, and Bachrach (2000) examined previous empirical research regarding the known antecedents of citizenship behavior (i.e., 'individual behavior that is discretionary, not directly or explicitly recognized by the formal reward system, and that in the aggregate promotes the effective functioning of the organization' (Organ, 1988, p.4)). They suggested that these antecedents fall into four broad categories: individual characteristics (e.g., attitudes and dispositions); organizational characteristics (e.g., formal versus informal organizational structures); task characteristics (e.g., intrinsically satisfying tasks, non-routine tasks, and tasks that provide feedback); and leadership behaviors (e.g., transactional and transformational leadership). Citizenship performance can be taken as a proxy for leadership outcome, in which case followers' individual characteristics moderate the relationship between leader behaviors and citizenship performance.

Leadership authors have maintained that it is critical to take followers' individual differences into account in order to understand how leadership works (Shin and Zhou, 2003; Felfe and Schyns, 2010). According to individualized leadership theory (Dansereau, Yammarino, Markham, Alutto et al., 1995), different followers respond to the same leadership style differently, depending on how they regard their leader. Liao and Chuang (2007) also concluded that employees' attitudes are determined by their different perceptions and

cognitive categorizations of leadership behaviors. This perspective has strong empirical support from previous work that found that the effects of transformational leadership on employee attitudes manifested at the individual instead of the group or other levels of analysis. Ehrhart and Klein (2001) and Yun, Cox, and Sims Jr. (2006) also drew similar conclusions.

One more study clearly showed how individual differences interact with leadership styles. Walumbwa, Lawler, and Avolio (2007) examined allocentrism (i.e., viewing oneself in terms of the in-groups to which one belongs) as a moderator of transformational leadership-work-related attitudes and behaviors. Based on survey data collected from 825 employees from China, India, Kenya, and the US, they found that individual differences moderated the relationships between leadership and followers' work-related attitudes. Specifically, allocentrics reacted more positively when they regarded their managers as being more transformational. Idiocentrics, who view oneself as the basic social unit where individual goals have primacy over in-group goals, reacted more positively when they viewed their managers as displaying more transactional contingent reward leadership.

Additionally, studies of employee engagement suggested that employees' characteristics can substantially affect their engagement levels. For example, the Chartered Institute of Personnel and Development (CIPD) (2007) claimed that engagement levels are influenced by employees' individual characteristics: a minority of employees is likely to resist becoming engaged in their work no matter what employers do. Further work in this field is required: 'More detailed disaggregation of employee surveys by organizational and employee type as drivers of engagement would be really useful to assess whether employee engagement is dependent on the factors stipulated in the literature' (4-consulting and DTZ Consulting & Research, 2007, p.55).

Despite the important effect that employee characteristics can have on both leadership and employee engagement, leader-centered approaches have dominated the leadership research agenda with their focus on the personality traits, behavioral styles, and decision-making methods of the leader. Podsakoff, MacKenzie, Morrman, and Bommer (1995) carried out an extensive analysis searching for leadership moderators, including employee characteristics, and concluded that empirical support for situational factors had 'unfortunately, over the years, not received much empirical support' (Podsakoff et al., 1995, p.464). Since this work, very little research has investigated employee characteristics as a potential leadership contingency

factor. Indeed, characteristics of the individual follower seem to have been forgotten as a fruitful area of leadership contingency research (Yun et al., 2006).

Thus, it has become important to incorporate subordinates into leadership models in order to deepen our understanding of the leadership process (De Vries, Roe, and Taillieu, 1999; Howell and Shamir, 2005). Examining how the characteristics of the follower might affect behaviors and attitudes in response to particular types of leaders is an important next step for follower research (Ehrhart and Klein, 2001; Benjamin and Flynn, 2006). By examining the moderating effects of employee characteristics on the leadership-employee engagement relationship, this thesis aims to fill this empirical gap.

In summary, leadership and employee engagement are becoming increasingly significant in order for organizations to gain and sustain competitive advantage in today's global competition (Hughes and Rog, 2008; Macey and Schneider, 2008). Furthermore, few research studies have investigated the relationship between perceived leadership styles and employee engagement, while taking employee characteristics into consideration. For these reasons, this thesis is addressing a major gap in the literature.

1.3 Research questions

Based on the above discussion and the literature review in Chapter 2, this thesis addresses the following three research questions:

Research question 1: What are the behavioral-outcome factors in the construct of employee engagement?

As discussed in Section 2.4 of Chapter 2, the behavioral-outcome factors in the construct of employee engagement are not universally accepted. That is, whether the behavioral-outcome component of employee engagement includes say, stay, and strive, or not? This research question aims to resolve this huge conceptual gap identified in the literature of employee engagement.

Research question 2: Is perceived leadership style associated with employee engagement?

The second research question is generated mainly from the discussion in Section 1.2.2. It investigates how perceived leadership styles might influence employee engagement.

Research question 3: Do employee characteristics moderate the relationship between perceived leadership styles and employee engagement?

The third research question stems mainly from the discussion in Section 1.2.4. This research question takes account of employee characteristics when researching the relationship between perceived leadership styles and employee engagement.

The final part of this chapter provides a guide to the chapters of the thesis, describing the content and purpose of each chapter.

1.4 Thesis structure

This thesis has six chapters.

Chapter 1 (Introduction) has provided an introduction to the research background and significance, research questions, and the structure of this thesis.

Chapter 2 (Literature review) presents an overall conceptual framework for the research topic. It reviews the literature on leadership, leadership styles, followership, employee engagement, and possible moderating employee characteristics. Three potential moderating variables were selected from the literature: need for achievement, equity sensitivity, and need for clarity. Specific research hypotheses were developed from the literature review.

Chapter 3 (Research methodology) justifies adopting certain demographic variables and choosing a combination of face-to-face survey and mail survey methodology, and presents the unit of study, population, sample size, and sampling procedures. It introduces the questionnaire used, including the questionnaire design, content, and coding, as well as measures for the variables. It also describes the data collection methods.

Chapter 4 (Data preparation and factor analysis) presents the labels and sources of the variables, and describes how the data were cleaned and prepared for further analysis. The chapter reports some essential descriptive statistics and presents the normal distribution test for the latent variables. It introduces the major statistical analysis technique – SEM – and justifies its use in this thesis. Finally, the chapter reports the model fit in factor analysis and the reliability and validity of the measures of the 11 latent variables.

Chapter 5（Hypothesis testing and research findings) reports on the group difference assessment and the path analysis used to test the research hypotheses. The chapter analyzes the moderating effects in the research hypotheses and summarizes the hypothesis testing results.

Chapter 6 (Discussion and conclusions) summarizes the study, discusses the research findings, and draws conclusions. It presents this thesis' contributions to knowledge and its managerial implications. Finally, this chapter outlines some limitations of the thesis, and provides recommendations for future research and concluding remarks.

CHAPTER 2

LITERATURE REVIEW

2.1 Overview of Chapter 2

This chapter consists of seven sections, including this overview. The conceptual framework of this thesis is presented in Section 2.2. Section 2.3 defines leadership and outlines the rationale for adopting Avery's typology of leadership styles, the contents of the leadership styles, and followership. Section 2.4 discusses the definitions of employee engagement. Section 2.5 explains the process of selecting suitable potential moderating variables, with three potential moderating employee characteristics discussed in detail. Section 2.6 presents the research hypotheses and explains their development. The chapter concludes with Section 2.7.

2.2 Conceptual framework

The theoretical structure of this thesis is depicted in Figure 2.1. This conceptual framework has three main domains: leadership styles, moderating variables in the relationship between leadership styles and employee engagement, and employee engagement.

Avery's (2004) four leadership styles form the independent variables, namely the classical, transactional, visionary, and organic styles. The moderating variables include need for achievement, equity sensitivity, and need for clarity. The dependent variable is employee engagement. The relationships among the variables are shown in Figure 2.1.

Figure 2.1 Conceptual framework of the study

Independent Variables   Moderating Variables   Dependent Variable

| Classical Leadership | | Employee Engagement |

| Transactional Leadership | | Need for Achievement |

| Visionary Leadership | | Equity Sensitivity |

| Organic Leadership | | Need for Clarity |

Leadership Styles   Employee Characteristics   Employee Engagement
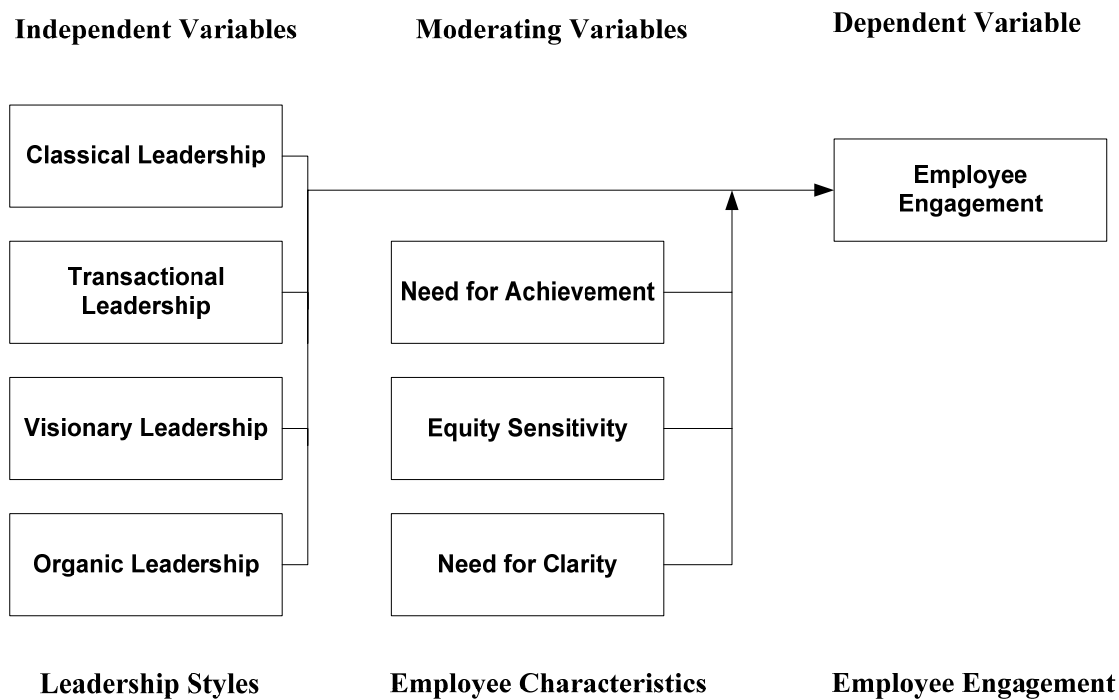
2.3 Leadership, leadership styles, and followership

This section defines leadership and explains the reason for the choice of leadership styles. It briefly discusses the leadership styles and introduces the concept of followership, important because of the central role of followers in leadership and employee engagement.

2.3.1 Definition of leadership

Leadership has been an important topic in both the academic and organizational worlds for many decades. The literature reveals a wide range of definitions (House and Aditya, 1997; Yun et al., 2006; Alas, Tafel, and Tuulik, 2007). Stogdill (1974) asserted that there are nearly as many definitions of leadership as there are people trying to define it.

'An acceptable definition of leadership needs to be sound both in theory and in practice, able to withstand changing times and circumstances, and be comprehensive and integrative rather than atomistic and narrow in focus' (Avery, 2004, p.7). Nevertheless, many definitions are fuzzy and inconsistent, making informed discussion extremely difficult. In trying to

understand leadership, scholars have intentionally broken it down into smaller components, focusing on narrow facets such as decision making (Vroom and Yetton, 1973). Most researchers choose to focus on either individual leaders or the broad strategic leadership sphere, and few have attempted to bridge these domains (House and Aditya, 1997; Avery, 2004). As presented below, these approaches result in some challenges in defining leadership.

The first challenge is that most approaches are based on subjective preferences for including or excluding certain elements or levels of analysis from the concept (Campbell, 1977; Fairholm, 1998). This has resulted in an over-emphasis on certain approaches to studying leadership, such as the trait, behavioral, contingency, and visionary or charismatic approaches that have been identified as prominent in the leadership literature (House and Aditya, 1997). Second, researchers also fall prey to social constructions of leadership. Some scholars and practitioners have raised leadership to an idealistic, lofty status and significance, focused around heroic individuals (House and Aditya, 1997). They claimed leadership is a rare skill, leaders are born with special traits, leadership exists mainly at the top of an organization, and effective leaders command and control others (Bennis and Nanus, 1985). However, it is obvious that the lone heroic leader cannot continue to exist in today's dynamic and complex organizations, no matter how gifted and talented. Rather, leadership is a distributed phenomenon, occurring in different parts of an organization, not only emanating from the top (Avery, 2004). Third, researchers frequently overlook that leadership is not vested in characteristics of leaders, but is often attributed to them by followers (Meindl, 1998). In other words, consistent with the latter socio-cognitive view, leadership 'involves behaviors, traits, characteristics, and outcomes produced by leaders as these elements are interpreted by followers' (Lord and Maher, 1991, p.11). In this view, leadership does not exist separately from followers' perceptions (Meindl, 1998). As Drath (2001) pointed out, effective leadership requires alignment between both leaders' and followers' ideas about leadership, and yet followers are often ignored in definitions of leadership.

To meet these challenges, Avery (2004) proposed four paradigms of leadership – the classical, transactional, visionary, and organic paradigms – each reflecting a different type of leadership (Following the mainstream practice, this thesis will hereafter use 'style' instead of 'paradigm'). Based on Avery's work, Bergsteiner (2008) developed a 24-cell Leadership Matrix that embraces two critical issues in understanding leadership: levels of leadership and styles of leadership (Table 2.1).

Table 2.1 Bergsteiner's (2008) leadership matrix

| | | AVERY'S (2004) LEADERSHIP STYLES | | | |
		Classical	Transactional	Visionary	Organic
1	SOCIETAL ISSUES prevailing culture,				
2	MACRO ORG'L ISSUES Organizational or divisional systems, processes, traits, life-cycle, size, economic model (Anglo/US vs. Rhineland), strategy				
3	MESO ORG'L ISSUES Classes of	Executive Team, i.e. upper echelon characteristics			
4		Other Leaders', i.e. middle managers' characteristics			
5	people	Followers' characteristics			
6	MICRO ORG ISSUES Specific behaviors, attitudes, traits of individuals, dyads and small groups				

POTENTIAL LEADERSHIP DOMAINS

Bergsteiner (2008) combined four levels of leadership (societal, macro, meso or middle, and micro levels) with Avery's (2004) four leadership styles to create his 24-cell Leadership Matrix. The definition of effective leadership suggested by Bergsteiner (2008) depends on the level and style under consideration. Leadership can operate in different ways at different levels, and different leadership styles may suit different situations (Bergsteiner, 2008). Thus, one can expect the definition of leadership to vary with context. This is in line with the call for a more sophisticated treatment of context in organizational research (Johns, 2006).

In summary, the literature indicates that leadership has not yet been universally defined. Given that the nature of leadership varies with context and level, a single agreed definition of leadership may never emerge. However, the approach proposed by Avery (2004) and Bergsteiner (2008) regards leadership as a phenomenon based on the interactions between leaders and followers within the overall organizational culture and systems, varying with level and context. This systemic approach overcomes most of the challenges mentioned

above, and is comprehensive and integrative enough to withstand changing times and circumstances. This approach represents a radical departure from conventional views of leadership but is necessary to capture the interactive nature of leaders, followers, and their contexts. Therefore, this complex approach to defining leadership was adopted in this thesis.

2.3.2 Why adopt Avery's typology of leadership styles?

The leadership literature has a tradition of conceptualizing leadership typologies. In a typical typology, leader behaviors are theoretically categorized into prominent types or 'styles' of leadership (Liu et al., 2003).

Leadership style has been described in various ways (Lee and Chang, 2006). An important current conception of leadership style is to regard it as the relatively consistent pattern of behavior that characterizes a leader (Dubrin, 2001; Eagly, Johannesen-Schmidt, and Van Engen, 2003). However, this conception has its own limitations. For example, leadership also involves followers, so leadership style should be defined as the relatively consistent pattern of behavior applying to leader-follower interactions. In the literature, authors have suggested several different categories of leadership styles. For instance, Bass (1985) argued that there are four dimensions of transformational leadership, three dimensions of transactional leadership, and a non-leadership dimension (Bass, 1985). Drath (2001) identified three types of leadership: personal, interpersonal, and relational. Goleman, Boyatzis, and McKee (2002) suggested six leadership styles in their study: visionary, coaching, affiliative, democratic, pacesetting, and commanding. Avery (2004) clustered leadership into four leadership styles.

The typologies of Drath (2001) and Goleman et al. (2002) in particular have some limitations. For example, Goleman et al. (2002) felt that leaders should be able to switch back and forth among the six leadership styles in their typology, depending on the situation. However, as pointed out by Yunker and Yunker (2002), a major assumption behind this pronouncement is that flexibility is easily mastered and that leaders are capable of changing behaviors in spite of their personalities and their inabilities to accurately diagnose a variety of situations. 'Because personalities are relatively stable and resistant to change in most adults, many feel that humans are generally inflexible in their behavior patterns. There is also considerable skepticism that people can do a very good job diagnosing situations accurately and determining what is called for in terms of leadership style. From the subordinate's point of

view, there is also the potential problem of the leader being perceived as inconsistent and unpredictable' (Yunker and Yunker, 2002, p.1032). These problems cast doubt on the utility of the Goleman et al. (2002) typology. In contrast, Bass (1985) and Avery (2004) viewed leadership styles as generally consistent relationships between leaders and followers, an approach which overcomes the above shortcomings in the Goleman et al. (2002) typology.

Most research studies about leadership styles are based on Bass's (1985) typology. Despite the popularity of Bass's (1985) theory, his model has been criticized. One criticism is that his model overemphasizes the importance of one or two leadership styles (e.g., transactional and visionary), while neglecting other styles, such as classical and organic styles (Jing and Avery, 2008; Trottier, Van Wart, and Wang, 2008; Avolio, Walumbwa, and Weber, 2009). It is thus not a real 'full range of leadership' (Bass and Avolio, 1998; Avolio, 1999). Many researchers recommended including other leadership styles in future studies. For instance, based on the transactional-transformational style of Bass, Liu et al. (2003) extended this typology to integrate two other distinct types of leadership styles that have received considerable research attention: directive leadership and empowering leadership. Moreover, Yukl (1999b) identified a number of conceptual and methodological problems in Bass's model that cast doubt on the validity of its theoretical constructs. The differentiation of the subdimensions of the model is ambiguous. In particular, Bass's theoretical distinctions between idealized influence and inspirational motivation have become blurred over time (Barbuto, 1997). The diversity of behaviors encompassed by individualized consideration and contingent reward is also problematic (Yukl, 1999a, 1999b). However, by taking account of traditional and modern (e.g., networked, dispersed) leadership styles simultaneously, and discarding ambiguous subdimensions of Bass's model, Avery's (2004) typology overcomes some of the abovementioned weaknesses of Bass's theory.

Moreover, Avery (2004) integrated many other approaches and theories into the four styles. As Avery (2004, p.146) showed, some theories fit only certain styles. Thus, her typology has broad utility in the field.

In summary, Avery's (2004) styles integrate the foregoing approaches to provide a wide basis allowing for different forms of leadership that have evolved at different times and in different places. The styles are useful for showing that there is no single best way of thinking about leadership; rather, different kinds of leadership reflect social and historical roots. By including a full range of leadership styles, Avery's styles allow leadership to depend on the

context, respond to organizational needs and preferences, and involve many interdependent factors that can be manipulated (Jing and Avery, 2008). Therefore, Avery's (2004) typology for four types of leadership styles is applied in this thesis.

2.3.3 Contents of Avery's leadership styles

This section discusses Avery's (2004) four leadership styles – classical leadership, transactional leadership, visionary leadership, and organic leadership – and the major characteristics distinguishing these styles.

Classical leadership, the oldest style with its origins in antiquity, was the prevailing view until the 1970s, when the human relations movement brought a focus on followers and their surroundings. This led to the transactional style. While classical leadership can still be found today, transactional and other styles have emerged to challenge it as the primary one. From the mid-1980s, visionary leadership emerged with its emphasis on follower commitment to a vision of the future. Finally, the styles are shifting again in a distributed, fast-moving, global environment, this time to include organic leadership, which is appropriate to many kinds of organizations in this context (Avery, 2004). Each leadership style and its major characteristics are discussed below in turn. The arguments and discussions in the following sections support the development of the research hypotheses concerning the four leadership styles, as described later in Section 2.6.

2.3.3.1 Classical leadership

According to Avery (2004), classical leadership refers to dominance by a pre-eminent person or an 'elite' group of people. This individual or group commands or maneuvers others to act towards an objective, which may or may not be explicitly stated. The other members of the society or organization generally adhere to the directives of the elite leader(s), do not openly question their commands, and execute orders mainly out of fear of the consequences of disobeying, or out of respect for the leader(s), or both. Classical leadership can therefore be coercive or benevolent, or a mixture of both.

Classical leadership operates successfully when leaders and followers accept the right or duty of the leader(s) to dictate to the population. Having others make decisions, give directions, and take responsibility has the advantage of setting followers free from these activities (Avery, 2004).

However, classical leadership has some limitations. Classical leadership is limited where the leader cannot command and control every action, particularly as situations become more complex and beyond the capacity of one person; or when additional commitment from followers is needed to get a job done, such as in responding to changing circumstances; or when ideas about leadership change and followers no longer accept domination, or follower commitment starts to wane for other reasons. Another limitation is that classical leadership relies on the idea of a 'great person', implying that only a select few are good enough to take the initiative. This can encourage followers to de-skill themselves and idealize the leaders. Followers then seek and hold little power, leave the leader accountable for group results, and make relatively little contribution to the organization (Avery, 2004).

In Avery's (2004) classical leadership style, leaders normally employ an autocratic style for making decisions; they never or only very rarely involve followers in the decision-making process. Leaders do not empower followers, giving them almost no power in the organization. Classical leaders tend to be highly directive, enabling them to employ unskilled followers. The source of followers' commitment comes from their fear of or respect for the leaders. The operations in the organization become routine and predictable. The organization is highly controlled by the leaders.

2.3.3.2 Transactional leadership

Transactional leaders and followers interact and negotiate agreements, that is, they engage in 'transactions'. Therefore, it is essential for the leader to have the power to reward followers (Bass and Avolio, 1994). Other transactions require correcting followers or getting involved only with issues that need the leader's attention, known as management-by-exception (Bass, 1985; Avery, 2004). Transactional leaders regard followers as individuals, and focus on their needs and motives. Then they clarify how these needs and motives will be catered for in exchange for the followers' work. By clarifying the requirements of followers and the consequences of their behaviors, transactional leaders can build confidence in followers to

exert the necessary effort to achieve expected levels of performance. Under transactional leadership, followers agree with, accept, or comply with the leader to exchange monetary rewards, praise, and resources, or to avoid disciplinary actions (Bass, Jung, Avolio, and Berson, 2003; Avery, 2004).

Generally, transactional leadership depends largely on the leader's skills, confidence in his or her selected direction, and on getting some cooperation from the followers. Such leaders attempt to persuade and influence followers to achieve certain ends, taking some account of the followers' viewpoints as part of the negotiations. Transactional leaders employ interpersonal skills to motivate, direct, control, develop, teach, and influence followers more than they themselves are influenced (Drath, 2001). Though a transactional leader may hold a view of the future, 'selling' this vision is not vital for effective transactional leadership. The focus tends to be short-term and on maximizing immediate results and rewards (Avery, 2004).

In terms of Avery's (2004) classification, the transactional style overcomes some limitations of classical leadership by considering and involving followers. Through this process, the leader obtains more information and ideas, and followers can be developed and have their personal needs recognized. However, transactional leadership has its own limitations. First, followers can perceive the monitoring typical of transactional leadership as constraining, lowering their likelihood of contributing to organizational objectives. A transactional leader's corrective interventions and management-by-exception can upset some followers and decrease their performance (Ball, Trevino, and Sims, 1992). Second, in times of rapid change and uncertainty, transactional leadership becomes limited, particularly when greater commitment is needed from followers, or if followers need to be willing to make major changes to their mindsets and behaviors (Bass, 1990; Drath, 2001). It is unrealistic to expect a transactional leader to predict and negotiate all the needed changes in relatively complex situations, and during incremental change (Bass, 1990). Third, a transactional leader is likely to approach decisions with a heavy focus on short-term payoffs (Avery, 2004).

Under transactional leadership, leaders adopt a consultative style for making decisions. They consult individual followers to different degrees, but the leaders remain the final decision makers. Leaders do not empower followers very much. Followers have little power in the organization other than being able to withdraw or contribute more of their labor. In contrast to classical leaders, transactional leaders normally employ not only unskilled staff, but also a small number of skilled staff for their organizations. The followers' knowledge base is

somewhat higher than under classical leadership. The source of followers' commitment comes from the rewards, agreements, and expectations negotiated with the leader. The operations in the organization become routine and predictable as well. The organization is mostly highly controlled by the leaders (Avery, 2004).

2.3.3.3 Visionary (transformational, charismatic) leadership

Since the late 1970s, visionary (also known as transformational or charismatic) leadership in organizations has gained increased attention (House, 1977; Burns, 1978; Bass, 1985; Conger and Kanungo, 1987). This stream of leadership research adds a new dimension to leadership studies, namely the future vision aspect of leadership and the emotional involvement of employees within the organization. Visionary leaders work through a vision that appeals to followers' needs and motivations (Avery, 2004). That is, visionary leaders are expected to provide a clear vision of the future, develop a road map for the journey ahead, and motivate followers to perform and achieve goals beyond normal expectations. This involves the emotional commitment of followers (Bass, 1985; Kantabutra, 2003).

Although fine distinctions can be drawn between charismatic, transformational, or visionary leadership theories, many, if not most, scholars have concluded that the differences are relatively minor, with a strong convergence among the empirical findings (Judge and Piccolo, 2004; Howell and Shamir, 2005; Benjamin and Flynn, 2006; Keller, 2006; McCann, Langford, and Rawlings, 2006; Podsakoff, Podsakoff, and Kuskova, 2010). This thesis adopted the term 'visionary leadership', consistent with Avery's (2004) terminology.

According to the outcomes of a 62-country study, certain aspects of visionary leadership seem to be universally recognized (Den Hartog, House, Hanges, Ruiz-Quintanilla, and Dorfman, 1999). The recognized characteristics of visionary leadership include: being trustworthy, just, and honest; being inspirational, encouraging, positive, motivational, confidence building, dynamic, good with teams, excellence-oriented, decisive, intelligent, a win-win problem solver; and exercising foresight.

Regardless of the popularity of visionary leadership in the literature, it has its own limitations (Avery, 2004). Nadler and Tuschman (1990) pointed out that the unrealistic expectations that followers often put on visionary leaders can bring disappointment if things do not work out.

Followers can become dependent on visionary leaders, believing that the leader has everything under control. Moreover, innovation can be inhibited if people become unwilling to disagree with a visionary leader. Visionary leadership is not necessarily synonymous with good leadership (Westley and Mintzberg, 1989), and effective leaders do not have to be visionary (Collins, 2001). This paves the way for alternative styles of leadership that can work well in different contexts (Avery, 2004).

As discussed by Avery (2004), under visionary leadership, leaders adopt a collaborative style for making decisions. They share problems with their followers, discuss and consult with them, and try to reach a consensus before the leaders make the final decision. Visionary leaders empower their followers. Leaders give followers a much higher level of power in the organization than under classical or transactional leadership, because the leader needs the followers' input and commitment to realize his or her goals. Followers of visionary leadership need sufficient power to work autonomously towards a shared vision. Visionary leadership requires skilled and knowledgeable workers who can contribute to realizing the vision. Followers need to buy into the leader's vision. The source of followers' commitment comes from the vision shared with their leaders, and sometimes from the influence of the leaders' charisma. The operations in the organization become more uncertain and unpredictable. The organization is controlled jointly by the leaders and their followers.

2.3.3.4 Organic leadership

The idea that leadership can be distributed among many individuals, rather than being focused in a single leader, stems from the 1950s (Gibb, 1954; Bowers and Seashore, 1966), and has received increased attention in recent years (Drath, 2001; Avery, 2004; Mehra, Smith, Dixon, and Robertson, 2006). It has been labeled 'organic' leadership by Avery (2004).

According to Avolio et al. (2009), the most widely cited definition of organic leadership is that of Pearce and Conger (2003, p.1): 'a dynamic, interactive influence process among individuals in groups for which the objective is to lead one another to the achievement of group or organizational goals or both. This influence process often involves peer, or lateral, influence and at other times involves upward or downward hierarchical influence'. In spite of organic leadership being conceptualized (and operationalized) in a number of different ways (Day, Gronn, and Salas, 2004), there seems to be wide consensus on two issues. One is that

leadership is not necessarily just a top-down process between the formal leader and team members. The other is that there can be multiple leaders within a group (Mehra et al., 2006).

Organic leadership is likely to blur or even eliminate the formal distinction between 'leaders' and 'followers' (Avery, 2004; Woods, Bennett, Harvey, and Wise, 2004). Under this style, leadership can change depending on the most appropriate member at the time, rather than being formalized in a permanent, appointed leader. Organic leadership will rely upon reciprocal actions, where people work together in whatever roles of authority and power they may have (Rothschild and Whitt, 1986; Hirschhorn, 1997). Employees become interacting partners in deciding what makes sense, how to adapt to change, and what is a useful direction. Without a formal leader, the interactions of all organizational members can act as a form of leadership (Avery, 2004; Woods et al., 2004). In organic organizations without a formal leadership structure, an integrator role may emerge to actively link together the many parts of the organization. Integrators can largely influence decision making based on their unique perspective across the organization (Avery, 2004).

Rather than depending on one leader, organic organizations are likely to have many leaders (Drath, 2001). Multiple leaders are beneficial because as people cope with heterogeneous and dynamic environments, the knowledge and issues become too complicated for only a few leaders to understand (Avery, 2004). Organic leadership allows people with different levels of expertise on current issues to emerge and be accepted by the organization as leaders.

For many people, organic leadership represents a radical change of thinking about leadership, followership, and the traditional nature of organizations. It involves abandoning conventional notions of control, order, and hierarchy, replacing them with trust and an acceptance of continual transformation, a degree of chaos, and respect for diverse members of the organization. In organic organizations, the members are expected to be self-managing and self-leading. It is believed that they have the capacity to solve problems and make decisions in the interests of the organization.

Some authors claimed that organic leadership can enhance organizational capacity, especially for dealing with challenges of complexity and work intensification (Trottier et al., 2008). Organic leadership can arise as a response to dynamic, complex, knowledge-based environments, but it is not a universal panacea. Kanter (1989) underscored the downside of autonomy, freedom, discretion, and authorization, which is loss of control and greatly

increased uncertainty. This can be painful and disturbing to some employees, especially managers who have been trained to eliminate 'surprises' or believe that management is about controlling uncertainty. It can also be distressing for followers seeking certainty and predictability (Collins and Porras, 1994).

According to Avery (2004), under organic leadership, the organization adopts a mutual decision-making style so that affected members make decisions collectively. Employees become interacting partners in determining what makes sense, how to adapt to change, and what is a useful direction for the organization (Avery, 2004). Decisions need not be unanimous but can be based on consensus, where acceptance of the group decision is central. Individual members have a high degree of power because of the shared leadership. This leadership style relies on attracting and retaining highly trained and knowledgeable staff who have autonomous and self-controlling capabilities. The source of followers' commitment is the vision, values, and strong culture shared by all the organizational members, and possibly from peer pressure. The technical system is highly complex. Operations in the organization become more self-organizing and unpredictable. Formal control in the organization is provided by peer pressure, group dynamics, and the shared vision, values, and culture, besides mentoring, communication, and solid transactional processes, such as feasibility study processes and performance management processes. Communication and sharing information occupy considerable time. Diverse values and views are accepted and accorded equitable treatment (Avery, 2004).

It is very important to realize that generally, rather than fitting one of the styles perfectly, leaders may well employ elements of several styles. However, in practice, it is likely that leaders exhibit preferences for a particular style. This is because organizational systems and processes, reward systems, and performance management need to align to suit or support a particular style. This makes it difficult to alternate between styles as a permanent feature of a well-functioning organizational system. The adoption of style is likely to depend on the situation or reflect individual leaders' personal preferences (Avery, 2004). For instance, in spite of being idealized in the literature, visionary leaders use coercive tactics at times (Lewis, 1996). In transforming organizations, visionary leaders may employ classical and transactional techniques to implement their visions (Kotter, Schlesinger, and Sathe, 1979; Dunphy and Stace, 1988, 1990; Nadler and Tuschman, 1990). Even though they may not abandon all the elements of classical and transactional styles, visionary leaders work

predominantly through vision and inspiration (Avery, 2004). A visionary leader is distinguished from a classical or transactional leader who has a vision by involving and empowering followers in achieving that vision. In any case, no typology is perfect, but it provides researchers with a means of differentiating broad leadership approaches in carrying out their studies, communicating, and understanding the world. It is also possible that some parts of the same organization reflect different leadership styles (Avery, 2004).

This section has discussed Avery's (2004) four leadership styles, namely classical leadership, transactional leadership, visionary leadership, and organic leadership, and their main distinguishing characteristics. This overview underpins the development of the research hypotheses about leadership styles in this thesis by analyzing the relationship between characteristics of a particular leadership style and predictors of employee engagement or a certain moderator variable.

The next section presents the definitions, origins, and relevant research into followership, in order to further understand leadership from another important perspective.

2.3.4 Followership

Generally, 'followership is the response of those in subordinate positions (followers) to those in superior ones (leaders). Followership implies a relationship (rank), between subordinates and superiors, and a response (behavior), of the former to the latter' (Kellerman, 2008, p.xx).

Follett (1949) was perhaps the first modern management academic to focus on the lack of information and shortage of attention given to followership. She stated that followers' role in the leadership situation is of the utmost importance, but has been considered far too little. Followers not only follow, they have a very active role to play, and that is to keep the leader in control of a situation. Interestingly, Follett was also the first writer to concentrate on 'followership' as a special and interdependent (as opposed to dependent) role in the supervisor-subordinate team. She also noted its importance in determining work-group behaviors and overall organizational performance. Follett emphasized that it is the dynamic between the leader and follower that is critical and that enables the 'team' to master situations, not the ability of the leader to dominate the follower.

On the one hand, leadership cannot exist without some degree of followership. Effective leadership implies or demands effective followership. Followership dominates organizations – there are always more followers than leaders. Even many leaders in organizations themselves are also followers. On the other hand, followership cannot be entirely understood outside the conceptual framework of leadership. Therefore, we must view leadership and followership as a direct symbiotic relationship between those who lead and those who choose to follow. They are in a yin-yang sense of interdependency (Montesino, 2002; Vecchio, 2002; Dixon and Westbrook, 2003; Frisina, 2005; Collinson, 2006).

Cultivating effective followership requires doing away with the misconception that leaders do all the thinking and followers only implement commands. Followership does not mean passive, blind, unreflective obedience to the directives of a leader (Lundin and Lancaster, 1990; Frisina, 2005). Followership plays a pivotal role at every level of an organization (Lundin and Lancaster, 1990); indeed no organized effort can be successful and sustained without followers (Blackshear, 2003). Success in organized efforts happens from the combined efforts of many working together. Highly functioning followers can make the difference between highly functional and mediocre organizations.

Furthermore, Dixon and Westbrook (2003) noted that followership stabilizes global competitiveness in the business environment so that employees who are proficient as followers are stewards of themselves and the organization. They therefore contribute to the competitive viability and longevity of the organization, consistent with the values, norms, and needs of society.

It is widely agreed that the study of followership has been largely ignored (Dixon and Westbrook, 2003; Kellerman, 2008). The literature contains few theoretical studies and even fewer empirical studies about followership. Most of the articles where the term 'followership' has been introduced or explored have been more normative and intuitively derived. For example, Kelley's (1988) paper introduced a thoughtful analysis on the topic. He interviewed leaders and followers to determine the best way of identifying those character traits that best exemplify an effective follower. He identified five kinds of followers: 'yes' people, sheep, survivors, alienated followers, and effective followers. However, these categories have not been empirically tested.

Another example is Blackshear (2003), who claimed that, at the 'ideal' level of followership performance, there is the exemplary follower, with behaviors that go beyond the norm; these are people who lead themselves. The 'ideal' follower is willing and able to help develop and sustain the best organizational performance. The 'ideal' follower is what organizations need and seek to optimize their success. Clearly, Blackshear's (2003) argument differs from the view of this thesis, namely that what makes a follower 'ideal' also depends on the contextual leadership style.

Using Chaleff's (1995) theory of courageous followership, Dixon and Westbrook (2003) asked 299 participants from 17 organizations to provide self-evaluations of five behaviors identifying courageous followers. When analyzed, responses demonstrated significant differences in self-attribution of followership as a function of hierarchical level. Attributions of courageous followership correlate with hierarchical level for four of the five behaviors.

As summarized by Collinson (2006), rejecting the common stereotype of followers as timid, docile sheep, various authors (e.g., Lundin and Lancaster, 1990; Potter, Rosenbach, and Pittman, 2001; Raelin, 2003; Seteroff, 2003; Kelley, 2004; Rosenau, 2004) have argued that in the contemporary context of greater team-working, 'empowered, knowledge workers', and 'distributed' and 'shared' leadership, 'good followership skills' have never been more essential. The research findings of Gilbert and Hyde (1988) showed that followership is a 'crucial element' in job performance and productivity. They suggested that supervisors need to expect excellence in followership from their subordinates. The system needs to measure 'good followership skills', offer feedback to subordinates about it, and reward it when and where it occurs.

While there are many reasons for this 'neglect' of the concept of followership, three major sources stand out: obsession with the 'romance of leadership', dependence on the 'ability to motivate' (Gilbert and Hyde, 1988), and a widespread mindset of classical and transactional styles. Followership, even if it started out on equal terms, has been completely dwarfed by leadership (Gilbert and Hyde, 1988). Preoccupation with leadership hinders considering the nature and significance of the follower and the interrelationship and interdependence required between leaders and followers (Vecchio, 2002; Dixon and Westbrook, 2003; Collinson, 2006). Studies have typically concentrated on leaders as if they were entirely separate from those they lead, while followers have tended to be taken as an undifferentiated mass or collective (Collinson, 2006). Moreover, in current cultures, the term 'follower' has a

pejorative connotation. Far too often talented and gifted 'followers' are labeled as passive, lacking the right stuff, or worse, as inferior or lacking drive and ambition (Frisina, 2005).

Yet, the need to understand more about the characteristics of subordinate behavior has been well recognized (Gilbert and Hyde, 1988). Just as there are positive traits that lead to successful leadership, so too there are said to be positive attributes that bring successful followership (Frisina, 2005). Callahan, Fleenor, and Knudson (1986) stated that the characteristics of subordinates are a relatively under-researched field of leadership, and yet the knowledge gap has not been addressed in the subsequent two decades. This thesis attempts to extend understanding of followers by empirically testing the moderating role of employee characteristics, which includes studying the interrelationship and interdependence between leaders and followers, by analyzing the interactions among leadership styles, certain employee characteristics, and employee engagement.

2.4 The construct of employee engagement

To clarify the construct of employee engagement, this section examines the concepts of personal engagement, work engagement, and employee engagement (staff engagement), discusses the relationship between motivation and engagement, and among employee engagement, work engagement, and personal engagement.

The history of research into 'engagement' dates back to Kahn (1990, p.694), who defined personal engagement (at work) as the 'harnessing of organizational members' selves to their work roles; in [personal] engagement, people employ and express themselves physically, cognitively, and emotionally during role performances'. Kahn (1990) also identified the three psychological conditions of personal engagement as meaningfulness, safety, and availability. People vary their personal engagement in accordance with their perceptions of the benefits, or the meaningfulness, and the guarantees, or the safety, they perceive in situations, as well as the resources they perceive themselves to have – their availability.

Deriving from personal engagement, Schaufeli, Salanova, Gonzalez-Roma, and Bakker (2002, pp.74-75) defined work engagement as a 'positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption…Vigor is characterized by high levels of energy and mental resilience while working, the willingness to invest effort in one's work,

and persistence even in the face of difficulties. Dedication is characterized by a sense of significance, enthusiasm, inspiration, pride, and challenge…Absorption is characterized by being fully concentrated and deeply engrossed in one's work, whereby time passes quickly and one has difficulties with detaching oneself from work.'

Unlike personal engagement and work engagement, employee engagement has received relatively little attention from academics, although it is a popular topic in business and management consulting circles (Saks, 2006; Bakker and Schaufeli, 2008; Watt and Piotrowski, 2008; Fine, Horowitz, Weigler, and Basis, 2010). Employee engagement has been defined in many ways (Furness, 2008; Hughes and Rog, 2008). As presented in Table 2.2, the various authors and researchers all have their own perspectives on what employee engagement actually is. This condition makes it difficult to trace who first developed the concept of employee engagement or how best to define it.

Table 2.2 Summary of major definitions of employee engagement

Research	Definitions of employee engagement
CIPD (2007)	A combination of commitment to the organization and its values, plus a willingness to help colleagues.
Towers Perrin (2003, p.4)	Employees' willingness and ability to contribute to company success. Full engagement demands both 'the will' and 'the way'. 'Employees need the will: the sense of mission, passion, and pride that motivates them to give that all-important discretionary effort. And they need the way: the resources, support, and tools from the organization to act on their sense of mission and passion'.
Ellis and Sorensen (2007)	A two-dimensional definition of employee engagement covers knowing what to do at work and wanting to do the work. Employee engagement should always be defined and assessed within the context of productivity, and both dimensions of engagement are necessary to drive performance and productivity.
Robinson et al. (2004, p.9)	'A positive attitude held by the employee towards the organization and its values. An engaged employee is aware of the business context, and works with colleagues to improve performance within the job for the benefit of the organization. The organization must work to develop and nurture engagement, which requires a two-way relationship between employer and employee.'
CIPD (2006b)	Employee engagement was defined on three dimensions: (1) emotional engagement – being very involved emotionally in one's work; (2) cognitive engagement – focusing very hard whilst at work; and (3) physical engagement – being willing to 'go the extra mile' for your employer.

Gibbons (2006, p.5)	'A heightened emotional and intellectual connection that an employee has for his/her job, organization, manager, or co-workers that, in turn, influences him/her to apply additional discretionary effort to his/her work.'
Towers Watson (2009)	Employee engagement encompasses three dimensions: (1) rational – how well employees understand their roles and responsibilities; (2) emotional – how much passion they bring to their work and their organizations; and (3) motivational – how willing they are to invest discretionary effort to perform their roles well.
Looi, Marusarz, and Baumruk (2004, p.12)	'A measure of the energy and passion that employees have for their organizations. Engaged employees are individuals who take action to improve business results for their organizations. They stay, say, and strive: stay with and are committed to the organization, say positive things about their workplace, and strive to go beyond to deliver extraordinary work'.
Bates (2004)	A heightened emotional attachment to one's work, organization, manager, or colleagues.
Seijts and Crim (2006)	Engaged employees are those who are emotionally connected to the organization and cognitively vigilant.
The Corporate Leadership Council (2004)	Employees' cognitive connection to the work or organization and the subsequent behaviors that they demonstrate on the job. Here, the satisfaction and rational and emotional commitment and their effect on how hard an employee is willing to work are emphasized.
Parkes and Langford (2008)	The aggregate of organization commitment, job satisfaction, and intention to stay.
Tinline and Crowe (2010)	Employees are connected to the organization in such a way that their discretionary effort is willingly released and they are prepared to "go the extra mile" for their organization.
Fine et al. (2010)	Employee engagement is an overall measure of job attitudes which taps affective commitment (e.g., pride, satisfaction), continuance commitment (e.g., intention to remain with the organization), and discretionary effort (e.g., feeling inspired by the organization and willingness to go above and beyond formal requirements).

Additionally, some researchers used staff engagement instead of employee engagement (Avery and Bergsteiner, 2010; Tinline and Crowe, 2010) while others used staff engagement to cover staff involvement (Scott, Thorne, and Horn, 2002; Kellerman, 2007). Following the majority, the term 'employee engagement' was adopted in this thesis.

As shown above, the whole area of employee engagement is fragmented, authors are not building on each other's work, and there is no universal definition for employee engagement. To clarify the confusion, based on the above discussions, Table 2.3 was developed, as explained gradually below.

Table 2.3 The construct of employee engagement and relevant constructs
(Numbers in brackets relate to authors at bottom of page)

Construct	Personal engagement/Work engagement	Commonalities	Employee engagement (Staff engagement)
Objects	Task (1, 2, 23, 26)	Job consists of tasks	Job, organization, manager, or co-workers (8, 9, 11, 12, 13) Organization (3, 6, 10)
Behavioral outcomes (1, 7, 13, 15)	Working hard	Working hard at task is a kind of 'strive'	Say, strive, and stay (10, 17, 18) Say and strive (7, 19, 20) Stay and strive (13, 21, 25) Strive (3, 4, 8, 9, 24) Stay (14)
	⬆ **Motivating processes**		
Motivators	'Vigor', 'absorption', and 'dedication'(2) Absorption and dedication (7)	Significance (2, 16) Pride and passion (2, 4) Desire to work (2, 5) Positive attitude (2, 6) Passion (2, 9, 10, 25)	Cognitive commitment and emotional attachment (8, 9, 12, 15, 16) Cognitive commitment (3, 4, 5, 6, 13) Emotional attachment (11, 22, 24)
Subjects	Employees, students, and/or housewives etc. (2)	Employees	Employees

1. Kahn (1990)
2. Schaufeli, Salanova, Gonzalez-Roma, and Bakker (2002)
3. CIPD (2007)
4. Towers Perrin (2003)
5. Ellis and Sorensen (2007)
6. Robinson et al. (2004)
7. CIPD (2006b)
8. Gibbons (2006)
9. Towers Watson (2009)
10. Looi et al. (2004)
11. Bates (2004)
12. Seijts and Crim (2006)
13.The Corporate Leadership Council (2004)

14. Parkes and Langford (2008)
15. Frank et al. (2004)
16. Luthans and Peterson (2002)
17. Baumruk et al. (2006)
18. Heger (2007)
19. Right Management (2006)
20. 4-consulting and DTZ Consulting & Research (2007)
21. Catteeuw, Flynn, and Vonderhorst (2007)
22. Jones et al. (2008)
23. Macey and Schneider (2008)
24. Tinline and Crowe (2010)
25. Fine et al. (2010)
26. Martin, Brock, Buckley, and Ketchen (2010)

As shown in Table 2.3, although different consultants and researchers tended to stress different factors over the others in creating their particular concept of employee engagement (Bates, 2004; The Corporate Leadership Council, 2004; Seijts and Crim, 2006), generally, authors agreed that employee engagement involves the interaction of three factors: cognitive commitment, emotional attachment, and the behavioral outcomes that result from an employee's connection with his or her organization (Frank et al., 2004; Gibbons, 2006; Towers Watson, 2009). Being cognitively engaged refers to those who are acutely aware of their mission and role in their work environment. In contrast, to be emotionally engaged is to form meaningful connections to others (e.g., colleagues and managers) and to experience empathy and care for others' feelings (Luthans and Peterson, 2002).

As for the third factor, behavioral outcomes, three general behaviors appear in the literature: (1) say − the employee advocates for the organization to colleagues and others, and refers potential employees and customers; (2) stay − the employee has an intense desire to be a member of the organization, despite opportunities to work elsewhere; and (3) strive − the employee exerts extra time, effort, and initiative for the organization when needed (Looi et al., 2004; Baumruk et al., 2006; Heger, 2007).

However, different authors have placed different emphases on these three behaviors. CIPD (2006b), Right Management (2006), and 4-consulting and DTZ Consulting & Research (2007) emphasized 'strive' and 'say'. The Corporate Leadership Council (2004) and Catteeuw et al. (2007) emphasized 'strive' and 'stay'. In a contrary view, Towers Perrin (2003) and Frank et al. (2004) argued that employee engagement and employee retention are different concepts. They gave the following example: the traditional monetary rewards, namely pay and benefits, play a significant role in attracting people to a company and some role in retaining people. However, at best, they have a relatively minor role in driving employee engagement (Towers Perrin, 2003). Thus, the behavioral-outcome component of employee engagement has not been fully resolved, that is, whether all three behaviors are necessary. This gap is addressed in this thesis.

To further clarify the construct of employee engagement, the relationship between motivation and engagement, and among employee engagement, work engagement, and personal engagement are discussed next.

In English, the word 'motivation' itself is confusing because it includes two different connotations: providing of a motive (Butler, 2009), which refers to an internal or external motivating process, and purpose or drive (Colman, 2003; Butler, 2009), which refers to intrinsic or extrinsic motivators.

Accordingly, authors use the term 'motivation' rather loosely (Efklides, Kuhl, and Sorrentino, 2001). Despite the intense interest in this area, no overall, commonly accepted framework or approach to motivation currently exists. The extant theories may be grouped into two general classes: content theories and process theories (Porter, Bigley, and Steers, 2003).

The content theories of motivation assume that factors exist within and beyond the individual that energize, direct, intensify, and sustain behavior, and the factors include cognitive and affective concomitants (Porter et al., 2003; Wosnitza, Karabenick, Efklides, and Nenniger, 2009). For example, as a widely-accepted definition for work motivation (motivator), Pinder (1998, p.11) defined work motivation (motivator) as 'a set of energetic forces that originate both within as well as beyond an individual's being, to initiate work-related behavior, and to determine its form, directions, intensity, and duration'.

In contrast to content theories of motivation, process theories of motivation attempt to describe how behavior is energized, directed, intensified, and sustained. These theories focus on certain psychological processes resulting from the interaction between the individual and the environment, which are underlying behavior (Porter et al., 2003; Latham and Pinder, 2005; Brown, 2007; Zelick, 2007).

Personal engagement, work engagement, and employee engagement are all constructs that include not only motivators (e.g., cognitive commitment and emotional attachment for employee engagement) but also resulting behaviors (e.g., say and strive for employee engagement). That is, the constructs of engagement connote motivators, and the physical expressions of engagement are the results of motivating processes. This thesis involves both motivators and motivating processes by focusing on the construct of employee engagement.

In addition, the concepts of personal engagement, work engagement, and employee engagement tend to be confused in the literature (Towers Perrin, 2003; CIPD, 2006b; Ellis and Sorensen, 2007). Thus, clarifying this field would make a useful contribution to the literature.

Given that personal engagement, work engagement, and employee engagement all involve the term 'engagement', it is inevitable that they have some similarities. For instance, they share many motivators, such as significance, pride, passion, desire to work, and positive attitude (Luthans and Peterson, 2002; Schaufeli et al., 2002; Towers Perrin, 2003; Looi et al., 2004; Robinson et al., 2004; Ellis and Sorensen, 2007; Towers Watson, 2009). However, there are at least three salient distinctions between work engagement and employee engagement:

(1) Work engagement and employee engagement have different subjects. Both employees and others (e.g., students and housewives) can be the subject of work engagement (Schaufeli et al., 2002). In contrast, the subject of employee engagement by definition is limited to 'employees', i.e., people employed for wages or salary.

(2) Their physical expressions differ in scope. Work-engaged people physically express themselves through working hard at their task, while the possible behavioral expressions of engaged employees contain say, stay, and strive (Looi et al., 2004; Baumruk et al., 2006; Heger, 2007). 'Strive' is more than 'working hard at their task'. 'Strive' means the employee exerting extra time, effort, and initiative for the organization when needed (Looi et al., 2004; Baumruk et al., 2006; Heger, 2007), including helping colleagues and making suggestions.

(3) Work engagement and employee engagement have different objects. Work engagement is work (task)-related (Schaufeli et al., 2002) while employee engagement is not only related to the job, which consists of tasks, but also associated with the organization, manager, or co-workers (Bates, 2004; The Corporate Leadership Council, 2004; Gibbons, 2006; Seijts and Crim, 2006; Towers Watson, 2009). Employee engagement mainly evolves from two precursors: organizational commitment and organizational citizenship behavior (Rafferty, Maben, West, and Robinson, 2005; 4-consulting and DTZ Consulting & Research, 2007; Richman, Civian, Shannon, Hill, and Brennan, 2008) and covers the major connotations of them (Organ, 1988; Meyer and Allen, 1997). In other words, employee engagement stresses 'belongingness and connectedness' to the workplace (Jones et al., 2008), while work engagement does not have this connotation, but focuses on the task (Macey and Schneider, 2008; Martin et al., 2010). Accordingly, employee engagement has a motivator of 'emotional attachment', while work engagement does not necessarily have this motivator.

Similar to work engagement, personal engagement is also a task-related construct (Kahn, 1990; Macey and Schneider, 2008). Kahn (1990, p.692) specifically stated that personal engagement concerns 'the moments in which people bring themselves into or remove themselves from particular task behaviors'. The labels 'personal' and 'work' are ambiguous and somewhat misleading in that they do not clearly communicate that the focus is on the task at hand. A better term therefore would be 'task engagement'.

In summary, based on the forgoing discussions, employee engagement (staff engagement), work engagement, and personal engagement are different constructs despite having some commonalities. The focus in this thesis is on employee engagement rather than task-related work engagement and personal engagement. Employee engagement involves the interplay of three factors: cognitive commitment, emotional attachment, and behavioral outcomes in employees. The latter includes several possible behaviors: say, stay, and strive. This thesis aims to examine these behavioral-outcome factors in the construct of employee engagement.

For the purpose of this study, Gibbons's (2006, p.5) more composite definition of employee engagement was adopted, namely that *employee engagement is a heightened emotional and intellectual connection that an employee has for his/her job, organization, manager, or co-workers that, in turn, influences him/her to apply additional discretionary effort to his/her work.* For consistency and following Gibbons (2006), this thesis collectively refers to cognitive commitment and emotional attachment as the emotional and intellectual 'connection' element in the employee engagement construct.

The next section explains the process of selecting suitable potential moderating variables for this thesis.

2.5 Possible moderating employee characteristics

Given that there has been little empirical research into the relationship between leadership styles and employee engagement, potential moderating variables had to be chosen from two bodies of literature – the leadership literature and the employee engagement literature. According to Podsakoff et al. (1995), it is as hard to find suitable moderating employee characteristics as to search for a needle in a haystack. First, in reviewing the leadership styles and employee engagement literatures, potential moderating variables were identified. Then,

keywords of leader or leadership AND moderate, moderator, moderating, or moderated were searched in the abstract of journal articles in EBSCOhost from 1995 to date. The search started with 1995 because Podsakoff et al. (1995) had summarized the previous research about moderator variables in the field of leadership systematically. Since almost all the employee engagement literature to date had been reviewed, no separate search on keywords of employee engagement AND moderate, moderator, moderating, or moderated was required. After reviewing the resulting research articles, Tables 2.4 and 2.5 were drawn up.

Table 2.4 Summary of moderators found in the leadership literature

Moderator	Explanation	Relevant moderation research
Ability, experience, training or knowledge	'Subordinates' perceived "ability, experience, training, and knowledge" tend to impair the leader's influence, but may or may not act as substitutes for leadership' (Kerr and Jermier, 1978, p.395).	House, 1971; Podsakoff et al., 1995; Keller, 2006
Affectivity	Positive affectivity refers to the tendency to experience intense pleasant feelings. Negative affectivity refers to the tendency to experience intense unpleasant feelings (Epitropaki and Martin, 2005).	Epitropaki and Martin, 2005; Brouer and Harris, 2007
Allocentrism and idiocentrism	Allocentrism refers to viewing oneself in terms of the in-groups to which one belongs and idiocentrism refers to viewing oneself as the basic social unit where individual goals have primacy over in-group goals (Walumbwa et al., 2007).	Walumbwa et al., 2007
Equity sensitivity	Individuals vary in their reactions to situations involving perceived equity or inequity (Shore, Sy, and Strauss, 2006).	Shore et al., 2006
Follower maturity level	Maturity is defined as the level of achievement motivation, willingness and ability to take responsibility, and task-relevant education and experience of an individual or a group (Hersey and Blanchard, 1972). Maturity level is the degree (low, average, or high) of maturity behavior observed (Moore, 1976).	Hersey and Blanchard, 1977
Growth need strength	Algattan (1985) found that subordinates with high growth need performed higher when their leaders used more active direction, participation, or task-oriented leadership; whereas subordinates with low growth need strength did better when leaders maintained the status quo.	Wofford, Whittington, and Goodwin, 2001
Indifference to organizational rewards	'An employee who is indifferent refuses to compete for organizational rewards' (Liebler and McConnell, 2004, p.369).	Kerr and Jermier, 1978; Podsakoff, Niehoff, MacKenzie, and Williams, 1993
Locus of control	Locus of control refers to an individual's perception about the underlying main causes of events in his/her life (Rotter, 1966).	House and Dessler, 1974; House and Mitchell, 1974; Wildermuth and Pauken, 2008a and 2008b

Need for achievement	Individuals high in need for achievement generally aspire to accomplish difficult tasks and to maintain high standards of performance (Mathieu, 1990).	Mathieu, 1990; Ehrhart and Klein, 2001; McGee, 2006
Need for affiliation	Individuals with a high need for affiliation tend to enjoy being with other people, making friends, and maintaining personal relationships (McClelland, 1961; Steers, 1987).	Mathieu, 1990
Need for clarity	Need for clarity refers to the extent to which a subordinate feels the need to know what is expected of him or her and how he or she is expected to do his or her job (Lyons 1971).	Keller, 1989; Kohli, 1989
Need for independence or autonomy	People high in need for independence base their actions on their own judgement and work on their own rather than be dependent on others (Maslow, 1954; Vroom, 1960).	Kenis, 1978; Podsakoff, MacKenzie, and Fetter,1993; Podsakoff, Niehoff, MacKenzie, and Williams, 1993; Wofford et al., 2001; Yun et al., 2006
Need for leadership	Need for leadership is the extent to which an employee wishes the leader to facilitate the paths towards individual, group, and/or organizational goals (De Vries et al., 1999).	De Vries, 1997; De Vries et al., 1999, 2002
Need for supervision	Need for supervision is defined as the contextual perception by an employee of the relevance of the leader's legitimate acts of influence toward an individual or a group of individuals. It thus depends on individual factors as well as task and organizational factors (De Vries, Roe, and Taillieu, 1998).	De Vries et al., 1998
Professional orientation	'Professional orientation is considered a potential substitute for leadership because employees with such an orientation typically cultivate horizontal rather than vertical relationships, give greater credence to peer review processes, however informal, than to hierarchical evaluations, and tend to develop important referents external to the employing organization (Filley, House, and Kerr, 1976). Clearly, such attitudes and behaviors can sharply reduce the influence of the hierarchical superior' (Kerr and Jermier, 1978, pp.378-379).	Kerr and Jermier, 1978; Podsakoff, MacKenzie, and Fetter,1993; Podsakoff, Niehoff, MacKenzie, and Williams, 1993; Keller, 2006
Separateness–connectedness self-schema	It reflects the way people define themselves in terms of the relationship between the self and other people (Epitropaki and Martin, 2005).	Epitropaki and Martin, 2005

Table 2.5 Summary of moderators found in the employee engagement literature

Moderator	Explanation	Relevant moderation research
Achievement orientation (Need for achievement)	Individuals high in need for achievement generally aspire to accomplish difficult tasks and to maintain high standards of performance (Mathieu, 1990).	Mathieu, 1990; Ehrhart and Klein, 2001; McGee, 2006

Adaptability	'Those who perform well in a changing task context are said to have high adaptability, and those who do not perform well in a changing task context are said to have low adaptability' (Le Pine, Colquitt, and Erez, 2000, p.565).	McGee, 2006
Emotional maturity	'Ability to focus on central issues under pressure while remaining stable and maintaining a sense of humor, demonstrating initiative and perseverance' (Avkiran, 2000, p.657).	McGee, 2006
Passion for work	'Passion for work is about maintaining a positive view of one's job despite periods of stress and frustration' (McGee, 2006, p.41).	Gubman, 2004; McGee, 2006
Positive disposition	Positive affectivity, optimism and hope (Hofstee, 2001; Schottenbauer, Rodriguez, Glass, and Arnkoff, 2006)	McGee, 2006
Self-efficacy	It refers to beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments (Bandura, 1997).	McGee, 2006

Moderating variables are under-researched in the leadership and employee engagement literature and further research is required on each variable, especially as every research study is different, with varying measures, methodologies, results, and findings, as shown in the moderation studies in Tables 2.4 and 2.5. Therefore, three constructs that shared four common traits were selected as moderating variables for this thesis: need for achievement, equity sensitivity, and need for clarity. First, these are all well-established and operationalized constructs in the literature associated with respectable measuring instruments. Second, although the constructs are well established, the literature contains research gaps for all three constructs in terms of their moderating effects. On the one hand, the literature indicates that they are potential moderating variables. On the other hand, the studies about them are inconclusive and need more investigation. This is discussed in detail in the sections on the respective moderators. Third, the potential moderating roles of these constructs are representative of current ideas about moderating variables (Sharma et al., 1981; Howell et al., 1986). All three variables cover the important categories of moderator variables, as explained in Section 1.2 and further in Section 2.6. That is, need for achievement and equity sensitivity are possible quasi moderators and enhancers. Need for clarity is a possible pure moderator and neutralizer. Fourth, for pragmatic reasons, this thesis had to limit its scope and focus. Therefore, this thesis concentrates on the above three moderating variables, leaving other variables for future studies.

The following sections define the three selected moderating variables and discuss previous relevant studies and knowledge gaps to be addressed in this thesis.

2.5.1 Need for achievement

The concept of need for achievement was defined by Murray (1938, p.64) as 'the desire or tendency to do things as rapidly and/or as well as possible…To excel one's self. To rival and surpass others. To increase self-regard by the successful exercise of talent.'

Since then, the concept has been refined and extended (Mathieu, 1990). Many researchers use two popular terms – 'achievement orientation' and 'achievement motivation' – interchangeably to cover the phrase 'need for achievement' (Kunnanatt, 2008). The term 'need for achievement' was adopted in this thesis.

In discussing the theoretical basis of the need for achievement, McClelland and associates explained it as a desire to perform in terms of a standard of excellence or to be successful in competitive situations (McClelland, Atkinson, Clark, and Lowell, 1953; McClelland, 1961, 1966, 1985, 1987, 1990). According to McClelland and his co-workers, achievement-motivated people: (1) set their goals realistically; (2) take only moderate levels of risk; (3) have a need for immediate feedback on the success or failure of the tasks they have executed; (4) tend to be preoccupied with a task once they start working on it; and (5) crave satisfaction with accomplishment per se.

Individuals high in need for achievement typically seek out challenging jobs, like to assume personal responsibility for problem solving, and prefer situations where they receive clear feedback on task performance (Atkinson, 1958; Jackson, 1974; Steers and Spencer, 1977; Mathieu, 1990; Riipinen, 1994). Subjects low in need for achievement, on the other hand, generally prefer situations where risk levels are low and where responsibility is shared by others (Steers and Spencer, 1977).

Considerable research has investigated the role of employee need for achievement in behavior and attitudes under various conditions. Steers and Spencer (1977) conducted an early study examining the effects of job scope and need for achievement on organizational commitment and performance among 115 managers in various departments of a major manufacturing firm. They found that need for achievement did not moderate the relationship between high-scope jobs and managerial commitment to the organization. However, the effect of high job scope on performance was moderated by need for achievement.

Using an occupationally heterogeneous sample of 262 public sector employees, Morris and Snyder (1979) examined work-manifest need for achievement and need for autonomy as moderators of relationships between facets of role conflict, role ambiguity, and the following outcomes: organizational commitment, job involvement, psychosomatic complaints, and propensity to leave the organization. Of 20 moderated multiple regression analyses, in which need for achievement was examined as the moderator variable, only the moderating effect on the relationship between role ambiguity and organizational commitment was supported.

Similarly, using a sample of 312 salespeople from diverse industries, Amyx and Alford (2005) developed a model to examine the influence of salespersons' need for achievement and sales managers' positive leader reward behavior on several key organizational outcomes, that is, goal acceptance, sales performance, and organizational commitment. The results suggested that a salesperson's need for achievement may lead to higher performance, but not necessarily commitment to the organization.

However, McGee's (2006) analysis of research by Development Dimensions International (DDI), which involved over 4,000 employees in a variety of industries, revealed that need for achievement is one of six characteristics predicting the likelihood of individuals becoming engaged employees.

Since the concept of employee engagement evolves from and is related to organizational commitment (Rafferty et al., 2005; 4-consulting and DTZ Consulting & Research, 2007; Richman et al., 2008), the abovementioned research results seem mixed and inconclusive. Therefore, by empirically examining the conceivable relationships among leadership styles, employee need for achievement, and employee engagement, as illustrated in Section 2.6 below, this thesis contributes to clarifying this field.

2.5.2 Equity sensitivity

The construct of equity sensitivity, grounded in equity theory (Adams, 1965), is based on the notion that people 'react in consistent but individually different ways to both perceived equity and inequity because they have different preferences for (i.e., are differentially sensitive to) equity' (Huseman, Hatfield, and Miles, 1987, p.223).

The equity sensitivity continuum is commonly divided into three different categories of equity-sensitive people (Huseman et al., 1985, 1987; O'Neill and Mone, 1998). These are 'Benevolents', 'Entitleds', and 'Equity Sensitives'.

As originally defined, Benevolents are individuals who 'prefer their outcome/input ratios to be less than the outcome/input ratios of the comparison other' (Huseman et al., 1987, p.223). They value the relationship with their employer. Benevolents prefer to not be on the receiving end of rewards. They prefer to give rather than receive (DeConinck and Bachmann, 2007). In other words, Benevolents derive satisfaction from contributing to their organization, value the work itself more than others do, and are seen as organizational 'givers' (Huseman et al., 1987, p.224) because of their interest in investing positive contributions to establish a long-term relationship with the organization (King, Miles, and Day, 1993; King and Miles, 1994; Restubog, Bordia, and Tang, 2007; Walker, Feild, Giles, Bernerth, and Jones-Farmer, 2007).

Entitleds are individuals who 'prefer their outcome/input ratios to exceed the comparison other' (Huseman et al., 1987, p.223). King et al. (1993) described Entitleds as more focused on the receipt of outcomes than on the contribution of inputs. It is argued that Entitleds' contentment derives from perceptions that they are 'getting a better deal' than those around them, and they are not satisfied unless this is the case; such individuals have also been characterized as 'getters' (Miles, Hatfield, and Huseman, 1994; O'Neill and Mone, 1998; DeConinck and Bachmann, 2007; Walker et al., 2007).

In between these two extremes are individuals termed Equity-sensitive. These individuals seek to balance their outcome-input ratio with those of their referent others (O'Neill and Mone, 1998; DeConinck and Bachmann, 2007; Walker et al., 2007).

Studies have found that Benevolents place greater emphasis on intrinsic outcomes (e.g., autonomy, growth), whereas Entitleds emphasize extrinsic outcomes (e.g., pay, benefits) (Miles, Hatfield, and Huseman, 1989; Miles et al., 1994; Kickul and Lester, 2001). Benevolents are also more tolerant of inequity (Huseman et al., 1985; King et al., 1993; Shore, 2004) and have less negative affect toward the organization (Kickul and Lester, 2001) than Entitleds. A number of empirical studies have demonstrated that equity sensitivity predicts a variety of work outcomes (Shore et al., 2006). Recent studies have also explored the moderating role of equity sensitivity in various contexts (Scott and Colquitt, 2007).

Nevertheless, the results of studies that investigated relationships between equity sensitivity and workplace attitudes and behaviors are still inconclusive (Shore and Strauss, 2008).

Generally, equity sensitivity has been found to correlate positively with turnover intention, and negatively with job satisfaction and organizational commitment (King and Miles, 1994; DeConinck and Bachmann, 2007). For instance, Shore et al. (2006) conducted a study investigating the moderating effect of equity sensitivity on the relationships between leader responsiveness and employee attitudes and behaviors. They concluded that equity sensitivity moderated the relationships between leader responsiveness and job satisfaction. Entitleds reported lower job satisfaction when manager fulfillment of employee requests was low than did Benevolents, whereas differences were minimal when manager fulfillment was high. However, O'Neill and Mone (1998) found that equity sensitivity interacted with self-efficacy in predicting job satisfaction and intent to leave but not in predicting organizational commitment.

Research examining the relationship between equity sensitivity and organizational citizenship behaviors has provided mixed findings (Konovsky and Organ, 1996; Chhokar, Zhuplev, Fok, and I-Lirmis, 2001; Kickul and Lester, 2001; Scott and Colquitt, 2007). For example, Konovsky and Organ (1996) found no relationship between organizational citizenship behavior and equity sensitivity in their study of contextual determinants of organizational citizenship behavior. Scott and Colquitt (2007) suggested that equity sensitivity may be a better predictor or moderator of attitudes, such as job satisfaction, than behaviors such as organizational citizenship behavior. On the other hand, the study of Kickul and Lester (2001) examined the moderating role of equity sensitivity in the relationship between psychological contract breach and employees' attitudes and behaviors. Entitled individuals were expected to have greater increases in negative affect toward their organization and greater decreases in job satisfaction and organizational citizenship behavior than benevolent individuals do following a breach of extrinsic outcomes (i.e., pay, benefits). Conversely, Benevolents were expected to respond more negatively than their entitled counterparts do following a breach of intrinsic outcomes (i.e., autonomy, growth). Results supported most of the study's propositions. In their study in a team setting, Akan, Allen, and White (2009) found a significantly positive relationship between equity sensitivity scores and organizational citizenship behaviors. Those participants holding a more benevolent orientation were significantly more likely to exhibit citizenship behaviors as reported by their teammates.

Thus, research findings to date are not consistent on the effects of equity sensitivity on organizational citizenship behaviors.

Possible methodological explanations for the inconclusive results on the relationships between equity sensitivity and workplace attitudes and behaviors (e.g., job satisfaction and organizational commitment) include the samples used (e.g., working adults versus students), use of survey data versus scenario studies, and/or the use of one-point-in-time self-report measures (Shore and Strauss, 2008). As the concept of employee engagement evolved from organizational commitment and organizational citizenship behavior (Rafferty et al., 2005; 4-consulting and DTZ Consulting & Research, 2007, Richman et al., 2008) and covers the major connotations of them (Organ, 1988; Meyer and Allen, 1997), this thesis contributes to filling some gaps by empirically examining the possible moderating role of equity sensitivity between leadership styles and employee engagement, as elaborated in Section 2.6.

2.5.3 Need for clarity

Need for clarity refers to the extent to which a follower feels the need to know what is expected of him or her and how he or she is expected to do his or her job (Lyons, 1971). Studies of nurses, hospital administrators, diagnostic personnel, and male managers indicated that the need for clarity occurs widely among various occupational groups (Lyons, 1971; Ivancevich and Donnelly, 1974).

Research into need for clarity as a moderating variable has emerged in the literature since the early 1970s. Lyons (1971) conducted a mailed questionnaire study of 156 registered nurses. The results showed that perceived role clarity was associated negatively with voluntary turnover, propensity to leave, and job tension, and was associated positively with work satisfaction. Need for clarity plays a moderating role in the relationships. That is, the correlations of role clarity with voluntary turnover, propensity to leave, and work satisfaction were non-significant for nurses classified as low on a need-for-clarity index; the correlations were significantly higher for nurses with a high need for clarity.

Ivancevich and Donnelly (1974) studied role clarity and need for clarity in three occupational groups. They found that for salesmen, need for clarity moderates the relationship between role clarity and opportunities for job innovation, autonomy satisfaction, esteem satisfaction,

job tension, and propensity to leave. For supervisors, need for clarity moderates only the relationship between role clarity and physical stress. For operating employees, need for clarity seems to moderate the relationships between role clarity and general job interest, opportunities for job innovation, job tension, and propensity to leave.

Keller (1989) used two sets of data, collected 12 months apart, to study 477 professional employees from four research and development organizations. Findings revealed that need for clarity had a moderating effect on the initiating structure-satisfaction relationship (initiating structure being the degree to which a leader defines and organizes his role and the roles of followers, is oriented toward goal attainment, and establishes well-defined patterns and channels of communication (Fleishman, 1973)). The higher the need for clarity among subordinates is, the stronger is the relationship between initiating structure and job satisfaction. Similarly, need for clarity moderated the initiating structure-performance relationship in the largest of the four research and development organizations.

O'Driscoll and Beehr (2000) examined the salience of perceived control and need for clarity as 'buffers' of the adverse consequences of role stressors on role ambiguity and role conflict, with job satisfaction and psychological strain as the criterion variables. In their sample of US and New Zealand employees, need for clarity was found to be a significant moderator of the relationship of role ambiguity and conflict with both satisfaction and strain.

Further, in studying leadership styles, Avery (2004, p.32) pointed out, 'sometimes managers are ready to share decision making, but some employees are not willing and able to accept their new roles as partners and decision makers. Some people simply prefer a life of stability and well-defined relationships, disliking the confusion and ambiguities under organic leadership'. This thesis aims to examine this assertion by empirically testing the role of need for clarity in moderating the relationship between leadership and employee engagement.

In summary, the preceding three sections discuss the definitions, prior relevant research studies, and knowledge gaps to be addressed relating to the three selected moderator variables – need for achievement, equity sensitivity, and need for clarity. The literature suggests that all three variables could moderate the leadership-employee engagement relationship in different ways, as discussed next.

2.6 Research hypotheses

This section first discusses the logical reasoning behind developing the hypotheses about employee engagement, predictors of employee engagement and their relationships with the characteristics of leadership styles, and then presents the 13 research hypotheses.

2.6.1 Logical reasoning behind developing the hypotheses about employee engagement

The above discussions about leadership, employee engagement, and the three potential moderating employee characteristics generate the research hypotheses for this thesis. Empirically examining the relationship between employee engagement and leadership styles or moderating variables is breaking new ground. The lack of previous studies leads to the necessity of introducing employee engagement predictors (Section 2.6.2) in developing research hypotheses.

In constructionist thought, a social construction or social construct is any phenomenon 'invented' or 'constructed' by participants in a particular culture or society, existing because people agree to behave as if it exists or follow certain conventional rules (Berger and Luckmann, 1967). Consistent with social constructionism, all the social constructs in this thesis (i.e., leadership styles, the three moderating variables, and employee engagement) are viewed as comprising their respective attributes or characteristics.

In developing the hypotheses about the relationship between leadership styles and employee engagement, the relationship between characteristics of a particular leadership style and employee engagement predictors and the 'connection' and 'additional discretionary effort' elements of employee engagement (Section 2.4) was examined. When developing the hypotheses about the relationship between moderating variables and employee engagement, the relationship between characteristics of a moderating variable and the predictors and the 'connection' and 'additional discretionary effort' elements of employee engagement was tested.

The next section summarizes employee engagement predictors from the employee engagement literature, and examines their relationships with the characteristics of leadership styles in order to lay a foundation for the research hypotheses development in Section 2.6.3.

2.6.2 Predictors of employee engagement and their relationships with the characteristics of leadership styles

The literature contains no universally agreed set of employee engagement predictors. 4-consulting and DTZ Consulting & Research (2007) reviewed this field and concluded that each research study identified an array of different predictors and placed varying importance on each one. Gibbons (2006) asserted that, although these studies presented a wide range of definitions and predictors, some patterns did emerge across the studies. However, few of these research studies have been published in peer-reviewed journals, creating a huge research gap. In this thesis, eight factors have been extracted from the broad literature as positive predictors for employee engagement, namely expansive communication, trust and integrity, rich and involving job, effective and supportive direct supervisors, career advancement opportunities, contribution to organizational success, pride in the organization, and supportive colleagues/team members. These factors were chosen primarily because they are commonly cited in the literature. The eight predictors and their relationships with the characteristics of leadership styles are discussed below.

(1) Expansive communication. This predictor commonly includes two aspects: downward communication and upward communication. Downward communication is found where an organization communicates vision, strategy, objectives, and values to its staff clearly, and makes employees feel well informed about what is happening in the organization. Managers clarify their expectations about employees' performance and provide them with feedback, recognition, and appreciation. Upward communication involves including employees within the organization's decision-making processes. Employees have opportunities to feed their views upwards. Even safe and effective ways to communicate a complaint are provided (Towers Perrin, 2003; Bates, 2004; Corporate Leadership Council, 2004; Robinson et al., 2004; Shaw and Bastock, 2005; Parsley, 2006; Seijts and Crim, 2006; Stairs et al., 2006; Wagner, 2006; CIPD, 2007; 4-consulting and DTZ Consulting & Research, 2007; Molinaro and Weiss, 2007; Trahant, 2009; Hathi, 2010; Tomlinson, 2010). Research on employee

engagement to date does not cover lateral communication and free-flowing communication, essential to organic leadership.

Under the classical leadership style, leaders normally employ an autocratic style for making decisions; they never or only very rarely involve followers in the decision-making process. Classical leader(s) dictate to the population, and command or maneuver others to act towards a goal, which may or may not be explicitly stated (Avery, 2004). The organization is highly controlled by the leaders (Section 2.3.3.1). The characteristics of classical leadership overlap with 'limited communication', which is used as the opposite to 'expansive communication' in this thesis.

As discussed in Section 2.3.3.2, although a transactional leader may hold a view of the future, 'selling' this vision is not vital for effective transactional leadership. The focus tends to be short-term and on maximizing immediate results and rewards (Avery, 2004). Moreover, in decision making, although transactional leaders take some account of the followers' viewpoints as part of the negotiations, they attempt to persuade and influence followers to achieve certain ends, tending to approach decisions with a focus heavily on short-term payoffs (Avery, 2004). It can be seen that some basic characteristics of transactional leadership overlap with 'limited communication'.

Visionary leaders are expected to provide a clear vision of the future, adopt a collaborative style for making decisions, share problems with their followers, discuss and consult with them, and try to reach a consensus before the leaders make the final decision (Section 2.3.3.3). Therefore, the characteristics of visionary leadership overlap with 'expansive communication'.

Under organic leadership, without a formal leader, the interactions of all organizational members can act as a form of leadership, held together by a shared vision, values, and a supportive culture (Avery, 2004; Woods et al., 2004), and decisions are made collectively and by consensus (Section 2.3.3.4). The characteristics of organic leadership overlap with 'expansive communication'.

(2) Trust and integrity. Trust can be defined in terms of the degree to which one believes in and is willing to depend on another party (Mayer, Davis, and Schoorman, 1995; McKnight, Cummings, and Chervany, 1998). Sako (1992) suggested that trust includes goodwill trust, contractual trust, and competence trust. This predictor involves the extent to which managers

at all levels tell the truth, communicate difficult messages well, listen to employees and then follow through with action, and are exemplars of high ethical and performance standards (Bates, 2004; Corporate Leadership Council, 2004; Robinson et al., 2004; Shaw and Bastock, 2005; Gibbons, 2006; Seijts and Crim, 2006; Stairs et al., 2006; Wagner, 2006; CIPD, 2007; Corace, 2007; 4-consulting and DTZ Consulting & Research, 2007; Pech, 2009; Schneider et al., 2009). Trust makes employees form meaningful connections to others (Luthans and Peterson, 2002). These heightened emotional and intellectual connections, in turn, influence employees to apply additional discretionary effort to their work (Gibbons, 2006). Moreover, Hemdi and Nasurdin (2006) concluded that trust is positively associated with 'stay', which is a potential behavioral outcome within the employee engagement construct.

A fundamental component of classical leadership is control, which is a form of risk management that occurs in situations of low trust (McLain and Hackman, 1999). Under transactional leadership, followers are typically not skilled, trusted, and empowered to work autonomously (Avery, 2004). Therefore, the characteristics of classical or transactional leadership overlap with low 'trust and integrity'.

Characteristics of visionary leadership include being trustworthy, just, and honest (Avery, 2004). Leaders gain respect and trust, act as role models for their employees, and need to foster a climate of trust (Epitropaki and Martin, 2005). Therefore high 'trust and integrity' overlaps with the characteristics of visionary leadership.

Organic leadership involves abandoning conventional notions of control, order, and hierarchy, replacing them with trust and an acceptance of continual transformation, a degree of chaos, and respect for diverse members of the organization. In organic organizations, the members are expected to be self-managing and self-leading (Section 2.3.3.4). High trust is essential in organic cultures because without mutual trust, collaboration becomes highly risky (Bergsteiner and Avery, 2007). Therefore, high 'trust and integrity' overlaps with the characteristics of organic leadership.

 (3) **Rich and involving job.** This predictor applies to the day-to-day content and routine of employees' jobs and the extent to which workers derive emotional and mental stimulation from them. This includes providing employees with challenging and meaningful work, such as task diversity and flexible work schedules, as well as job autonomy and opportunities to participate in decision making. Employees will also be more engaged if they have frequent

opportunities to play to their strengths and perform in ways that allow them to fulfill their potential (Bates, 2004; Robinson et al., 2004; Shaw and Bastock, 2005; Gibbons, 2006; Sardo, 2006; Seijts and Crim, 2006; Stairs et al., 2006; Wagner, 2006; CIPD, 2007; Corace, 2007; 4-consulting and DTZ Consulting & Research, 2007; Compton, Morrissey, and Nankervis, 2009; Pech, 2009; Schneider et al., 2009). The abovementioned arguments are over-generalized and do not consider employee characteristics. It is possible that some employee characteristics (e.g., high need for clarity) interact with the foregoing 'rich and involving job' to predict lower employee engagement, as indicated in Hypothesis 4.3 in Section 2.6.3.

Under classical or transactional leadership, the operations in the organization become routine and predictable. The organization is highly controlled by the leaders (Avery, 2004). Followers can perceive the monitoring typical of transactional leadership as constraining. A transactional leader's corrective interventions and management-by-exception can upset some followers and decrease their performance (Ball et al., 1992). Thus the characteristics of classical or transactional leadership overlap with 'boring job', which is opposite to 'rich and involving job' in this thesis.

As discussed in Section 2.3.3.3, visionary leaders provide meaning and challenge (Epitropaki and Martin, 2005), adopt a collaborative decision-making style, and try to achieve a consensus before making the final decision (Avery, 2004). Followers of visionary leadership work autonomously towards a shared vision. Therefore, the characteristics of visionary leadership overlap with 'rich and involving job'.

Under organic leadership, organizational members are self-leading. This leadership style relies on attracting and retaining highly trained and knowledgeable staff who have autonomous and self-controlling capabilities. The organization adopts a mutual decision-making style so that all affected members make decisions collectively. Organic leadership even allows people with high levels of expertise on current issues to emerge as leaders (Section 2.3.3.4). Therefore, the characteristics of organic leadership overlap with 'rich and involving job'.

(4) Effective and supportive direct supervisors. As key cogs in the organizational structure, the behavior and personal engagement of line managers can have a direct impact on the engagement levels of their immediate direct reports, as already discussed in Section 1.2.3. This involves both quality of supervision and quality of relationships. Good quality of line

management makes employees feel that they are working for effective and even admirable supervisors. Organizations with a strong network of admired leaders create the conditions for high engagement. Quality of relationships refers to the degree to which an employee values the working and personal relationships that he/she has with his/her direct manager. Positive relationships are good for business and can be built through formal and informal social events and team-building activities (Corporate Leadership Council, 2004；Robinson et al., 2004; Shaw and Bastock, 2005; Gibbons, 2006; Stairs et al., 2006; Wagner, 2006; Molinaro and Weiss, 2007; Schneider et al., 2009; Tomlinson, 2010).

Contingency theories suggest that leader effectiveness depends on leaders as well as situational characteristics, such as the characteristics of the task, the subordinates, and the environment (Section 1.2.4). Effective organizations exhibit different kinds of leadership. For instance, classical leadership can be effective in stable, simple, or bureaucratic environments, and with low-knowledge workers, and operates successfully when leaders and followers accept the right or duty of the leader(s) to dictate to the population (Avery, 2004). Therefore, the relationship between effective direct supervisors and the characteristics of classical or transactional leadership is uncertain. That is, classical or transactional leaders can be either effective or ineffective. However, to the extent that classical or transactional leadership rely more on instrumental compliance, rather than a close working relationship and emotional bond, classical or transactional direct supervisors can be experienced as less supportive. Thus, the characteristics of classical or transactional leadership overlap with low supportive direct supervisors.

Studies found that the relationship between visionary leadership and leader effectiveness is positive (Bass, 1985; Deluga, 1988; Spinelli, 2006). Moreover, Avery (2004) noted that visionary leaders are inspirational, encouraging, positive, motivational, and confidence building. Employees usually trust, have confidence in, and develop loyalty towards their visionary leaders (Bass, 1985). Visionary leadership involves developing a closer relationship between leaders and subordinates (Martin and Bush, 2006), and is positively associated with supervisor support (Liaw, Chi, and Chuang, 2010). Evidently, the characteristics of visionary leadership overlap with highly 'effective and supportive direct supervisors'.

Under organic leadership, as there can be no formal leader, but multiple changing leaders within a group, this employee engagement predictor does not apply.

(5) Career advancement opportunities. This is the extent to which employees feel that there are future opportunities for career growth and promotion within the company and, to a lesser extent, are aware of a clearly defined career path. It also refers to the degree to which employees feel that specific efforts are being made by their company or manager to develop their skills, such as providing support and coaching (Bates, 2004; Robinson et al., 2004; Shaw and Bastock, 2005; Gibbons, 2006; Sardo, 2006; Seijts and Crim, 2006; CIPD, 2007; Trahant, 2009; Craig and Silverstone, 2010; Dewhurst, Guthridge, and Mohr, 2010). The literature indicates that career advancement opportunities are positively associated with 'strive' (extra effort) (Gong and Chang, 2008) and 'stay' (Stahl, Chua, Caligiuri, Cerdin, and Taniguchi, 2009), which are two potential behavioral outcomes within the employee engagement construct.

Classical leadership often involves the idea of a 'great person', implying that only a select few are good enough to assume leadership roles. This can encourage followers to de-skill themselves. Classical leaders do not empower followers, giving them almost no power in the organization (Section 2.3.3.1). Though transactional leaders employ interpersonal skills to motivate, direct, control, develop, and teach followers, transactional leadership depends largely on the leader's skills. Leaders do not empower followers very much (Section 2.3.3.1). That is, classical or transactional leaders often provide their followers with insufficient opportunities to develop their skills and grow their career. Therefore, the characteristics of classical or transactional leadership overlap with low 'career advancement opportunities'.

As discussed in Section 2.3.3.3, visionary leaders employ a vision that appeals to followers' needs and motivations (Avery, 2004), display consideration toward individual employees (Bass, 1985), act as mentors, and pay attention to the individual developmental, learning, and achievement needs of each subordinate (Epitropaki and Martin, 2005; Martin and Bush, 2006). Therefore, the characteristics of visionary leadership overlap with high 'career advancement opportunities'.

In organic organizations, the members are expected to be self-managing and self-leading. Organic leadership allows people with different levels of expertise on current issues to emerge and be accepted by the organization as leaders (Section 2.3.3.4). That is, the organization provides its members with essentially unlimited opportunities to develop their skills and grow their career. Therefore, the characteristics of organic leadership overlap with high 'career advancement opportunities'.

(6) Contribution to organizational success. This predictor refers to how well employees understand the organization's strategy. Most importantly, employees need to feel that the work they do is valuable and contributes to achieving the organization's objectives in a meaningful way (Corporate Leadership Council, 2004; Shaw and Bastock, 2005; Gibbons, 2006; Seijts and Crim, 2006; Stairs et al., 2006; 4-consulting and DTZ Consulting & Research, 2007; Molinaro and Weiss, 2007; Medlin and Green Jr., 2009; Schneider et al., 2009; Trahant, 2009; Craig and Silverstone, 2010). Positive contribution to organizational success has been linked to 'strive' (extra effort) (Bass, 1985, 1998) and 'stay' (Appelbaum, Carrière, Chaker, Benmoussa et al., 2009), which are two potential behavioral outcomes within the employee engagement construct.

Followers of classical leaders seek and hold little power, leave the leader accountable for group results, and make relatively little contribution to the broader organization (Avery, 2004). The characteristics of classical leadership overlap with low 'contribution to organizational success'.

Transactional leaders tend to overemphasize individual goals and rewards, motivating employees to maximize immediate self-interest and benefits, which will hinder a deeper sense of connection between the individual and the organizational collective (Epitropaki and Martin, 2005). Moreover, followers can perceive the monitoring typical of transactional leadership as constraining, lowering the likelihood of their contributing to organizational objectives (Avery, 2004) (Section 2.3.3.2). Consequently, some basic characteristics of transactional leadership overlap with low 'contribution to organizational success'.

Visionary leaders employ a vision that appeals to followers' needs and motivations (Avery, 2004), create awareness and acceptance of an organization's underlying objectives and goals, raise their subordinates' awareness of the significance and worth of specified work outcomes, and inspire employees to rise above their own self-interests for the benefit of the organization or customer (Bass, 1990) (Section 2.3.3.3). Therefore, the characteristics of visionary leadership overlap with high 'contribution to organizational success'.

Under organic leadership, employees become interacting partners in determining what makes sense, how to adapt to change, and what is a useful direction for the organization. In organic organizations, the members are expected to be self-managing and self-leading. It is believed that they have the capacity to solve problems and make decisions in the interests of the

organization (Avery, 2004) (Section 2.3.3.4). Thus, the characteristics of organic leadership overlap with high 'contribution to organizational success'.

(7) Pride in the organization. This refers to the amount of self-esteem that the employees derive from being associated with their organization. This can be achieved through strong corporate values and ethics, high quality products and services, good financial performance, and reputation as a good employer (Bates, 2004; Parsley, 2006; Seijts and Crim, 2006; Stairs et al., 2006; Wagner, 2006; Molinaro and Weiss, 2007; Tomlinson, 2010). Naturally, proud employees tend to 'say' positive things about the organization, that is, be advocates for the organization to colleagues and refer potential employees and customers. Moreover, previous studies have shown a positive association between pride and 'stay' (Sousa-Poza and Henneberger, 2004) or greater effort (Verbeke, Belschak, and Bagozzi, 2004), which is close to 'strive'. Thus, pride in the organization positively predicts employee engagement, which is a higher-order construct of say, strive, and/or stay.

No empirical studies have directly linked leadership styles and pride in the organization. However, some indirect evidence is available from Jing's (2009) work, which found that visionary or organic leadership is positively associated with organizational performance measured by financial performance, staff satisfaction, and customer satisfaction, but insignificant results for classical or transactional leadership. Staff satisfaction means 'a good employer', customer satisfaction means 'high quality products and services', and shared values are essential for visionary or organic leadership. It can be inferred from the above that employees under visionary or organic leadership are more likely to have pride in the organization. Thus, the characteristics of visionary or organic leadership overlap with high 'pride in the organization'. Studies about the relationships between classical or transactional leadership and financial performance or customer satisfaction are scarce, and inconclusive for transactional leadership and staff satisfaction (Bass, 1985; Deluga, 1988; Chan and Chan, 2005; As-Sadeq and Khoury, 2006; Spinelli, 2006). Therefore, no indirect link between classical or transactional leadership and 'pride in the organization' can be established so far, as has been done above for visionary or organic leadership.

(8) Supportive colleagues/team members. An employee's colleagues have a significant effect on his/her level of employee engagement. Employees value positive working relationships with high caliber and professional colleagues and mutual support for one another so that they can function well in teams (Bates, 2004; Robinson et al., 2004; Seijts and

Crim, 2006; Wagner, 2006; Avery, McKay, and Wilson, 2007; Corace, 2007; Molinaro and Weiss, 2007; Schneider et al., 2009; Craig and Silverstone, 2010).

Classical leaders tend to be highly directive, enabling them to employ less skilled followers (Section 2.3.3.1) than is the case for the other leadership styles. Though transactional leaders normally employ some skilled staff and the followers' knowledge base is somewhat higher than under classical leadership, unskilled employees may exist (Section 2.3.3.2). In so far as being able to work well together depends on people having trust in others' skills and values, having large numbers of relatively unskilled colleagues can hinder good team dynamics. Moreover, studies found that transactional leadership had little effect on predicting organizational citizenship behavior, which includes helping behavior (Koh, Steers, and Terborg, 1995; Mackenzie, Podsakoff, and Rich, 2001). Therefore generally, the characteristics of classical or transactional leadership overlap with low 'supportive colleagues/team members'.

Visionary leadership requires skilled and knowledgeable workers who can contribute to realizing the vision (Section 2.3.3.3). Furthermore, visionary leader behaviors actually have direct and indirect relationships with organizational citizenship behavior, which includes helping behavior (Koh et al., 1995; Mackenzie et al., 2001). Thus the characteristics of visionary leadership overlap with highly 'supportive colleagues/team members'.

Organic leadership relies upon reciprocal actions, where people work together in whatever roles of authority and power they may have, not based on position power (Rothschild and Whitt, 1986; Hirschhorn, 1997). Employees become interacting partners in deciding what makes sense, how to adapt to change, and what is a useful direction (Section 2.3.3.4). Thus, the characteristics of organic leadership overlap with highly 'supportive colleagues/team members'.

In conclusion, the above eight commonly cited predictors of employee engagement and their relationships with the characteristics of leadership styles, which are summarized in Table 2.6, underpin developing the research hypotheses, as discussed next.

Table 2.6 Summary of the relationships between employee engagement predictors and leadership styles' characteristics

Leadership styles' characteristics / EE predictors		Classical leadership's characteristics	Transactional leadership's characteristics	Visionary leadership's characteristics	Organic leadership's characteristics	EE prediction
Communication	**Expansive**			▨	▨	High
	Limited	▨	▨			low
'Trust and integrity'	**High**			▨	▨	High
	Low	▨	▨			low
Job	**Rich and involving**			▨	▨	High
	Boring	▨	▨			low
'Effective[1] and supportive[2] direct supervisors'	**Highly**	1 Uncertain	1 Uncertain	▨	Not applicable	High
	Low	2	2			low
'Career advancement opportunities'	**High**			▨	▨	High
	Low	▨	▨			low
'Contribution to organizational success'	**High**			▨	▨	High
	Low	▨	▨			low
'Pride in the organization'	**High**	/	/	▨	▨	High
	Low					low
'Supportive colleagues/team members'	**Highly**			▨	▨	High
	Low	▨	▨			low

Legend: ▨ overlap ☐ irrelevant to this thesis / absence of research

2.6.3 Research hypotheses

Based on the foregoing, the research hypotheses in this thesis and the explanations of their development follow.

H1.1 Employee perception of a classical leadership style in his/her direct supervisor tends to be negatively associated with employee engagement.

As shown in Table 2.6, the characteristics of classical leadership overlap with 'limited communication', low 'trust and integrity', 'boring job', low supportive direct supervisors, low 'career advancement opportunities', low 'contribution to organizational success', and low 'supportive colleagues/team members', which all predict low employee engagement, and therefore Hypothesis 1.1 can be proposed.

H1.2 Employee perception of a transactional leadership style in his/her direct supervisor tends to be negatively associated with employee engagement.

Engaged employees apply additional discretionary effort to their work (Gibbons, 2006). Nevertheless, transactional leaders tend to do little more than build confidence in followers to exert the necessary effort to achieve expected levels of performance by clarifying the requirements for followers and the consequences of their behaviors (Section 2.3.3.2). Therefore, characteristics of transactional leadership and this employee engagement element (additional discretionary effort) conflict. Moreover, the characteristics of transactional leadership overlap with 'limited communication', low 'trust and integrity', 'boring job', low supportive direct supervisors, low 'career advancement opportunities', low 'contribution to organizational success', and low 'supportive colleagues/team members', which all predict low employee engagement (Table 2.6), thus leading to Hypothesis 1.2.

H1.3 Employee perception of a visionary leadership style in his/her direct supervisor tends to be positively associated with employee engagement.

Previous research has established a positive association between visionary leadership and the two elements of employee engagement: 'connection' (Kark and Shamir, 2002; Bas**s** et al., 2003; Walumbwa and Lawler, 2003; Epitropaki and Martin, 2005; Liao and Chuang, 2007) and 'additional discretionary effort' (Bass, 1985, 1990; Steane, Ma, and Teo, 2003; Epitropaki and Martin, 2005; Huang, Cheng, and Chou, 2005; Sosik, 2005; Purvanova, et al., 2006). Moreover, the characteristics of visionary leadership overlap with 'expansive communication', high 'trust and integrity', 'rich and involving job', highly 'effective and supportive direct supervisors', high 'career advancement opportunities', high 'contribution to organizational success', high 'pride in the organization', and highly 'supportive colleagues/team members', which all predict high employee engagement (Table 2.6), leading to Hypothesis 1.3.

H1.4 Employee perception of an organic leadership style in his/her direct supervisor tends to be positively associated with employee engagement.

As indicated in Table 2.6, the characteristics of organic leadership overlap with 'expansive communication', high 'trust and integrity', 'rich and involving job', high 'career advancement opportunities', high 'contribution to organizational success', high 'pride in the organization', and highly 'supportive colleagues/team members', which all predict high employee engagement, and thus Hypothesis 1.4 is proposed.

H2.1 An employee's need for achievement is positively associated with his or her employee engagement.

As noted in Section 2.5.1, achievement-motivated people have the desire or tendency to do things as rapidly and/or as well as possible, to excel one's self, and to rival and surpass others. They tend to be preoccupied with a task once they start working on it (McClelland et al., 1953; McClelland, 1961, 1966, 1985, 1987, 1990). Thus, employees high in need for achievement may be more likely to develop a strong relationship with their organization and engage in behaviors that are beyond their task and role requirements (Neuman and Kickul, 1998), which are the 'connection' and 'additional discretionary effort' elements of employee

engagement (Gibbons, 2006). That is, characteristics of need for achievement are compatible with the elements of employee engagement, leading to Hypothesis 2.1.

H2.2 The higher an employee's need for achievement is, the weaker is the negative association between his or her perception of classical or transactional leadership styles and employee engagement.

H2.3 The higher an employee's need for achievement is, the stronger is the positive association between his or her perception of visionary or organic leadership styles and employee engagement.

Hypotheses 2.2 and 2.3 follow logically from Hypotheses 1.1, 1.2, 1.3, 1.4, and 2.1. That is, the positive effect of need for achievement on employee engagement counters some negative effects of classical or transactional leadership on employee engagement (Hypothesis 2.2), and strengthens the positive impacts of visionary or organic leadership on employee engagement (Hypothesis 2.3). Moreover, individuals high in need for achievement typically seek out challenging jobs, like to assume personal responsibility for problem solutions, and prefer situations where they receive clear feedback on task performance. They are likely to react more positively to conditions of high task autonomy (Zhou, 1998). Although classical or transactional leadership do not provide such environments, the negative interactions between classical or transactional leadership and need for achievement tend not to be sufficient to offset the positive effect of need for achievement on employee engagement. Visionary or organic leadership can provide such environments. The positive interactions between visionary or organic leadership styles and need for achievement further reinforce Hypothesis 2.3.

H3.1 An employee's equity sensitivity is negatively associated with his or her employee engagement.

As discussed in Section 2.5.2, employees low in equity sensitivity (Benevolents) appear more likely to develop a good relationship with their organization and engage in behaviors that are beyond their task and role requirements, which correspond to the two elements of employee

engagement: the 'connection' and 'additional discretionary effort'. In other words, equity sensitivity and the elements of employee engagement are negatively associated, therefore Hypothesis 3.1 is proposed.

H3.2 The higher an employee's equity sensitivity is, the stronger is the negative association between his or her perception of classical or transactional leadership styles and employee engagement.

H3.3 The higher an employee's equity sensitivity is, the weaker is the positive association between his or her perception of visionary or organic leadership styles and employee engagement.

Hypotheses 3.2 and 3.3 follow logically from Hypotheses 1.1, 1.2, 1.3, 1.4, and 3.1. In other words, the negative impact of equity sensitivity on employee engagement strengthens the negative effects of classical or transactional leadership on employee engagement (Hypothesis 3.2), and counteracts some positive influences of visionary or organic leadership on employee engagement (Hypothesis 3.3). Furthermore, Benevolents are interested in investing positive contributions to establish a long-term relationship with the organization. They place greater emphasis on intrinsic outcomes (e.g., autonomy, growth). Visionary or organic leadership are fit for them. The interactions between visionary or organic leadership styles and equity sensitivity further reinforce Hypothesis 3.3.

H4.1 An employee's need for clarity is independent of his or her employee engagement.

As noted in Section 2.5.3, need for clarity refers to the extent to which a follower feels the need to know what is expected of him or her and how he or she is expected to do his or her job (Lyons, 1971). It is evident that need for clarity is independent of the two elements of employee engagement: the 'connection' and 'additional discretionary effort'. Need for clarity has no apparent overlap with any of the predictors of employee engagement either. Therefore, Hypothesis 4.1 is proposed.

H4.2 The higher an employee's need for clarity is, the weaker is the negative association between his or her perception of classical or transactional leadership styles and employee engagement.

Classical leadership operates successfully when leaders and followers accept the right or duty of the leader(s) to dictate to the population. Having others make decisions, give directions, and take responsibility has the advantage of setting followers free from these activities (Avery, 2004). By clarifying the requirements of followers and the consequences of their behaviors, transactional leaders can build confidence in followers to exert the necessary effort to achieve expected levels of performance. Classical and transactional leadership reduce the ambiguity experienced by subordinates by clarifying what their goals are and how they should go about attaining them. These two leadership styles are suitable for individuals with high need for clarity. Hypotheses 1.1 and 1.2, as well as the interactions between classical or transactional leadership styles and need for clarity, lead to Hypothesis 4.2.

H4.3 The higher an employee's need for clarity is, the weaker is the positive association between his or her perception of visionary or organic leadership styles and employee engagement.

As Avery (2004) pointed out, sometimes leaders are ready to share decision making, but some employees are not willing and able to accept their new roles as partners and decision makers. Some people simply prefer a stable life and well-defined relationships, disliking the confusion and ambiguities under organic leadership.

Visionary leaders set challenging aims, provide intellectual stimulation, and demand preparedness for change and development from their subordinates. Followers of visionary leadership need to work autonomously towards a shared vision. However, people high in need for clarity try to avoid ambiguity, and prefer clearly structured situations and tasks to uncertain settings. So, need for clarity should be incompatible with visionary leadership. Organic leadership can be distressing for followers seeking certainty and predictability too (Collins and Porras, 1994). These arguments, combined with Hypotheses 1.3 and 1.4, lead to Hypothesis 4.3.

In conclusion, the 13 research hypotheses are summarized in Table 2.7. Research question 1 has been discussed in Section 2.4, namely that what the behavioral-outcome factors in the construct of employee engagement are.

Table 2.7 Research hypotheses

Research questions	Research hypotheses
Research question 2: Is perceived leadership style associated with employee engagement?	**H1.1** Employee perception of a classical leadership style in his/her direct supervisor tends to be negatively associated with employee engagement.
	H1.2 Employee perception of a transactional leadership style in his/her direct supervisor tends to be negatively associated with employee engagement.
	H1.3 Employee perception of a visionary leadership style in his/her direct supervisor tends to be positively associated with employee engagement.
	H1.4 Employee perception of an organic leadership style in his/her direct supervisor tends to be positively associated with employee engagement.
Research question 3: Do employee characteristics moderate the relationship between perceived leadership styles and employee engagement?	**H2.1** An employee's need for achievement is positively associated with his or her employee engagement.
	H2.2 The higher an employee's need for achievement is, the weaker is the negative association between his or her perception of classical or transactional leadership styles and employee engagement.
	H2.3 The higher an employee's need for achievement is, the stronger is the positive association between his or her perception of visionary or organic leadership styles and employee engagement.
	H3.1 An employee's equity sensitivity is negatively associated with his or her employee engagement.
	H3.2 The higher an employee's equity sensitivity is, the stronger is the negative association between his or her perception of classical or transactional leadership styles and employee engagement.
	H3.3 The higher an employee's equity sensitivity is, the weaker is the positive association between his or her perception of visionary or organic leadership styles and employee engagement.
	H4.1 An employee's need for clarity is independent of his or her employee engagement.
	H4.2 The higher an employee's need for clarity is, the weaker is the negative association between his or her perception of classical or transactional leadership styles and employee engagement.
	H4.3 The higher an employee's need for clarity is, the weaker is the positive association between his or her perception of visionary or organic leadership styles and employee engagement.

In order to show the complexities of the interactions among the independent, moderating, and dependent variables, Table 2.8 illustrates the relationships between independent variables (or moderating variables) and employee engagement, and the moderating effects of the moderating variables.

Table 2.8 Illustrating research hypotheses

	Need for achievement and EE (+)	Equity sensitivity and EE (-)	Need for clarity and EE (0)
	Moderating effects		
	Need for achievement Low-High	Equity sensitivity Low-High	Need for clarity Low-High
Classical leadership and EE (-)	↓	↑	↓
Transactional leadership and EE (-)	↓	↑	↓
Visionary leadership and EE (+)	↑	↓	↓
Organic leadership and EE (+)	↑	↓	↓

Legend:
+   positively associated   -   negatively associated   0 independent
↓ weaker   ↑ stronger

For instance, employee perception of a classical leadership style in his/her direct supervisor tends to be negatively associated with employee engagement **(H1.1)**. An employee's need for achievement is positively associated with his or her employee engagement **(H2.1)**. Based on the aforementioned opposite effects of classical leadership and need for achievement on employee engagement, it can be proposed that the higher an employee's need for achievement is, the weaker is the negative association between his or her perception of classical leadership style and employee engagement (part of **H2.2**).

2.7 Summary

After presenting the conceptual framework of this thesis, this chapter has critically reviewed the literature on leadership, leadership styles, and followership; employee engagement; and the possible moderating employee characteristics, that is, the need for achievement, equity sensitivity, and need for clarity. Many research gaps on the relationships among leadership, employee engagement, and the possible moderating employee characteristics, have been identified. This thesis aims to address some of these gaps by testing the postulated relationships among the constructs. Finally, this chapter has presented the 13 research hypotheses and the logical reasoning behind their development.

CHAPTER 3

RESEARCH METHODOLOGY

3.1 Overview of Chapter 3

This chapter describes the research methodology used to empirically examine the hypotheses developed in Chapter 2. It consists of six sections. Section 3.2 justifies the choice of the demographic variables and the combination of face-to-face and mail survey methodologies. Section 3.3 discusses the unit of study, population, and the size and nature of the sample. Section 3.4 describes the questionnaire design, content, coding methods, and measures for the independent, moderating, and dependent variables. Section 3.5 outlines how the research assistants were managed and respondents were approached, and describes the processes of ethics approval, pilot study, and main study. This chapter concludes with a summary in Section 3.6.

3.2 Justifications

This section justifies the adoption of demographic variables and the decision to use a combination of face-to-face and mail survey methodology.

3.2.1 Rationale for adopting certain demographic variables

Studies in the employee engagement literature have highlighted the impact of particular demographic variables on employee engagement. Seven of these variables are now discussed, and the approaches to handling these demographic variables are proposed at the end of this section.

(1) Occupation. Towers Perrin (2003) and Sardo (2006) noted that different degrees of engagement are evident across diverse levels in an organization, and that the nature of the job influences engagement levels. Generally, managers and professionals have higher

engagement levels than their colleagues in supporting roles (Robinson et al., 2004; CIPD, 2006b; 4-consulting and DTZ Consulting & Research, 2007).

(2) Company size. Harris Interactive (2005) found in a US-wide survey that larger companies may face greater challenges in engaging their employees.

(3) Working pattern/hours. 4-consulting and DTZ Consulting & Research (2007) found strong differences between those working on a flexible contract (e.g., flexible hours, term time contracts, home working) and other workers. Those on flexible contracts tend to be more emotionally engaged, more satisfied with their work, more likely to speak positively about their organization, and least likely to quit than those not employed on flexible contracts. However, 4-consulting and DTZ Consulting & Research (2007) and Avery et al. (2007) found that full-time workers are significantly more engaged than part-time workers, while employees who work during the day are more engaged than their colleagues on shifts or on a rota.

(4) Organizational (Employee) tenure. Robinson et al. (2004), CIPD (2006b), and Avery et al. (2007) found that engagement levels decline as length of service increases. However, the Conference Board (2003) and Baumruk (2004) reported that companies experience a 'honeymoon' in which new employees' engagement remains high for the first two years of employment, drops and then rebounds after five years of service.

(5) Duration of the leader-follower relationship. Relationships with supervisors generally take time to develop, and thus the duration of the leader-follower relationship is important in research studies (Shin and Zhou, 2003; Arnold, Turner, Barling, Kelloway, and McKee, 2007; Avery et al., 2007).

(6) Age. CIPD (2006b) found that employees aged 55 years or older are more engaged with their work than are younger employees. Workers aged under 35 years are significantly less engaged with their work than are older employees. In contrast, Robinson et al. (2004) concluded that engagement levels decline slightly as age increases, although both surveys found that employees in the 55+ or 60+ age brackets are more engaged (Robinson et al., 2004; CIPD, 2006b).

(7) Gender. In its national survey of 2,000 employees across a wide range of public and private sector employers, CIPD (2006b) found that women are generally more engaged than

men. This is in contrast to the NHS survey result that found no statistically significant difference in engagement levels between men and women (Robinson et al., 2004).

Some studies stressed that demographic variables should not be seen in isolation as predictors of performance or engagement (4-consulting and DTZ Consulting & Research, 2007). CIPD (2006b) emphasized that good management practice and a beneficial working environment could lead to high levels of engagement and performance among all groups of employees. The Corporate Leadership Council (2004) found that there is no high-engagement or low-engagement group; and commonly used segmentation techniques based on tenure, gender, or function do not predict engagement. There is no demographic group whose engagement is always high or always low.

Many research findings about the effects of the foregoing demographic factors on employee engagement are inconclusive, with the exception of occupation. This thesis addresses some of these research gaps, and, therefore, this study was designed to be conducted with employees in the same occupation to avoid spurious results (Jackson, 1988). The factors of company size, working pattern/hours, organizational tenure, duration of the leader-follower relationship, age, and gender were also measured for assessing group differences to address some of the foregoing research gaps, as described in Section 3.4.2.

3.2.2 Justification for combining face-to-face and mail survey methodology

The questionnaire survey is a popular method of collecting data and is especially suitable for quantitative methodologies (Collis and Hussey, 2003). This section explains the reason for choosing a combination of face-to-face survey and mail survey methodology.

Each research method has its merits and appropriate uses. The aim of this study was to investigate the relationship between perceived leadership styles and employee engagement, while taking employee characteristics as moderating variables. In-depth interviews and observations in a small sample cannot usually tell much about whether the same things happen to other individuals in similar circumstances (Hussey and Hussey, 1997; Stangor, 1998). Thus, these methods would not allow the researcher to generalize and draw broader conclusions. In contrast, questionnaire surveys are useful when the research questions indicate the need for relatively structured data. Questionnaires can be an effective means of

gathering a wide range of complex information on individuals or organizations on a comparable basis (Veal, 2005). Moreover, the questionnaire method is appropriate for a study aimed at finding out what respondents say that they do, think, or feel while proposing to make a generalization from a sample to a population (Collis and Hussey, 2003), although there is no opportunity to probe in great detail.

However, there are certain disadvantages to questionnaires that should be acknowledged and minimized, such as question misinterpretation, superficial answers, and unwillingness to give real opinions. These disadvantages can be alleviated by using a face-to-face survey, conducting a pilot study, keeping the questionnaire as short as possible, and explaining the significance and confidentiality of the questionnaire survey to potential respondents (Milne, 1999), as discussed in this chapter.

Although face-to-face surveys require a higher level of resources per survey than other survey methods (e.g., telephone, mail, and online survey) (Smith and Dainty, 1991), a face-to-face questionnaire survey was chosen as the main survey methodology for this study because it offers the advantage that response rates tend to be high (Collis and Hussey, 2003). Face-to-face surveys are often very useful where sensitive and complex questions need to be asked, as here, and comprehensive data can be collected because the survey is administered by a trained research assistant (Collis and Hussey, 2003; Czaja and Blair, 2005). The presence of a researcher can serve to motivate potential respondents to participate and to maintain their interest over what may be a lengthy series of questions. The researcher can also clarify unclear terms or ambiguous questions (Thomas, 2004).

In this study, if potential respondents declined to participate in the face-to-face survey because the timing was inconvenient, they could answer the pre-coded questionnaire in their own time and mail it back to the researcher using the Reply Paid envelope. Alternatively, the research assistant could return to the store and collect the completed questionnaire at an agreed time. Providing potential respondents with an alternative way to respond, as was done here, can reduce the effects of time limits and inconvenience. It may be argued that this procedure gives the researcher little control over who actually fills out the questionnaire. A similar disadvantage also applies to mail surveys (Czaja and Blair, 2005). Such disadvantages can be reduced using a combination of survey methods. Adopting multiple data-collection methods is encouraged (Czaja and Blair, 2005), depending on the research question. A

combination of face-to-face survey and mail survey was, therefore, considered appropriate for this study.

In summary, a combination of face-to-face and mail survey methodology met this study's demands and was considered more likely to provide a higher response rate than a face-to-face survey or mail survey alone. Taking account of these factors, a combined data-collection method was adopted.

3.3 Unit of study, population, and sample

This section describes the characteristics of the unit of study and population, and explains the sampling procedure used.

3.3.1 Unit of study

'A unit of analysis is the kind of case to which the variables or phenomena under study and the research problem refer, and about which data is collected and analyzed' (Collis and Hussey, 2003, p.121). This study concerns the leadership style perceived by each employee from his or her direct supervisor and its relationship to the employee's engagement, taking his or her characteristics into account. All related variables or phenomena under study, and the collected data, refer to individual employees. Therefore, the unit of analysis chosen was the individual.

3.3.2 Population

The sample consisted of Australian sales assistants working in retail stores. Sales assistants sell a range of goods and services directly to the public on behalf of retail and wholesale establishments (Australian Bureau of Statistics, 2006a). Units are classified to the Retail Trade Division in the first place if they buy finished goods and then onsell them (including on a commission basis) to the general public. Retail units generally operate from premises located and designed to attract a high volume of walk-in customers, have an extensive display of goods, and/or use mass media advertising designed to attract customers. Retail trades can

include motor vehicle and motor vehicle parts retailing, fuel retailing, food retailing, other store-based retailing, and non-store retailing and retail commission-based buying and/or selling (Australian Bureau of Statistics, 2006b). The present study was restricted to store-based retailing. That is, the population for this thesis was Australian sales assistants who are employed and working in retail stores. Detailed data about the entire sales assistant population were very limited from official statistical sources because there are few concrete statistical data about Australian sales assistants, apart from statistics about the whole Australian retail workforce. However, the retail workforce also includes other occupations in that industry, such as storemen. Some important information about the Australian retail industry and workforce as a whole follows.

The Australian retail and wholesale industry is mainly made up of small and medium sized businesses. In 2007, the sector included over 244,000 businesses and supported a large number of small and medium enterprises (SMEs), large employers as well as retail chains and franchising companies (Service Skills Australia, 2009).

The retail industry is the largest employer sector in the country, with more than 1.5 million workers, 15 per cent of the Australian workforce (Australian Government, 2008). The distribution of full-time and part-time employment is relatively even, with slightly more females (53 per cent) than males employed, and a relatively young workforce (38 per cent aged under 25 years). The predominant occupational group in the sector are sales assistants – the largest single occupation in Australia (Australian Government, 2008).

Thus, the target population of sales assistants represents an important part of the Australian economy. These employees are numerous and approachable.

3.3.3 Sample size

According to the Australian Bureau of Statistics (2009), sample size refers to 'the number of units (e.g. persons, households, businesses, schools) being surveyed'. A proposed sample size should take account of the intended statistical analysis technique, the expected variability within the samples, and the anticipated results (Clegg, 1990; Hussey and Hussey, 1997). In particular, population size does not affect sample size unless the population is small and the sample is over 5 per cent of the population (Rossi, Wright, and Anderson, 1983; Czaja and

Blair, 2005; Veal, 2005). As the population increases, the sample size increases at a diminishing rate and remains relatively constant at slightly over 380 cases (Krejcie and Morgan, 1970; Collis and Hussey, 2009). With 460,900 sales assistants in the Australian retail industry, a sample size more than 380 is appropriate (Krejcie and Morgan, 1970).

The major statistical analysis techniques used in this study were factor analysis and path analysis of SEM (see Chapter 4). SEM generally requires a large sample relative to other multivariate approaches (Hair, Black, Babin, Anderson, and Tatham, 2006), as some of the statistical algorithms employed by SEM programs are not reliable with small samples. As with other statistical methods, sample size is a basis for estimating sampling error. Opinions of minimum sample sizes vary. The most common SEM estimation procedure is the maximum likelihood estimation (MLE), which has been found to provide valid results with sample sizes as small as 50, although the recommended minimum sample sizes to ensure stable MLE solution are 100 to 150 (Hair et al., 2006). However, all else being equal, a larger sample size leads to increased precision in estimates of various properties of the population. A study can fail to be significant simply because of too small a sample (Aron and Aron, 1994).

'Typically, a compromise is fashioned between sample size requirements, the method of data collection, and the resources available' (Czaja and Blair, 2005, p.146). Considering the abovementioned population size, statistical technique requirements, financial budget, and time restriction on this study, a sample size of about 400 sales assistants was chosen.

3.3.4 Nature of sample

In order to derive generalizable research findings, the sample must be 'chosen at random; large enough to satisfy the needs of the investigation being undertaken; unbiased' (Collis and Hussey, 2003, p.155).

The main data-collection method used was the face-to-face questionnaire survey, suitable 'where for time or economy reasons it is necessary to reduce the physical areas covered' (Collis and Hussey, 2003, p.158). The sample was confined to shopping centers in Sydney, Australia's biggest and most populous city, and one of its major economic centers. Eight shopping malls were chosen from a Sydney shopping mall directory (UBD, 2007).

The sampling method is described in Section 3.5.2 in detail. Briefly, an availability (convenience) sampling method was adopted for sampling stores and then sales assistants. As a type of non-probability sampling technique (Tharenou, Donohue, and Cooper, 2007), availability (convenience) sampling may generate samples consisting of volunteers, who are, by definition, self-selected. Social science research is increasingly relying on availability samples (Punch, 1998; Thomas, 2004). To ensure randomness and therefore representativeness, interviewers must follow certain procedures. In the case of stationary potential respondents and a mobile interviewer, the interviewer should be given a certain route to follow and be instructed to interview every second, third, or tenth person they pass, for example, depending on the needs of the research project (Veal, 2005). In this study, the names of all retail stores in the selected shopping malls were noted from the mall websites. Each research assistant was assigned certain retail stores, which they visited sequentially until all had been covered. All respondents had to be employed in a sales assistant role in the store. To prevent bias from deliberate choice of respondents, sales assistants were selected according to a formal sequence: the order in which research assistants met with them in each store, up to a total of five respondents or until no more respondents were available. The number of respondents from any one store was limited to five to obtain more diversified leadership styles, since leadership styles in one store may tend to converge under the same organizational culture, considering that leadership style can be a function of personality, life stage, national culture, and corporate culture (Rotemberg and Saloner, 1993; Carpenter, 2002).

In summary, around 400 sales assistants working in retail stores in eight shopping malls across Sydney were taken as a minimum sample of the population of Australian sales assistants.

3.4 Questionnaire

This section presents the questionnaire design, content, and coding method, and discusses measures for the independent, moderating, and dependent variables.

3.4.1 Questionnaire design

This section discusses the question format and rating scales adopted in the questionnaire design.

3.4.1.1 Question format

The questionnaire consisted of 53 closed questions. All questions were concise and relevant, in order to maximize the response rate (Roszkowksi and Bean, 1990; Yammarino, Skinner, and Childers, 1991).

Since respondents were required to fill in questionnaires by themselves where the research assistants waited, fixed-format self-report measures were used. Fixed-format self-report measures that comprise more than one item (such as the need for achievement or need for clarity measures) are known as scales (Stangor, 1998). Many items, each devised to measure the same conceptual variable, can be combined by summing or averaging, and the result becomes an individual score on the measured variable (Stangor, 1998).

One advantage of employing fixed-format scales is that there is a set of well-developed response formats available for use (Stangor, 1998), such as the Likert Scale and the Guttman Scale. One benefit of this method is that a number of different statements can be provided in a list that does not take up much space, is simple for the respondent to complete, and straightforward for the researcher to code and analyze (Collis and Hussey, 2003).

Moreover, a set of statistical procedures designed to assess the effectiveness of the scales, as measures of underlying conceptual variables, is available for use. Using a scale to measure a conceptual variable is beneficial because it reflects the conceptual variable more accurately than would any single item (Stangor, 1998). The type of scales applied in this study is discussed below.

3.4.1.2 Rating scales

A Likert scale (Likert, 1932) is adopted where there is a need to measure the respondents' opinions and beliefs (Osgood, Suci, and Tannenbaum, 1957; Stangor, 1998; Collis and Hussey, 2003). Opinions and beliefs in this study were, for instance, those about employee engagement, need for achievement, and equity sensitivity. The Likert rating scale can take the

form of numbers or words (e.g. 1–5 or strongly agree–strongly disagree). It allows a numerical value to be given to an opinion (Collis and Hussey, 2003).

The Likert scale, whether a numerical or word scale, is actually an ordinal scale (Veal, 2005; Tharenou et al., 2007). It has an order, which means that a larger number stands for a larger amount of an attribute or ability being measured. Measurement on an ordinal scale permits meaningful interpretation (Stangor, 1998).

Although an experimental study by Matell and Jacoby (1971) found that the internal consistency of the rating of 60 statements was not affected by the number of scale points which ranged from 2 to 19, the 5-point scale was chosen for this thesis, as opposed to a scale with more points, because it reduces the issue of which score should be assigned to a particular question item. This helps respondents to maintain consistency in their ratings more easily.

The scale does not begin with '0' because '0' is already extensively employed to represent default values in many statistical packages. The 5-point scale provides a clear neutral point (i.e., '3') for the respondents. A 'not sure' box for the respondents who could not decide on the question being asked was also provided.

Based on the foregoing discussion, all items for the independent, moderating, and dependent variables were measured on 5-point Likert scales (strongly agree–strongly disagree).

3.4.2 Content of questionnaire

The complete questionnaire is reproduced in Appendix 1. Questions were devised in such a way that the respondents could answer immediately without having to look up information. Guidelines recommended by Dillman (2000) were followed, such as asking questions as complete sentences, using closed-ended questions with ordered response categories, and providing appropriate time referents in some questions.

The questionnaire had four sections related to (1) perceived leadership styles; (2) moderating variables (the respondent's need for achievement, equity sensitivity, and need for clarity); (3) employee engagement, and (4) demographic variables (six questions relating to company size, working pattern/hours, organizational tenure, duration of the leader-follower relationship, age,

and gender). Details of items relating to the independent, moderating, and dependent variables are discussed further in Section 3.4.3.

3.4.3 Measures of variables

This section discusses the measures of the independent, moderating, and dependent variables.

3.4.3.1 Measures of independent variables

In measuring perceived leadership styles, Jing's (2009) scale was adopted because his study first operationalized this measure using Avery's (2004) four leadership styles. In Jing's study, the reliability data for the measures of classical leadership, visionary leadership, and organic leadership were satisfactory, with Cronbach's alpha coefficients of 0.756, 0.689, and 0.678, respectively. However, the Cronbach's alpha coefficient for transactional leadership was only 0.349 (Jing, 2009). Two items about transactional leadership did not have good reliability data: Item 12 'I am held accountable for achieving agreed upon goals' and Item 18 'My commitment comes mostly from the rewards, agreements and expectations I negotiate with my Store Manager'. Validity data for the measures are unavailable.

Jing's (2009) scale has been slightly modified for this thesis. For example, 'store manager' has been changed to 'direct supervisor'; and 'store' to 'group'. To improve the reliability of the transactional leadership measure, Item 12 was changed to 'I am held accountable only for achieving goals agreed upon between my direct supervisor and me'. The theoretical rationale behind Jing's (2009) Item 18 was considered sound. That is, under transactional leadership, the source of followers' commitment comes from the rewards, agreements, and expectations negotiated with the leader (Avery, 2004). Thus, Item 18 was considered appropriate for measuring transactional leadership and was retested in this thesis. Using a revised scale can be expected to affect reliability and validity of the tool. The present research tested the reliability and validity of the revised scale, as discussed in Chapter 4.

3.4.3.2 Measures of moderating variables

The three moderating variables – need for achievement, equity sensitivity, and need for clarity – are well-established and operationalized in the literature, and are associated with respected measuring instruments. However, incorporating all three measures into one study would create an excessively long questionnaire, which could negatively influence the response rate (Collis and Hussey, 2003). Therefore, the questionnaire incorporated more frequently used measures with fewer items for the moderating variables. The five-item Equity Sensitivity Instrument (Huseman et al., 1985) is the primary measure used in equity sensitivity research (Foote and Harmon, 2006; Shore and Strauss, 2008), and has been used at least 13 times. In contrast, the five-item measure of need for achievement, which is from the Manifest Needs Questionnaire (Steers and Braunstein, 1976), has been used four times, and the four-item Need-for-Clarity Index (Lyons, 1971) has been used three times. See below for items of the measures.

Response set refers to 'one class of respondent variables that is frequently discussed as being part of error variance, namely, certain personality dispositions that are believed to distort responses systematically and thus conceal true relationships' (Rossi et al., 1983, p.315). To minimize response sets, the items for the three moderating variables were randomized in the questionnaire (Collis and Hussey, 2003).

Moreover, the reliability and validity data on these measures from previous studies further justify their adoption (see Table 3.1). The moderating-variable measures are discussed individually next.

Table 3.1 Measures of moderating variables from the literature

Moderating variables	Measure name and/or origin	Item quantity	Times used in the literature	Reliability data	Validity data	Relevant studies
Need for achievement	Manifest Needs Questionnaire (Steers and Braunstein, 1976)	5	4	α=0.7 (Matsui, Okada, and Kakuyama, 1982)	Discriminant validity coefficients averaged 0.18 (Steers and Spencer, 1977)	Steers and Spencer, 1977; Morris and Snyder, 1979; Matsui et al.,1982; Orpen, 1985
Equity sensitivity	Equity Sensitivity Instrument (Huseman et al., 1985)	5	14	α=0.83 (Huseman et al., 1985); α=0.79 (Miles et al., 1989); α=0.86 (O'Neill and Mone, 1998); α=0.83 (Kickul and Lester, 2001); α=0.83 (Shore et al., 2006); α=0.77 (Walker et al., 2007)	unavailable	Huseman et al., 1985; Miles et al., 1989; King and Miles, 1994; Miles et al., 1994; O'Neill and Mone, 1998; Kickul and Lester, 2001; Shore et al., 2006; DeConinck and Bachmann, 2007; Mudrack, 2007; Restubog et al., 2007; Scott and Colquitt, 2007; Walker et al., 2007; Wheeler, 2007; Shore and Strauss, 2008
Need for clarity	Need-for-Clarity Index (Lyons, 1971)	4	3	α=0.82 (Benson, Kemery II, Sauser Jr., and Tankesley, 1985); α= 0.79 (O'Driscoll and Beehr, 2000)	unavailable	Lyons, 1971; Benson et al., 1985; O'Driscoll and Beehr, 2000

(1) Measure of need for achievement

Need for achievement was measured using the relevant scale of the Manifest Needs Questionnaire, specially developed by Steers and Braunstein (1976) to evaluate the manifest levels of these needs among persons in work-specific settings. Each of the items describes a particular sample of behavior indicative of the need in question. The five items in this measure were:

- I do my best work when my job assignments are fairly difficult.

- I try very hard to improve on my past performance at work.

- I take moderate risks and stick my neck out to get ahead at work.

- I try to avoid any added responsibilities on my job (This item was reversely coded).

- I try to perform better than my co-workers.

(2) Measure of equity sensitivity

This variable was assessed using the Equity Sensitivity Instrument of Huseman et al. (1985), a five-item forced-distribution scale designed to identify a subject's preferences for outcomes versus inputs in a general work situation.

Consistent with the procedures of O'Neill and Mone (1998), Kickul and Lester (2001), and Restubog, Bordia, and Tang (2007), instead of separating equity sensitivity into three distinct groups, this study employed the full ESI scale, regarding it as a continuous measure. In other words, for the respondents' convenience, consistent with other measures, the Equity Sensitivity Instrument was revised to use a five-point Likert scale. The items for this measure were:

- In any organization I might work for, it would be more important for me to get from the organization rather than give to the organization.

- In any organization I might work for, it would be more important for me to watch out for my own good rather than help others.

- In any organization I might work for, I would be more concerned about what I received from the organization rather than what I contributed to the organization.

- In any organization I might work for, my personal philosophy in dealing with the organization would be that 'if I don't look out for myself, nobody else will' rather than that 'it's better for me to give than to receive'.

- In any organization I might work for, the hard work I would do should benefit me rather than benefit the organization.

(3) Measure of need for clarity

Lyons's (1971) four-item scale was used to assess need for clarity. The items were:

- It is important to me to know in detail what I have to do on a job.

- It is important to me to know in detail how I am supposed to do a job.

- It is important to me to know in detail what the limits of my authority on a job are.

- It is important to me to know how well I am doing.

It can be seen from Table 3.1 that the available Cronbach's alpha coefficients for each measure exceeded the satisfactory level of 0.60 (Malhotra, Hall, Shaw, and Oppenheim, 2002). The only available validity data are from Steers and Spencer's (1977) study, where the discriminant validity coefficients for the Need for achievement measure averaged 0.18.

The above findings, when taken together, provide support for the adequacy of the measures for assessing the three moderating variables in work settings. However, where necessary, the aforementioned measures were tailored in order to suit this study's requirements. Using a revised scale can be expected to affect the reliability and validity of the tool. The present research examined the reliability and validity of the revised scales, as discussed in Chapter 4.

3.4.3.3 Measure of dependent variable

The literature contains a number of questionnaires developed to measure employee engagement (Schneider et al., 2009), as summarized in Table 3.2. Shaded cells indicate the scale items adopted or slightly modified in this study.

Table 3.2 Employee-engagement-related scale items in the literature

Scale	No.	Item	Relevance	Status in this thesis
Employee engagement scales				
Gallup Workplace Audit (GWA) (Bates, 2004)	1.1	Do you know what is expected of you at work?	Employee engagement predictor: (1) Expansive communication	Not adopted
	1.2	Do you have the materials and equipment you need to do your work properly?	Employee engagement predictor: (3) Rich and involving job	Not adopted
	1.3	Do you have the opportunity to do what you do best every day?	Employee engagement predictor: (3) Rich and involving job	Not adopted
	1.4	In the past seven days, have you received recognition or praise for doing good work?	Employee engagement predictor: (1) Expansive communication	Not adopted
	1.5	Is there someone at work who encourages your development?	Employee engagement predictor: (5) Career advancement opportunities	Not adopted
	1.6	Does your supervisor, or someone at work, seem to care about you as a person?	Employee engagement predictor: (4) Effective and supportive direct supervisors and (8) Supportive colleagues/team members	Not adopted
	1.7	Do your opinions seem to count?	Employee engagement predictor: (1) Expansive communication	Not adopted
	1.8	Does the mission/purpose of your company make you feel that your job is important?	Employee engagement predictor: (6) Contribution to organizational success	Not adopted
	1.9	Are your fellow employees committed to doing quality work?	Employee engagement predictor: (8) Supportive colleagues/team members	Not adopted
	1.10	Do you have a best friend at work?	Employee engagement predictor: (4) Effective and supportive direct supervisors and (8) Supportive colleagues/team members	Not adopted

Table 3.2 (continued)

Scale	No.	Item	Relevance	Status in this thesis
Gallup Workplace Audit (GWA) (Bates, 2004)	1.11	In the past six months, has someone at work talked to you about your progress?	Employee engagement predictor: (1) Expansive communication	Not adopted
	1.12	In the past year, have you had opportunities at work to learn and grow?	Employee engagement predictor: (5) Career advancement opportunities	Not adopted
The IES engagement measure (Robinson et al., 2004)	2.1	I speak highly of this organization to my friends.	Say	Adopted
	2.2	I would be happy for my friends and family to use this organization's products/services.	Say	Adopted
	2.3	This organization is known as a good employer.	Employee engagement predictor: (7) Pride in the organization	Not adopted
	2.4	This organization has a good reputation generally.	Employee engagement predictor: (7) Pride in the organization	Not adopted
	2.5	I am proud to tell others I am part of this organization.	Employee engagement predictor: (7) Pride in the organization	Not adopted
	2.6	This organization really inspires the very best in me in the way of job performance.	Strive (similar to 3.5)	Not adopted
	2.7	I find that my values and the organization's are very similar.	Employee engagement predictor: (6) Contribution to organizational success and (7) Pride in the organization	Not adopted
	2.8	I always do more than is actually required.	Strive	Adopted
	2.9	I try to help others in this organization whenever I can.	Strive	Adopted
	2.10	I try to keep abreast of current developments in my area.	Strive	Adopted
	2.11	I volunteer to do things outside my job that contribute to the organization's objectives.	Strive	Adopted
	2.12	I frequently make suggestions to improve the work of my team/department/service.	Strive	Adopted

Table 3.2 (continued)

Scale	No.	Item	Relevance	Status in this thesis
Towers Perrin (2003)	3.1	I really care about the future of my company.	Employee engagement predictor: (6) Contribution to organizational success	Not adopted
	3.2	I am proud to work for my company.	Employee engagement predictor: (7) Pride in the organization	Not adopted
	3.3	I have a sense of personal accomplishment from my job.	Employee engagement predictor: (3) Rich and involving job	Not adopted
	3.4	I would say my company is a good place to work.	Say	Adopted
	3.5	The company inspires me to do my best work.	Strive	Adopted
	3.6	I understand how my unit/department contributes to company success.	Employee engagement predictor: (6) Contribution to organizational success	Not adopted
	3.7	I understand how my role relates to company goals and objectives.	Employee engagement predictor: (6) Contribution to organizational success	Not adopted
	3.8	I am personally motivated to help my company succeed.	Employee engagement predictor: (6) Contribution to organizational success	Not adopted
	3.9	I am willing to put in a great deal of effort beyond what is normally expected.	Strive (similar to 2.8)	Not adopted

Table 3.2 (continued)

Scale	No.	Item	Relevance	Status in this thesis
DDI's E3 employee engagement measurement tool (Phelps, 2009)	4.1	Overall, I have a good understanding of what I am supposed to be doing in my job.	Employee engagement predictor: (1) Expansive communication	Not adopted
	4.2	I am kept well informed about changes in the organization that affect my work group.	Employee engagement predictor: (1) Expansive communication	Not adopted
	4.3	My work group makes efficient use of its resources, time, and budget.	Employee engagement predictor: (8) Supportive colleagues/team members	Not adopted
	4.4	In my work group, meetings are focused and efficient.	Employee engagement predictor: (1) Expansive communication	Not adopted
	4.5	In my work group, people are held accountable for low performance.	Employee engagement predictor: (3) Rich and involving job	Not adopted
	4.6	I can make meaningful decisions about how I do my job.	Employee engagement predictor: (3) Rich and involving job	Not adopted
	4.7	I find personal meaning and fulfillment in my work.	Employee engagement predictor: (3) Rich and involving job	Not adopted
	4.8	People in my work group cooperate with each other to get the job done.	Employee engagement predictor: (8) Supportive colleagues/team members	Not adopted
	4.9	In this organization, different work groups reach out to help and support each other.	Employee engagement predictor: (8) Supportive colleagues/team members	Not adopted
	4.10	People in my work group quickly resolve conflicts when they arise.	Employee engagement predictor: (8) Supportive colleagues/team members	Not adopted
	4.11	People trust each other in my work group.	Employee engagement predictor: (2) Trust and integrity	Not adopted
	4.12	My job provides me with chances to grow and develop.	Employee engagement predictor: (5) Career advancement opportunities	Not adopted
	4.13	In my work group, people try to pick up new skills and knowledge.	Strive (similar to 2.10)	Not adopted

Table 3.2 (continued)

Scale	No.	Item	Relevance	Status in this thesis
DDI's E3 employee engagement measurement tool (Phelps, 2009)	4.14	In my work group, people are assigned tasks that allow them to use their best skills.	Employee engagement predictor: (3) Rich and involving job	Not adopted
	4.15	In my work group, my ideas and opinions are appreciated.	Employee engagement predictor: (1) Expansive communication	Not adopted
	4.16	I get sufficient feedback about how well I am doing.	Employee engagement predictor: (1) Expansive communication	Not adopted
	4.17	People in my work group understand and respect the things that make me unique.	Employee engagement predictor: (8) Supportive colleagues/team members	Not adopted
Heger (2007)	5.1	I often think about leaving AT&T for a new job with another company.	Stay (opposite to 6.2)	Not adopted
	5.2	I am actively looking for a new job outside the company.	Stay (opposite to 7.1)	Not adopted
	5.3	I am constantly looking for new and better ways of doing my work.	Strive (similar to 2.10 and 2.12)	Not adopted
	5.4	When extra effort is needed, I volunteer to take on additional responsibilities at work.	Strive (similar to 2.11)	Not adopted
	5.5	When a co-worker is overextended, I step in to help.	Strive (similar to 2.9)	Not adopted
	5.6	I would recommend AT&T as a great place to work.	Say (similar to 3.4)	Not adopted
	5.7	I emphasize the positive aspects of working for AT&T when talking with coworkers.	Say	Adopted
	5.8	When given the opportunity, I recommend AT&T products and services to friends and family.	Say (similar to 2.2)	Not adopted
'Stay' scales				
Flood, Turner, Ramamoorthy, and Pearson (2001)	6.1	The offer of a bit more money with another employer would not seriously make me think of changing my job	Stay	Adopted
	6.2	I would prefer to stay with this company as long as possible	Stay	Adopted
Bloemer and Odekerken-Schroder (2006)	7.1	I consider this organization my first choice	Stay	Adopted

Notes: Hewitt associates' definition of employee engagement mentioned say, stay, and strive, but its EE questionnaire is unavailable.

In the 'Gallup Workplace Audit' (GWA) or Q12 survey, employees are asked to rate their response to each question on a five-point Likert scale (Luthans and Peterson, 2002; Ferrer, 2005). The Institute for Employment Studies (IES) engagement measure, developed within the UK National Health Service, uses 12 'engagement statements' that represent the different aspects of engagement contained within the definition from IES (Robinson et al., 2004; Harley, Lee, and Robinson, 2005). Many of the engagement statements in the Towers Perrin (2003) questionnaire have elements common with the IES framework. The overall engagement index of the DDI 'E3' employee-engagement measurement tool is the sum of 17 research-based actionable engagement questions (Phelps, 2009). However, as argued below, these four questionnaires all contain some serious flaws:

- Many items of the four questionnaires, especially the 'Gallup Workplace Audit', are about employee engagement predictors, which are not equivalent to employee engagement itself (Macey and Schneider, 2008; Simpson, 2009). For instance, one question item of the 'Gallup Workplace Audit' is that 'In the past year, have you had opportunities at work to learn and grow?' According to Section 2.6.2, this item measures the employee engagement predictor of career advancement opportunities, which is not employee engagement itself.

- None of these four questionnaires includes items measuring 'stay', which is related to the first research question of this thesis: What are the behavioral-outcome factors in the construct of employee engagement?

- The reliability and validity of these four questionnaires have not been reported, casting doubt on the questionnaires' scientific soundness.

Heger's (2007) questionnaire measuring employee engagement comprises three distinct components: intention to stay, discretionary effort, and organizational advocacy. However, this scale is not well established and was not published in Heger's work.

As discussed in Section 2.4, the employee engagement construct involves the emotional and intellectual 'connection' and the behavioral outcomes. The emotional and intellectual 'connection' is the intrinsic motivator of the behavioral outcomes. In other words, the behavioral outcomes result from an employee's emotional and intellectual 'connection' (Gibbons, 2006; Heger, 2007). In social science, many researchers measure needs or

motivations by behaviors instead of affective responses (Murray, 1938; Ray, 1975; Steers and Spencer, 1977). By using a behaviorally based response format, it was expected that more accurate measures would be secured concerning what respondents actually did, instead of how they felt about what they did (Steers and Spencer, 1977). Thus, following Heger (2007), this thesis employed only the three possible behavioral-outcome components to measure the entire employee engagement construct: say (organizational advocacy), stay, and strive (additional discretionary effort). As shown in Table 3.2, only items about the behavioral-outcome component of the employee engagement construct were adopted; items about employee engagement predictors were excluded. Similar or opposite items were just selected once. Say was measured using a four-item index, with the four items chosen from Towers Perrin (2003), Robinson et al. (2004), and Heger (2007). Stay was measured using three items adopted from Flood, Turner, Ramamoorthy, and Pearson (2001) and Bloemer and Odekerken-Schroder (2006). Strive was measured using a six-item index, selected from Towers Perrin (2003) and Robinson et al. (2004). Similar to the measures of moderating variables, to minimize response sets (Rossi et al., 1983), the items relating to employee engagement were randomized in the questionnaire.

3.4.4 Coding questionnaires, questions, and data

Each questionnaire was assigned a unique code in order to differentiate it and facilitate monitoring of the research assistants. From the list of targeted retail stores, the researcher coded each store with two numbers, such as '1-001'. The first number was the number of the shopping mall, and the second number represented the store number, which was allocated in advance by the researcher.

The questionnaire code was simply the combination of the store code and the respondent's sequence number of approach in the store. For instance, if the respondent was the third respondent in the No.2 store of No.1 shopping mall, the questionnaire code would be 1-002-3.

All questions in the questionnaire were pre-coded (see Appendix 1). Question numbers were used as question labels to ensure consistency (Malhotra et al., 2002) (see Appendix 2).

3.5 Data collection

This section describes the method for collecting data, including the role of the research assistants; the steps in approaching malls, stores, and respondents; and the procedures of ethics approval, pilot study, and main study.

3.5.1 Role of the research assistants

Two research assistants were hired to assist with data collection. Two acquaintances were chosen; both had master degrees, good communication skills, maturity, and a sense of responsibility. They were paid 'by the job' rather than by the hour. They were told of the importance of the study but were not informed of the specific hypotheses.

The research assistants were trained on the requirements of this study in a face-to-face training session before the data collection began. The research assistants were first emailed some training materials, including the Data Collection Procedure Emphases (Appendix 3) and the Introductory Scripts (Appendix 4). They then met with the researcher and were instructed on the contents of the Information and Consent Form (Appendix 5) and questionnaire, how to approach the respondents, how to cope with any difficult issues arising while conducting the survey, how to use a Survey Situation Report (Appendix 6), and how to enter data.

Research assistants were instructed to note any matters that might influence the respondents (e.g., if the questionnaire was not completed because the respondent was urgently called away). The training session included role playing, with the researcher acting as the respondent and presenting some difficult situations, and instructions on how to improve approach procedures. The researcher accompanied the research assistants on their first interviews to coach and provide feedback.

Research assistants entered the collected data into a file called Data Entry (Appendix 2) and emailed it to the researcher that day. They were required to return the completed questionnaires together with the Survey Situation Reports (Appendix 6) to the researcher once a week.

The research assistants also attended meetings or had telephone conversations with the researcher, so that the researcher could monitor returns, maintain their motivation, identify

any problems, and mentor the assistants, and the assistants could update the researcher and discuss any problems. The research assistants telephoned the researcher for immediate advice if they could not solve problems that arose while conducting the survey. The researcher checked the visited stores randomly to monitor research assistants and validate their work. The stores were asked to confirm that the research assistants had actually visited them. This was considered sufficient because it was just a link in the whole validation process, including respondents' email addresses and mobile phone numbers on questionnaires, signatures on Information and Consent Forms, records in Survey Situation Reports, and further confirmations in the subsequent lottery process.

3.5.2 Approaching respondents

In this section, the procedures for obtaining admission from shopping malls' center management offices and store managers are described. The process of approaching respondents is also provided.

Center management offices of the proposed shopping malls were approached first by mail, with an official letter of introduction (Appendix 7) from the researcher and his supervisors. The research assistants then approached the center managers in person and asked them to sign the introduction letter, which was then returned to the researcher for the records of the ethics committee of Macquarie University. Eight of the 15 shopping malls approached agreed to participate in the research.

Each research assistant wore his/her research assistant nametag during mall visits. They were given a list of store names to approach and were instructed to visit retail stores sequentially to minimize any potential sampling bias that could arise if stores were chosen deliberately by the research assistants (Hussey and Hussey, 1997).

The research assistants visited the assigned stores and gave the store managers the Information and Consent Form explaining the purpose of the study (Appendix 5). Three aspects were emphasized: (1) There was no pressure to participate in the study, it was voluntary, and responses would be kept confidential; (2) Store managers could request a report of the findings, which would be emailed to them when the study is completed; and (3)

The overall findings were expected to be published in some research and professional management journals.

Then the research assistant asked the store manager if he/she would allow the research assistant to conduct an investigation in his/her store. If the store manager did not give permission for his/her sales assistants to be involved in the investigation, the research assistant was to note this and approach the next store on the list. Retail stores that declined to participate were not approached again.

The research assistant approached the first sales assistant he/she met in the store, explained the nature of the study and asked their willingness to participate. The research assistant explained several aspects of the study: (1) that participation was voluntary, responses were confidential; (2) respondents had a chance of winning an iPod in a subsequent lottery – in this way, the response rate could be improved with minimal biasing survey results (Gajraj, Faria, and Dickinson, 1990; Anderson, Puur, Silver, Soova, and Vöörmann, 1994); (3) respondents could receive a copy of the finished report if they so wished; (4) overall findings of this study, but no individual answers, would be published in some research and professional management journals; and (5) the accuracy of their responses was critical to the success of the research. The details of the lottery arrangement are provided in Appendix 8. To ensure the legality of the lottery arrangement, the Fact Sheet for Gratuitous Lotteries derived from NSW Office of Liquor, Gaming and Racing (2008) was followed.

Sales assistants who were willing to participate in the study were requested to sign the Information and Consent Forms (two copies, one each for the research assistant and respondent) and complete the questionnaire. The research assistants kept an appropriate distance while respondents were answering the questionnaire but were available to answer any questions, and had been trained by the researcher to do so without affecting the respondents' answers. Any such questions were recorded on the Survey Situation Report form. The research assistant checked the completed questionnaire for missing items and allocated the questionnaire code. The store manager was unable to access the sales assistant's responses, helping to ensure an acceptable response rate and honest answers (Slavitt, Stamps, Piedmont, and Hasse, 1986; Medley and Larochelle, 1995) and protecting respondents from any potential repercussions.

This procedure was repeated in that store, with the research assistant approaching the next sales assistant he or she met, until five questionnaires had been completed or until it was not possible to have more completed. Continuing by approaching only the next sales assistant the research assistant met helped to ensure that bias did not occur through respondents being chosen by the research assistants (Hussey and Hussey, 1997; Collis and Hussey, 2003). After finishing data collection in one store, the research assistants filled out the Survey Situation Report form.

3.5.3 Ethics approval

The ethics application, together with the Information and Consent Form and proposed questionnaire, were submitted to the Macquarie University Research Office in July 2009 and approved in August 2009. All procedures concerning data collection in this thesis were reviewed and approved by the Macquarie University Research Office.

3.5.4 Pilot study

This section describes the purpose, process, and results of the pilot study.

After obtaining ethics approval, a pilot study was conducted to determine whether potential respondents would have difficulties in understanding or interpreting questions in the questionnaire (Dillman, 2000; Alreck and Settle, 2003; Chan and Chan, 2005); to test if the length of the questionnaire is acceptable; and to uncover any difficulties arising from the procedure (Chan and Chan, 2005). In other words, the pilot testing provided the researcher with feedback on procedures, respondent cooperation, and whether or not some adjustments should be made in the questionnaire and the data-collection procedures.

Ten sales assistants at Macquarie Shopping Centre in Sydney participated in the pilot study. They were selected from stores not participating in the main study. Each participant was requested to read through and complete the questionnaire. Nine of the 10 collected questionnaires were considered valid, including a questionnaire with missing items. The remaining questionnaire had invalid response sets.

The pilot study indicated there was no need for the researcher to amend the questionnaire. However, some slight adjustments were made to the data collection procedure:

(1) In order to facilitate on-the-spot introductions when approaching respondents and enhance the response rate, the Introductory Scripts were modified (see Appendix 4).

(2) Research assistants were asked to carefully check for missing items after respondents finished answering questionnaires.

Since response sets are attributed to certain personality dispositions (Rossi et al., 1983), they were considered inevitable and no steps were taken in the main study to avoid them.

3.5.5 Main study

The main study was conducted during August–October 2009. From eight shopping malls across Sydney, 439 questionnaires were collected. The response rate and characteristics of respondents of the main study are reported in Section 4.3 in Chapter 4.

3.6 Summary

This chapter has provided the rationale for the demographic variables and choice of a combination of face-to-face and mail survey methodology. It has described the unit of study, population, sample size, and sampling procedures. Using mainly availability (convenience) sampling, around 400 sales assistants working in retail stores in eight shopping malls across Sydney were taken as the sample representing the population of Australian sales assistants. This chapter discussed the questionnaire design, content and coding; measures for the variables; data collection approaches, including recruitment, training, and other aspects of managing research assistants; and the steps taken in approaching malls, stores, and respondents. Finally, the procedures of obtaining ethics approval, conducting the pilot study, and carrying out the main study were described. The next chapter describes and discusses the data preparation and factor analysis.

CHAPTER 4

DATA PREPARATION AND FACTOR ANALYSIS

4.1 Overview of Chapter 4

This chapter contains seven sections, including this overview. Section 4.2 describes the processes of labeling the variables, cleaning the collected data, and handling missing data. The descriptive statistics are presented in Section 4.3, and the normality for the latent variables is tested in Section 4.4. Section 4.5 introduces Structural Equation Modeling (SEM), the major statistical techniques used in this thesis. Factor analysis for the 11 latent variables, and their reliability and validity, are discussed in Section 4.6. The chapter concludes with Section 4.7.

4.2 Data preparation

This section presents the labels and sources of the variables, and discusses the procedures used for data cleaning and missing data handling.

4.2.1 Labeling the variables

The survey used 53 questions to measure 11 latent variables and six observed variables. Table 4.1 lists the labels of these variables and the corresponding sources in the questionnaire.

Table 4.1 Labels and sources of the 11 latent variables and six observed variables

No.	Label	Latent variables	Source
1	CLASSICAL	Classical leadership	Q1.1, Q1.8, Q1.9, Q1.14, Q1.16
2	TRANSACTIONAL	Transactional leadership	Q1.2, Q1.5, Q1.12, Q1.17, Q1.18
3	VISIONARY	Visionary leadership	Q1.3, Q1.6, Q1.7, Q1.13, Q1.19
4	ORGANIC	Organic leadership	Q1.4, Q1.10, Q1.11, Q1.15, Q1.20
5	NACHIEVEMENT	Need for achievement	Q2.1, Q2.5, Q2.7, Q2.10, Q2.13
6	ESENSITIVITY	Equity sensitivity	Q2.2, Q2.4, Q2.8, Q2.12, Q2.14
7	NCLARITY	Need for clarity	Q2.3, Q2.6, Q2.9, Q2.11
8	SAY	Say	Q3.1, Q3.5, Q3.7, Q3.11
9	STAY	Stay	Q3.2, Q3.4, Q3.9
10	STRIVE	Strive	Q3.3, Q3.6, Q3.8, Q3.10, Q3.12, Q3.13
11	EENGAGEMENT	Employee engagement	Higher-order factor of say, stay, and strive
No.	Label	Observed variables	Source
1	CSIZE	Company size	Q9
2	WPATTERN	Working pattern/hours	Q6
3	OTENURE	Organizational (Employee) tenure	Q7
4	DURATION	Duration of the leader-follower relationship	Q8
5	AGE	Age	Q5
6	GENDER	Gender	Q4

4.2.2 Data cleaning

Raw data were entered into an Excel file by the research assistants on the day of collection. The researcher checked the input data, first on his own and a second time with an assistant ticking off the rating scores as the researcher read them out. One entry error and a reverse coding problem with Q2.10 were found and corrected. This validation procedure ensured that the data were entered accurately by identifying input errors, logically inconsistent responses and missing data (Malhotra et al., 2002).

As a result of this process, seven of the 439 questionnaires collected were excluded from the main study. One questionnaire was excluded because the research assistant reported that the respondent did not answer the questions seriously, two questionnaires had unclear double ticks in many places, and four questionnaires were excluded because of suspected response set (Rossi et al., 1983) covering over one-third of the questionnaire items. The remaining 432 valid questionnaires exceeded the minimum sample size recommended for SEM, that is, 100

to 150 (Hair et al., 2006), and the target of 400 set for this thesis. Appendix 9 gives more details.

4.2.3 Missing data handling

Cohen and Cohen (1983) suggested that missing data of up to 10 per cent is unlikely to be problematic in the interpretation of results. More recently, simulation studies have indicated that up to 25 per cent of data may be missing, provided the data are not missing in any systematic pattern (Cunningham, 2008). Of the 432 questionnaires in this thesis, 14 questionnaires had a total of 16 missing values, which were far fewer than the above standards and, therefore, unlikely to be problematic.

Rubin (1976) and Little and Rubin (1989) identified assumptions of missing data, whereby data can be Missing Completely At Random (MCAR) or Missing At Random (MAR). MCAR means that the missing values of a random variable Y are not statistically related to the value of Y itself or to other observed variables. MAR means the missing values of a random variable Y are unrelated only to the value of Y itself.

Incomplete or missing data can be addressed by several methods: listwise deletion, pairwise deletion, imputation (Hair, Anderson, Tatham, and Black, 1998; Kline, 1998; Byrne, 2001), and maximum likelihood estimation (Anderson, 1957).

Listwise deletion or complete data approach is the most popular method because it is quick and simple to use. All cases with missing data are excluded from the final sample and all subsequent analyses. This method is recommended for large samples. For small samples, listwise deletion can result in insufficient sample size (Kline, 1998; Byrne, 2001).

In pairwise deletion, cases with missing variables or variables with missing data are excluded only when these variables are employed in the analysis. The sample size will vary, depending on the type of analysis (Kline, 1998; Byrne, 2001).

In imputation, missing data are replaced with estimated values derived from other variables or cases in the sample. The objective of replacing a missing value with an estimated value is to have a valid replacement value that has a relationship with other completed variables or cases (Hair et al., 1998). Three options can be applied in estimating values for missing data:

mean imputation, regression imputation, and pattern-matching imputation. In mean imputation, missing data are replaced with the arithmetic mean. In regression imputation, missing values are replaced with values obtained by multiple regression. Here, cases with missing data are taken as the dependent variables and cases with complete data are regarded as the independent variables. In pattern-matching imputation, a missing value is replaced with an observed score from another case having a similar pattern across all variables. A combination of the above options in estimating missing values is also possible (Hair et al., 1998).

Full Information Maximum Likelihood (FIML) estimation in Amos or the expectation maximization (EM) algorithm in SPSS may also be used to impute missing values. Under most circumstances, EM and FIML generate identical parameter estimates. The EM method is an iterative process, in which all other variables related to the construct of interest are used to predict the values of the missing variables. Graham, Hofer, Donaldson, MacKinnon, and Schafer (1997) found that in situations where the missing data are MCAR or MAR, the EM approach of data imputation was much more consistent and accurate in predicting parameter estimates than other methods, such as listwise deletion and mean substitution. The EM analysis in SPSS also generates Little's MCAR statistic and, if this statistic is not significant at a level of .001, the missing data may be assumed to be missing at random (Cunningham, 2008).

Therefore, the EM method was selected in this thesis, and SPSS version 17.0 was used to treat missing data. The new data with no missing values were generated with Little's MCAR test. Given that the test result was not significant (p = 0.714), the newly generated data from EM method were not significantly different from the original data set.

After the abovementioned procedures, the variables in this thesis were labeled. Data were also cleaned and treated for missing data in preparation for further analysis.

4.3 Descriptive statistics

Descriptive statistics were used to summarize any patterns in the responses. This section describes the response rate, characteristics of respondents, and means and standard deviations of the latent variables.

4.3.1 Response rate

A total of 449 responses were obtained from sales assistants (Table 4.2). The pilot study had a response rate of 76.9 per cent from 10 responses, and the main study had a response rate of 79.8 per cent from 439 responses. The resulting overall response rate of 79.8 per cent was much higher than the level considered adequate for reporting and analysis in a survey research (Babbie, 1998). A response rate needs to be as high as possible to reduce non-response error and enhance generalizability (Buckingham and Saunders, 2004; Tharenou et al., 2007).

Table 4.2 Survey response rate

	Pilot Study	Main Study	Total
Invitations to participate	13	550	563
Refusal due to unwillingness to participate	3	111	114
Number of eligible responses	10	439	449
Response rate	76.9%	79.8%	79.8%

4.3.2 Characteristics of respondents

The sample data were analyzed based on company size and other five respondent characteristics: working pattern/hours, organizational (employee) tenure, duration of the leader-follower relationship, age, and gender, as shown in Table 4.3.

Of the 432 valid questionnaires kept for further analysis, the distribution of company sizes represented was 36.6 per cent of respondents from small, 19.0 per cent from medium-sized, and 29.9 per cent from large organizations. Full-timers, part-timers, and casuals accounted for 46.5 per cent, 18.5 per cent, and 35.0 per cent, respectively, of the respondents. Duration of employees' tenure was 33.6 per cent of respondents had less than one year, 43.5 per cent had one to two years, and the remaining 22.9 per cent had been with the organization for three or more years. It can be seen that over three-quarters (77.1 per cent) of respondents had been with their organization for less than three years. Similarly, the majority (87.7 per cent) of the respondents had been in their current leader-follower relationship for less than three years. Respondents were relatively young: 66.7 per cent of respondents were under 25 years old, and 22.2 per cent were aged 25 to 34 years. One-quarter (25.0 per cent) of respondents were male and three-quarters (75.0 per cent) female.

Table 4.3 Frequency table of respondent profile

No.	Item	Number of respondents	Percentage in sample
1	**Company size**		
	• Under 20 employees	158	36.6
	• 20 to 199 employees	82	19.0
	• 200 employees or more	129	29.9
	• Not sure	63	14.6
2	**Working pattern/hours**		
	• Full-time	201	46.5
	• Part-time	80	18.5
	• Casual	151	35.0
3	**Organizational (Employee) tenure**		
	• Under 1 year	145	33.6
	• 1 to 2 years	188	43.5
	• 3 to 5 years	76	17.6
	• 6 to 10 years	19	4.4
	• Over 10 years	4	0.9
4	**Duration of the leader-follower relationship**		
	• Under 1 year	245	56.7
	• 1 to 2 years	134	31.0
	• 3 to 5 years	41	9.5
	• 6 to 10 years	11	2.5
	• Over 10 years	1	0.2
5	**Age**		
	• Under 25 years	288	66.7
	• 25 to 34 years	96	22.2
	• 35 to 44 years	28	6.5
	• 45 to 54 years	13	3.0
	• 55 years or more	7	1.6
6	**Gender**		
	• Male	108	25.0
	• Female	324	75.0

4.3.3 Means and standard deviations of the latent variables

Table 4.4 gives the means and standard deviations of the 11 latent variables.

Table 4.4 Means and standard deviations of the latent variables

Latent variables	Mean	Standard Deviation
CLASSICAL	13.8929	3.45384
TRANSACTIONAL	16.0521	2.60238
VISIONARY	17.1106	2.93331
ORGANIC	16.5804	2.87066
NACHIEVEMENT	19.1252	2.82763
ESENSITIVITY	12.7824	3.92314
NCLARITY	16.7106	2.39529
SAY	15.6898	3.02213
STAY	9.7145	2.72218
STRIVE	22.6598	3.81563
EENGAGEMENT	48.0641	8.33168

The above section presented some important descriptive statistics: response rate, frequency of the respondents' profile, and the means and standard deviations of the latent variables. The next section describes the normal distribution test for the latent variables.

4.4 Normality test

Normality is the underlying assumption of most statistical analysis techniques. However, for the statistical techniques adopted in this thesis − t-test and ANOVA − moderate departures from normality of the population distributions can be tolerated (Howell, 2007; Agresti and Finlay, 2009). In SEM, maximum likelihood (ML) can still be used as long as the univariate non-normality is not serious (Kline, 1998).

All latent variables in this study (classical leadership, transactional leadership, visionary leadership, organic leadership, need for achievement, equity sensitivity, need for clarity, say, stay, strive, and employee engagement) were tested for normality to ensure that they generally met the assumption of the chosen statistical techniques. The variable of 'say plus strive' was also tested because it was not yet clear whether the construct of employee engagement contained 'stay' or not. Constructing histograms for each variable helped to check for extreme deviations from the normality assumption (Agresti and Finlay, 2009), and

superimposing a normal curve on the histogram helped to determine whether the data were normally distributed. Results of the normality test are presented in Figure 4.1.

Most latent variables were relatively normal, with the exception of need for clarity. In the subsequent SEM analyses, the results concerning need for clarity were adjusted with the Bollen-Stine bootstrap technique (Bollen and Stine, 1992).

Figure 4.1 Histograms of the latent variables with normal curves

105
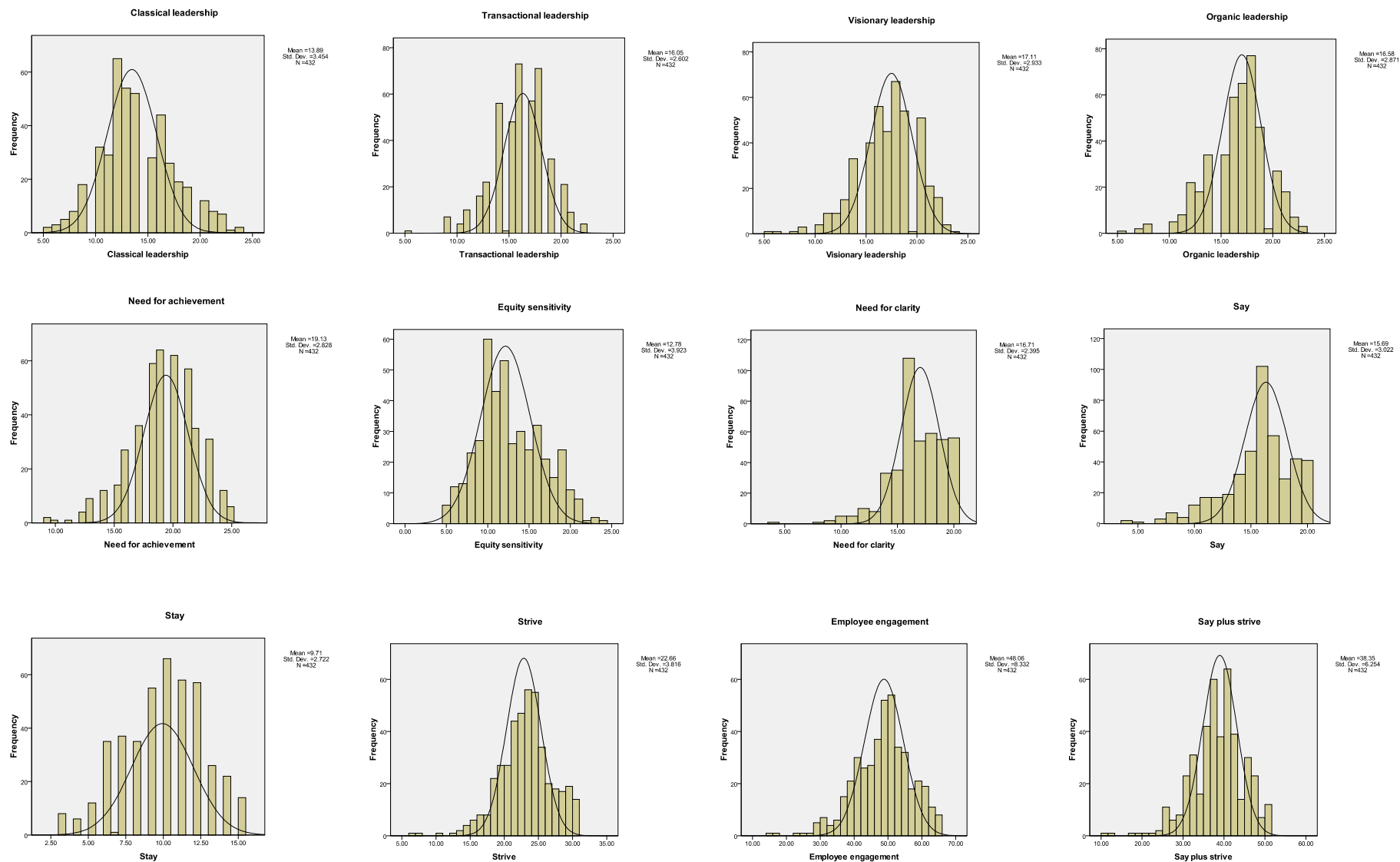
4.5 Brief introduction to Structural Equation Modeling (SEM)

According to Cunningham (2008), Structural Equation Modeling (SEM) is an umbrella term that covers a variety of relatively new statistical techniques, as well as traditional statistical analyses such as multiple regression, factor analysis, and univariate and multivariate analysis of variance. SEM extends conventional multivariate statistical analyses in at least two important ways. First, it allows researchers to account for the error that is inherent in the measures they employ to operationalize their constructs. That is, SEM has the additional advantage of modeling relationships between variables after accounting for measurement error. Second, SEM provides tests of goodness-of-fit that answer important questions about the degree to which sample data provide support for hypothesized theoretical models.

Historically, SEM developed from the combination of two substantive statistical fields: path analysis and factor analysis. Path analysis models test the structural relationships between observed or manifest variables of interest. A special case of path analysis is univariate multiple regression. On the other hand, factor analysis measures theoretical constructs. In factor analysis, one models the relationships between item responses or observed indicators and underlying theoretical constructs as latent variables, which are not directly measured. SEM is an a priori method that requires researchers to have a very clear idea of their hypotheses and the interrelationships between their constructs and variables before (hence a priori) any analyses are conducted. Translating these hypotheses and inter-relationships into visual diagrams via a graphical interface readily reveals the patterns, interrelationships, and interdependencies of the models under investigation. However, SEM itself cannot prove causality among variables (Lin, 2008; Qiu and Lin, 2009).

It can be seen that SEM statistical techniques suit the aims of this thesis, which were to investigate the possible associations and moderations among perceived leadership styles, employee engagement, and employee characteristics, as well as to study the behavioral-outcome components of employee engagement. The factor analysis and path analysis modules of SEM are appropriate for answering the research questions (presented in Chapter 1). Moreover, in contrast to the limitations of traditional assessment techniques, such as regression, SEM allows researchers to examine the effects of latent variables on observed variables and partition error variance in the observed variables (Bollen, 1989; Baumgartner and Homburg, 1996). SEM evolves from regression. It is more precise and advanced than regression so that it is inevitable for regression to be replaced by SEM (Qiu and Lin, 2009).

SEM was the major statistical tool used in this thesis, despite SEM having its own limitations (Kline, 1998; Tomarken and Waller, 2005).

This thesis conducted factor analysis first, to assess the quality of the measures, followed by path analysis (Lin, 2008; Qiu and Lin, 2009). Because no single statistical test of significance identifies a correct model from the sample data, the evaluation of model fit is based on multiple criteria (Byrne, 2001). Table 4.5 summarizes several commonly-used model fit indices from Arbuckle (2008), Lin (2008), and Qiu and Lin (2009) that were used in this thesis. See Appendix C in Arbuckle (2008) for the definitions and explanations of these indices. Models with a smaller number of observed variables may fit better but may be less diagnostic while models with large number of observed variables may have less fit but be better diagnostically (Holmes-Smith, Coote, and Cunningham, 2004). That is, the acceptance of a certain model is based on the overall consideration of the number of observed variables, model fit indices, and findings in the literature.

Table 4.5 Summary of commonly-used model fit indices in SEM

Indices	Abbreviation	Good level of fit criteria
X^2	CMIN	
Probability	P	>0.05
Normed chi-square	CMIN/DF	<2
Standardized root mean square residual	SRMR	<0.08
Goodness-of-fit index	GFI	>0.90
Normed fit index	NFI	>0.90
Non-normed fit index	TLI (NNFI)	>0.90
Comparative-fit index	CFI	>0.95(or >0.90)
Root mean square error of approximation	RMSEA	<0.05(or <0.08)

This thesis reports standardized estimates in SEM because unstandardized estimates are often difficult to compare with their differing metrics of the observed variables (Cunningham, 2008; Qiu and Lin, 2009).

4.6 Factor analysis

This section presents first the processes of measurement model evaluation, and then discusses approaches for examining the reliability and validity of the variable measures.

4.6.1 Measurement model evaluation

Measurement model evaluation is the first step in SEM. The measurement model specifies how the latent variable is measured in terms of the observed variables (Joreskog and Sorbom, 1979). The practical limit to the number of observed variables for each latent variable ranges from three to about eight (Holmes-Smith et al., 2004). In measurement models, standardized factor loadings (or standardized regression weights in Amos) should have a value greater than 0.71 to show a strong association between the latent variable and the observed variable (Holmes-Smith et al., 2004), though values greater than 0.32 are considered acceptable (Qiu and Lin, 2009). As described below, one-factor congeneric measurement model and higher-order factor analysis were employed to evaluate the measurement models.

4.6.1.1 One-factor congeneric measurement model

This section reports the results of testing with Amos 17.0 the one-factor congeneric measurement models (Joreskog, 1971) of classical leadership, transactional leadership, visionary leadership, organic leadership, need for achievement, equity sensitivity, need for clarity, say, stay, and strive.

4.6.1.1.1 One-factor congeneric model of classical leadership

The classical leadership variable (CLASSICAL) was measured by five observed variables: Q1.1, Q1.8, Q1.9, Q1.14, and Q1.16. Figure 4.2 shows the structure of this measurement model. There are standardized regression weights or factor loadings on the arrows that link the latent variable to the observed variables. For example, factor loading for Q1.1 was 0.55. Above each of the rectangles is the square multiple correlations (SMCs) or the square of the observed variable's standardized factor loading. For example, it was estimated that

CLASSICAL explained 30 per cent of the variance of Q1.1. In other words, the error variance of Q1.1 (e1) was approximately 70 per cent of the variance of Q1.1 itself.

Figure 4.2 One-factor congeneric model of classical leadership
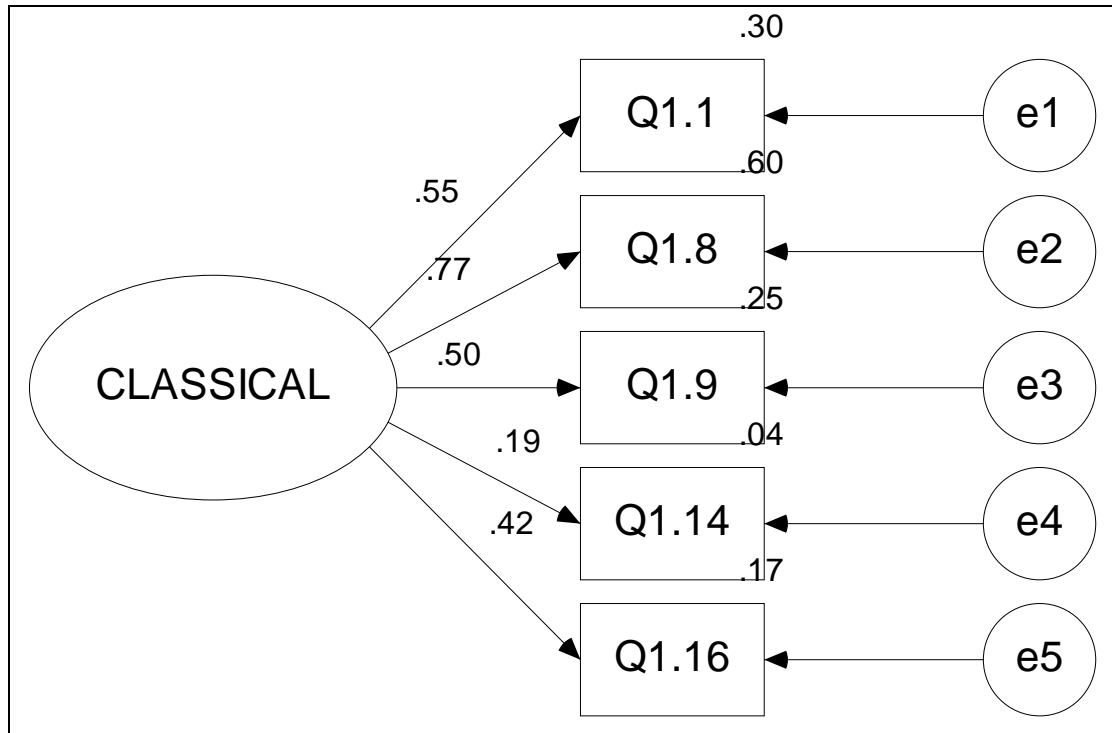
Table 4.6 shows that although SRMR, GFI, and CFI were within the good level of fit, P, CMIN/DF, TLI, and RMSEA were all outside this level. Moreover, the factor loading of Q1.14 was 0.19, which is below 0.32.

Table 4.6 Model fit summary for classical leadership

Indices	Model fit summary	Good level of fit criteria
CMIN	29.143	
P	0.000	>0.05
CMIN/DF	5.829	<2
SRMR	0.0570	<0.08
GFI	0.973	>0.90
NFI	0.888	>0.90
TLI (NNFI)	0.807	>0.90
CFI	0.904	>0.95(or >0.90)
RMSEA	0.106	<0.05(or <0.08)

The model needed to be modified to have a better model fit. Eliminating the item with the lowest factor score – item Q1.14 – improved the model fit. The structure of this measurement model after modification is shown in Figure 4.3.

Figure 4.3 One-factor congeneric model of classical leadership after modification
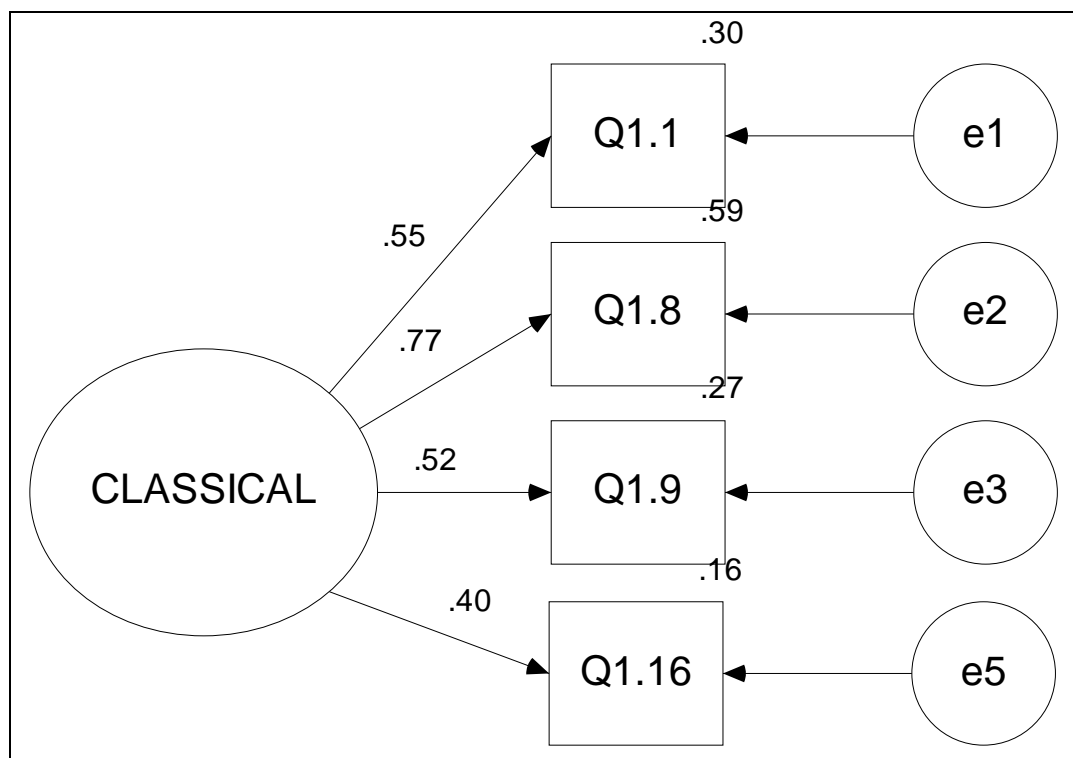
Table 4.7 shows that almost all indices were within the good level of fit. Figure 4.3 also shows that all factor loadings were above 0.32. Thus, these results provided a reasonably adequate measurement of classical leadership.

Table 4.7 Model fit summary for classical leadership after modification

Indices	Model fit summary	Good level of fit criteria
CMIN	4.431	
P	0.109	>0.05
CMIN/DF	2.215	<2
SRMR	0.0241	<0.08
GFI	0.995	>0.90
NFI	0.980	>0.90
TLI (NNFI)	0.967	>0.90
CFI	0.989	>0.95(or >0.90)
RMSEA	0.053	<0.05(or <0.08)

4.6.1.1.2 One-factor congeneric model of transactional leadership

The transactional leadership variable (TRANSACTIONAL) was measured by five observed variables: Q1.2, Q1.5, Q1.12, Q1.17, and Q1.18. Figure 4.4 shows the structure of this measurement model.

Figure 4.4 One-factor congeneric model of transactional leadership
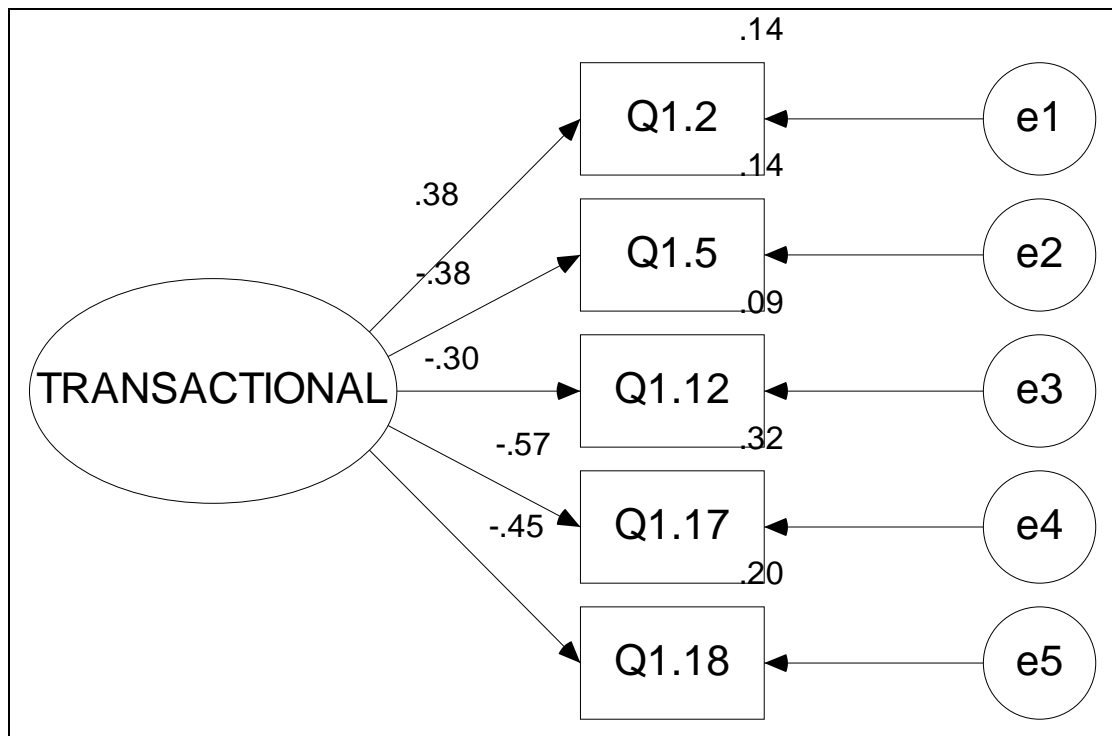
As shown in Figure 4.4, four of the five items measuring transactional leadership had the absolute value of factor loadings above 0.32, while one was below 0.32. However, all indices in Table 4.8 indicated adequate model fit. These results indicated a reasonably adequate measurement of transactional leadership.

Table 4.8 Model fit summary for transactional leadership

Indices	Model fit summary	Good level of fit criteria
CMIN	6.775	
P	0.238	>0.05
CMIN/DF	1.355	<2
SRMR	0.0271	<0.08
GFI	0.994	>0.90
NFI	0.940	>0.90
TLI (NNFI)	0.965	>0.90
CFI	0.983	>0.95(or >0.90)
RMSEA	0.029	<0.05(or <0.08)

To explain the uncommon negative sign of the four factor loadings in Figure 4.4, a correlation analysis was conducted among the five observed variables measuring transactional leadership. As shown in Table 4.9, Q1.2 had a negative correlation with Q1.5, Q1.12, Q1.17, and Q1.18. At the beginning of testing the one-factor congeneric model of transactional leadership, the factor loading of Q1.2 was set as 1 automatically. As a result, the other four factor loadings had a negative sign because of the negative correlations between them and Q1.2. Though a factor loading with a negative sign is acceptable in SEM (Qiu and Lin, 2009), it indicated the scale of leadership styles (Jing, 2009) could be improved in future research, which is discussed further in Section 6.5 in Chapter 6.

Table 4.9 Correlations among the five observed variables measuring transactional leadership

Correlations

		Q1.2	Q1.5	Q1.12	Q1.17	Q1.18
Q1.2	Pearson Correlation	1	-.137**	-.072	-.258**	-.135**
	Sig. (2-tailed)		.004	.133	.000	.005
	N	432	432	432	432	432
Q1.5	Pearson Correlation	-.137**	1	.177**	.177**	.192**
	Sig. (2-tailed)	.004		.000	.000	.000
	N	432	432	432	432	432
Q1.12	Pearson Correlation	-.072	.177**	1	.156**	.137**
	Sig. (2-tailed)	.133	.000		.001	.004
	N	432	432	432	432	432
Q1.17	Pearson Correlation	-.258**	.177**	.156**	1	.258**
	Sig. (2-tailed)	.000	.000	.001		.000
	N	432	432	432	432	432
Q1.18	Pearson Correlation	-.135**	.192**	.137**	.258**	1
	Sig. (2-tailed)	.005	.000	.004	.000	
	N	432	432	432	432	432

**. Correlation is significant at the 0.01 level (2-tailed).

4.6.1.1.3 One-factor congeneric model of visionary leadership

The visionary leadership variable (VISIONARY) was measured by five observed variables: Q1.3, Q1.6, Q1.7, Q1.13, and Q1.19. Figure 4.5 shows the structure of this measurement model.

Figure 4.5 One-factor congeneric model of visionary leadership
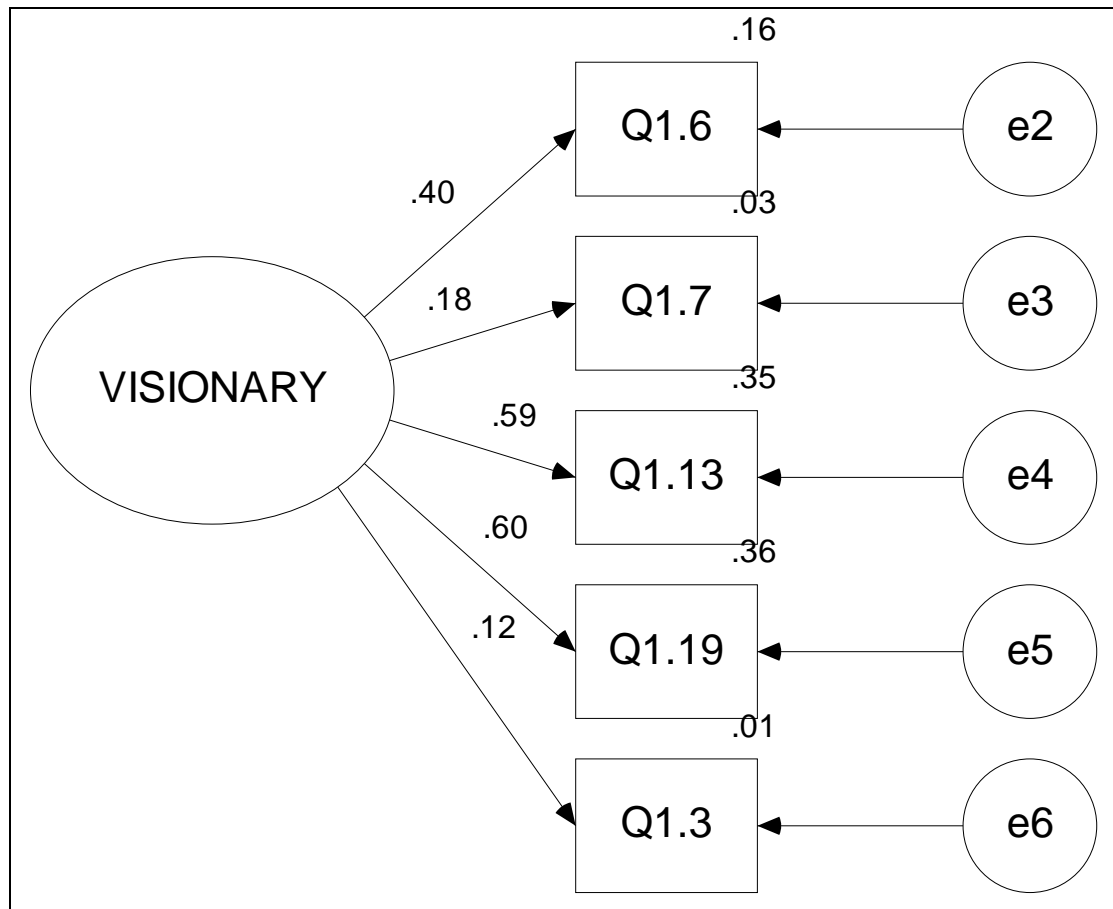
Table 4.10 shows that only SRMR and GFI were within the good level of fit. Furthermore, the factor loadings of two items (0.18 for Q1.7 and 0.12 for Q1.3) were below 0.32.

Table 4.10 Model fit summary for visionary leadership

Indices	Model fit summary	Good level of fit criteria
CMIN	44.056	
P	0.000	>0.05
CMIN/DF	8.811	<2
SRMR	0.0783	<0.08
GFI	0.962	>0.90
NFI	0.712	>0.90
TLI (NNFI)	0.455	>0.90
CFI	0.727	>0.95(or >0.90)
RMSEA	0.135	<0.05(or <0.08)

Modifying the model by removing the item with the lowest factor loading – item Q1.3 – improved the model fit. Figure 4.6 shows the structure of this measurement model after modification.

Figure 4.6 One-factor congeneric model of visionary leadership after modification
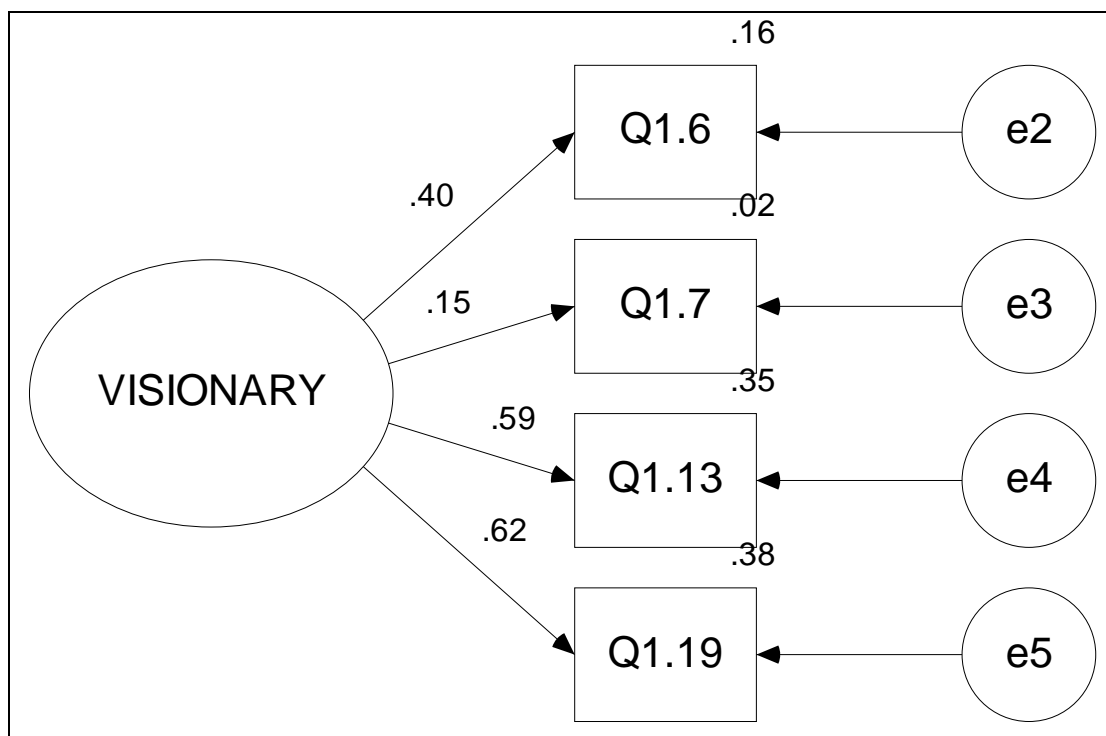
Table 4.11 Model fit summary for visionary leadership after modification

Indices	Model fit summary	Good level of fit criteria
CMIN	0.355	
P	0.837	>0.05
CMIN/DF	0.178	<2
SRMR	0.0080	<0.08
GFI	1.000	>0.90
NFI	0.997	>0.90
TLI (NNFI)	1.049	>0.90
CFI	1.000	>0.95(or >0.90)
RMSEA	0.000	<0.05(or <0.08)

From Figure 4.6 and Table 4.11, although there was still an item (Q1.7) with a factor loading below 0.32, all the indices were within the good level of fit. Thus, these results provided a reasonably adequate measurement of visionary leadership.

4.6.1.1.4 One-factor congeneric model of organic leadership

The organic leadership variable (ORGANIC) was measured by five observed variables: Q1.4, Q1.10, Q1.11, Q1.15, and Q1.20. Figure 4.7 shows the structure of this measurement model.

Figure 4.7 One-factor congeneric model of organic leadership
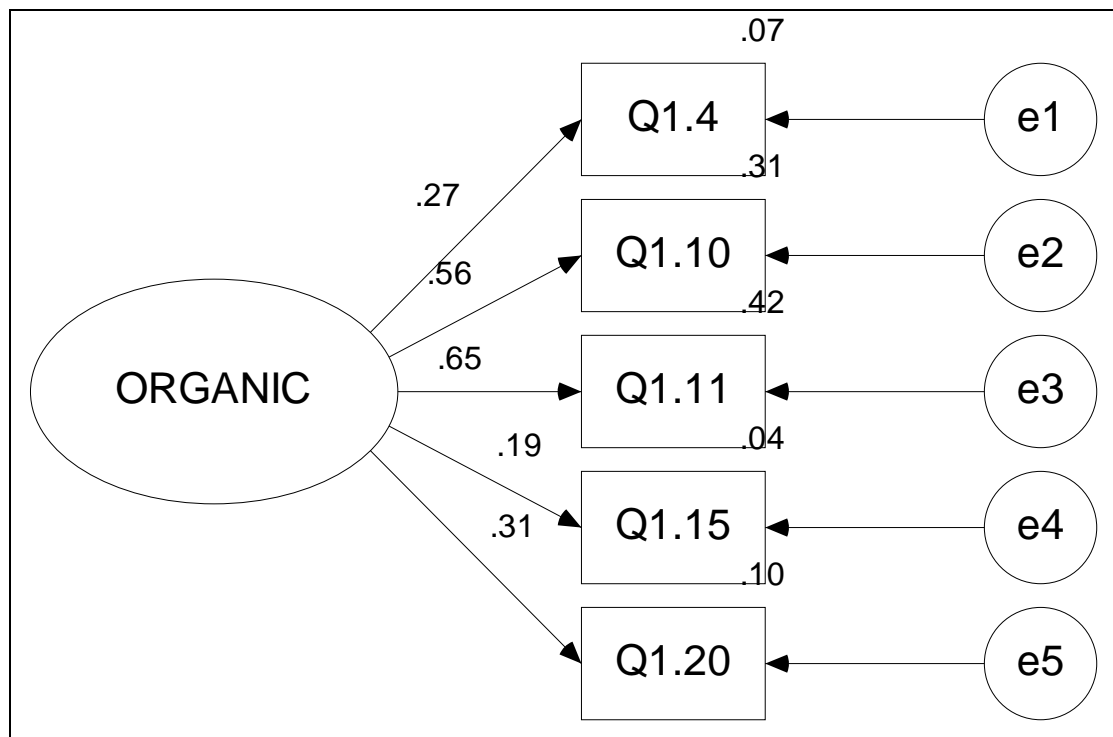
As shown in Figure 4.7, three of the five items measuring organic leadership had factor loadings below 0.32. However, all the indices in Table 4.12 indicated that the model fitted the data well. These results indicated a reasonably adequate measurement of organic leadership.

Table 4.12 Model fit summary for organic leadership

Indices	Model fit summary	Good level of fit criteria
CMIN	7.627	
P	0.178	>0.05
CMIN/DF	1.525	<2
SRMR	0.0301	<0.08
GFI	0.993	>0.90
NFI	0.936	>0.90
TLI (NNFI)	0.951	>0.90
CFI	0.976	>0.95(or >0.90)
RMSEA	0.035	<0.05(or <0.08)

4.6.1.1.5 One-factor congeneric model of need for achievement

The need for achievement variable (NACHIEVEMENT) was measured by five observed variables: Q2.1, Q2.5, Q2.7, Q2.10, and Q2.13. Figure 4.8 shows the structure of this measurement model.

Figure 4.8 One-factor congeneric model of need for achievement
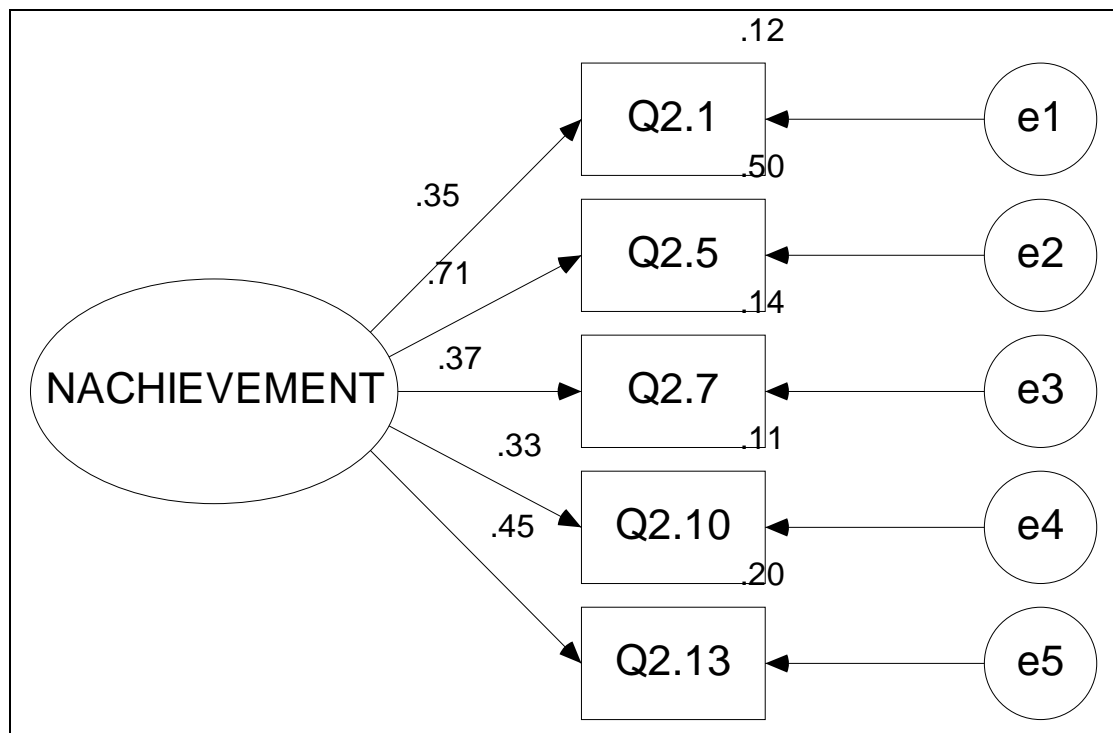
As shown in Figure 4.8, all factor loadings were above 0.32. Table 4.13 shows that although P, CMIN/DF, NFI, TLI, CFI, and RMSEA were outside of the good level of fit, SRMR and GFI were within it. Moreover, this measure of need for achievement is well established in the literature. These results indicated an acceptable measurement of need for achievement.

Table 4.13 Model fit summary for need for achievement

Indices	Model fit summary	Good level of fit criteria
CMIN	23.182	
P	0.000	>0.05
CMIN/DF	4.636	<2
SRMR	0.0472	<0.08
GFI	0.980	>0.90
NFI	0.859	>0.90
TLI (NNFI)	0.764	>0.90
CFI	0.882	>0.95(or >0.90)
RMSEA	0.092	<0.05(or <0.08)

4.6.1.1.6 One-factor congeneric model of equity sensitivity

The equity sensitivity variable (ESENSITIVITY) was measured by five observed variables: Q2.2, Q2.4, Q2.8, Q2.12, and Q2.14. Figure 4.9 shows the structure of this measurement model.

Figure 4.9 One-factor congeneric model of equity sensitivity
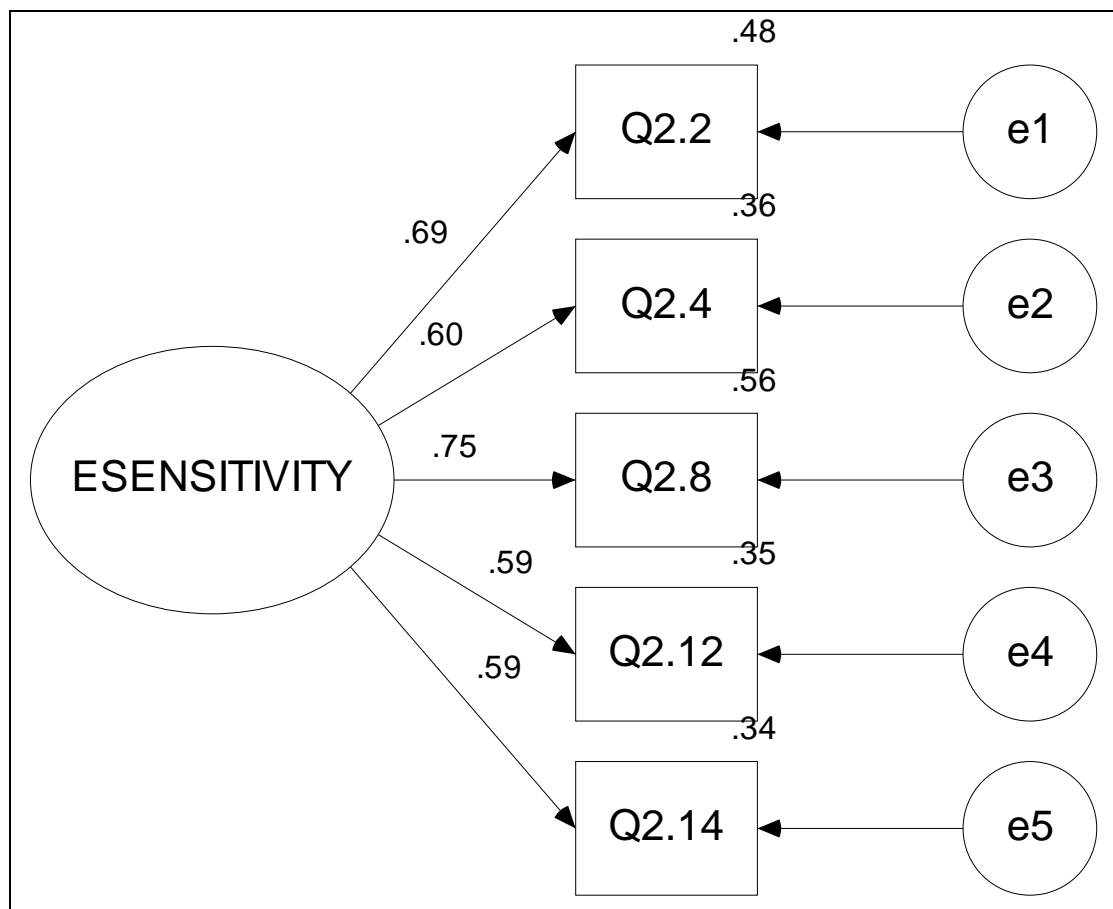
Figure 4.9 shows that all factor loadings were above 0.32. As shown in Table 4.14, all the indices were within the good level of fit. These results indicated a reasonably good measurement of equity sensitivity.

Table 4.14 Model fit summary for equity sensitivity

Indices	Model fit summary	Good level of fit criteria
CMIN	8.141	
P	0.149	>0.05
CMIN/DF	1.628	<2
SRMR	0.0206	<0.08
GFI	0.993	>0.90
NFI	0.984	>0.90
TLI (NNFI)	0.988	>0.90
CFI	0.994	>0.95(or >0.90)
RMSEA	0.038	<0.05(or <0.08)

4.6.1.1.7 One-factor congeneric model of need for clarity

The need for clarity variable (NCLARITY) was measured by four observed variables: Q2.3, Q2.6, Q2.9, and Q2.11. Figure 4.10 shows the structure of this measurement model.

Figure 4.10 One-factor congeneric model of need for clarity
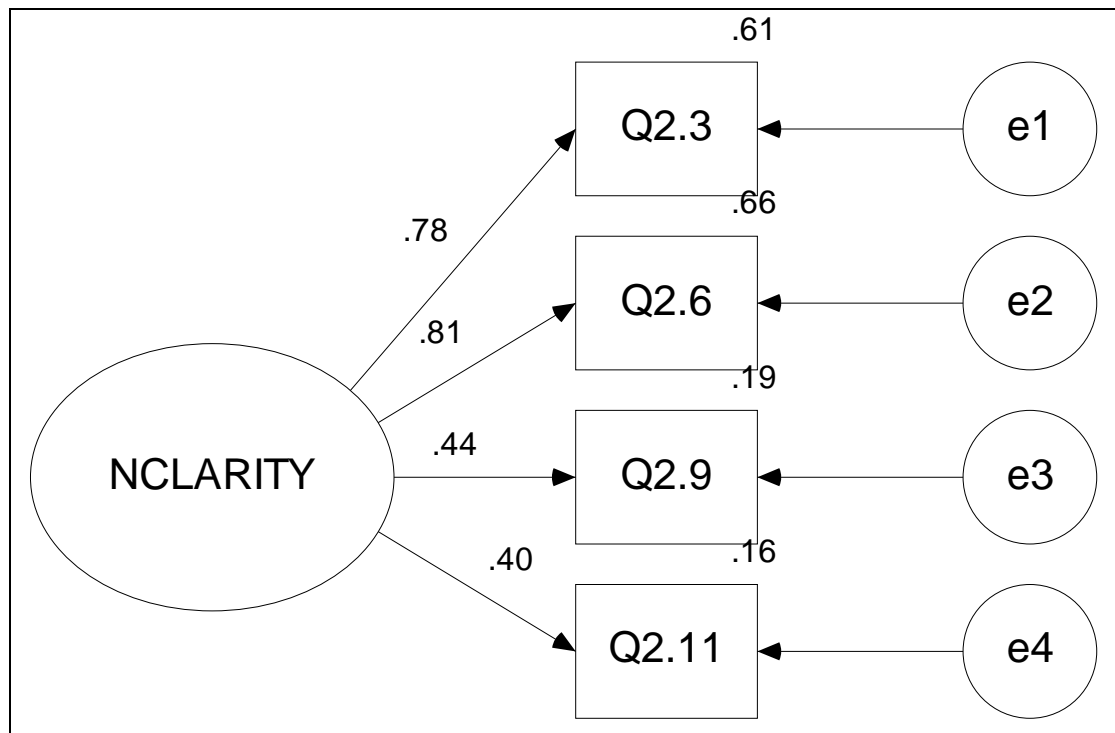
As shown in Figure 4.10, all four factor loadings were above 0.32. As indicated in Table 4.15, although P, CMIN/DF, TLI, and RMSEA were outside of the good level of fit, SRMR, GFI, NFI, and CFI were within it. As discussed in Section 4.4, need for clarity was not normally distributed. The Bollen-Stine bootstrap (Bollen and Stine, 1992) was performed to adjust the P value. However, the adjusted P was equal to 0.003. It was still significant (P<0.05). In any case, all the model fit indices should be taken into account. Considering this measure of need for clarity is well established in the literature, the above results indicated a reasonably acceptable measurement of need for clarity.

Table 4.15 Model fit summary for need for clarity

Indices	Model fit summary	Good level of fit criteria
CMIN	21.888	
P	0.000	>0.05
CMIN/DF	10.944	<2
SRMR	0.0562	<0.08
GFI	0.975	>0.90
NFI	0.942	>0.90
TLI (NNFI)	0.839	>0.90
CFI	0.946	>0.95(or >0.90)
RMSEA	0.152	<0.05(or <0.08)

4.6.1.1.8 One-factor congeneric model of say

The say variable (SAY) was measured by four observed variables: Q3.1, Q3.5, Q3.7, and Q3.11. Figure 4.11 shows the structure of this measurement model.

**Figure 4.11 One-factor congeneric model of say**
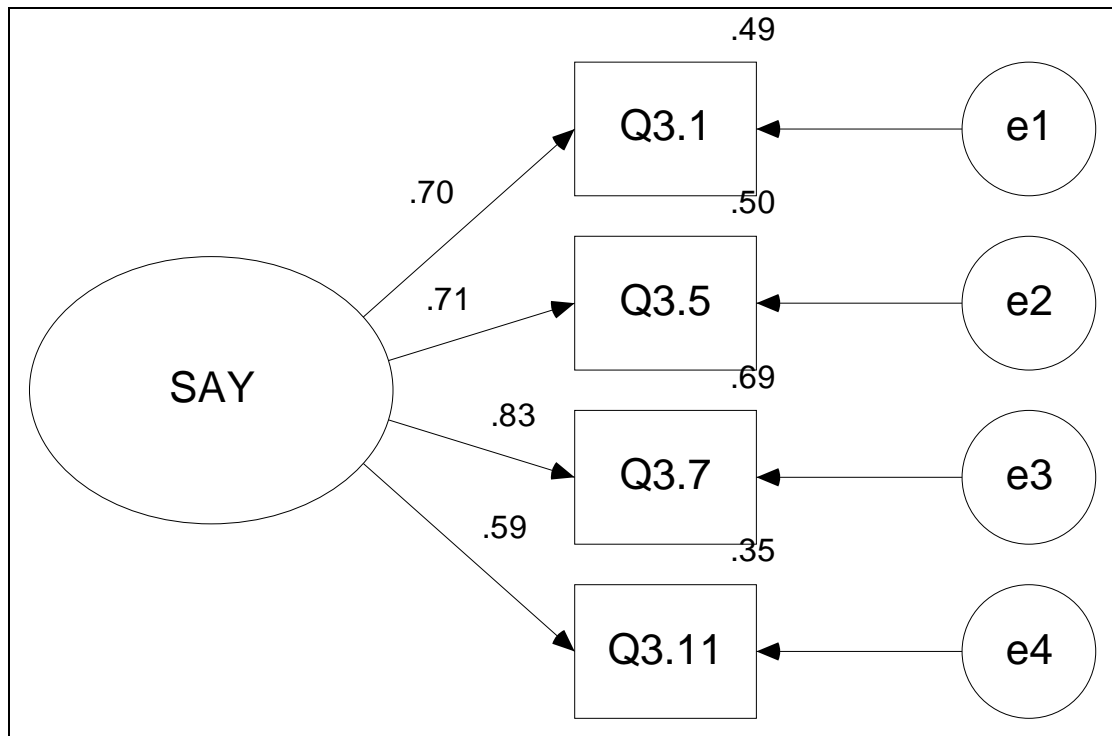
Figure 4.11 shows that all factor loadings of the four items were above 0.32. As shown in Table 4.16, though P and CMIN/DF were outside the good level of fit, SRMR, GFI, NFI, TLI, CFI, and RMSEA all indicated that the model fitted the data well. Thus, these results demonstrated a reasonably acceptable measurement of say.

Table 4.16 Model fit summary for say

Indices	Model fit summary	Good level of fit criteria
CMIN	6.783	
P	0.034	>0.05
CMIN/DF	3.391	<2
SRMR	0.0217	<0.08
GFI	0.992	>0.90
NFI	0.987	>0.90
TLI (NNFI)	0.973	>0.90
CFI	0.991	>0.95(or >0.90)
RMSEA	0.074	<0.05(or <0.08)

4.6.1.1.9 One-factor congeneric model of stay

The stay variable (STAY) was measured by three observed variables: Q3.2, Q3.4, and Q3.9. Figure 4.12 shows the structure of this measurement model.

Figure 4.12 One-factor congeneric model of stay
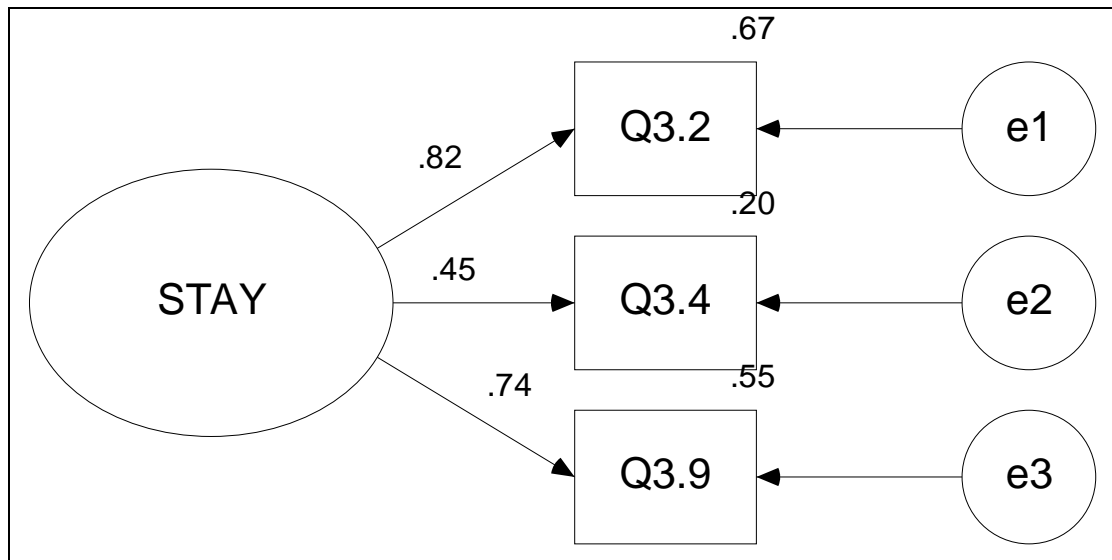
Figure 4.12 shows that all factor loadings of the three items were above 0.32. Table 4.17 also indicates that all available indices were within the good level of fit. Thus, these results demonstrated a reasonably adequate measurement of stay.

Table 4.17 Model fit summary for stay

Indices	Model fit summary	Good level of fit criteria
CMIN	0.000	
P		>0.05
CMIN/DF		<2
SRMR	0.0000	<0.08
GFI	1.000	>0.90
NFI	1.000	>0.90
TLI (NNFI)		>0.90
CFI	1.000	>0.95(or >0.90)
RMSEA		<0.05(or <0.08)

4.6.1.1.10 One-factor congeneric model of strive

The strive variable (STRIVE) was measured by six observed variables: Q3.3, Q3.6, Q3.8, Q3.10, Q3.12, and Q3.13. Figure 4.13 shows the structure of this measurement model.

Figure 4.13 One-factor congeneric model of strive
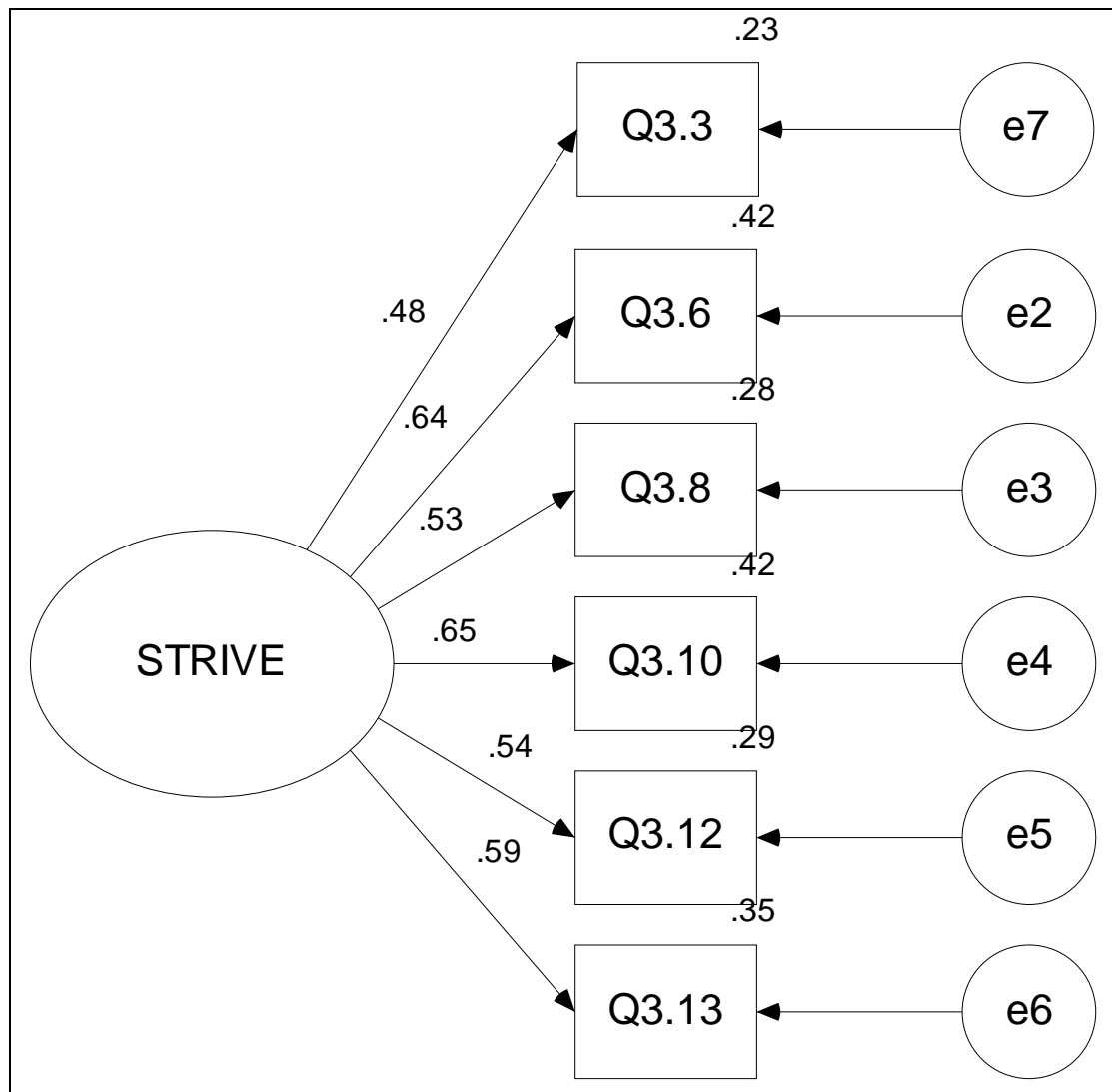
It can be seen from Figure 4.13 and Table 4.18 that all factor loadings were above 0.32, and many indicators (SRMR, GFI, NFI, TLI, CFI, and RMSEA) were with the acceptable level of fit. Thus, these results provided a reasonably adequate measurement of strive.

Table 4.18 Model fit summary for strive

Indices	Model fit summary	Good level of fit criteria
CMIN	32.542	
P	0.000	>0.05
CMIN/DF	3.616	<2
SRMR	0.0399	<0.08
GFI	0.976	>0.90
NFI	0.932	>0.90
TLI (NNFI)	0.916	>0.90
CFI	0.949	>0.95(or >0.90)
RMSEA	0.078	<0.05(or <0.08)

4.6.1.2 Higher-order factor analysis

As a possible higher-order factor of say, stay, and strive, the measurement model of employee engagement was assessed using higher-order factor analysis (Cunningham, 2008; Qiu and Lin, 2009). The employee engagement variable (EENGAGEMENT) was measured by three latent variables: say, stay, and strive. Figure 4.14 shows the structure of this measurement model.

Figure 4.14 Higher-order factor analysis of employee engagement
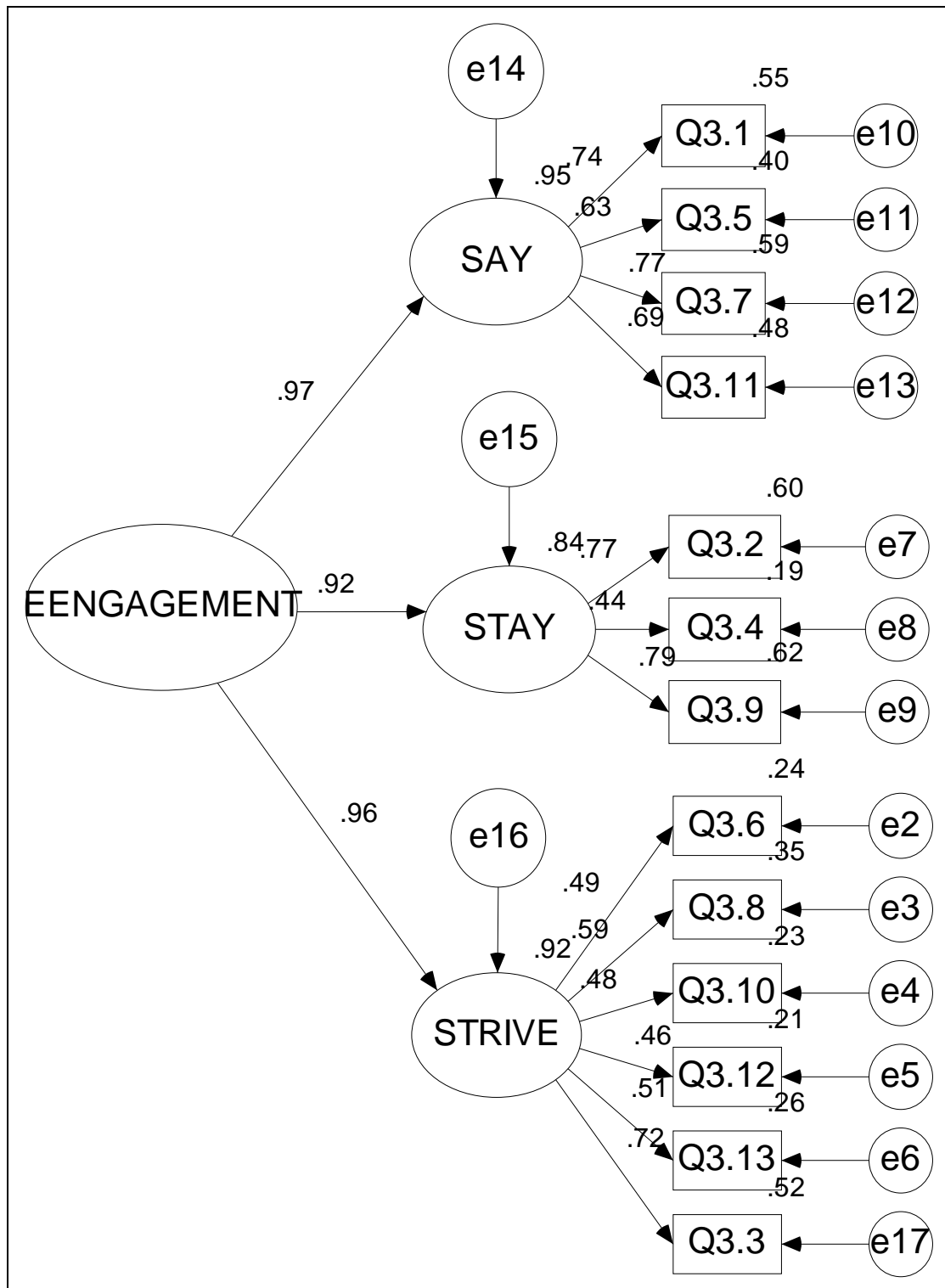
Figure 4.14 shows that all factor loadings of say, stay, and strive were above 0.71, suggesting a strong association between them and employee engagement. Although P, CMIN/DF, GFI,

NFI, TLI, CFI, and RMSEA were outside the good level of fit, SRMR was within this level (Table 4.19). For a higher-order factor analysis with 13 observed variables, these model fit indices are acceptable. Thus, these results demonstrated a reasonably acceptable measurement of employee engagement.

Table 4.19 Model fit summary for employee engagement

Indices	Model fit summary	Good level of fit criteria
CMIN	394.838	
P	0.000	>0.05
CMIN/DF	6.368	<2
SRMR	0.0703	<0.08
GFI	0.857	>0.90
NFI	0.822	>0.90
TLI (NNFI)	0.804	>0.90
CFI	0.844	>0.95(or >0.90)
RMSEA	0.112	<0.05(or <0.08)

4.6.2 Reliability and validity analysis

Research findings are considered reliable if the methods can be repeated and the same results are obtained. Reliability is 'the extent to which a scale produces consistent result if repeated measurements are made' (Malhotra et al., 2002, p.809). Validity is the extent to which research findings accurately represent what is really happening (Collis and Hussey, 2003). Validity refers to the ability of a construct's indicators to measure accurately the construct, that is, whether a variable measures what it is supposed to measure (Hair et al., 1998).

This section describes the approaches taken to analyze the reliability and validity of the variable measures, before testing the structure models in relation to the research hypotheses.

4.6.2.1 Reliability analysis

Two types of reliability analysis were undertaken: item reliability and construct reliability.

(1) Item reliability test

Bollen (1989) recommended three types of model-based estimates of reliability: the squared multiple correlations for the observed variables, construct reliability, and the variance extracted estimate.

This thesis employed the squared multiple correlations (SMCs) to examine item reliability. Item reliability coefficient is the correlation between a variable and the construct it measures (Holmes-Smith et al., 2004). Item reliability or the squared multiple correlations for the observed variables is simply the square of that variable's standardized loading. Item reliability should exceed 0.50, which is equal to a standardized loading of 0.70, but item reliability of 0.30 is acceptable (Holmes-Smith et al., 2004). As described in Section 4.6.1, the SEM outputs showed item reliability for all observed or latent variables kept in this thesis to measure latent variables or higher order latent variable, that is, employee engagement, as summarized in Table 4. 20.

As shown in Table 4.20, 21 of the 48 items kept in this thesis had SMCs (item reliability scores in bold) less than 0.30, which did not indicate good item reliability. However, as discussed in Section 4.6.1, considering overall the item reliability (SMCs), model fit, and findings in the literature, these items were retained in this thesis, but with a caution about their applicability in later research.

Table 4.20 Item reliability (SMCs)

Latent variables	Item reliability					
CLASSICAL	Q1.1	Q1.8	Q1.9	Q1.14	Q1.16	
	0.30	0.59	**0.27**		**0.16**	
TRANSACTIONAL	Q1.2	Q1.5	Q1.12	Q1.17	Q1.18	
	0.14	**0.14**	**0.09**	0.32	**0.20**	
VISIONARY	Q1.3	Q1.6	Q1.7	Q1.13	Q1.19	
		0.16	**0.02**	0.35	0.38	
ORGANIC	Q1.4	Q1.10	Q1.11	Q1.15	Q1.20	
	0.07	0.31	0.42	**0.04**	**0.10**	
NACHIEVEMENT	Q2.1	Q2.5	Q2.7	Q2.10	Q2.13	
	0.12	0.50	**0.14**	**0.11**	**0.20**	
ESENSITIVITY	Q2.2	Q2.4	Q2.8	Q2.12	Q2.14	
	0.48	0.36	0.56	0.35	0.34	
NCLARITY	Q2.3	Q2.6	Q2.9	Q2.11		
	0.61	0.66	**0.19**	**0.16**		
SAY	Q3.1	Q3.5	Q3.7	Q3.11		
	0.49	0.50	0.69	0.35		
STAY	Q3.2	Q3.4	Q3.9			
	0.67	**0.20**	0.55			
STRIVE	Q3.3	Q3.6	Q3.8	Q3.10	Q3.12	Q3.13
	0.23	0.42	**0.28**	0.42	**0.29**	0.35
EENGAGEMENT	Say	Stay	Strive			
	0.95	0.84	0.92			

(2) Construct reliability test

Each measurement scale was examined by Confirmatory Factor Analysis (CFA) to see if it was unidimensional or a one-factor scale. The output of SEM indicates whether a scale satisfies the assumption of unidimensionality. It is claimed that CFA offers a more rigorous test of unidimensionality than Exploratory Factor Analysis (EFA) and Item-to-Total Correlations (Anderson and Gerbing, 1988). As presented in Section 4.6.1, the outputs of the one-factor congeneric measurement model in SEM showed that all scales satisfied the assumption of unidimensionality.

Next, the internal consistency reliability of each scale was examined. The internal consistency reliability of each construct was achieved by computing the Cronbach's alpha coefficient (Gerbing and Anderson, 1988). Cronbach's alpha may vary from 0 to 1, with a value higher than 0.60 indicating satisfactory internal consistency reliability (Malhotra et al., 2002). Table 4.21 shows the test results for the internal consistency reliability of each (amended) scale.

Table 4.21 Internal consistency reliability of (amended) scales

Latent variables	Number of items	Internal consistency reliability (Cronbach's Alpha)
CLASSICAL	4	0.639
TRANSACTIONAL	5	**0.200**
VISIONARY	4	**0.478**
ORGANIC	5	**0.462**
NACHIEVEMENT	5	**0.526**
ESENSITIVITY	5	0.777
NCLARITY	4	0.708
SAY	4	0.796
STAY	3	0.699
STRIVE	6	0.738
EENGAGEMENT	13	0.877

Four of the 11 latent variables had a Cronbach's Alpha coefficient lower than 0.60 (shown in bold in Table 4.21). For the latent variables for leadership styles, Jing (2009) reported Cronbach's Alpha coefficient of 0.756 for the measure of classical leadership, 0.349 for transactional leadership, 0.689 for visionary leadership, and 0.678 for organic leadership. Except for transactional leadership, other leadership styles all had Cronbach's Alpha coefficients above 0.60. Regarding need for achievement, the previous test result was 0.70 (Table 3.1).

As with the item reliability test, considering overall the model fit, the internal consistency reliability testing results, and findings in the literature, these measures were still used in this thesis, but with a caution about their applicability in later research.

4.6.2.2 Validity analysis

The three types of validity are content (face) validity, criterion validity, and construct validity.

(1) Content (face) validity

Content or face validity can be evaluated by examining if the scale items cover all aspects of the constructs being measured. This is to ensure that the researcher is not evaluating only a small piece of the whole picture of interest. In this thesis, content or face validity was heightened by selecting items that appear reasonable from a theoretical perspective, and that represent a wide range of questions regarding each topic of interest (Stangor, 1998). Content validity was also established through the pilot study during the pre-testing period of questionnaire development.

Although content or face validity makes the questionnaires seem reasonable to the respondents, therefore maximizing the response rate (Kline, 2000), assessing it is relatively subjective (Hussey and Hussey, 1997; Stangor, 1998). The determination of a measure's validity must be made ultimately not based on subjective judgment, but based on relevant objective data (Stangor, 1998). The following discussions address this concern.

(2) Criterion validity

Criterion validity is tested by evaluating if the data are meaningful. All the research hypotheses in this thesis were tested by the collected data. All three research questions were answered, thus demonstrating the criterion validity of the latent variables.

(3) Construct validity

Construct validity shows whether questions in the scale are measuring what they are designed to measure. The model fit of the one-factor congeneric measurement model indicates the construct validity of a variable because, for the one-factor congeneric measurement model to be accepted, all items must be valid measures of the variable (Holmes-Smith et al., 2004). In Section 4.6.1, the adequate model fits of the one-factor congeneric measurement model tests demonstrated the construct validity of the 11 latent variables in this thesis.

In summary, this section has described the procedures of measurement model evaluation and discussed the reliability and validity of the 11 latent variables. So far, Research question 1 –

What are the behavioral-outcome factors in the construct of employee engagement? – has been answered. As discussed in Section 4.6.1.2, the higher-order factor analysis of employee engagement had acceptable model fit indices. Figure 4.14 shows that all factor loadings of say, stay, and strive were above 0.71, suggesting a strong association between them and employee engagement. Accordingly, as shown in Table 4.20, the item reliability (SMCs) for say, stay, and strive were 0.95, 0.84, and 0.92 respectively; all were greater than 0.50. Moreover, the scale of employee engagement had an internal consistency reliability coefficient (Cronbach's Alpha) that was as high as 0.877. These findings all indicate the construct of employee engagement had very good reliability and validity. The test results revealed that the behavioral-outcome factors in the construct of employee engagement consist of say, stay, and strive. Thus, the established construct and scale of employee engagement were used in the subsequent hypothesis testing.

4.7 Summary

This chapter has presented the labels and sources of the variables, and described how the data were cleaned and prepared for further analysis. It then discussed some essential descriptive statistics, such as response rate and characteristics of respondents, and the means and standard deviations of the latent variables in this thesis. The chapter presented the normal distribution test for the latent variables. It introduced the major statistical analysis technique used – SEM – and explained why it was adopted. Finally, the chapter reported the model fit in factor analysis, and the reliability and validity of the measures of the 11 latent variables. The test results revealed that the behavioral-outcome factors in the construct of employee engagement consist of say, stay, and strive.

CHAPTER 5

HYPOTHESIS TESTING AND RESEARCH FINDINGS

5.1 Overview of Chapter 5

This chapter describes the testing of the research hypotheses and summarizes the research findings. It consists of five sections, including this overview. Section 5.2 reports some group difference assessments. Section 5.3 discusses the testing of some research hypotheses with path analysis. Section 5.4 presents the analysis of the moderating effects in the research hypotheses, and Section 5.5 summarizes the research hypothesis testing results.

5.2 Group difference assessment

The mean differences in employee engagement were assessed between (1) male and female sales assistants, as well as among the following five categories: (2) Age, (3) Working pattern/hours, (4) Organizational (Employee) tenure, (5) Duration of the leader -follower relationship, and (6) Company size. These six variables are said to affect employee engagement, as discussed in Section 3.2.1.

The mean differences were assessed using Independent t-test and One-way ANOVA, which both allow for unequal sample sizes (Hinton, 1995). Regardless of normal distribution, a sample size should be 30 or more to ensure a robust test result (Swift and Piff, 2005). That is, with sample sizes of 30 or more, the violation of this normal-distribution assumption should not cause any major problems (Pallant, 2007).

Therefore, various categories were collapsed into larger groups. The age groups of '35–44 years', '45–54 years', and '55 years or more' were combined into a new group '35 years or more', with 48 respondents. People with an organizational (employee) tenure of 3–5 years, 6–10 years, and over 10 years were also combined into a new group '3 years or more', with 99 respondents. Similarly, people with a duration of the leader-follower relationship of 3–5

years, 6–10 years, and over 10 years were combined into a new group '3 years or more', with 53 respondents.

5.2.1 Independent t-test

Independent t-test is considered appropriate for assessing a mean difference between two groups (Veal, 2005).

Section 3.2.1 discussed the CIPD (2006b) study that found that females were generally more engaged than males, in contrast to the NHS survey result that found no statistically significant difference in engagement levels between men and women (Robinson et al., 2004). The following null and alternative hypotheses were proposed to test the mean difference in employee engagement between male sales assistants and female sales assistants. The test result is presented in Table 5.1.

H5.1 0: There is no difference in employee engagement between male sales assistants and female sales assistants.

H5.1 1: There is a difference in employee engagement between male sales assistants and female sales assistants.

Table 5.1 T-test table for mean difference in employee engagement by gender

Group Statistics

Q4		N	Mean	Std. Deviation	Std. Error Mean
Employee engagement	Male	108	47.4074	8.95267	.86147
	Female	324	48.2830	8.11689	.45094

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
									95% Confidence Interval of the Difference	
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	Lower	Upper
Employee engagement	Equal variances assumed	.405	.525	-.946	430	.345	-.87564	.92586	-2.69540	.94413
	Equal variances not assumed			-.901	169.455	.369	-.87564	.97236	-2.79513	1.04386

The p value is not significant (p > 0.05), meaning the null hypothesis (**H5.1 0**) is not rejected. Therefore, the result suggested that there is no difference in employee engagement between male sales assistants and female sales assistants.

5.2.2 One-way ANOVA test

One-way ANOVA is considered appropriate for assessing mean differences among more than two groups (Veal, 2005). As discussed in Section 3.2.1, many research findings about the impacts of several factors on employee engagement appear to be inconclusive. In this thesis, ANOVA was undertaken to address the mean differences in employee engagement among the following five categories: (1) Age, (2) Working pattern/hours, (3) Organizational (Employee) tenure, (4) Duration of the leader-follower relationship, and (5) Company size. The following ten null and alternative hypotheses were tested. The test results are shown in Tables 5.2 to 5.6.

H 5.2 0: There are no differences in employee engagement among sales assistants in the age groups of under 25 years, 25–34 years, and 35 years or more.

H 5.2 1: There are differences in employee engagement among sales assistants in the age groups of under 25 years, 25–34 years, and 35 years or more.

Table 5.2 ANOVA table for mean differences in employee engagement by age

Descriptives

Employee engagement

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
< 25 years	288	47.3497	7.90529	.46582	46.4328	48.2665	25.00	65.00
25-34 years	96	48.6354	9.06598	.92529	46.7985	50.4724	15.00	65.00
35 years +	48	51.2083	8.65647	1.24945	48.6948	53.7219	23.00	65.00
Total	432	48.0641	8.33168	.40086	47.2763	48.8520	15.00	65.00

ANOVA

Employee engagement

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	652.869	2	326.435	4.785	.009
Within Groups	29265.834	429	68.219		
Total	29918.703	431			

The p value is significant ($p < 0.05$), meaning the null hypothesis (**H5.2 0**) is rejected. Therefore, the result suggested differences in employee engagement among sales assistants in the age groups of under 25 years, 25–34 years, and 35 years or more. As shown in Table 5.2, the means of employee engagement increase with age.

H5.3 0: There are no differences in employee engagement among full-time, part-time, and casual sales assistants.

H5.3 1: There are differences in employee engagement among full-time, part-time, and casual sales assistants.

Table 5.3 ANOVA table for mean differences in employee engagement by working pattern/hours

Descriptives

Employee engagement

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Full- time	201	49.2075	8.75169	.61730	47.9902	50.4247	15.00	65.00
Part-time	80	47.7625	7.88564	.88164	46.0076	49.5174	23.00	65.00
Casual	151	46.7020	7.80495	.63516	45.4470	47.9570	17.00	63.00
Total	432	48.0641	8.33168	.40086	47.2763	48.8520	15.00	65.00

ANOVA

Employee engagement

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	550.212	2	275.106	4.019	.019
Within Groups	29368.492	429	68.458		
Total	29918.703	431			

The p value is significant ($p < 0.05$), meaning the null hypothesis (**H5.3 0**) is rejected. Therefore, the result suggested differences in employee engagement among full-time, part-time, and casual sales assistants. As shown in Table 5.3, the means of employee engagement decrease from full-time to part-time to casual sales assistants.

H5.4 0: There are no differences in employee engagement among sales assistants whose organizational (employee) tenure is under 1 year, 1–2 years, and 3 years or more.

H5.4 1: There are differences in employee engagement among sales assistants whose organizational (employee) tenure is under 1 year, 1–2 years, and 3 years or more.

Table 5.4 ANOVA table for mean differences in employee engagement by organizational (employee) tenure

Descriptives

Employee engagement

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
<1 year	145	47.4000	8.26001	.68596	46.0442	48.7558	17.00	65.00
1-2 years	188	48.1579	8.23385	.60052	46.9732	49.3425	27.00	65.00
3 years +	99	48.8588	8.62358	.86670	47.1389	50.5788	15.00	63.00
Total	432	48.0641	8.33168	.40086	47.2763	48.8520	15.00	65.00

ANOVA

Employee engagement

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	128.133	2	64.067	.923	.398
Within Groups	29790.570	429	69.442		
Total	29918.703	431			

The p value is not significant (p > 0.05), meaning the null hypothesis (**H5.4 0**) is not rejected. Therefore, the result suggested no differences in employee engagement among sales assistants whose organizational (employee) tenure is under 1 year, 1–2 years, and 3 years or more.

H5.5 0: There are no differences in employee engagement among sales assistants whose duration of the leader-follower relationship with their direct supervisors is under 1 year, 1–2 years, and 3 years or more.

H5.5 1: There are differences in employee engagement among sales assistants whose duration of the leader-follower relationship with their direct supervisors is under 1 year, 1–2 years, and 3 years or more.

Table 5.5 ANOVA table for mean differences in employee engagement by duration of the leader-follower relationship

Descriptives

Employee engagement

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
< 1 year	245	47.3742	8.15114	.52076	46.3485	48.4000	17.00	65.00
1-2 years	134	49.0373	8.57554	.74081	47.5720	50.5026	15.00	65.00
3 years+	53	48.7929	8.38333	1.15154	46.4822	51.1037	23.00	63.00
Total	432	48.0641	8.33168	.40086	47.2763	48.8520	15.00	65.00

ANOVA

Employee engagement

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	271.681	2	135.840	1.966	.141
Within Groups	29647.022	429	69.107		
Total	29918.703	431			

The p value is not significant ($p > 0.05$), meaning the null hypothesis (**H5.5 0**) is not rejected. Therefore, the result suggested no differences in employee engagement among sales assistants whose duration of the leader-follower relationship with their direct supervisors is under 1 year, 1–2 years, and 3 years or more.

H5.6 0: There are no differences in employee engagement among sales assistants who work for a small, medium, and large company.

H5.6 1: There are differences in employee engagement among sales assistants who work for a small, medium, and large company.

Table 5.6 ANOVA table for mean differences in employee engagement by company size

Descriptives

Employee engagement

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
Small	158	48.2658	7.67693	.61074	47.0595	49.4722	25.00	65.00
Medium	82	47.9268	8.34115	.92113	46.0941	49.7596	23.00	65.00
Large	129	48.2533	9.51122	.83742	46.5964	49.9103	15.00	65.00
Not sure	63	47.3496	7.41212	.93384	45.4829	49.2163	34.00	65.00
Total	432	48.0641	8.33168	.40086	47.2763	48.8520	15.00	65.00

ANOVA

Employee engagement

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	44.754	3	14.918	.214	.887
Within Groups	29873.949	428	69.799		
Total	29918.703	431			

The p value is not significant (p > 0.05), meaning the null hypothesis (**H5.6 0**) is not rejected. Therefore, the result suggested no differences in employee engagement among sales assistants who work for a small, medium, and large company.

In summary, no significant differences in means were found among four categories: (1) Gender, (2) Organizational (Employee) tenure, (3) Duration of the leader-follower relationship, and (4) Company size. Therefore, the four relevant null hypotheses were retained. For the category of age, means increase with age. That is, the older the employees, the more engaged they are. For the category of working pattern/hours, the findings showed that employee engagement levels decrease from full-time to part-time to casual sales assistants.

5.3 Path analysis

After the data satisfied the requirements for measurement model fit, reliability, and validity, the next step was to examine the research hypotheses developed in Chapter 2. These research hypotheses were tested using structural regression models (Raykov and Marcoulides, 2000) in Amos 17.0.

Using only composite variables in structural equation models by summing or averaging a number of relevant observed variables can result in a potential loss of information in the measurement part of the model (Holmes-Smith et al., 2004). Thus, full latent models (Byrne, 2001) were employed in this thesis.

The regression coefficients or beta weights (β) indicate the relationships between each independent variable and the dependent variable. The relationship between the four leadership styles and employee engagement, as well as the relationship between the three moderating

variables and employee engagement, were examined as described in this section, in relation to Hypotheses 1.1, 1.2, 1.3, 1.4, 2.1, 3.1, and 4.1. In each case, employee engagement was used as the dependent variable.

In the path analysis and moderating effect analysis of this thesis, hypotheses that are not rejected by the empirical data, are called 'supported'; hypotheses that are rejected by the empirical data, but can be logically justified indirectly by other supported hypotheses, are called 'not supported'; hypotheses that are rejected by the empirical data, and can not be logically justified indirectly by other supported hypotheses, are called 'rejected'.

H1.1 Employee perception of a classical leadership style in his/her direct supervisor tends to be negatively associated with employee engagement.

Classical leadership served as the independent variable in the structural regression model. The model fit summary is given in Table 5.7, and Figure 5.1 shows the standardized parameter estimates for Hypothesis 1.1.

Table 5.7 Model fit summary for Hypothesis 1.1

Indices	Model fit summary	Good level of fit criteria
CMIN	474.501	
P	0.000	>0.05
CMIN/DF	4.126	<2
SRMR	0.0673	<0.08
GFI	0.867	>0.90
NFI	0.812	>0.90
TLI (NNFI)	0.822	>0.90
CFI	0.850	>0.95(or >0.90)
RMSEA	0.085	<0.05(or <0.08)

Figure 5.1 Standardized parameter estimates for Hypothesis 1.1
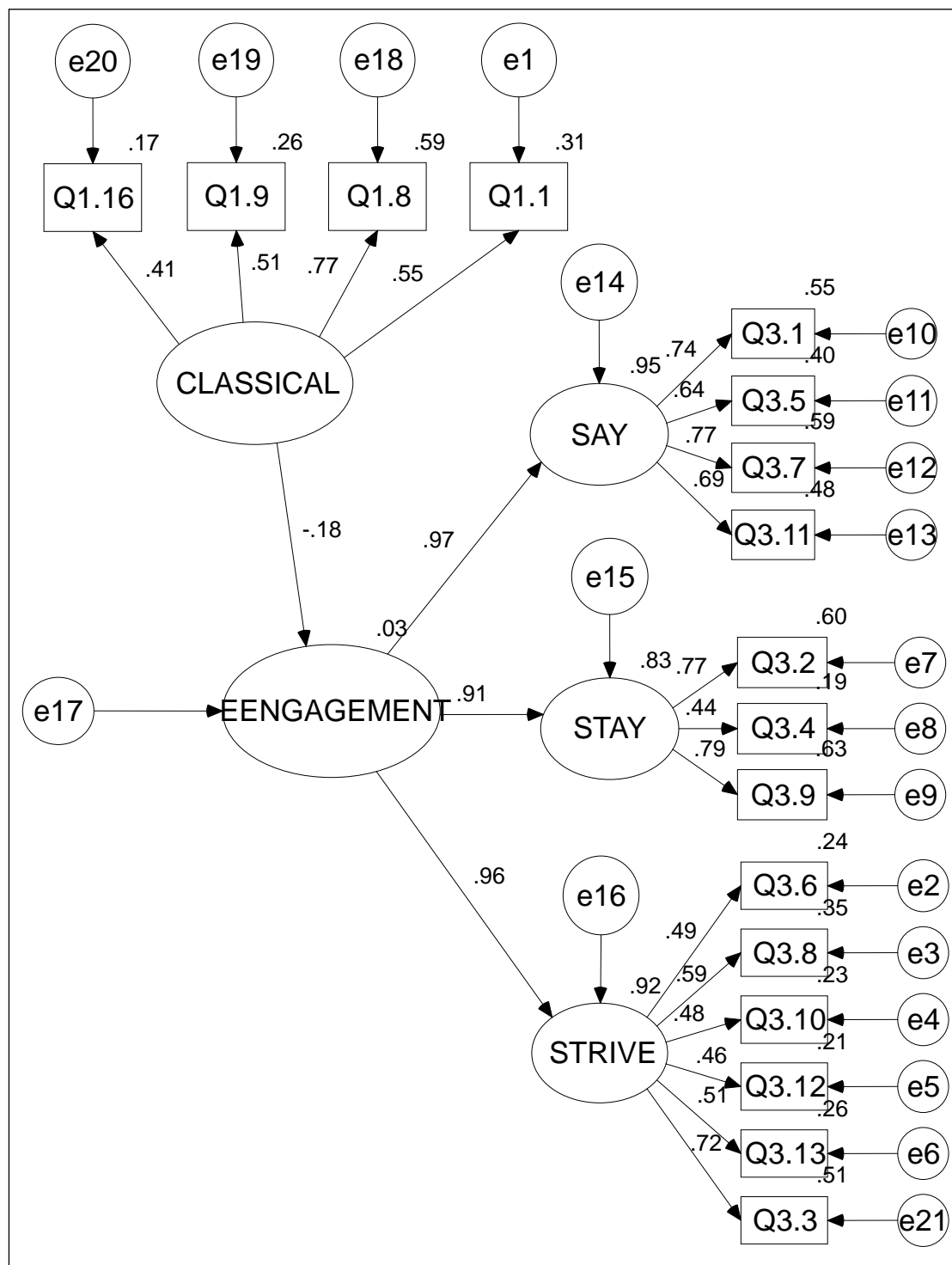
In Figure 5.1, a standardized regression coefficient or beta value (-0.18, P<0.05) on the arrow links the independent variable (classical leadership) to the dependent variable (employee

engagement). The standardized regression weight indicates the number of standard deviation change in the dependent variable for each standard deviation change in the independent variable. For one additional standard deviation change in classical leadership, employee engagement is predicted to decrease by 0.18 of a standard deviation. The R^2 value of 0.03 indicates that 3 per cent of the variation in employee engagement is explained by classical leadership. As a full latent model, the model fit indices are acceptable.

The results indicated a negative association between classical leadership and employee engagement. Thus Hypothesis 1.1 is supported.

H1.2 Employee perception of a transactional leadership style in his/her direct supervisor tends to be negatively associated with employee engagement.

Transactional leadership served as the independent variable in the structural regression model. Figure 5.2 shows the standardized parameter estimates for Hypothesis 1.2, and the model fit summary is given in Table 5.8.

Figure 5.2 Standardized parameter estimates for Hypothesis 1.2

Table 5.8 Model fit summary for Hypothesis 1.2

Indices	Model fit summary	Good level of fit criteria
CMIN	555.136	
P	0.000	>0.05
CMIN/DF	4.238	<2
SRMR	0.0696	<0.08
GFI	0.860	>0.90
NFI	0.781	>0.90
TLI (NNFI)	0.792	>0.90
CFI	0.822	>0.95(or >0.90)
RMSEA	0.087	<0.05(or <0.08)

In Figure 5.2, the β value for transactional leadership is -0.54 (P<0.05). For one additional standard deviation change in transactional leadership, employee engagement is predicted to decrease by 0.54 of a standard deviation. The R^2 value of 0.29 indicates that 29 per cent of the variation in employee engagement is explained by transactional leadership. As a full latent model, the model fit indices are acceptable.

The results suggested a negative association between transactional leadership and employee engagement. Thus Hypothesis 1.2 is supported.

**H1.3** Employee perception of a visionary leadership style in his/her direct supervisor tends to be positively associated with employee engagement.

Visionary leadership served as the independent variable in the structural regression model. Figure 5.3 shows the standardized parameter estimates for Hypothesis 1.3, and the model fit summary is given in Table 5.9.

Figure 5.3 Standardized parameter estimates for Hypothesis 1.3
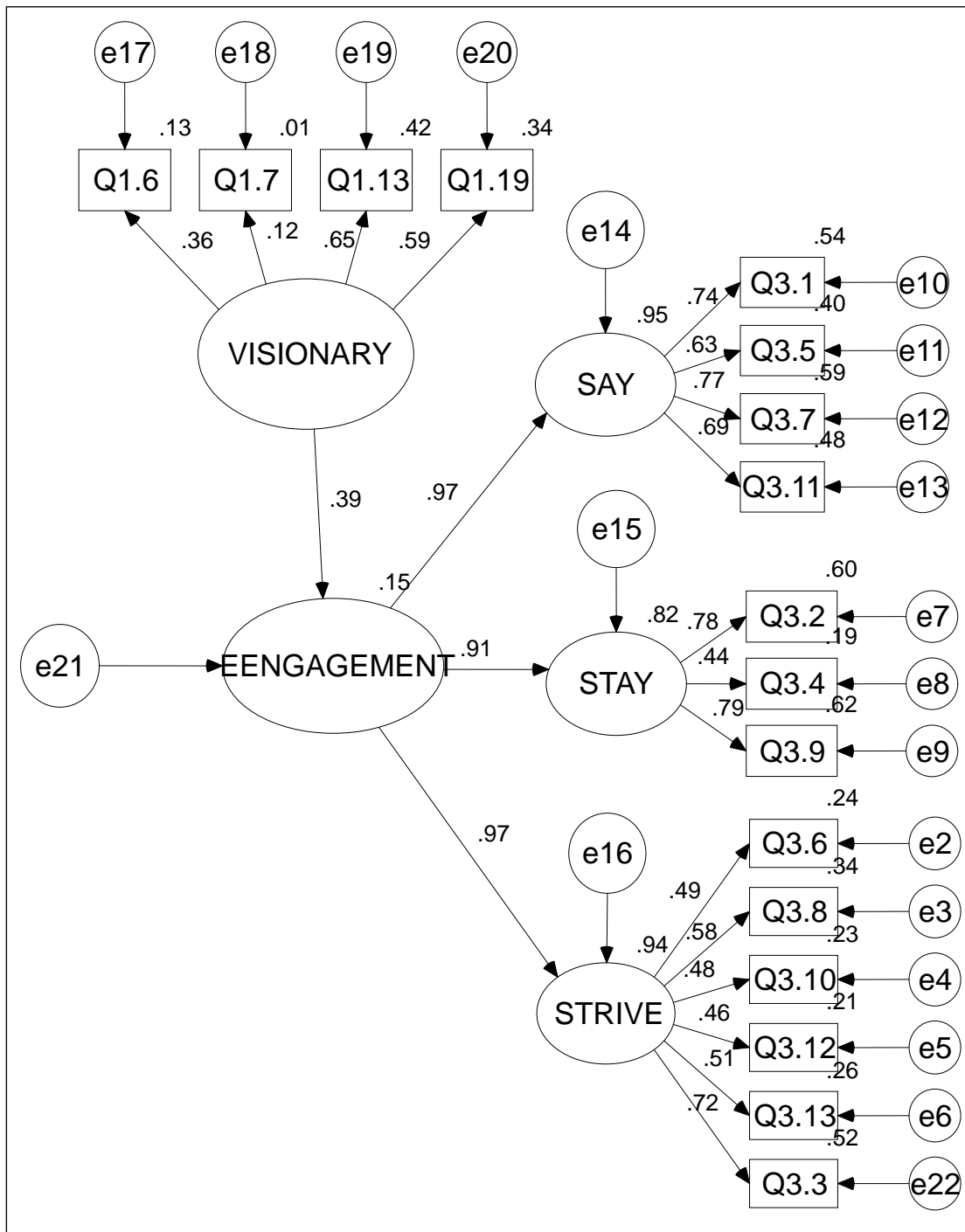
Table 5.9 Model fit summary for Hypothesis 1.3

Indices	Model fit summary	Good level of fit criteria
CMIN	474.268	
P	0.000	>0.05
CMIN/DF	4.124	<2
SRMR	0.0657	<0.08
GFI	0.869	>0.90
NFI	0.805	>0.90
TLI (NNFI)	0.815	>0.90
CFI	0.844	>0.95(or >0.90)
RMSEA	0.085	<0.05(or <0.08)

In Figure 5.3, the β value for visionary leadership is 0.39 (P<0.05). For one additional standard deviation change in visionary leadership, employee engagement is predicted to increase by 0.39 of a standard deviation. The R^2 value of 0.15 indicates that 15 per cent of the variation in employee engagement is explained by visionary leadership. As a full latent model, the model fit indices are acceptable.

The results revealed a positive association between visionary leadership and employee engagement. Thus Hypothesis 1.3 is supported.

H1.4 Employee perception of an organic leadership style in his/her direct supervisor tends to be positively associated with employee engagement.

Organic leadership served as the independent variable in the structural regression model. Figure 5.4 shows the standardized parameter estimates for Hypothesis 1.4, and the model fit summary is given in Table 5.10.

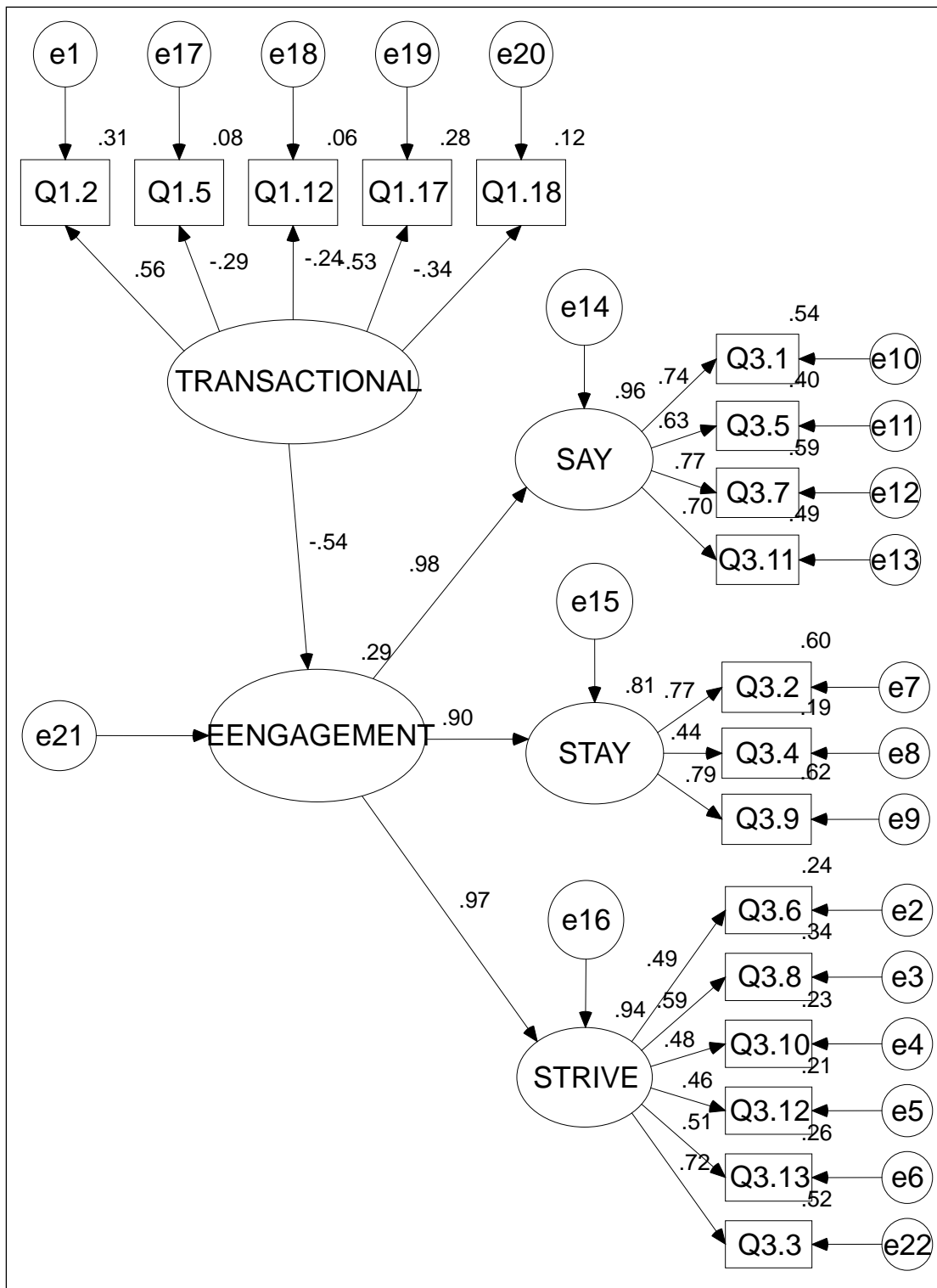**Figure 5.4 Standardized parameter estimates for Hypothesis 1.4**
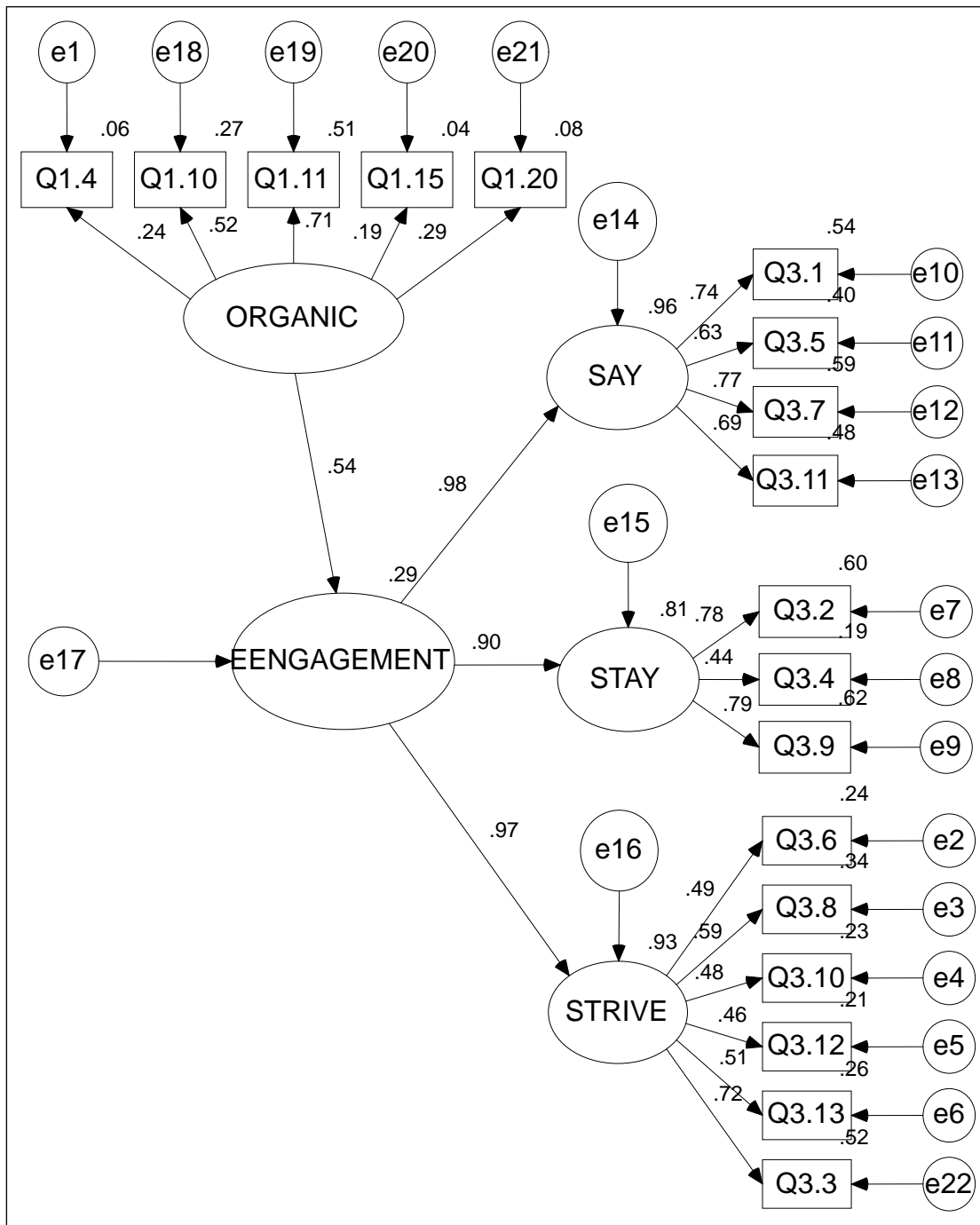
Table 5.10 Model fit summary for Hypothesis 1.4

Indices	Model fit summary	Good level of fit criteria
CMIN	519.544	
P	0.000	>0.05
CMIN/DF	3.966	<2
SRMR	0.0632	<0.08
GFI	0.862	>0.90
NFI	0.794	>0.90
TLI (NNFI)	0.809	>0.90
CFI	0.836	>0.95(or >0.90)
RMSEA	0.083	<0.05(or <0.08)

In Figure 5.4, the β value for organic leadership is 0.54 (P<0.05). For one additional standard deviation change in organic leadership, employee engagement is predicted to increase by 0.54 of a standard deviation. The R^2 value of 0.29 indicates that 29 per cent of the variation in employee engagement is explained by organic leadership. As a full latent model, the model fit indices are acceptable.

The results revealed a positive association between organic leadership and employee engagement. Thus Hypothesis 1.4 is supported.

H2.1 An employee's need for achievement is positively associated with his or her employee engagement.

Need for achievement served as the independent variable in the structural regression model. Figure 5.5 shows the standardized parameter estimates for Hypothesis 2.1, and the model fit summary is given in Table 5.11.

**Figure 5.5 Standardized parameter estimates for Hypothesis 2.1**
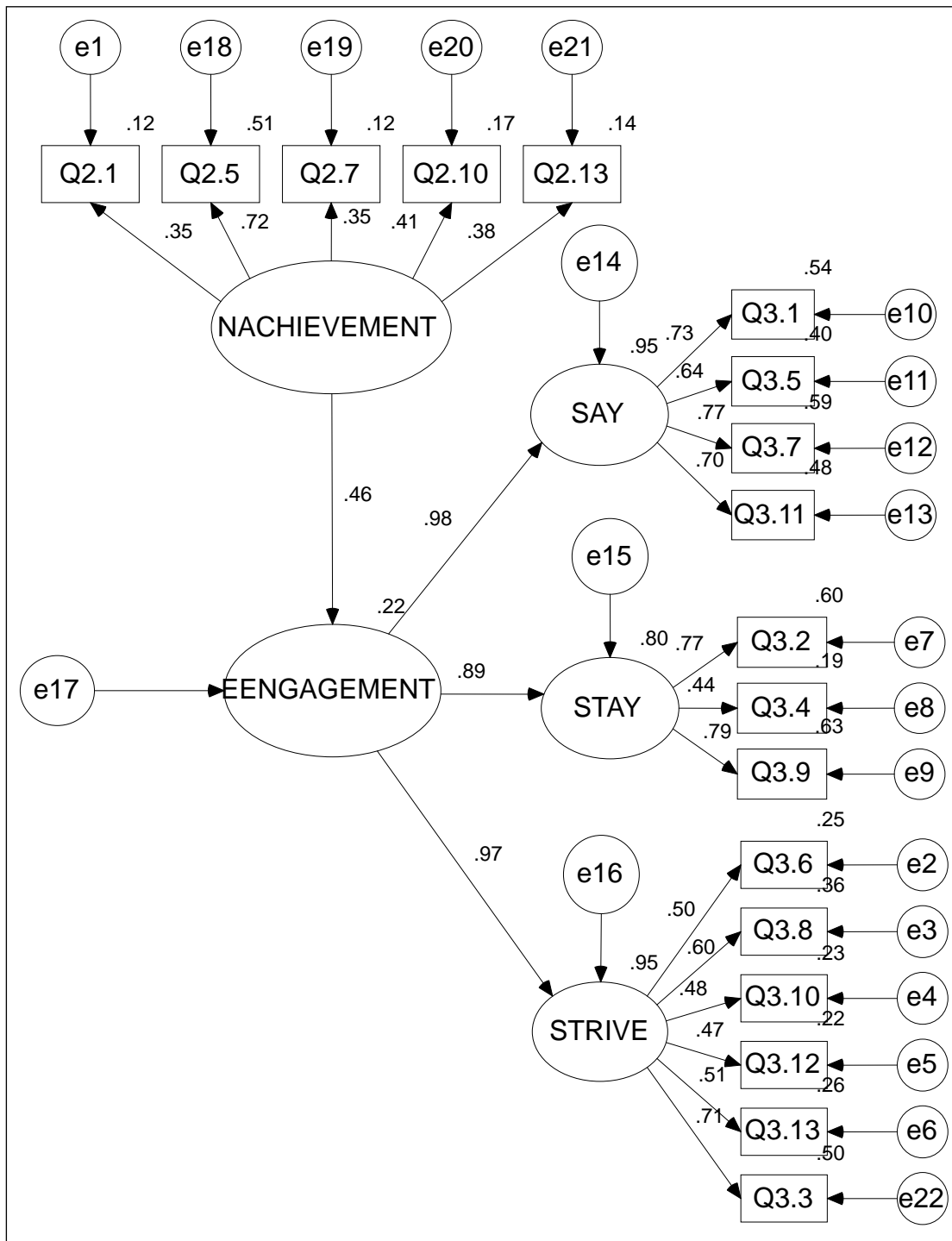
Table 5.11 Model fit summary for Hypothesis 2.1

Indices	Model fit summary	Good level of fit criteria
CMIN	628.248	
P	0.000	>0.05
CMIN/DF	4.796	<2
SRMR	0.0826	<0.08
GFI	0.838	>0.90
NFI	0.762	>0.90
TLI (NNFI)	0.766	>0.90
CFI	0.800	>0.95(or >0.90)
RMSEA	0.094	<0.05(or <0.08)

In Figure 5.5, the β value for need for achievement is 0.46 (P<0.05). For one additional standard deviation change in need for achievement, employee engagement is predicted to increase by 0.46 of a standard deviation. The R^2 value of 0.22 indicates that 22 per cent of the variation in employee engagement is explained by need for achievement. As a full latent model, the model fit indices are acceptable.

The results showed a positive association between need for achievement and employee engagement. Thus Hypothesis 2.1 is supported.

H3.1 An employee's equity sensitivity is negatively associated with his or her employee engagement.

Equity sensitivity served as the independent variable in the structural regression model. Figure 5.6 shows the standardized parameter estimates for Hypothesis 3.1, and the model fit summary is given in Table 5.12.

Figure 5.6 Standardized parameter estimates for Hypothesis 3.1
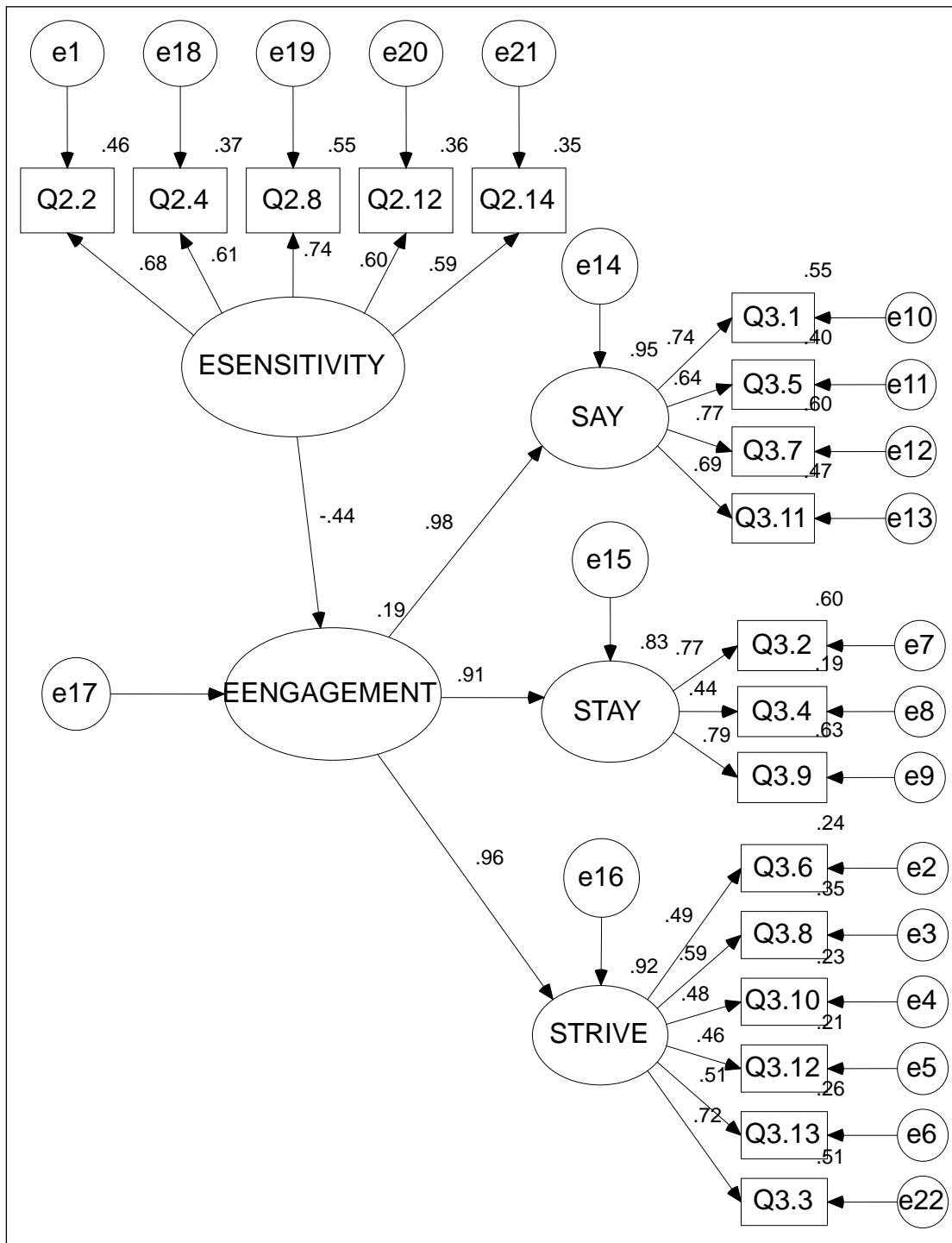
Table 5.12 Model fit summary for Hypothesis 3.1

Indices	Model fit summary	Good level of fit criteria
CMIN	478.715	
P	0.000	>0.05
CMIN/DF	3.654	<2
SRMR	0.0583	<0.08
GFI	0.874	>0.90
NFI	0.833	>0.90
TLI (NNFI)	0.851	>0.90
CFI	0.872	>0.95(or >0.90)
RMSEA	0.078	<0.05(or <0.08)

In Figure 5.6, the β value for equity sensitivity is -0.44 (P<0.05). For one additional standard deviation change in equity sensitivity, employee engagement is predicted to decrease by 0.44 of a standard deviation. The R^2 value of 0.19 indicates that 19 per cent of the variation in employee engagement is explained by equity sensitivity. As a full latent model, the model fit indices are acceptable.

The results revealed a negative association between equity sensitivity and employee engagement. Thus Hypothesis 3.1 is supported.

H4.1 An employee's need for clarity is independent of his or her employee engagement.

Need for clarity served as the independent variable in the structural regression model. Figure 5.7 shows the standardized parameter estimates for Hypothesis 4.1, and the model fit summary is given in Table 5.13.

**Figure 5.7 Standardized parameter estimates for Hypothesis 4.1**
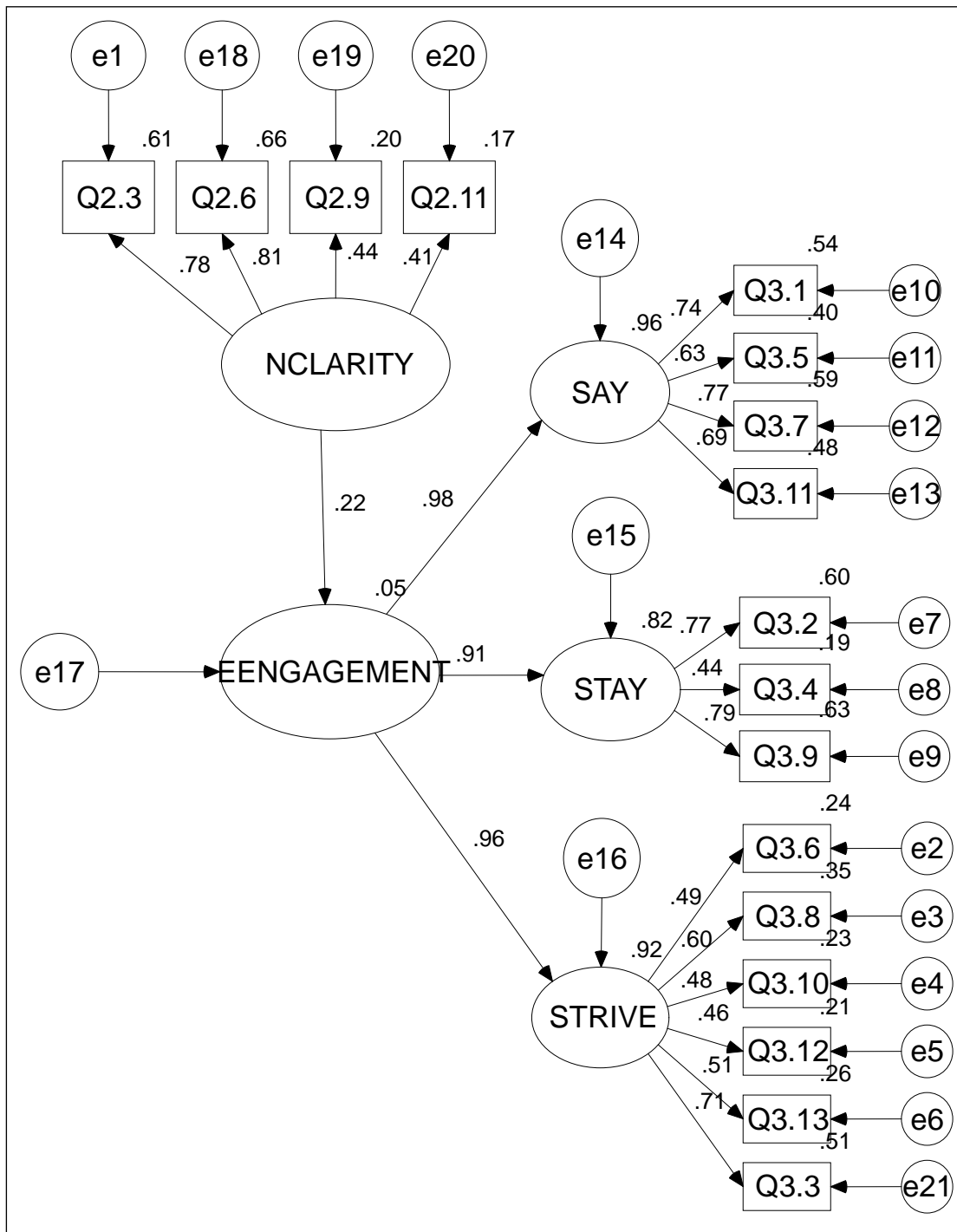
Table 5.13 Model fit summary for Hypothesis 4.1

Indices	Model fit summary	Good level of fit criteria
CMIN	584.097	
P	0.000	>0.05
CMIN/DF	5.079	<2
SRMR	0.0870	<0.08
GFI	0.843	>0.90
NFI	0.789	>0.90
TLI (NNFI)	0.790	>0.90
CFI	0.822	>0.95(or >0.90)
RMSEA	0.097	<0.05(or <0.08)

In Figure 5.7, the β value for need for clarity is 0.22 (P<0.05). For one additional standard deviation change in need for clarity, employee engagement is predicted to increase by 0.22 of a standard deviation. The R^2 value of 0.05 indicates that 5 per cent of the variation in employee engagement is explained by need for clarity. As a full latent model, the model fit indices are still acceptable.

The results displayed a positive association between need for clarity and employee engagement. Thus Hypothesis 4.1 is rejected.

5.4 Moderating effect analysis

This section describes the effects of the three moderating variables (need for achievement, equity sensitivity, and need for clarity) on the relationships between leadership styles and employee engagement. Multi-group structural regression models for moderating effects were adopted using Amos 17.0 (Park and Yang, 2006; Jang, 2009).

A four-step procedure tested the moderating effects:

(1) By using the means of the three moderating variables (need for achievement: 19.13; equity sensitivity: 12.78; need for clarity: 16.71), the 432 cases were divided into two subgroups respectively. For example, in need for achievement, the summing scores of 203 cases were bigger than 19.13; the summing scores of the rest 229 cases were smaller than 19.13. So the

203 cases were categorized into the high-need-for-achievement group. The others were grouped into the low-need-for-achievement group.

(2) Each subgroup was examined to see if it reached the minimum sample size of SEM analysis, which is 100–150 (Hair et al., 2006). As a result, the high-need-for-achievement group had 203 cases, the low-need-for-achievement group had 229 cases; the high-equity-sensitivity group had 195 cases, the low-equity-sensitivity group had 237 cases; the high-need-for-clarity group had 224 cases, the low-need-for-clarity group had 208 cases. It can be seen that all subgroups satisfied the minimum sample size of SEM analysis.

(3) The β value between the two subgroups was compared, based on same measurement weights (namely, factor loadings) (Qiu and Lin, 2009).

(4) Model fit indices were checked to ensure two subgroups both fitted the data well. Because β values of the two subgroups were compared based on same measurement weights, the model fit indices were the same for both subgroups. So the model fit summary is reported and checked only once for both subgroups.

The processes of Step 3 and Step 4 for each moderating variable are presented below, in relation to Hypotheses 2.2, 2.3, 3.2, 3.3, 4.2, and 4.3. In each analysis, employee engagement was used as the dependent variable.

H2.2 The higher an employee's need for achievement is, the weaker is the negative association between his or her perception of classical or transactional leadership styles and employee engagement.

In the first analysis for this hypothesis, classical leadership served as the independent variable with the high-need-for-achievement and low-need-for-achievement employee groups. The standardized parameter estimates for Hypothesis 2.2 concerning classical leadership are shown with the high-need-for-achievement employee group in Figure 5.8, and with the low-need-for-achievement employee group in Figure 5.9. Table 5.14 gives the model fit summary for Hypothesis 2.2 concerning classical leadership with both employee groups.

Table 5.14 Model fit summary for Hypothesis 2.2 concerning classical leadership with both employee groups

Indices	Model fit summary	Good level of fit criteria
CMIN	641.827	
P	0.000	>0.05
CMIN/DF	2.652	<2
SRMR	0.0799	<0.08
GFI	0.837	>0.90
NFI	0.757	>0.90
TLI (NNFI)	0.810	>0.90
CFI	0.831	>0.95(or >0.90)
RMSEA	0.062	<0.05(or <0.08)

Figure 5.8 Standardized parameter estimates for Hypothesis 2.2 concerning classical leadership with high-need-for-achievement employee group

Figure 5.9 Standardized parameter estimates for Hypothesis 2.2 concerning classical leadership with low-need-for-achievement employee group
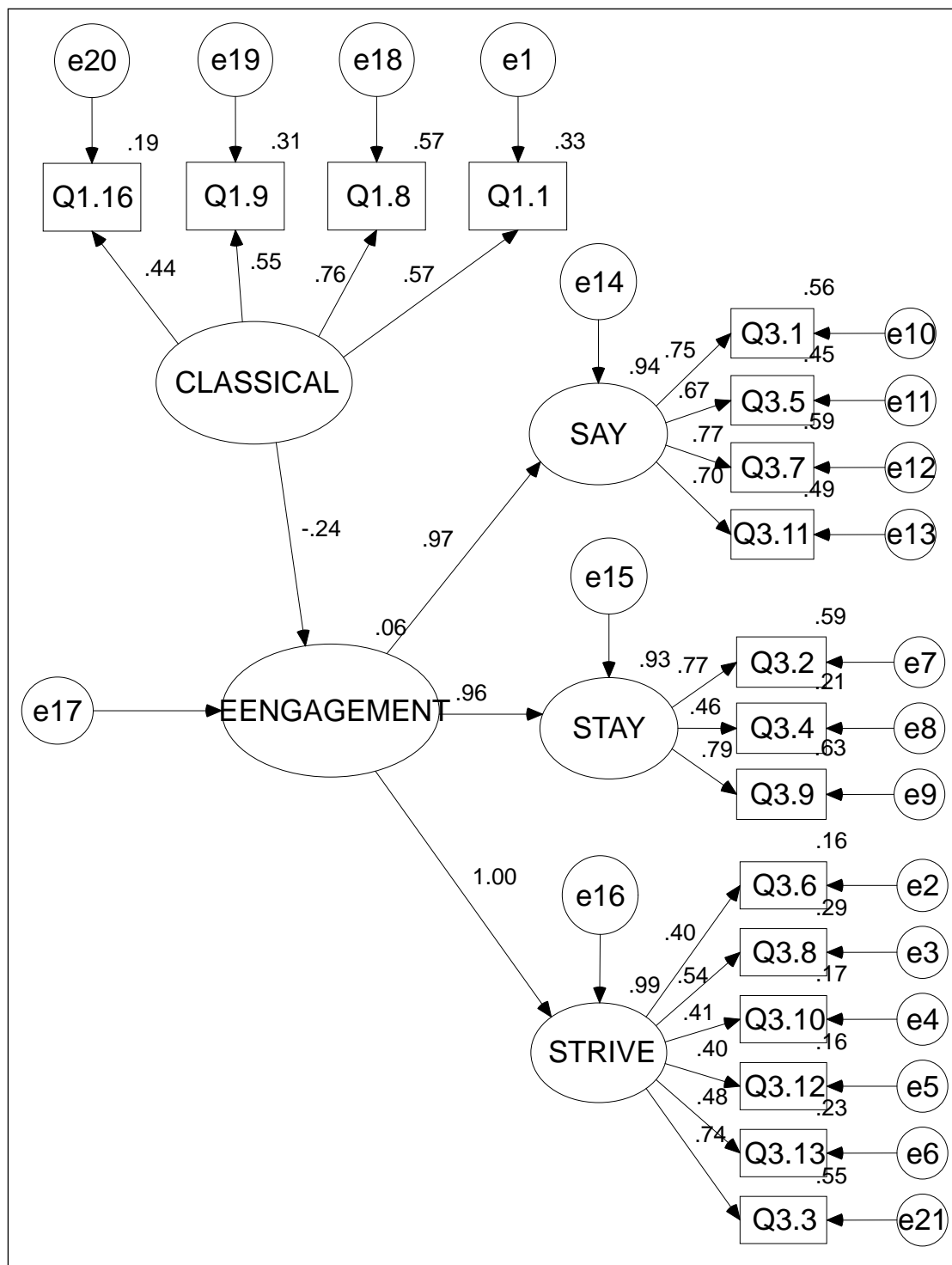
With the high-need-for-achievement employee group (Figure 5.8), the β value for classical leadership is -0.08. With the low-need-for-achievement employee group (Figure 5.9), the β

value for classical leadership is -0.24. As a full latent model, the model fit indices are acceptable.

The results revealed that the higher an employee's need for achievement is, the weaker is the negative association between his or her perception of classical leadership style and employee engagement. Thus Hypothesis 2.2 concerning classical leadership is supported.

Next, transactional leadership served as the independent variable with the high-need-for-achievement or low-need-for-achievement employee groups. The standardized parameter estimates for Hypothesis 2.2 concerning transactional leadership with the high-need-for-achievement employee group are shown in Figure 5.10, and with the low-need-for-achievement employee group in Figure 5.11. Table 5.15 gives the model fit summary for Hypothesis 2.2 concerning transactional leadership with both employee groups.

Figure 5.10 Standardized parameter estimates for Hypothesis 2.2 concerning transactional leadership with high-need-for-achievement employee group
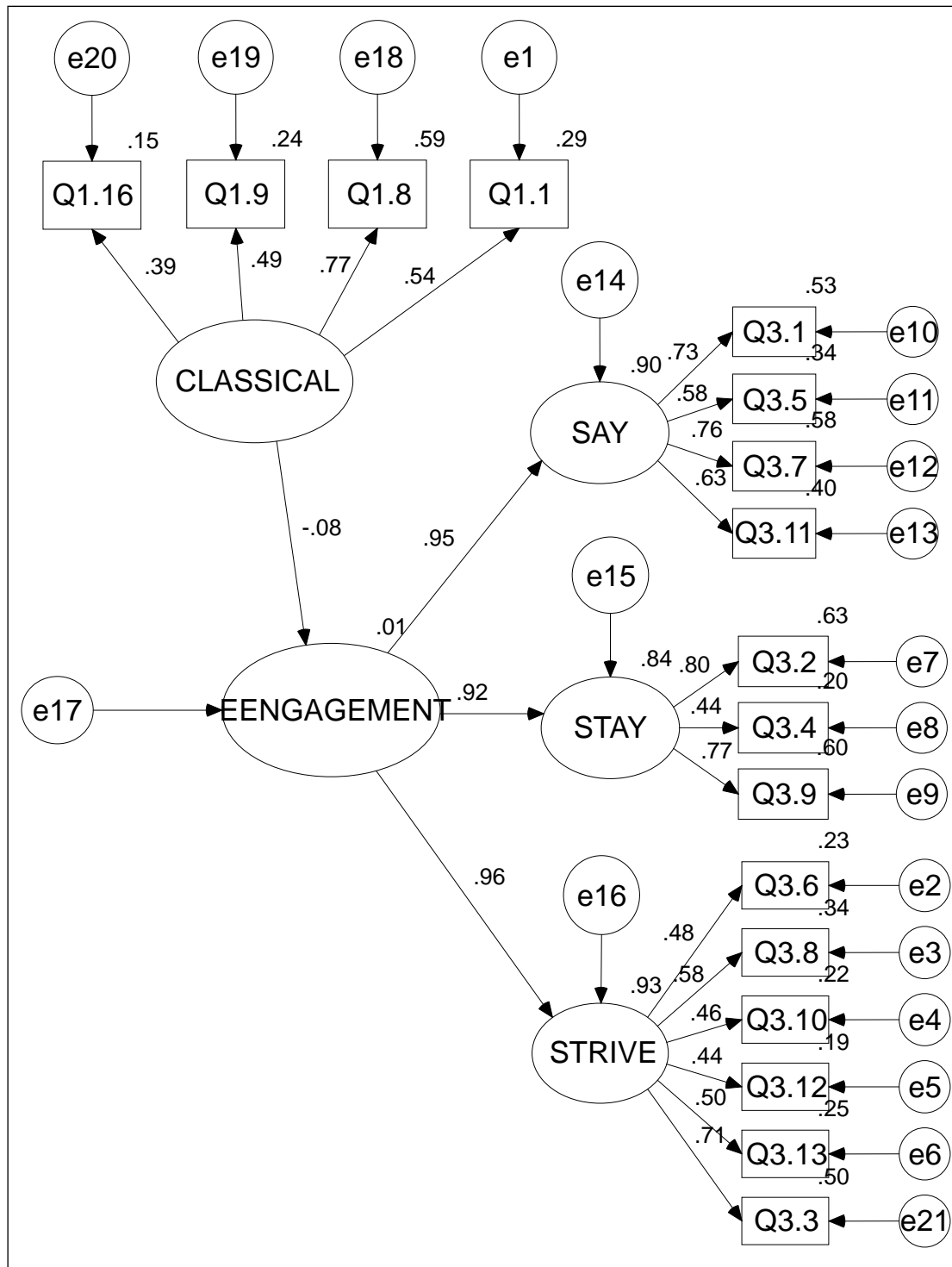
Figure 5.11 Standardized parameter estimates for Hypothesis 2.2 concerning transactional leadership with low-need-for-achievement employee group

Table 5.15 Model fit summary for Hypothesis 2.2 concerning transactional leadership with both employee groups

Indices	Model fit summary	Good level of fit criteria
CMIN	714.238	
P	0.000	>0.05
CMIN/DF	2.597	<2
SRMR	0.0843	<0.08
GFI	0.833	>0.90
NFI	0.727	>0.90
TLI (NNFI)	0.789	>0.90
CFI	0.810	>0.95(or >0.90)
RMSEA	0.061	<0.05(or <0.08)

With the high-need-for-achievement employee group (Figure 5.10), the β value for transactional leadership is -0.37. With the low-need-for-achievement employee group (Figure 5.11), the β value for transactional leadership is -0.60. As a full latent model, the model fit indices are acceptable.

The results suggested that the higher an employee's need for achievement is, the weaker is the negative association between his or her perception of transactional leadership style and employee engagement. Thus Hypothesis 2.2 concerning transactional leadership is supported.

H2.3 The higher an employee's need for achievement is, the stronger is the positive association between his or her perception of visionary or organic leadership styles and employee engagement.

In the first analysis for this hypothesis, visionary leadership served as the independent variable with the high-need-for-achievement and low-need-for-achievement employee groups. The standardized parameter estimates for Hypothesis 2.3 concerning visionary leadership are shown with high-need-for-achievement employee group in Figure 5.12, and with the low-need-for-achievement employee group in Figure 5.13. Table 5.16 gives the model fit summary for Hypothesis 2.3 concerning visionary leadership with both employee groups.

Table 5.16 Model fit summary for Hypothesis 2.3 concerning visionary leadership with both employee groups

Indices	Model fit summary	Good level of fit criteria
CMIN	650.503	
P	0.000	>0.05
CMIN/DF	2.688	<2
SRMR	0.0819	<0.08
GFI	0.838	>0.90
NFI	0.744	>0.90
TLI (NNFI)	0.79	>0.90
CFI	0.820	>0.95(or >0.90)
RMSEA	0.063	<0.05(or <0.08)

Figure 5.12 Standardized parameter estimates for Hypothesis 2.3 concerning visionary leadership with high-need-for-achievement employee group
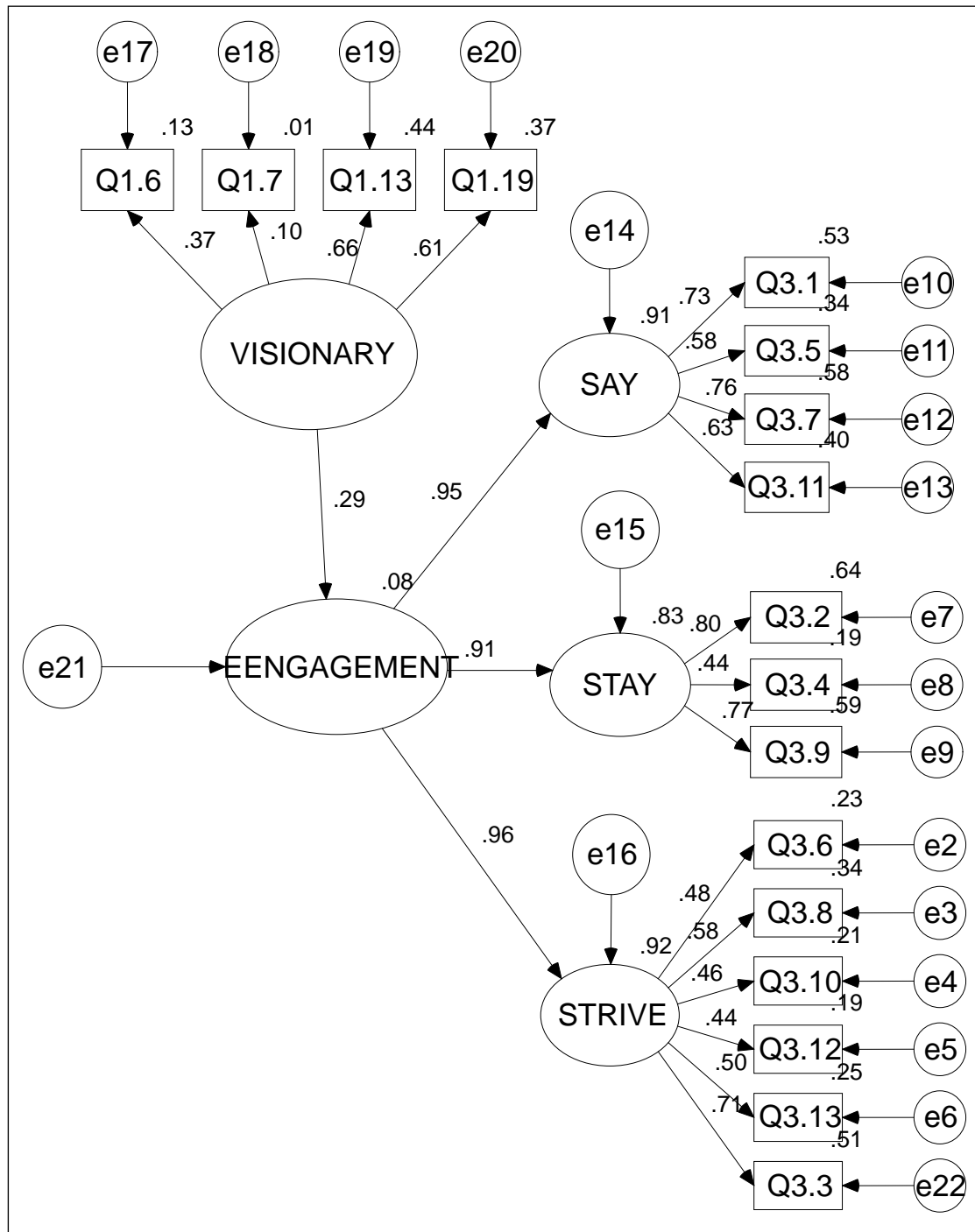
Figure 5.13 Standardized parameter estimates for Hypothesis 2.3 concerning visionary leadership with low-need-for-achievement employee group
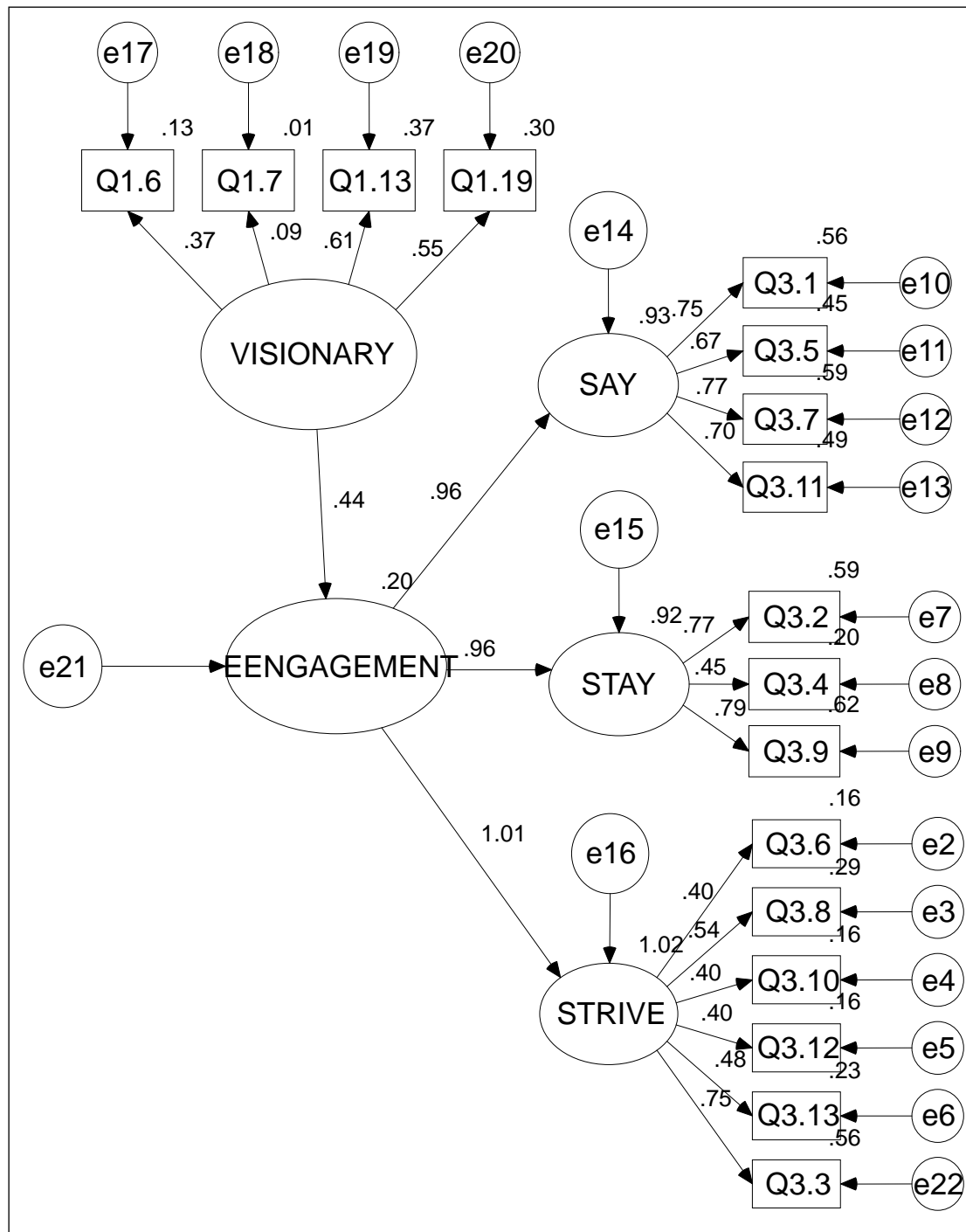
With the high-need-for-achievement employee group (Figure 5.12), the β value for visionary leadership is 0.29. With the low-need-for-achievement employee group (Figure 5.13), the β value for visionary leadership is 0.44. As a full latent model, the model fit indices are acceptable.

The results did not reveal that the higher an employee's need for achievement is, the stronger is the positive association between his or her perception of visionary leadership style and employee engagement. Thus, Hypothesis 2.3 concerning visionary leadership is not supported. As discussed in Section 5.3, in this thesis, hypotheses that have been rejected by the empirical data, but can be logically justified indirectly by other supported hypotheses, are called 'not supported'. For example, Hypothesis 2.3 concerning visionary leadership was rejected by the empirical data. However, Hypotheses 1.3 and 2.1 (Table 2.7) were supported by the empirical data. Logically, Hypothesis 2.3 concerning visionary leadership can be justified indirectly (H2.3 in Section 2.6.3). Therefore, as shown above, Hypothesis 2.3 concerning visionary leadership is called 'not supported' in this thesis.

Next, organic leadership served as the independent variable with the high-need-for-achievement and low-need-for-achievement employee groups. The standardized parameter estimates for Hypothesis 2.3 concerning organic leadership are shown in Figure 5.14 with the high-need-for-achievement employee group, and in Figure 5.15 with the low-need-for-achievement employee group. Table 5.17 gives the model fit summary for Hypothesis 2.3 concerning organic leadership with both employee groups.

Figure 5.14 Standardized parameter estimates for Hypothesis 2.3 concerning organic leadership with high-need-for-achievement employee group
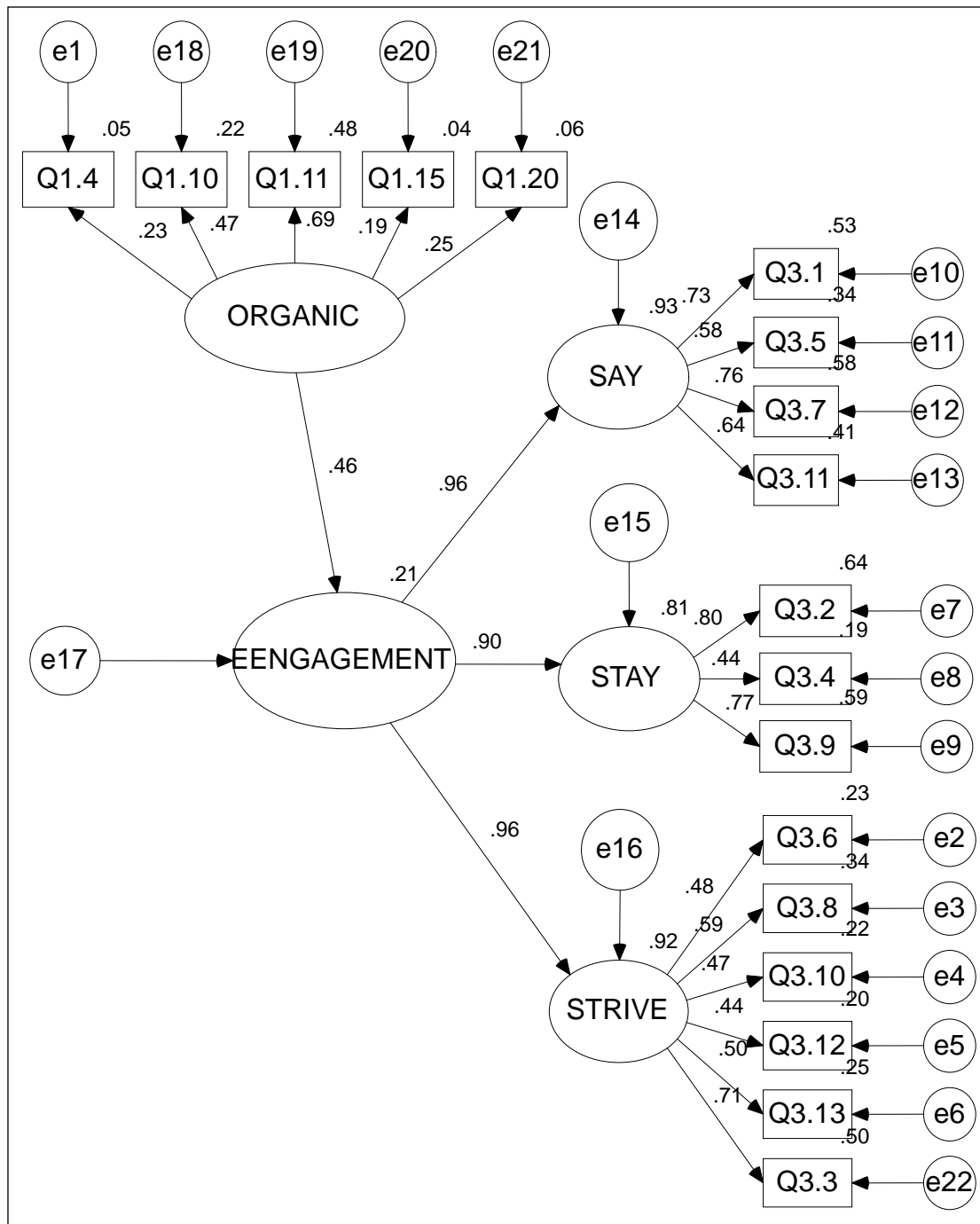
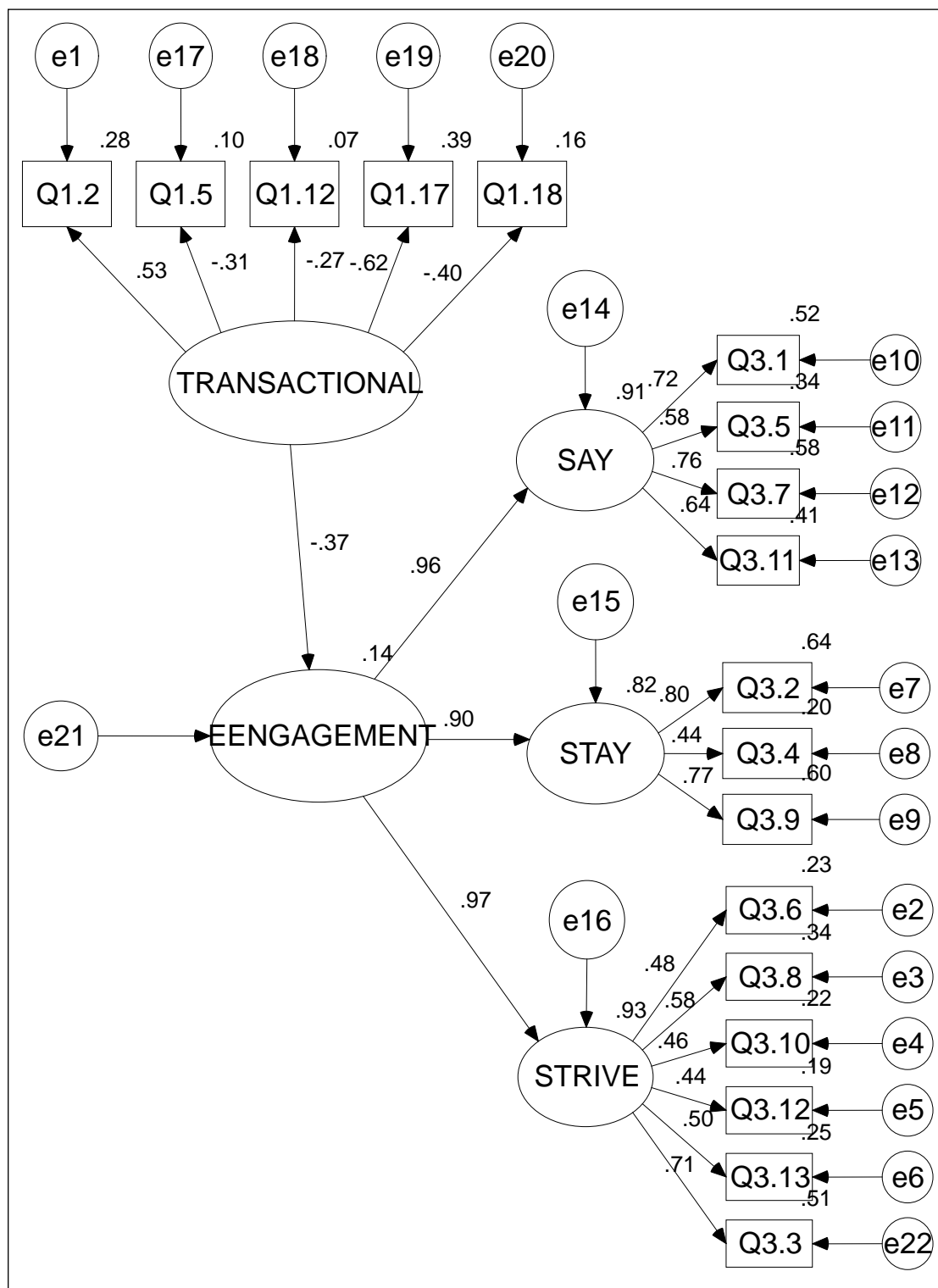**Figure 5.15 Standardized parameter estimates for Hypothesis 2.3 concerning organic leadership with low-need-for-achievement employee group**
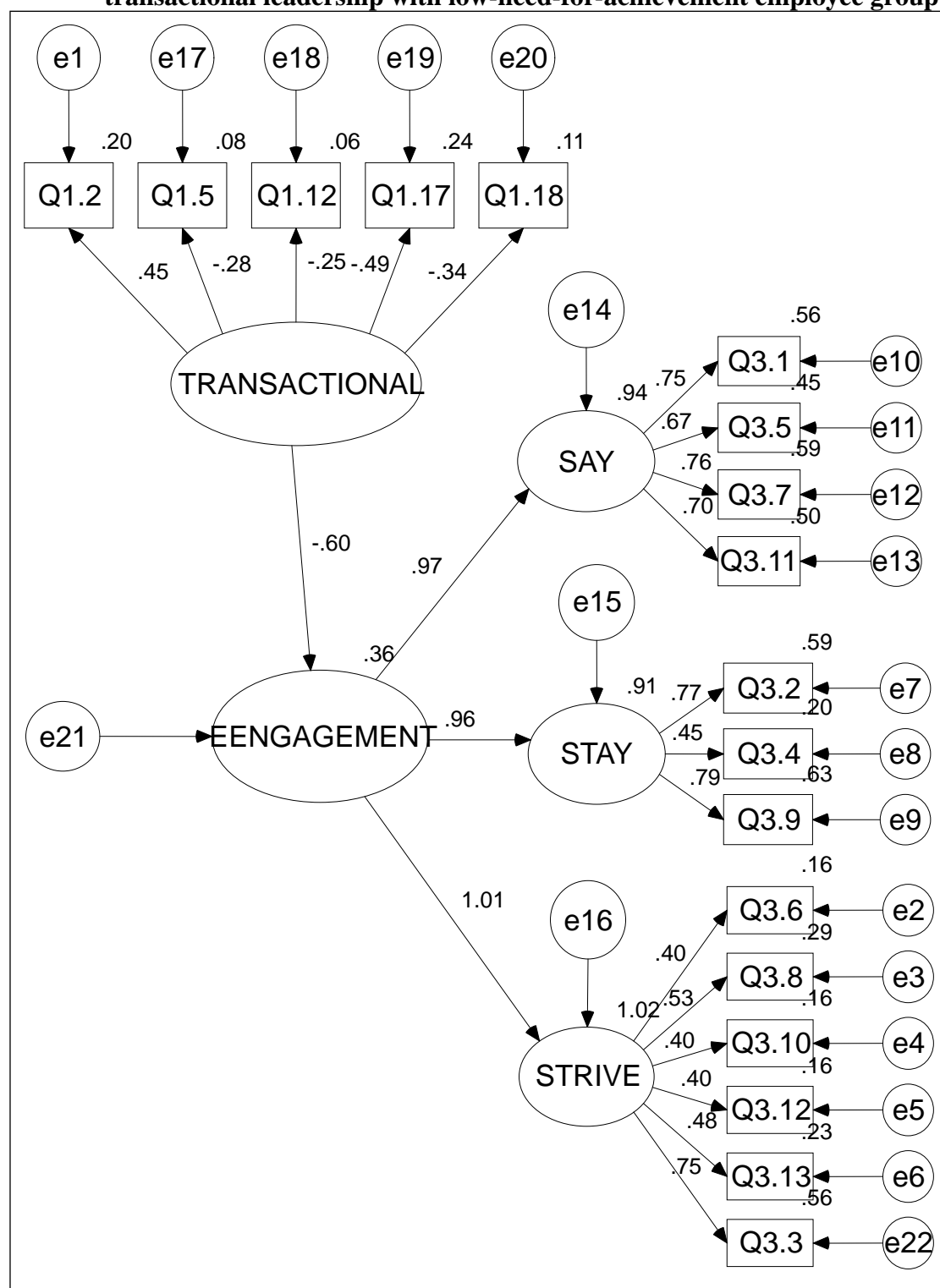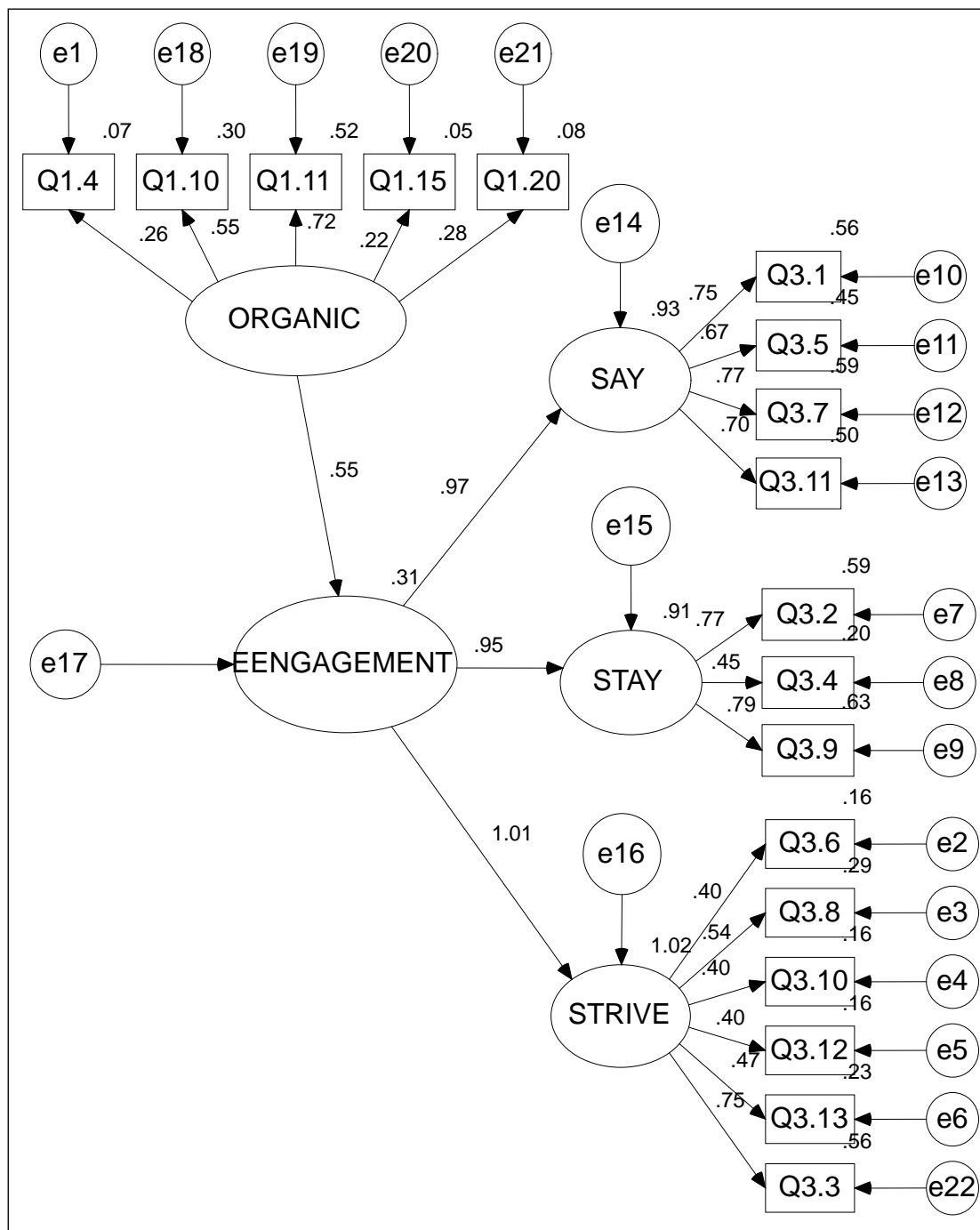
Table 5.17 Model fit summary for Hypothesis 2.3 concerning organic leadership with both employee groups

Indices	Model fit summary	Good level of fit criteria
CMIN	696.295	
P	0.000	>0.05
CMIN/DF	2.532	<2
SRMR	0.0773	<0.08
GFI	0.831	>0.90
NFI	0.735	>0.90
TLI (NNFI)	0.798	>0.90
CFI	0.819	>0.95(or >0.90)
RMSEA	0.060	<0.05(or <0.08)

With the high-need-for-achievement employee group (Figure 5.14), the β value for organic leadership is 0.46. With the low-need-for-achievement employee group (Figure 5.15), the β value for organic leadership is 0.55. As a full latent model, the model fit indices are acceptable.

The results did not indicate that the higher an employee's need for achievement is, the stronger is the positive association between his or her perception of organic leadership style and employee engagement. Thus Hypothesis 2.3 concerning organic leadership is not supported.

H3.2 The higher an employee's equity sensitivity is, the stronger is the negative association between his or her perception of classical or transactional leadership styles and employee engagement.

In the first analysis for this hypothesis, classical leadership served as the independent variable with the high-equity-sensitivity and low-equity-sensitivity employee groups. The standardized parameter estimates for Hypothesis 3.2 concerning classical leadership are shown with the high-equity-sensitivity employee group in Figure 5.16, and with the low-equity-sensitivity employee group in Figure 5.17. Table 5.18 gives the model fit summary for Hypothesis 3.2 concerning classical leadership with both employee groups.

Table 5.18 Model fit summary for Hypothesis 3.2 concerning classical leadership with both employee groups

Indices	Model fit summary	Good level of fit criteria
CMIN	625.464	
P	0.000	>0.05
CMIN/DF	2.585	<2
SRMR	0.0861	<0.08
GFI	0.844	>0.90
NFI	0.759	>0.90
TLI (NNFI)	0.815	>0.90
CFI	0.835	>0.95(or >0.90)
RMSEA	0.061	<0.05(or <0.08)

Figure 5.16 Standardized parameter estimates for Hypothesis 3.2 concerning classical leadership with high-equity-sensitivity employee group

Figure 5.17 Standardized parameter estimates for Hypothesis 3.2 concerning classical leadership with low-equity-sensitivity employee group
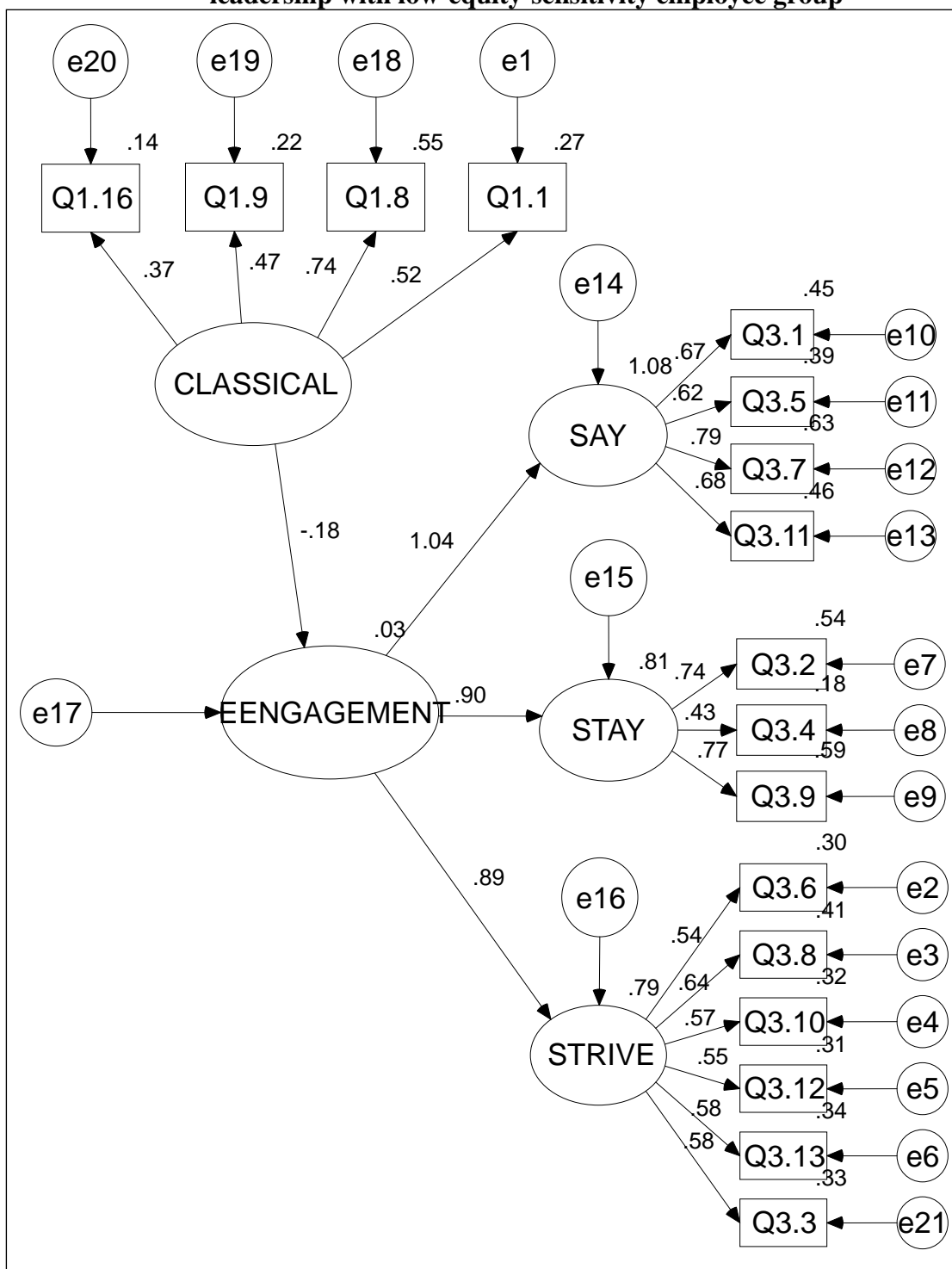
With the high-equity-sensitivity employee group (Figure 5.16), the β value for classical leadership is -0.10. With the low-equity-sensitivity employee group (Figure 5.17), the β value for classical leadership is -0.18. As a full latent model, the model fit indices are acceptable.

The results did not show that the higher an employee's equity sensitivity is, the stronger is the negative association between his or her perception of classical leadership style and employee engagement. Thus, Hypothesis 3.2 concerning classical leadership is not supported.

Next, transactional leadership served as the independent variable with the high-equity-sensitivity and low-equity-sensitivity employee groups. The standardized parameter estimates for Hypothesis 3.2 concerning transactional leadership are shown with the high-equity-sensitivity employee group in Figure 5.18, and with the low-equity-sensitivity employee group in Figure 5.19. Table 5.19 gives the model fit summary for Hypothesis 3.2 concerning transactional leadership with both employee groups.

Table 5.19 Model fit summary for Hypothesis 3.2 concerning transactional leadership with both employee groups

Indices	Model fit summary	Good level of fit criteria
CMIN	718.000	
P	0.000	>0.05
CMIN/DF	2.611	<2
SRMR	0.0829	<0.08
GFI	0.837	>0.90
NFI	0.727	>0.90
TLI (NNFI)	0.788	>0.90
CFI	0.809	>0.95(or >0.90)
RMSEA	0.061	<0.05(or <0.08)

Figure 5.18 Standardized parameter estimates for Hypothesis 3.2 concerning transactional leadership with high-equity-sensitivity employee group

Figure 5.19 Standardized parameter estimates for Hypothesis 3.2 concerning transactional leadership with low-equity-sensitivity employee group
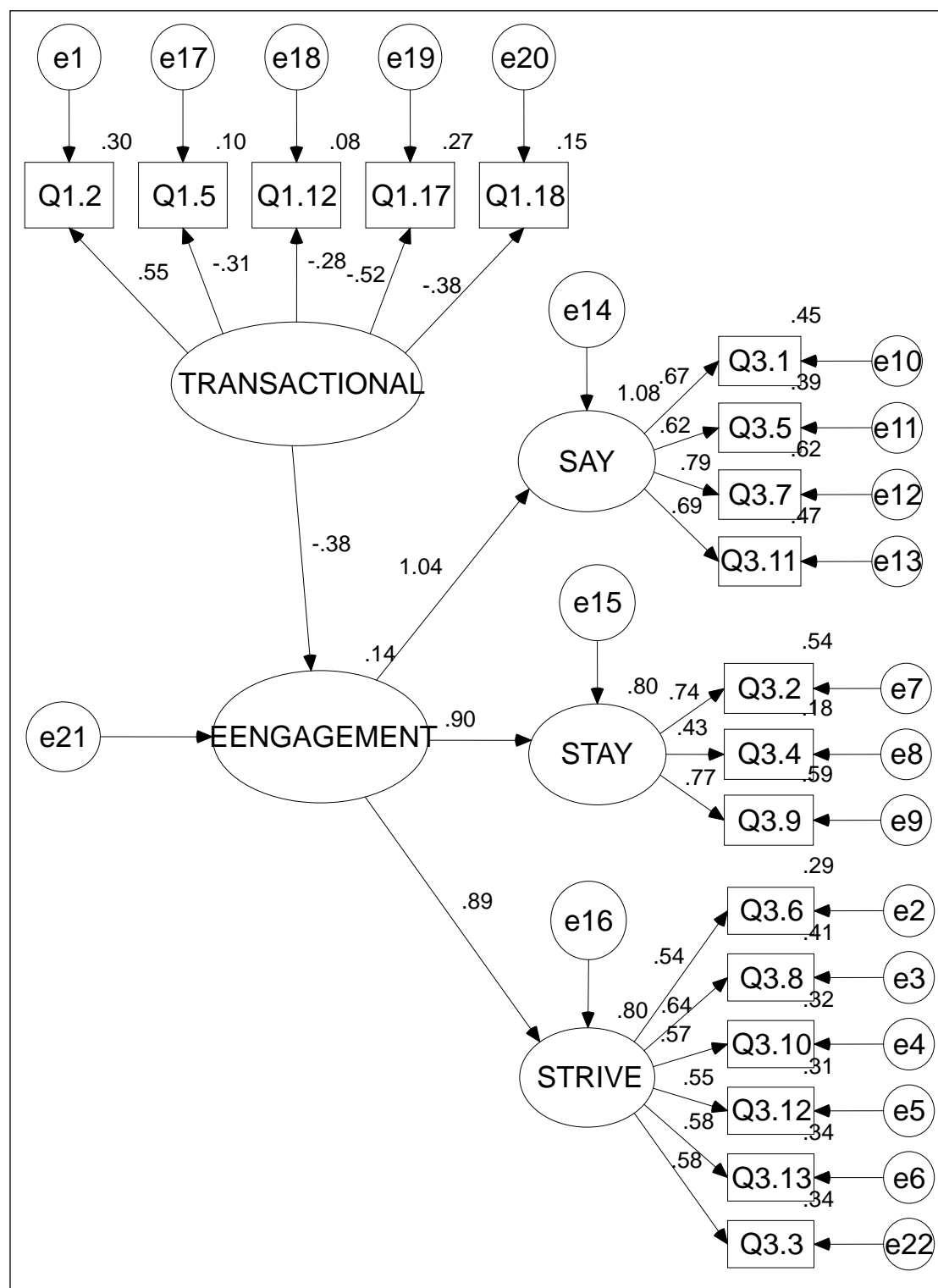
With the high-equity-sensitivity employee group in Figure 5.18, the β value for transactional leadership is -0.60. With the low-equity-sensitivity employee group in Figure 5.19, the β

value for transactional leadership is -0.38. As a full latent model, the model fit indices are acceptable.

The results indicated that the higher an employee's equity sensitivity is, the stronger is the negative association between his or her perception of transactional leadership style and employee engagement. Thus, Hypothesis 3.2 concerning transactional leadership is supported.

H3.3 The higher an employee's equity sensitivity is, the weaker is the positive association between his or her perception of visionary or organic leadership styles and employee engagement.

In the first analysis for this hypothesis, visionary leadership served as the independent variable with the high-equity-sensitivity and low-equity-sensitivity employee groups. The standardized parameter estimates for Hypothesis 3.3 concerning visionary leadership are shown with the high-equity-sensitivity employee group in Figure 5.20, and with the low-equity-sensitivity employee group in Figure 5.21. Table 5.20 gives the model fit summary for Hypothesis 3.3 concerning visionary leadership with both employee groups.

Figure 5.20 Standardized parameter estimates for Hypothesis 3.3 concerning visionary leadership with high-equity-sensitivity employee group
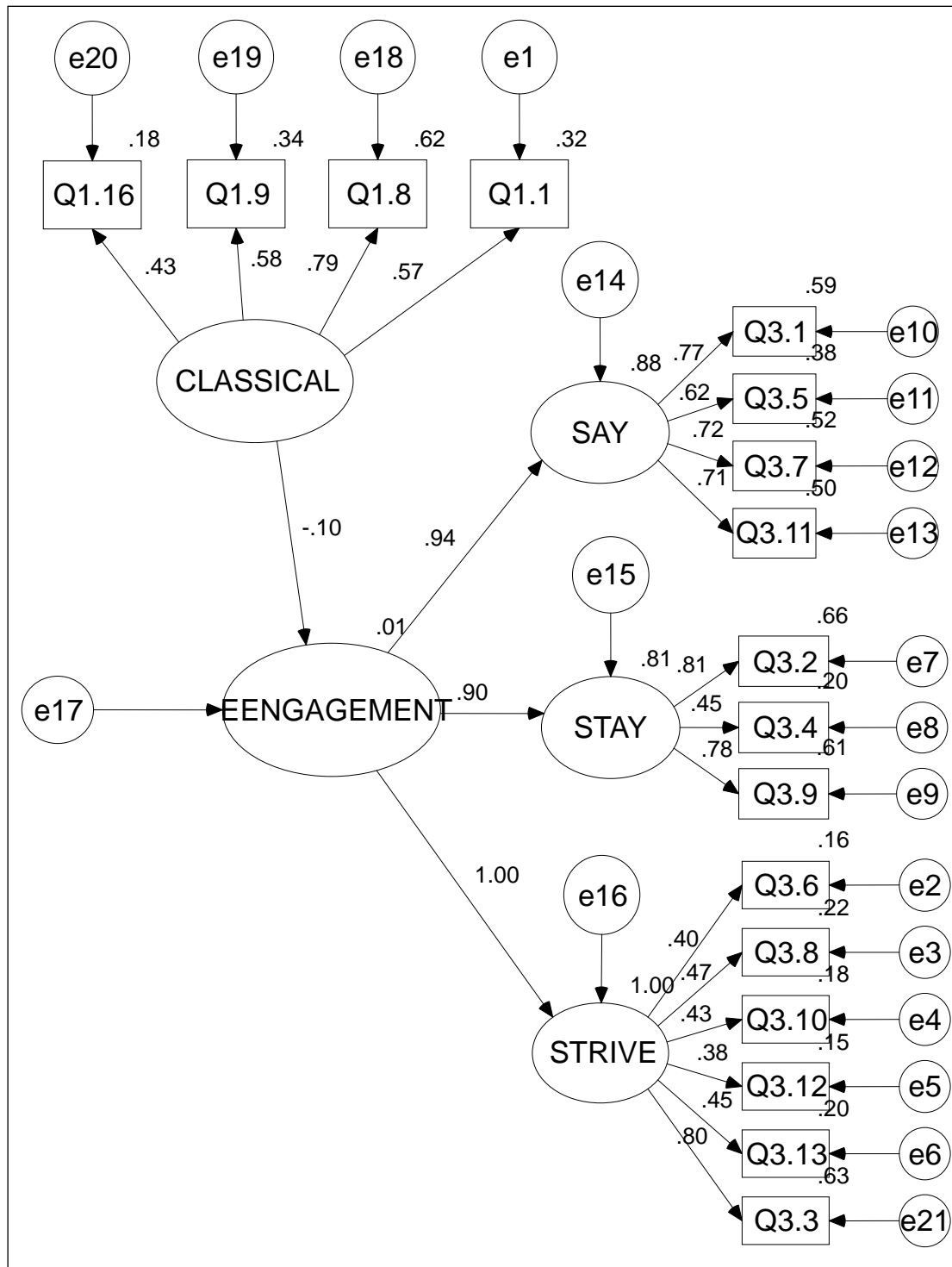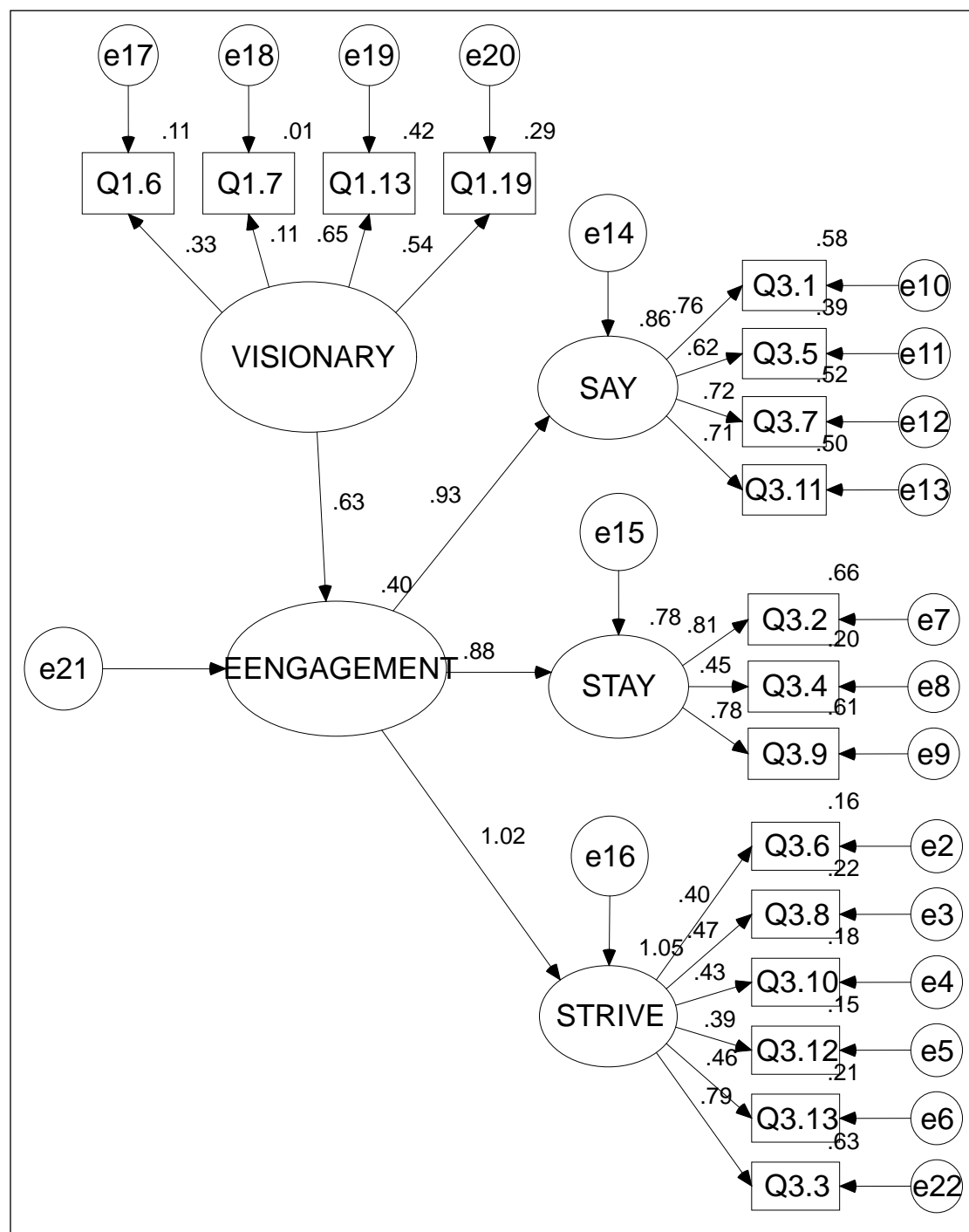
Figure 5.21 Standardized parameter estimates for Hypothesis 3.3 concerning visionary leadership with low-equity-sensitivity employee group
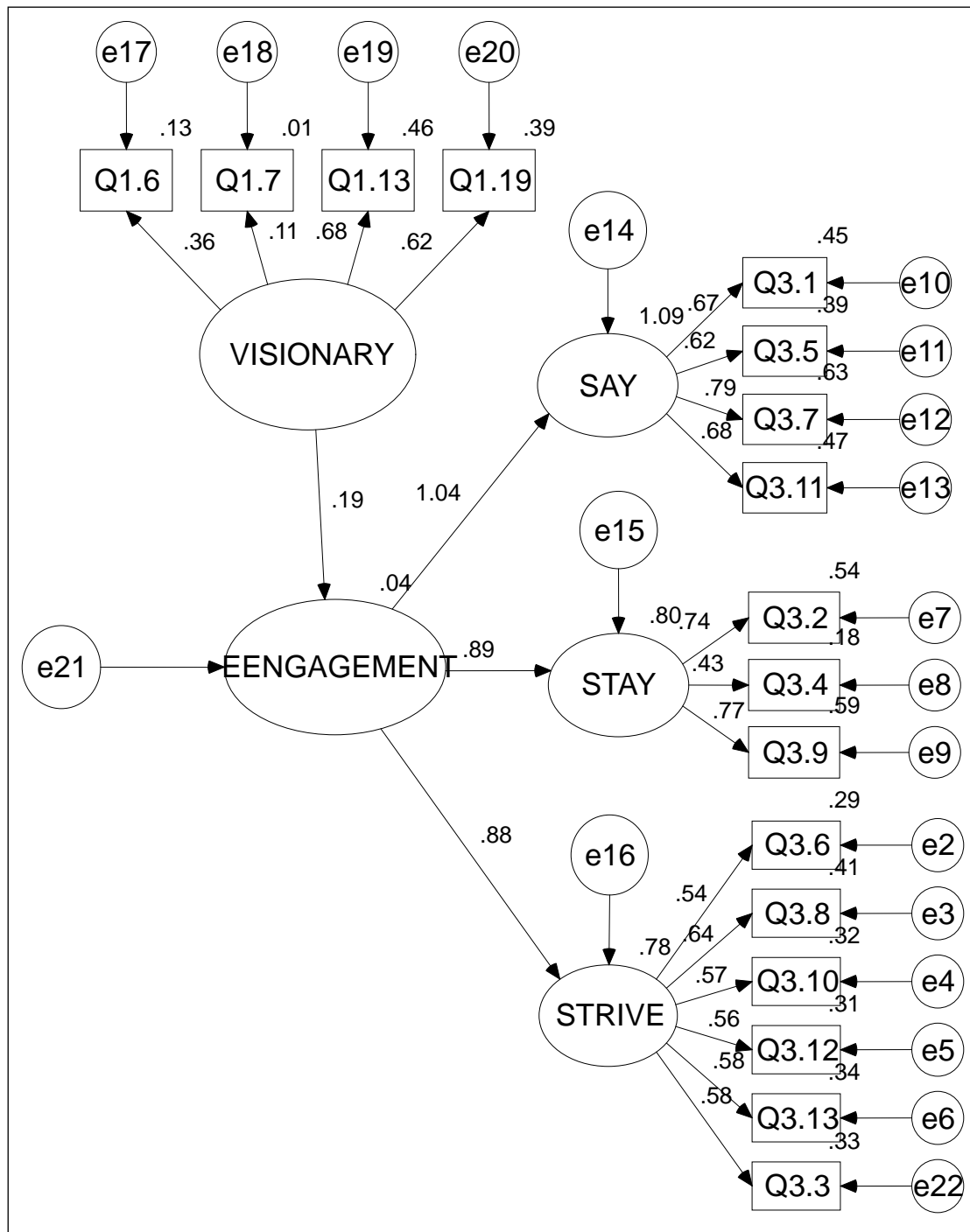
Table 5.20 Model fit summary for Hypothesis 3.3 concerning visionary leadership with both employee groups

Indices	Model fit summary	Good level of fit criteria
CMIN	643.756	
P	0.000	>0.05
CMIN/DF	2.660	<2
SRMR	0.0812	<0.08
GFI	0.844	>0.90
NFI	0.747	>0.90
TLI (NNFI)	0.802	>0.90
CFI	0.824	>0.95(or >0.90)
RMSEA	0.062	<0.05(or <0.08)

With the high-equity-sensitivity employee group in Figure 5.20, the β value for visionary leadership is 0.63. With the low-equity-sensitivity employee group in Figure 5.21, the β value for visionary leadership is 0.19. As a full latent model, the model fit indices are acceptable.

The results did not reveal that the higher an employee's equity sensitivity is, the weaker is the positive association between his or her perception of visionary leadership style and employee engagement. Thus, Hypothesis 3.3 concerning visionary leadership is not supported.

Next, organic leadership served as the independent variable with the high-equity-sensitivity and low-equity-sensitivity employee groups. The standardized parameter estimates for Hypothesis 3.3 concerning organic leadership are shown with the high-equity-sensitivity employee group in Figure 5.22, and with the low-equity-sensitivity employee group in Figure 5.23. Table 5.21 gives the model fit summary for Hypothesis 3.3 concerning organic leadership with both employee groups.

Figure 5.22 Standardized parameter estimates for Hypothesis 3.3 concerning organic leadership with high-equity-sensitivity employee group
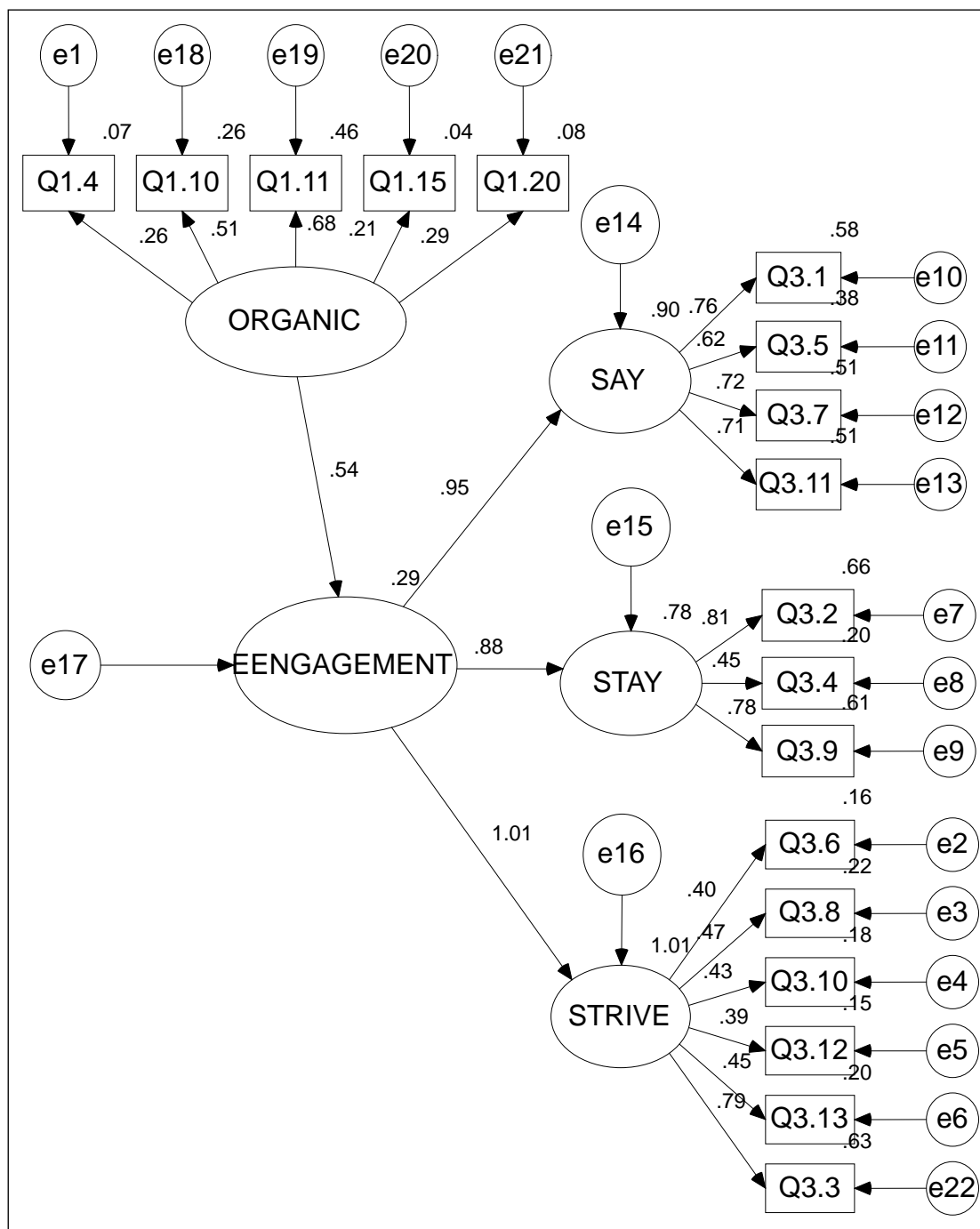
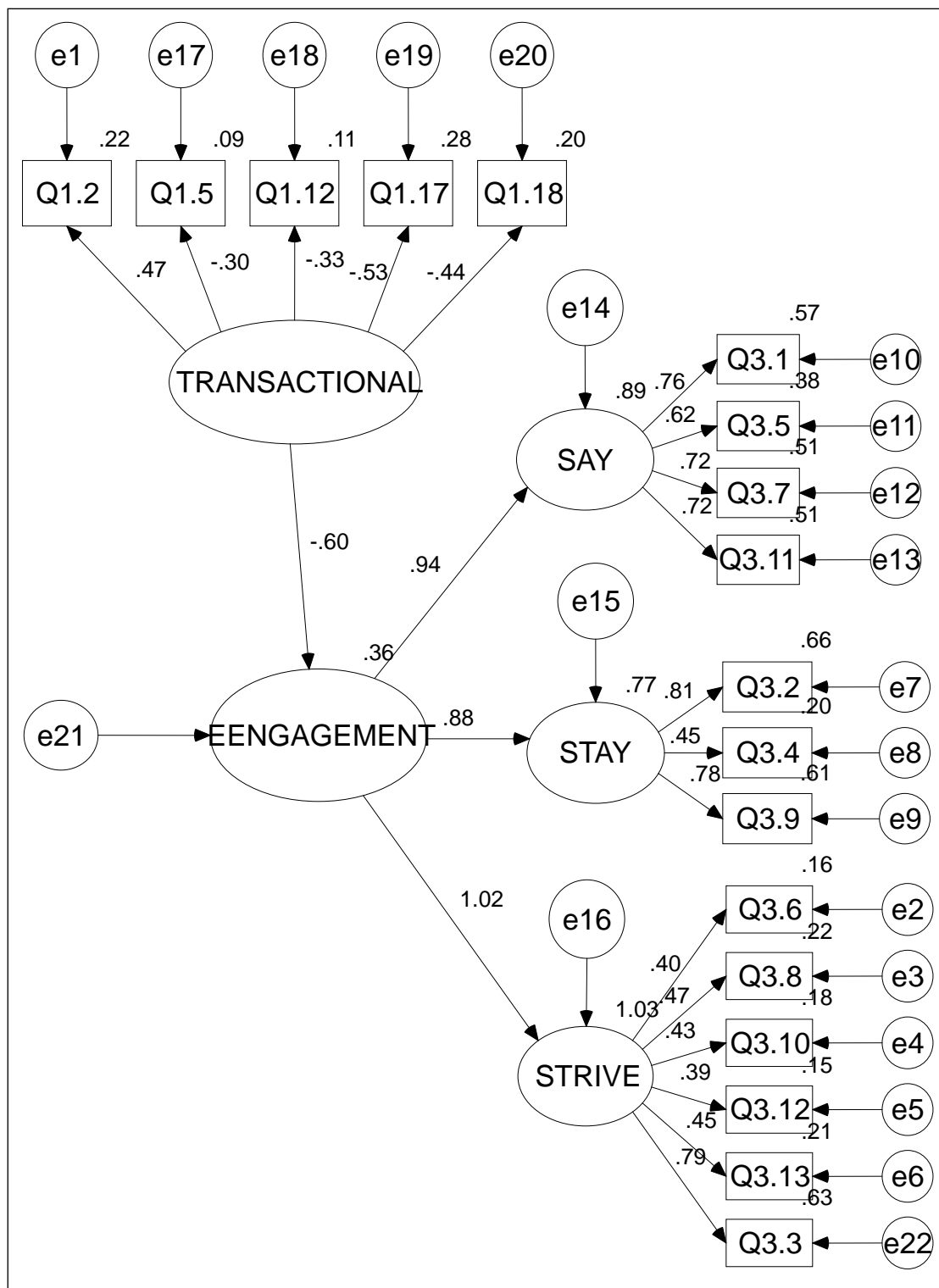**Figure 5.23 Standardized parameter estimates for Hypothesis 3.3 concerning organic leadership with low-equity-sensitivity employee group**
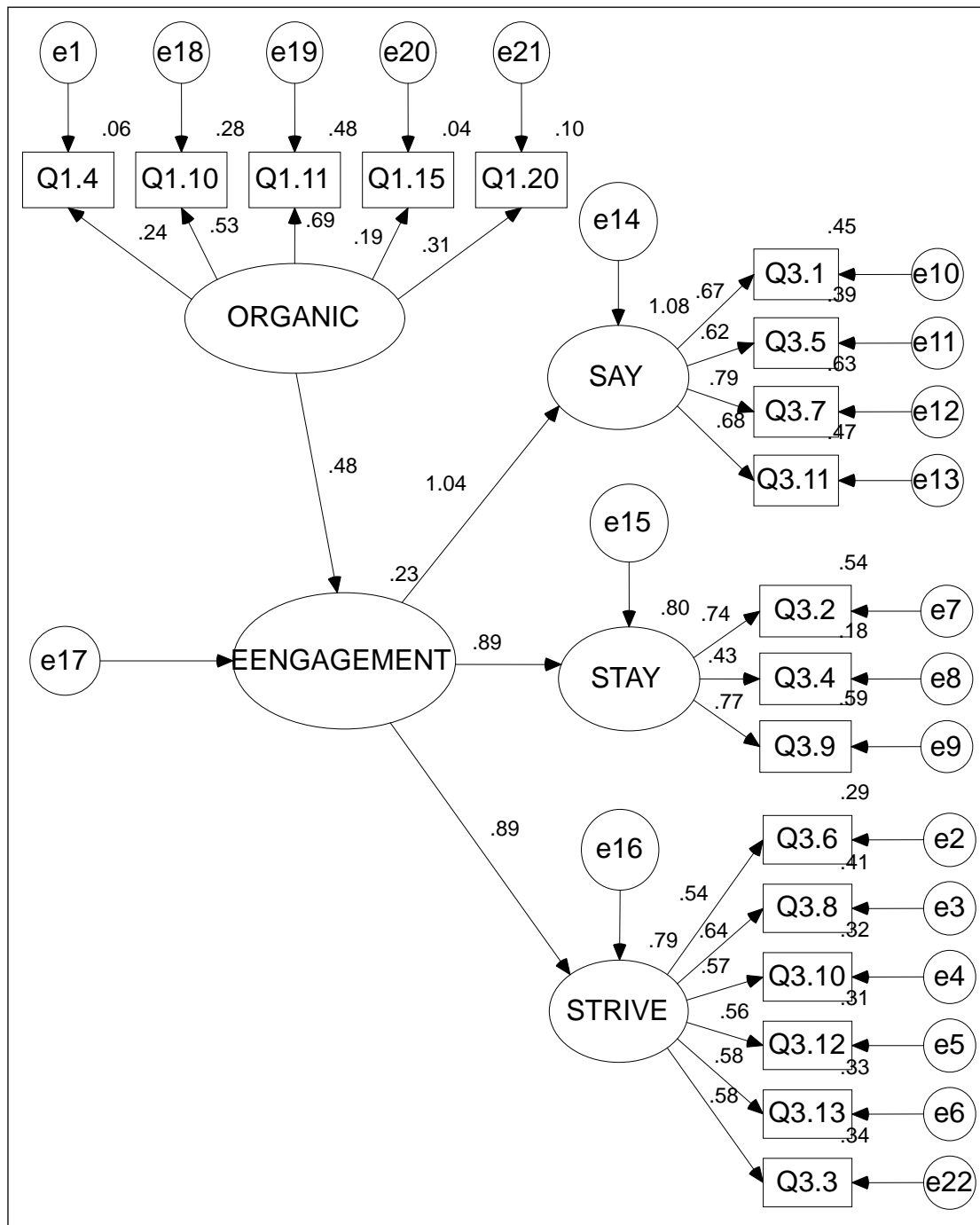
Table 5.21 Model fit summary for Hypothesis 3.3 concerning organic leadership with both employee groups

Indices	Model fit summary	Good level of fit criteria
CMIN	700.213	
P	0.000	>0.05
CMIN/DF	2.546	<2
SRMR	0.0805	<0.08
GFI	0.835	>0.90
NFI	0.733	>0.90
TLI (NNFI)	0.796	>0.90
CFI	0.817	>0.95(or >0.90)
RMSEA	0.060	<0.05(or <0.08)

With the high-equity-sensitivity employee group in Figure 5.22, the β value for organic leadership is 0.54. With the low-equity-sensitivity employee group in Figure 5.23, the β value for organic leadership is 0.48. As a full latent model, the model fit indices are acceptable.

The results did not indicate that the higher an employee's equity sensitivity is, the weaker is the positive association between his or her perception of organic leadership style and employee engagement. Thus, Hypothesis 3.3 concerning organic leadership is not supported.

H4.2 The higher an employee's need for clarity is, the weaker is the negative association between his or her perception of classical or transactional leadership styles and employee engagement.

In the first analysis for this hypothesis, classical leadership served as the independent variable with the high-need-for-clarity employee group and low-need-for-clarity employee groups. The standardized parameter estimates for Hypothesis 4.2 concerning classical leadership are shown with the high-need-for-clarity employee group in Figure 5.24, and with the low-need-for-clarity employee group in Figure 5.25. Table 5.22 gives the model fit summary for Hypothesis 4.2 concerning classical leadership with both employee groups.

Table 5.22 Model fit summary for Hypothesis 4.2 concerning classical leadership with both employee groups

Indices	Model fit summary	Good level of fit criteria
CMIN	676.092	
P	0.000	>0.05
CMIN/DF	2.794	<2
SRMR	0.0833	<0.08
GFI	0.833	>0.90
NFI	0.750	>0.90
TLI (NNFI)	0.800	>0.90
CFI	0.822	>0.95(or >0.90)
RMSEA	0.065	<0.05(or <0.08)

Figure 5.24 Standardized parameter estimates for Hypothesis 4.2 concerning classical leadership with high-need-for-clarity employee group

Figure 5.25 Standardized parameter estimates for Hypothesis 4.2 concerning classical leadership with low-need-for-clarity employee group
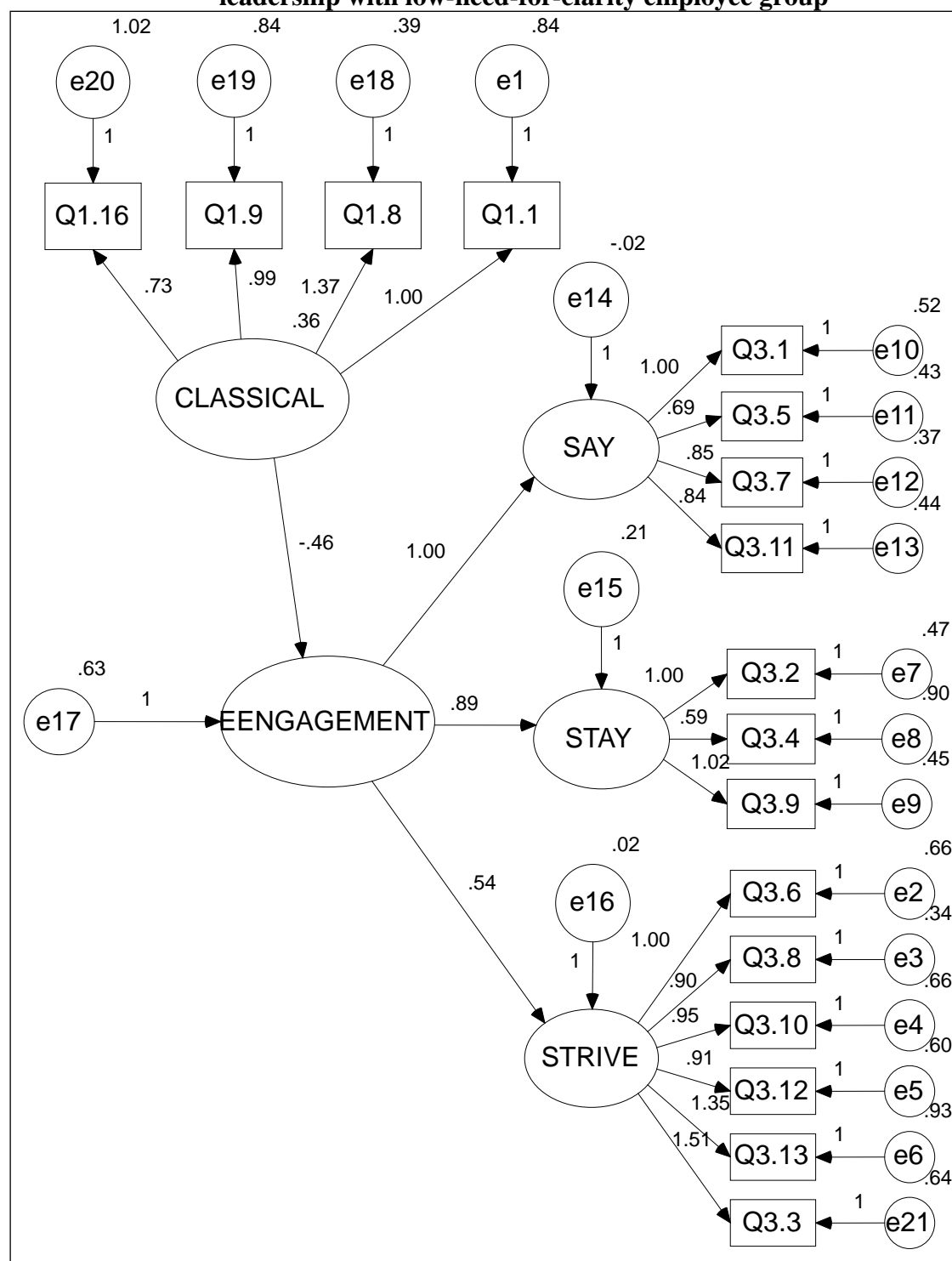
With the high-need-for-clarity employee group in Figure 5.24, the β value for classical leadership is -0.08. With the low-need-for-clarity employee group in Figure 5.25, the β value for classical leadership is -0.46. As a full latent model, the model fit indices are acceptable.

The results revealed that the higher an employee's need for clarity is, the weaker is the negative association between his or her perception of classical leadership style and employee engagement. Thus, Hypothesis 4.2 concerning classical leadership is supported.

Next, transactional leadership served as the independent variable with the high-need-for-clarity and low-need-for-clarity employee groups. The standardized parameter estimates for Hypothesis 4.2 concerning transactional leadership are shown with the high-need-for-clarity employee group in Figure 5.26, and with the low-need-for-clarity employee group in Figure 5.27. Table 5.23 gives the model fit summary for Hypothesis 4.2 concerning transactional leadership with both employee groups.

Table 5.23 Model fit summary for Hypothesis 4.2 concerning transactional leadership with both employee groups

Indices	Model fit summary	Good level of fit criteria
CMIN	754.363	
P	0.000	>0.05
CMIN/DF	2.743	<2
SRMR	0.0826	<0.08
GFI	0.825	>0.90
NFI	0.720	>0.90
TLI (NNFI)	0.777	>0.90
CFI	0.800	>0.95(or >0.90)
RMSEA	0.064	<0.05(or <0.08)

Figure 5.26 Standardized parameter estimates for Hypothesis 4.2 concerning transactional leadership with high-need-for-clarity employee group

Figure 5.27 Standardized parameter estimates for Hypothesis 4.2 concerning transactional leadership with low-need-for-clarity employee group
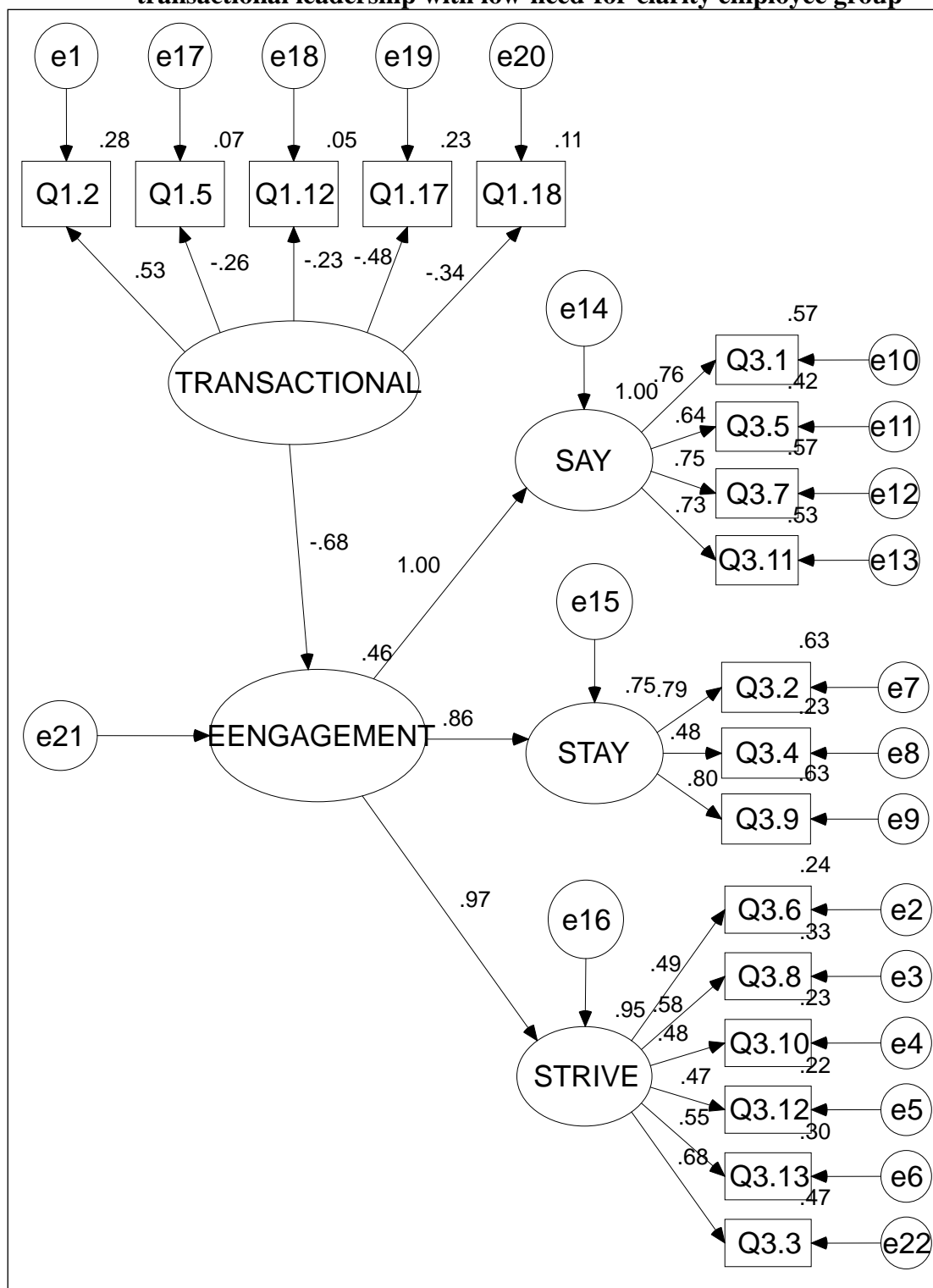
With the high-need-for-clarity employee group in Figure 5.26, the β value for transactional leadership is -0.37. With the low-need-for-clarity employee group in Figure 5.27, the β value

for transactional leadership is -0.68. As a full latent model, the model fit indices are acceptable.

The results showed that the higher an employee's need for clarity is, the weaker is the negative association between his or her perception of transactional leadership style and employee engagement. Thus, Hypothesis 4.2 concerning transactional leadership is supported.

H4.3 The higher an employee's need for clarity is, the weaker is the positive association between his or her perception of visionary or organic leadership styles and employee engagement.

In the first analysis for this hypothesis, visionary leadership served as the independent variable with the high-need-for-clarity and low-need-for-clarity employee groups. The standardized parameter estimates for Hypothesis 4.3 concerning visionary leadership are shown with the high-need-for-clarity employee group in Figure 5.28, and with the low-need-for-clarity employee group in Figure 5.29. Table 5.24 gives the model fit summary for Hypothesis 4.3 concerning visionary leadership with both employee groups.

Figure 5.28 Standardized parameter estimates for Hypothesis 4.3 concerning visionary leadership with high-need-for-clarity employee group
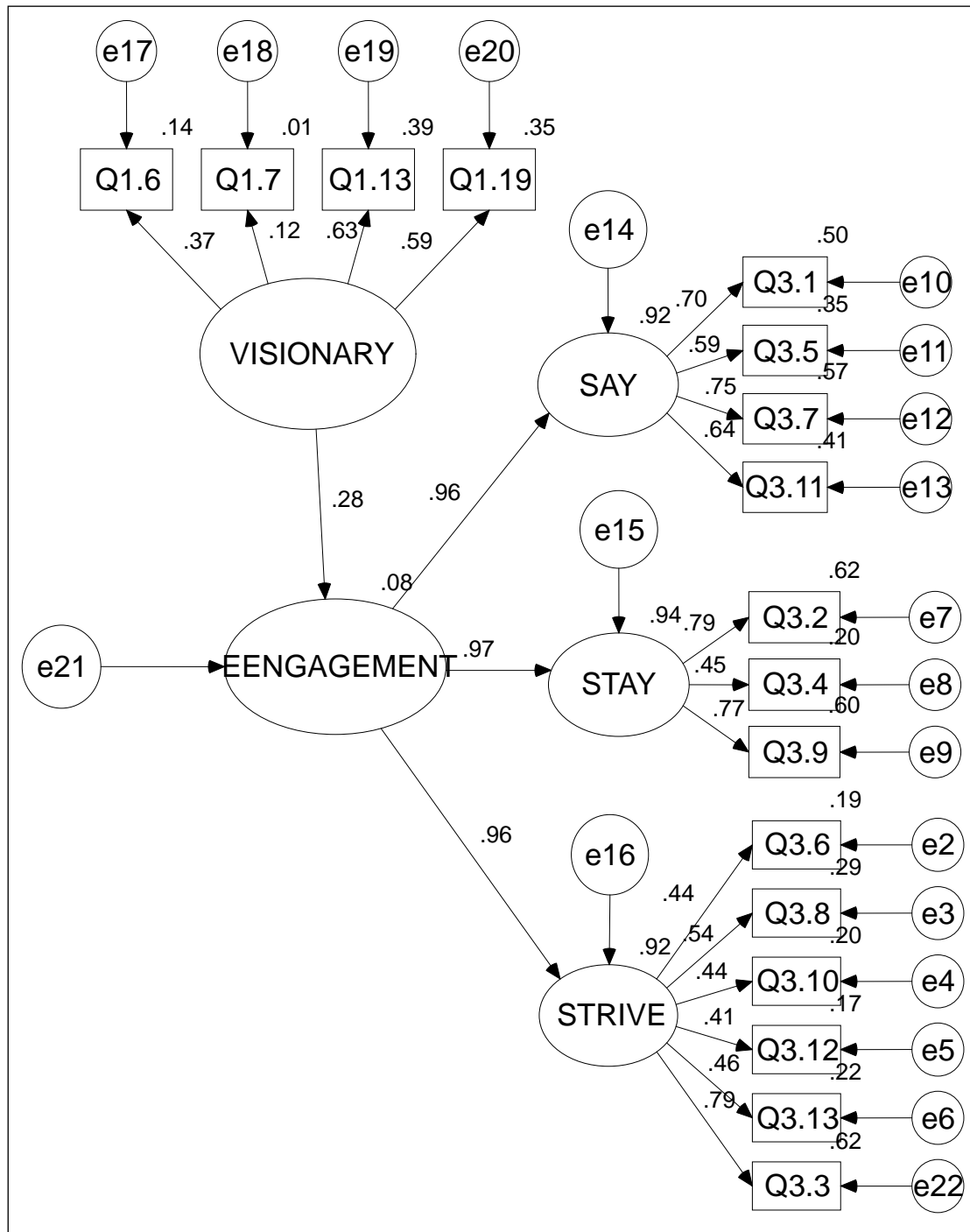
Figure 5.29 Standardized parameter estimates for Hypothesis 4.3 concerning visionary leadership with low-need-for-clarity employee group
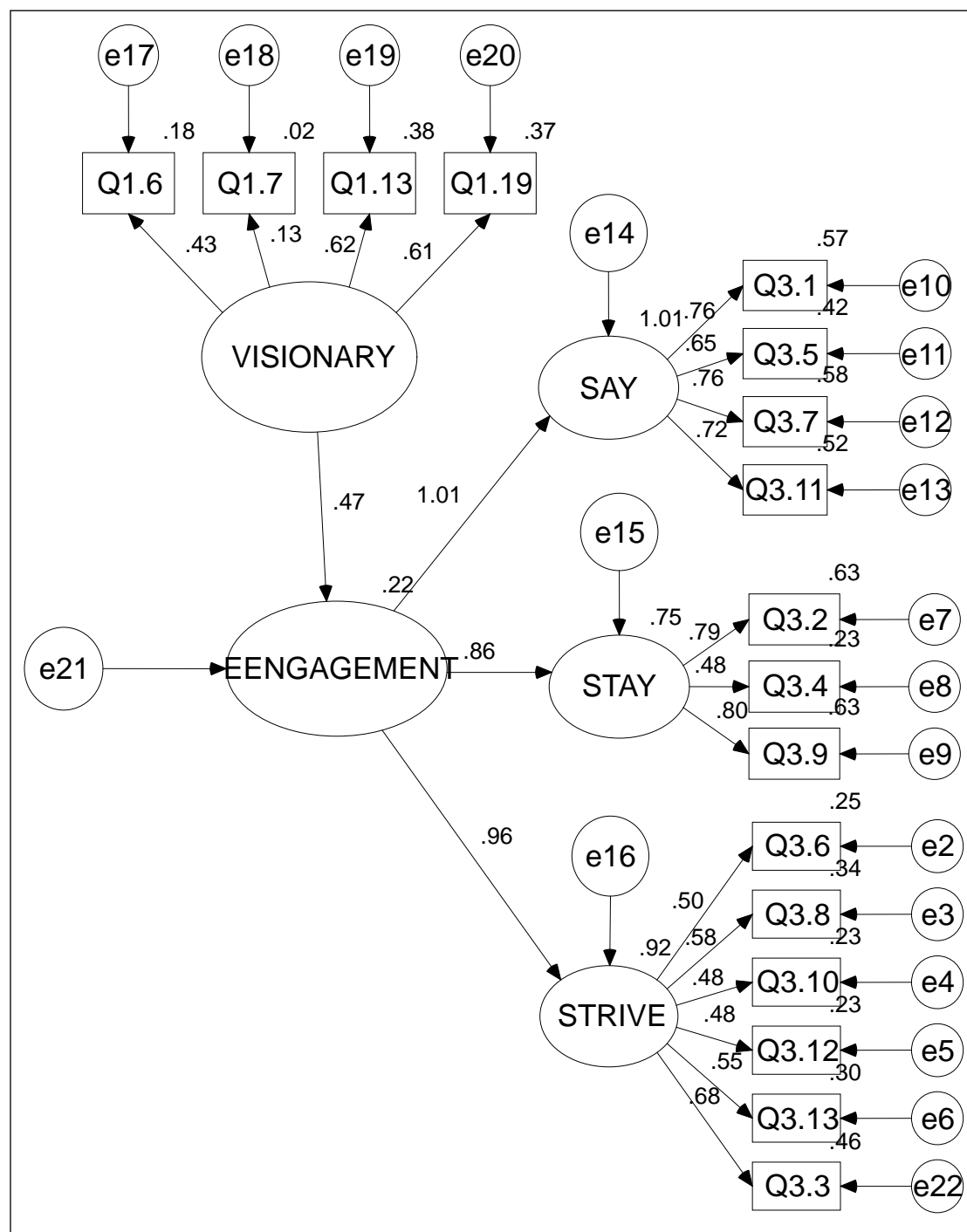
Table 5.24 Model fit summary for Hypothesis 4.3 concerning visionary leadership with both employee groups

Indices	Model fit summary	Good level of fit criteria
CMIN	644.447	
P	0.000	>0.05
CMIN/DF	2.663	<2
SRMR	0.0898	<0.08
GFI	0.839	>0.90
NFI	0.750	>0.90
TLI (NNFI)	0.804	>0.90
CFI	0.826	>0.95(or >0.90)
RMSEA	0.062	<0.05(or <0.08)

With the high-need-for-clarity employee group in Figure 5.28, the β value for visionary leadership is 0.28. With the low-need-for-clarity employee group in Figure 5.29, the β value for visionary leadership is 0.47. As a full latent model, the model fit indices are acceptable.

The results revealed that the higher an employee's need for clarity is, the weaker is the positive association between his or her perception of visionary leadership style and employee engagement. Thus, Hypothesis 4.3 concerning visionary leadership is supported.

Next, organic leadership served as the independent variable with the high-need-for-clarity and low-need-for-clarity employee groups. The standardized parameter estimates for Hypothesis 4.3 concerning organic leadership are shown with the high-need-for-clarity employee group in Figure 5.30, and with the low-need-for-clarity employee group in Figure 5.31. Table 5.25 gives the model fit summary for Hypothesis 4.3 concerning organic leadership with both employee groups.

Figure 5.30 Standardized parameter estimates for Hypothesis 4.3 concerning organic leadership with high-need-for-clarity employee group
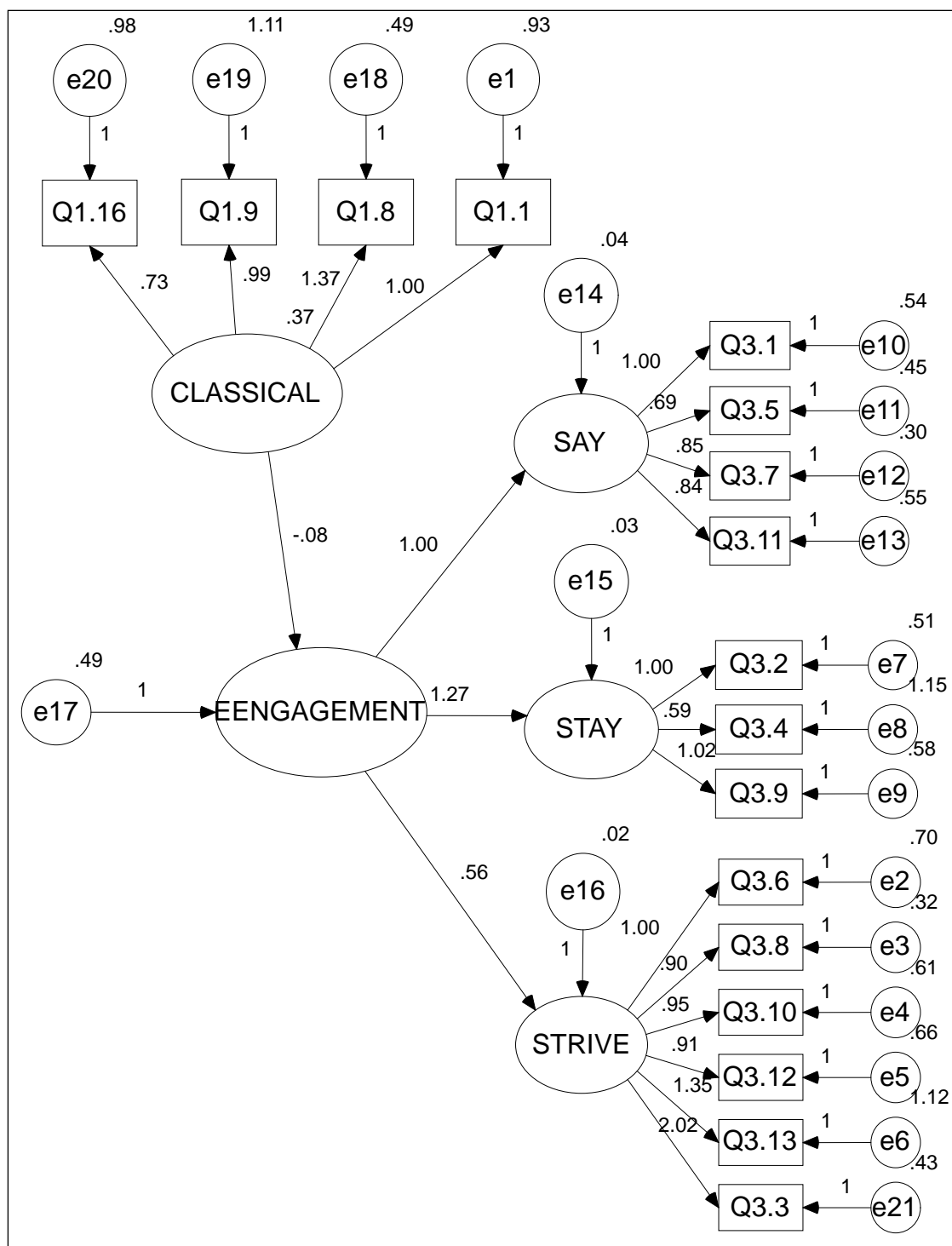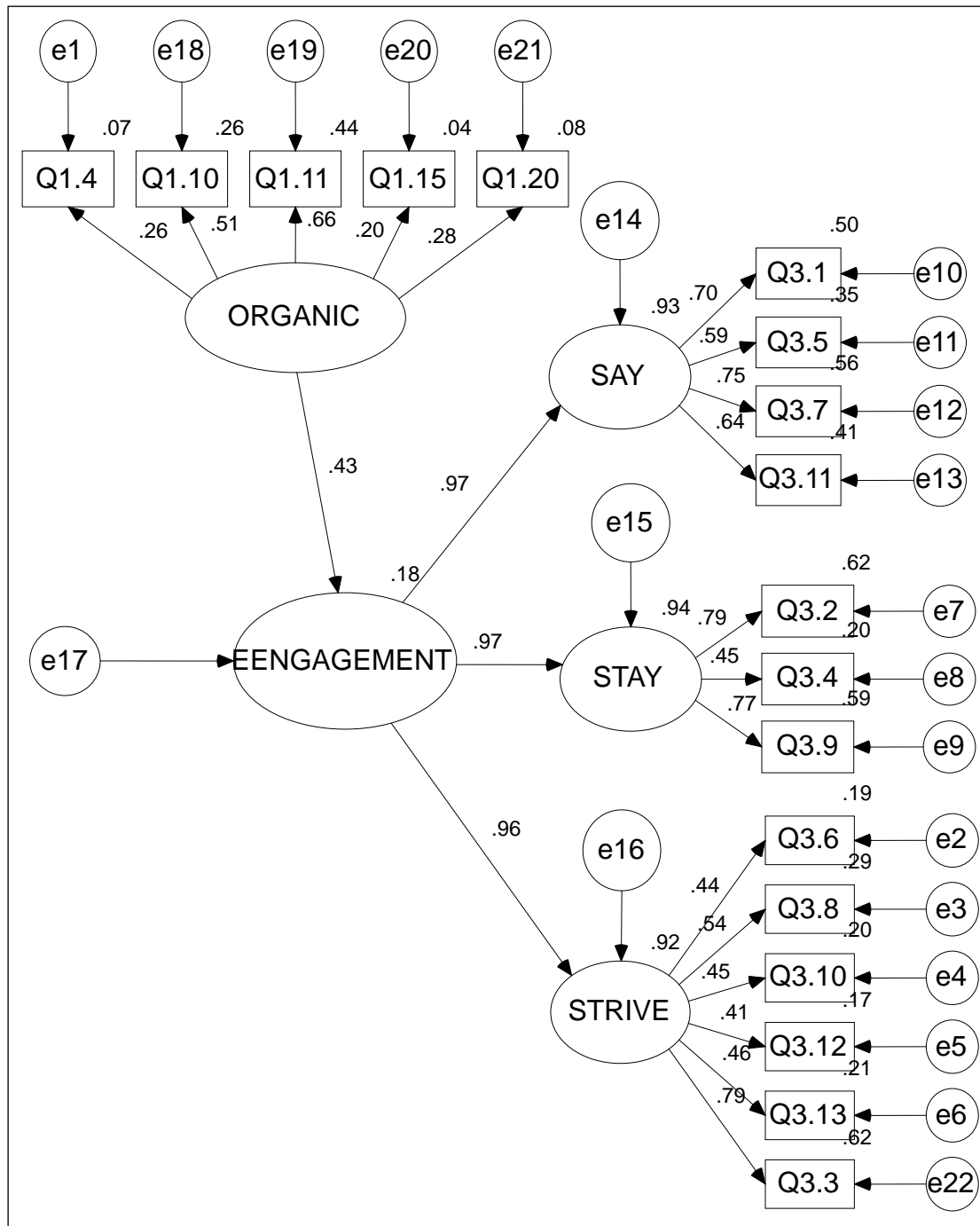
Figure 5.31 Standardized parameter estimates for Hypothesis 4.3 concerning organic leadership with low-need-for-clarity employee group
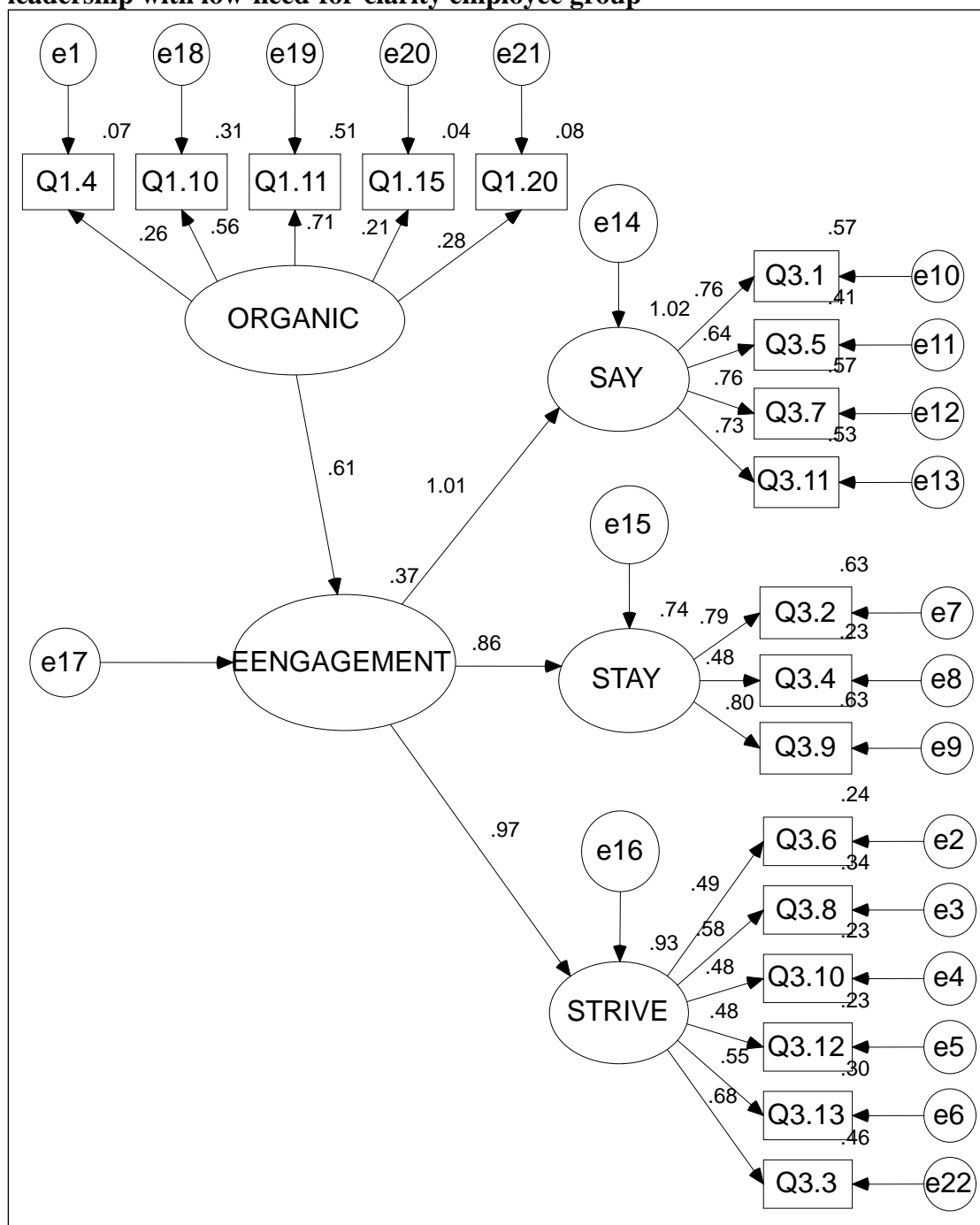
Table 5.25 Model fit summary for Hypothesis 4.3 concerning organic leadership with both employee groups

Indices	Model fit summary	Good level of fit criteria
CMIN	727.088	
P	0.000	>0.05
CMIN/DF	2.644	<2
SRMR	0.0806	<0.08
GFI	0.830	>0.90
NFI	0.731	>0.90
TLI (NNFI)	0.790	>0.90
CFI	0.811	>0.95(or >0.90)
RMSEA	0.062	<0.05(or <0.08)

With the high-need-for-clarity employee group in Figure 5.30, the β value for organic leadership is 0.43. With the low-need-for-clarity employee group in Figure 5.31, the β value for organic leadership is 0.61. As a full latent model, the model fit indices are acceptable.

The results suggested that the higher an employee's need for clarity is, the weaker is the positive association between his or her perception of organic leadership style and employee engagement. Thus, Hypothesis 4.3 concerning organic leadership is supported.

5.5 Hypothesis testing results summary

To conclude this chapter, the test results for the hypotheses are summarized in Table 5.26 and linked to research questions 2 and 3.

Table 5.26 Summary of hypothesis testing results

Research questions	Research hypotheses	Results
Research question 2: Is perceived leadership style associated with employee engagement?	**H1.1** Employee perception of a classical leadership style in his/her direct supervisor tends to be negatively associated with employee engagement.	Supported
	H1.2 Employee perception of a transactional leadership style in his/her direct supervisor tends to be negatively associated with employee engagement.	Supported
	H1.3 Employee perception of a visionary leadership style in his/her direct supervisor tends to be positively associated with employee engagement.	Supported
	H1.4 Employee perception of an organic leadership style in his/her direct supervisor tends to be positively associated with employee engagement.	Supported
Research question 3: Do employee characteristics moderate the relationship between perceived leadership styles and employee engagement?	**H2.1** An employee's need for achievement is positively associated with his or her employee engagement.	Supported
	H2.2 The higher an employee's need for achievement is, the weaker is the negative association between his or her perception of classical or transactional leadership styles and employee engagement.	Concerning classical leadership: Supported; Concerning transactional leadership: Supported
	H2.3 The higher an employee's need for achievement is, the stronger is the positive association between his or her perception of visionary or organic leadership styles and employee engagement.	Concerning visionary leadership: Not Supported[1]; Concerning organic leadership: Not Supported
	H3.1 An employee's equity sensitivity is negatively associated with his or her employee engagement.	Supported
	H3.2 The higher an employee's equity sensitivity is, the stronger is the negative association between his or her perception of classical or transactional leadership styles and employee engagement.	Concerning classical leadership: Not Supported; Concerning transactional leadership: Supported
	H3.3 The higher an employee's equity sensitivity is, the weaker is the positive association between his or her perception of visionary or organic leadership styles and employee engagement.	Concerning visionary leadership: Not Supported; Concerning organic leadership: Not Supported
	H4.1 An employee's need for clarity is independent of his or her employee engagement.	Rejected
	H4.2 The higher an employee's need for clarity is, the weaker is the negative association between his or her perception of classical or transactional leadership styles and employee engagement.	Concerning classical leadership: Supported; Concerning transactional leadership: Supported
	H4.3 The higher an employee's need for clarity is, the weaker is the positive association between his or her perception of visionary or organic leadership styles and employee engagement.	Concerning visionary leadership: Supported; Concerning organic leadership: Supported

---

[1] In this thesis, hypotheses that have been rejected by the empirical data, but can be logically justified indirectly by other supported hypotheses, are called 'not supported'.

CHAPTER 6

DISCUSSION AND CONCLUSIONS

6.1 Overview of Chapter 6

This chapter summarizes the entire study (Section 6.2), discusses the research findings and reaches conclusions (Section 6.3), presents the contributions to knowledge and managerial implications (Section 6.4), outlines the limitations to the thesis and provides recommendations for future studies (Section 6.5), and makes concluding remarks (Section 6.6). Figure 6.1 outlines the discussion in this chapter.

Figure 6.1 Discussion structure
(The sizes of the ovals are not material)
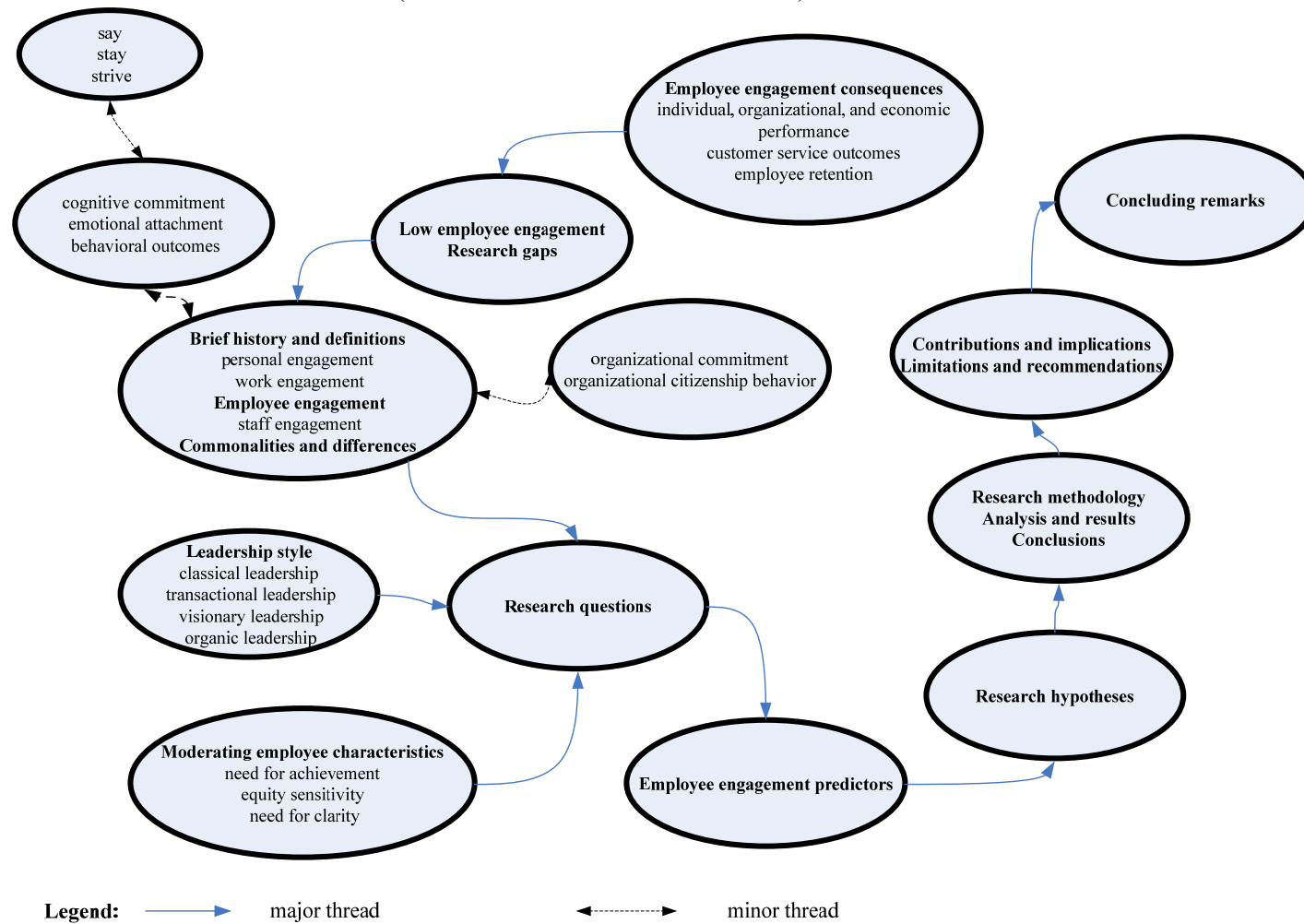
6.2 Summary of the study

Employee engagement is considered important to productive workplaces. The literature suggests that the impact of employee engagement is extensive and significant at the individual, organizational, and macro-economic levels (Luthans and Peterson, 2002; Gibbons, 2006; Ellis and Sorensen, 2007; 4-consulting and DTZ Consulting & Research, 2007; Gallup Consulting, 2007). Employee engagement has effects on individual, organizational, and economic performance; customer service outcomes; and employee retention.

However, studies of employee engagement have concluded that the overall percentage of engaged employees is typically very low, around 20 percent or less. Accordingly, Gallup estimated that disengaged employees cost US business $270–343 billion annually due largely to low productivity.

In addition, gaps in what is known about employee engagement and a lack of rigorous academic research have created definitional and methodological problems in employee engagement research. Independent academic research is needed to clarify this area. Therefore, further studying employee engagement has both academic and practical benefits to increase employee engagement levels. But, what is employee engagement? What are its relationships with other relevant concepts?

The history of academic research into 'engagement' can be traced back to Kahn (1990, p.694), who defined personal engagement (at work) as the 'harnessing of organizational members' selves to their work roles; in [personal] engagement, people employ and express themselves physically, cognitively, and emotionally during role performances'. Originating from personal engagement, Schaufeli et al. (2002, pp.74-75) introduced the notion of work engagement, defined as a 'positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption.' A better term for personal engagement and work engagement would be 'task engagement'.

Different from personal engagement and work engagement, employee engagement has received relatively little attention from academia, although it is a popular topic in business and in the management consulting industry (Saks, 2006; Bakker and Schaufeli, 2008; Watt and Piotrowski, 2008; Fine et al., 2010). Employee engagement has been defined in numerous ways (Furness, 2008; Hughes and Rog, 2008). The whole field of employee

engagement is fragmented, writers are not building upon each other's work, and there is no universally accepted definition of employee engagement.

In general, authors agree that employee engagement involves the interaction of three factors: cognitive commitment, emotional attachment, and behavioral outcomes that arise from an employee's connection with his or her organization (Frank et al., 2004; Gibbons, 2006; Towers Watson, 2009). Under the third factor, behavioral outcomes, three general behaviors arise in the literature: (1) say – the employee advocates for the organization to co-workers and others, and refers potential employees and clients; (2) stay – the employee has a strong desire to work in the organization, despite chances to work elsewhere; and (3) strive – the employee uses extra time, effort, and initiative for the organization when necessary (Looi et al., 2004; Baumruk et al., 2006; Heger, 2007). In the literature, the behavioral-outcome component of employee engagement has not been resolved, that is, whether all three behaviors are necessary or only some of them. This knowledge gap is addressed in this thesis, where employee engagement is defined as 'a heightened emotional and intellectual connection that an employee has for his/her job, organization, manager, or co-workers that, in turn, influences him/her to apply additional discretionary effort to his/her work' (Gibbons, 2006, p.5).

The concepts of personal engagement, work engagement, and employee engagement are inclined to be confused in the literature (Towers Perrin, 2003; CIPD, 2006b; Ellis and Sorensen, 2007; Attridge, 2009). Given that they all relate to the term 'engagement', it is unavoidable that they have some commonalities. For example, they share many common motivators, such as significance, pride, passion, desire to work, and positive attitude (Luthans and Peterson, 2002; Schaufeli et al., 2002; Towers Perrin, 2003; Looi et al., 2004; Robinson et al., 2004; Ellis and Sorensen, 2007; Towers Watson, 2009). However, there are at least three clear differences between work engagement and employee engagement: (1) Work engagement and employee engagement have different subjects; (2) Their physical expressions vary in scope. Work-engaged people physically express themselves by working hard at their task, while the possible behavioral expressions of engaged employees comprise say, stay, and strive (Looi et al., 2004; Baumruk et al., 2006; Heger, 2007); (3) Work engagement and employee engagement have distinct objects. Employee engagement primarily evolves from two precursors: organizational commitment and organizational citizenship behavior (Rafferty et al., 2005; 4-consulting and DTZ Consulting & Research,

2007; Richman et al., 2008) and covers their major meanings (Organ, 1988; Meyer and Allen, 1997). That is, employee engagement underlines 'belongingness and connectedness' to the workplace (Jones et al., 2008), while work engagement does not have this connotation, but centers on the task (Macey and Schneider, 2008; Martin et al., 2010). Like work engagement, personal engagement is also a task-related construct (Kahn, 1990; Macey and Schneider, 2008).

In addition, some authors have used staff engagement in place of employee engagement (Avery and Bergsteiner, 2010; Tinline and Crowe, 2010) while others have employed staff engagement to cover staff involvement (Scott et al., 2002; Kellerman, 2007). Following the majority, the term 'employee engagement' was adopted in this thesis.

Now that the concept of employee engagement has been clarified, how can it be improved? What are the antecedents of it? The literature suggests that leadership is one of the single biggest factors affecting employee perceptions in the workplace and workforce engagement (Wang and Walumbwa, 2007; Macey and Schneider, 2008). Particularly, Attridge (2009) asserted that leadership style, the relatively consistent pattern of behavior applying to leader-follower interactions, is critical for promoting employee engagement.

Researchers have suggested several diverse categories of leadership styles (Bass, 1985; Drath, 2001; Goleman et al., 2002; Avery, 2004). For example, Avery (2004) grouped leadership into four leadership styles – classical leadership, transactional leadership, visionary leadership, and organic leadership. Avery's (2004) styles integrate other approaches to provide a broad basis allowing for different forms of leadership that have evolved in different places and at different times. The styles are conducive to showing that there is no single best way of thinking about leadership; rather, different sorts of leadership reflect social and historical origins. Through including a full range of leadership styles, Avery's styles allow leadership to hinge on the context, respond to organizational requirements and preferences, and concern many interdependent elements that can be manipulated (Jing and Avery, 2008). Therefore, Avery's typology of four kinds of leadership styles is adopted in this thesis.

According to Avery (2004), classical leadership refers to dominance by an outstanding person or an 'elite' group of people who command(s) or maneuver(s) others to act towards a goal. The other members execute orders chiefly out of fear of the consequences of disobeying, or out of respect for the leader(s), or both.

Under transactional leadership, leaders and followers interact and negotiate agreements. Followers agree with, accept, or comply with the leader to expend the necessary effort to achieve anticipated levels of performance in exchange for financial rewards, recognition, and resources, or to avoid punishments (Bass et al., 2003; Avery, 2004).

Visionary (also known as transformational or charismatic) leaders work through a clear vision of the future, produce a road map for the journey ahead, and motivate followers to perform and attain goals beyond normal expectations. Visionary leadership involves the emotional commitment of followers within the organization (Bass, 1985; Kantabutra, 2003; Avery, 2004).

According to Pearce and Conger (2003, p.1), organic leadership is 'a dynamic, interactive influence process among individuals in groups for which the objective is to lead one another to the achievement of group or organizational goals or both. This influence process often involves peer, or lateral, influence and at other times involves upward or downward hierarchical influence'.

Despite the potential vital link between leadership styles and employee engagement, there have been few published studies on their relationship. This field would benefit from empirical research into what kind of leadership style can bring more employee engagement. Moreover, the relationship may be affected by many elements: organizational characteristics, employee characteristics, and job characteristics (Corporate Leadership Council, 2004; 4-consulting and DTZ Consulting & Research, 2007). Particularly, both theoretical and empirical works underscore the crucial moderating part that employee characteristics may play in the relationship between leadership styles and employee engagement.

Furthermore, it has become important to incorporate followers into leadership models so as to advance our understanding of the leadership process (De Vries et al., 1999; Howell and Shamir, 2005). Examining how follower characteristics might influence behaviors and attitudes in response to particular types of leadership is an essential next step for follower research (Ehrhart and Klein, 2001; Benjamin and Flynn, 2006). This indicates a more systemic or interactive view of leadership.

Therefore, three constructs were selected as moderator variables for this thesis: need for achievement, equity sensitivity, and need for clarity. Specifically, need for achievement is defined as the desire or tendency to do things as quickly and/or as well as possible, to exceed

one's self, to compete with and surpass others, and to increase self-esteem by the successful exercise of talent. Equity sensitivity is based on the notion that people react in consistent but individually different ways to both perceived equity and inequity as they have varying preferences for (i.e., are differentially sensitive to) equity. Need for clarity refers to the degree to which a follower feels the need to know what is expected of him or her and how he or she is expected to do his or her job.

The three moderating constructs share four characteristics: first, these are all well-established and operationalized constructs in the literature, having respectable measuring scales. Second, although the constructs are well established, the literature has research gaps about the moderating effects of all three constructs. On the one hand, the literature suggests that they are possible moderating variables. On the other hand, research findings about them are inconclusive and require further study. Third, the likely moderating roles of these constructs are typical of current thinking about moderating variables (Sharma et al., 1981; Howell et al., 1986). All three variables cover the important types of moderating variables. That is, need for achievement and equity sensitivity are possible quasi moderators and enhancers. Need for clarity is a potential pure moderator and neutralizer. Fourth, for practical reasons, this thesis had to limit its scope and focus. Thus, this thesis centers on the above three moderator variables, leaving other variables for future research.

In summary, employee engagement and leadership are becoming increasingly essential in order for organizations to gain and sustain competitive advantage in today's globalizing world (Hughes and Rog, 2008; Macey and Schneider, 2008). However, little research has investigated the relationship between perceived leadership styles and employee engagement, while considering employee characteristics. This thesis addresses a major research gap in the literature. So far, three main research questions can be proposed: (1) What are the behavioral-outcome factors in the construct of employee engagement?; (2) Is perceived leadership style associated with employee engagement?; (3) Do employee characteristics moderate the relationship between perceived leadership styles and employee engagement?

Empirically testing the relationship between employee engagement and leadership styles or moderator variables is breaking new ground. The shortage of previous studies makes it necessary to introduce employee engagement predictors in developing research hypotheses. The employee engagement literature has no universally agreed set of employee engagement predictors. In this thesis, eight commonly cited factors have been derived from the wide

literature as positive predictors for employee engagement, i.e., expansive communication, trust and integrity, rich and involving job, effective and supportive direct supervisors, career advancement opportunities, contribution to organizational success, pride in the organization, and supportive colleagues/team members.

In developing the hypotheses about the relationship between leadership styles and employee engagement, the relationship between characteristics of a certain leadership style and employee engagement predictors and the 'connection' and 'additional discretionary effort' elements of employee engagement (Gibbons, 2006; Section 2.4) was tested. When developing the hypotheses about the relationship between moderator variables and employee engagement, the relationship between characteristics of a moderating variable and the predictors and the 'connection' and 'additional discretionary effort' elements of employee engagement was examined.

Based on all the above discussion, 13 research hypotheses were generated, as presented in Table 2.7. To test these hypotheses, this thesis chose a combination of face-to-face and mail survey methodology. Using mostly availability (convenience) sampling, 439 sales assistants working in retail stores in eight shopping malls across Sydney were taken as the sample representing the population of Australian sales assistants.

Factor analysis for the 11 latent variables, and their reliability and validity test, were performed. Using Independent t-test and One-way ANOVA, the group mean differences in employee engagement were examined. The main research hypotheses were tested using structural regression models and multi-group structural regression models for moderating effects in Amos 17.0. The test results are summarized in Table 5.26. These tests laid an empirical foundation for the 15 conclusions reached in this thesis, as discussed next.

6.3 Conclusions and inconclusive finding from this research

This section discusses the 15 conclusions drawn from this thesis and the inconclusive rejected Hypothesis 4.1 sequentially. To better link back to the research questions of this thesis, relevant research questions are reiterated.

6.3.1 Conclusions from this research

Research question 1: What are the behavioral-outcome factors in the construct of employee engagement?

Conclusion 1: The behavioral-outcome factors in the construct of employee engagement consist of say, stay, and strive.

As discussed in Section 4.6, the higher-order factor analysis of employee engagement had acceptable model fit indices. The findings also indicate the construct of employee engagement had very good reliability and validity. These results revealed that the behavioral-outcome factors in the construct of employee engagement embrace say, stay, and strive, consistent with Looi et al. (2004), Baumruk et al. (2006), and Heger (2007). Therefore, Conclusion 1 can be drawn.

Research question 2: Is perceived leadership style associated with employee engagement?

Conclusion 2: Employee perception of a classical leadership style in his/her direct supervisor tends to be negatively associated with employee engagement.

The characteristics of classical leadership overlap with 'limited communication', low 'trust and integrity', 'boring job', low supportive direct supervisors, low 'career advancement opportunities', low 'contribution to organizational success', and low 'supportive colleagues/team members', which all predict low employee engagement. This led to the development of Hypothesis 1.1 (Section 2.6.3), which was supported by the empirical data (Section 5.5). This is consistent with Jing (2009) who found that higher staff turnover (opposite to 'stay') is associated with classical leadership. Therefore, Conclusion 2 can be reached. That is, classical leadership has a negative impact on employee engagement.

Conclusion 3: Employee perception of a transactional leadership style in his/her direct supervisor tends to be negatively associated with employee engagement.

Engaged employees apply extra discretionary effort to their work (Gibbons, 2006). Nevertheless, transactional leaders tend to do little more than build confidence in followers to

make the necessary effort to achieve anticipated levels of performance. A limitation of this leadership style is that it provides little encouragement to exceed and achieve performance beyond the transactional contract (Bass and Avolio, 1990; Spinelli, 2006). This means that the element of employee engagement (additional discretionary effort) and characteristics of transactional leadership conflict. Furthermore, the characteristics of transactional leadership also overlap with 'limited communication', low 'trust and integrity', 'boring job', low supportive direct supervisors, low 'career advancement opportunities', low 'contribution to organizational success', and low 'supportive colleagues/team members', which all predict low employee engagement (Table 2.6). These provided the foundation for Hypothesis 1.2, which was supported by the empirical data (Section 5.5). This is consistent with others' findings. For example, As-Sadeq and Khoury (2006) found that under transactional leadership, employees' extra effort (strive), effectiveness, and satisfaction were very low. Parry and Sinha (2005) identified that as a result of leadership training, the extra effort of followers increased, along with a reduction in the display of passive transactional leadership behavior. Studies also showed that transactional leadership results in an increase in turnover intentions (Morhart, Herzog, and Tomczak, 2009) and a decrease in employee retention (stay) (Kleinman, 2004; Jing, 2009). Thus, Conclusion 3 can be drawn, namely that transactional leadership has a negative impact on employee engagement.

Conclusion 4: Employee perception of a visionary leadership style in his/her direct supervisor tends to be positively associated with employee engagement.

As discussed in Section 2.6.3, previous research has established a positive association between visionary leadership and the 'connection' (Kark and Shamir, 2002; Bass et al., 2003; Walumbwa and Lawler, 2003; Epitropaki and Martin, 2005; Liao and Chuang, 2007) or 'additional discretionary effort' (Bass, 1985, 1990; Steane et al., 2003; Epitropaki and Martin, 2005; Huang et al., 2005; Sosik, 2005; Purvanova et al., 2006), which are the two elements of employee engagement. Visionary leaders also bring a decrease in turnover intentions (opposite to 'stay') (Jing, 2009; Morhart et al., 2009). Moreover, the characteristics of visionary leadership overlap with 'expansive communication', high 'trust and integrity', 'rich and involving job', highly 'effective and supportive direct supervisors', high 'career advancement opportunities', high 'contribution to organizational success', high 'pride in the organization', and highly 'supportive colleagues/team members', which all predict high

employee engagement (Table 2.6). These lead to the development of Hypothesis 1.3, which was supported by the empirical data (Section 5.5). Therefore, Conclusion 4 can be drawn. In other words, visionary leadership has a positive effect on employee engagement (Zhu, Avolio, and Walumbwa, 2009).

Conclusion 5: Employee perception of an organic leadership style in his/her direct supervisor tends to be positively associated with employee engagement.

The characteristics of organic leadership overlap with 'expansive communication', high 'trust and integrity', 'rich and involving job', high 'career advancement opportunities', high 'contribution to organizational success', high 'pride in the organization', and highly 'supportive colleagues/team members', all of which predict high employee engagement. This leads to the development of Hypothesis 1.4 (Section 2.6.3), which was supported by the empirical data (Section 5.5). Furthermore, Jing (2009) revealed that lower staff turnover (opposite to 'stay') is associated with organic leadership. Therefore, Conclusion 5 can be reached, that is, organic leadership has a positive influence upon employee engagement.

Research question 3: Do employee characteristics moderate the relationship between perceived leadership styles and employee engagement?

Conclusion 6: An employee's need for achievement is positively associated with his or her employee engagement.

McGee (2006) revealed that need for achievement is one of six characteristics predicting the likelihood of individuals becoming engaged employees. Rasch and Harrell (1989, 1990) found that employees high in need for achievement are likely to experience less work stress, greater job satisfaction, and lower rates of voluntary turnover (opposite to 'stay') than their contemporaries. However, Hines (1973) revealed that need for achievement is positively associated with turnover rates among engineers, accountants, and middle managers, but negatively associated among self-employed entrepreneurs. Research findings about the relationship between need for achievement and 'stay' are inconclusive.

As discussed in Section 2.6.3, achievement-motivated people have the desire or tendency to do things as rapidly and/or as well as possible, to excel one's self, and to rival and surpass others. They tend to be preoccupied with a task once they start working on it (McClelland et al., 1953; McClelland, 1961, 1966, 1985, 1987, 1990). Thus, employees high in need for achievement may be more likely to develop a strong relationship with their organization and engage in behaviors that are beyond their task and role requirements (Neuman and Kickul, 1998). These correspond to the 'connection' and 'additional discretionary effort' elements of employee engagement (Gibbons, 2006). That is, the characteristics of the need for achievement and the elements of employee engagement are compatible, thus leading to Hypothesis 2.1, which was supported by the empirical data, as discussed in Section 5.5. Thus, Conclusion 6 can be drawn, namely that need for achievement has a positive effect on employee engagement.

Conclusion 7: The higher an employee's need for achievement is, the weaker is the negative association between his or her perception of classical or transactional leadership styles and employee engagement.

As discussed in Section 2.6.3, the acceptance of Hypotheses 1.1, 1.2, and 2.1 proceeded logically to generating Hypothesis 2.2. Although classical or transactional leadership do not provide favorable ambiences for employees high in need for achievement, the negative interactions between classical or transactional leadership and need for achievement are inclined to be insufficient to counteract the positive effect of need for achievement on employee engagement. Furthermore, Hypothesis 2.2 was supported by the empirical data, as discussed in Section 5.5. Therefore, Conclusion 7 can be drawn. In other words, the positive influence of need for achievement upon employee engagement offsets some negative impacts of classical or transactional leadership on employee engagement.

Conclusion 8: The higher an employee's need for achievement is, the stronger is the positive association between his or her perception of visionary or organic leadership styles and employee engagement.

As discussed in Section 2.6.3, the acceptance of Hypotheses 1.3, 1.4, and 2.1 led logically to Hypothesis 2.3. Moreover, individuals high in need for achievement typically seek out challenging jobs, like to assume personal responsibility for problem solutions, and prefer situations where they receive clear feedback on task performance. They are likely to react more positively to conditions of high task autonomy (Zhou, 1998). Visionary or organic leadership can provide such environments. The interactions between visionary or organic leadership styles and need for achievement further reinforce Hypothesis 2.3.

However, as discussed in Section 5.5, Hypothesis 2.3 concerning both visionary leadership and organic leadership was not supported by the empirical data. One possible explanation for this finding is that visionary or organic leadership and need for achievement are both positively associated with employee engagement, and the effect of need for achievement on employee engagement was masked by the effects of visionary or organic leadership.

Nevertheless, as discussed above in Conclusions 4, 5, and 6, Hypotheses 1.3, 1.4, and 2.1 were supported by the empirical data, and so Hypothesis 2.3 can be justified indirectly. Thus, Conclusion 8 can be reached. That is, the positive influence of need for achievement upon employee engagement strengthens the positive effects of visionary or organic leadership on employee engagement.

Conclusion 9: An employee's equity sensitivity is negatively associated with his or her employee engagement.

As discussed in Section 2.6.3, employees low in equity sensitivity (Benevolents) may be more likely to develop a good relationship with their organization and engage in behaviors that are beyond their task and role requirements (Miles et al., 1989; Akan et al., 2009). These correspond to the two elements of employee engagement: the 'connection' and 'additional discretionary effort'. In other words, equity sensitivity and the elements of employee engagement are negatively associated, leading to Hypothesis 3.1, which was supported by the empirical data, as discussed in Section 5.5. Moreover, equity sensitivity has been found to correlate positively with turnover intention (opposite to 'stay') (King and Miles, 1994; DeConinck and Bachmann, 2007). Therefore, Conclusion 9 can be drawn, namely that equity sensitivity has a negative impact on employee engagement.

Conclusion 10: The higher an employee's equity sensitivity is, the stronger is the negative association between his or her perception of classical or transactional leadership styles and employee engagement.

As discussed in Section 2.6.3, the acceptance of Hypotheses 1.1, 1.2, and 3.1 led logically to developing Hypothesis 3.2. However, as discussed in Section 5.5, although Hypothesis 3.2 concerning transactional leadership was supported by the empirical data, Hypothesis 3.2 concerning classical leadership was not. One possible explanation for this finding is that classical leadership and equity sensitivity are both negatively associated with employee engagement, and therefore the effect of equity sensitivity on employee engagement was masked by the effect of classical leadership.

Nevertheless, as discussed above in Conclusions 2 and 9, Hypotheses 1.1 and 3.1 were supported by the empirical data, and so Hypothesis 3.2 concerning classical leadership can be justified indirectly. Thus, Conclusion 10 can be reached. In other words, the negative influence of equity sensitivity upon employee engagement strengthens the negative effects of classical or transactional leadership on employee engagement.

Conclusion 11: The higher an employee's equity sensitivity is, the weaker is the positive association between his or her perception of visionary or organic leadership styles and employee engagement.

As discussed in Section 2.6.3, the acceptance of Hypotheses 1.3, 1.4, and 3.1 led logically to Hypothesis 3.3. Furthermore, Benevolents are interested in investing positive contributions to establish a long-term relationship with the organization. They place greater emphasis on intrinsic outcomes (e.g., autonomy, growth). A visionary or organic leadership style suits them. The interactions between visionary or organic leadership styles and equity sensitivity further reinforce Hypothesis 3.3.

However, as presented in Section 5.5, the empirical data did not support Hypothesis 3.3 concerning both visionary leadership and organic leadership, possibly because the effect of equity sensitivity on employee engagement was masked. Nevertheless, as discussed above in Conclusions 4, 5, and 9, the empirical data supported Hypotheses 1.3, 1.4, and 3.1 and so Hypothesis 3.3 can be justified indirectly. Therefore, Conclusion 11 can be reached. That is,

the negative impact of equity sensitivity upon employee engagement counteracts some positive effects of visionary or organic leadership on employee engagement.

Conclusion 12: The higher an employee's need for clarity is, the weaker is the negative association between his or her perception of classical or transactional leadership styles and employee engagement.

Lyons (1971) found that need for clarity moderates the correlations of role clarity with voluntary turnover (opposite to 'stay'), propensity to leave, and work satisfaction, which were nonsignificant for nurses low in need for clarity but were significantly higher for nurses with a high need for clarity.

As discussed in Section 2.6.3, classical leadership operates successfully when leaders and followers accept the right or duty of the leader(s) to dictate to the population. Having others make decisions, give directions, and take responsibility has the advantage of freeing followers from these activities (Avery, 2004). By clarifying the requirements of followers and the consequences of their behaviors, transactional leaders can build confidence in followers to exert the necessary effort to achieve expected levels of performance. Classical and transactional leadership styles reduce the ambiguity experienced by subordinates by clarifying their goals and how they should go about attaining them. These two leadership styles are suitable for individuals with a high need for clarity. Hypotheses 1.1 and 1.2 and the interactions between classical or transactional leadership styles and need for clarity led logically to Hypothesis 4.2, which was supported by the empirical data. Therefore, Conclusion 12 can be drawn. In other words, the positive interactions between classical or transactional leadership and need for clarity offset some negative impacts of classical or transactional leadership on employee engagement.

Conclusion 13: The higher an employee's need for clarity is, the weaker is the positive association between his or her perception of visionary or organic leadership styles and employee engagement.

Visionary leadership is not necessarily a synonym for good leadership (Westley and Mintzberg, 1989), and effective leaders do not have to be visionary (Collins, 2001). This paves the way for alternative styles of leadership (Avery, 2004). Kanter (1989) underscored the downside of autonomy, freedom, discretion, and authorization, which is loss of control and greatly increased uncertainty.

As discussed in Section 2.6.3, visionary leaders set challenging aims, provide intellectual stimulation, and demand preparedness for change and development from their subordinates. Followers of visionary leaders need to work autonomously towards a shared vision. However, people high in need for clarity try to avoid ambiguity, and prefer clearly structured situations and tasks. It follows, therefore, that need for clarity should be incompatible with visionary leadership. Organic leadership can also be distressing for followers seeking certainty and predictability (Collins and Porras, 1994). These arguments, together with Hypotheses 1.3 and 1.4, led to Hypothesis 4.3, which was supported by the empirical data. Therefore, Conclusion 13 can be reached. That is, the negative interactions between visionary or organic leadership and need for clarity counter some positive influences of visionary or organic leadership on employee engagement.

Conclusion 14: There are differences in employee engagement among sales assistants in the age groups of under 25 years, 25–34 years, and 35 years or more.

Regarding age, the results showed differences in employee engagement among sales assistants in the age groups of under 25 years, 25–34 years, 35 years or more. Means increase with age. In other words, older sales assistants are more engaged. These findings are consistent with those of CIPD (2006b) but not of Robinson et al. (2004). Further group difference assessment showed significant differences in strive ($p=0.001$) and stay ($p=0.012$), but not in say ($p=0.276$). However, whether age has an association with stay is also inconclusive. Some previous studies indicated a link between age and stay (Werbel and Bedeian, 1989); others suggested not (Healy, Lehman, and Mcdaniel, 1995; Finegold, Mohrman, and Spreitzer, 2002). Possible rationales for this finding are that older employees have more of a long-term career focus whereas for the young, the job may be just a way to pay for university; and there are generational differences in attitudes to work in Australia,

especially to staying with a single employer (McCrindle, 2006). Therefore, Conclusion 14 can be reached. Employee engagement levels increase with age.

Conclusion 15: There are differences in employee engagement among full-time, part-time, and casual sales assistants.

This thesis has shown that employee engagement levels decrease from full-time, part-time to casual sales assistants. Other studies made similar findings (4-consulting and DTZ Consulting & Research, 2007; Avery et al., 2007) and concluded that full-timers are significantly more engaged than part timers. One possible explanation for this finding is that part-time and casual employees have lower job involvement and so may be less engaged than full-time employees (Thorsteinson, 2003; Avery et al., 2007). Thus, Conclusion 15 can be drawn. Employee engagement levels fall from full-time, part-time to casual sales assistants.

However, no significant differences in employee engagement were found among four categories: (1) Gender, (2) Organizational (Employee) tenure, (3) Duration of the leader-follower relationship, and (4) Company size. Research findings about the effects of these demographic factors on employee engagement are also inconclusive (Section 3.2.1). Generally, demographic variables should not be seen in isolation as predictors of employee engagement (4-consulting and DTZ Consulting & Research, 2007). Good management practice and a beneficial working environment could bring high levels of engagement and performance among all groups of employees (CIPD, 2006b).

Table 6.1 summarizes the conclusions discussed above. The inconclusive research finding is discussed in the next section.

Table 6.1 Summary of conclusions

No.	Conclusions
1	The behavioral-outcome factors in the construct of employee engagement consist of say, stay, and strive.
2	Employee perception of a classical leadership style in his/her direct supervisor tends to be negatively associated with employee engagement.
3	Employee perception of a transactional leadership style in his/her direct supervisor tends to be negatively associated with employee engagement.
4	Employee perception of a visionary leadership style in his/her direct supervisor tends to be positively associated with employee engagement.
5	Employee perception of an organic leadership style in his/her direct supervisor tends to be positively associated with employee engagement.
6	An employee's need for achievement is positively associated with his or her employee engagement.
7	The higher an employee's need for achievement is, the weaker is the negative association between his or her perception of classical or transactional leadership styles and employee engagement.
8	The higher an employee's need for achievement is, the stronger is the positive association between his or her perception of visionary or organic leadership styles and employee engagement.
9	An employee's equity sensitivity is negatively associated with his or her employee engagement.
10	The higher an employee's equity sensitivity is, the stronger is the negative association between his or her perception of classical or transactional leadership styles and employee engagement.
11	The higher an employee's equity sensitivity is, the weaker is the positive association between his or her perception of visionary or organic leadership styles and employee engagement.
12	The higher an employee's need for clarity is, the weaker is the negative association between his or her perception of classical or transactional leadership styles and employee engagement.
13	The higher an employee's need for clarity is, the weaker is the positive association between his or her perception of visionary or organic leadership styles and employee engagement.
14	There are differences in employee engagement among sales assistants in the age groups of under 25 years, 25–34 years, and 35 years or more.
15	There are differences in employee engagement among full-time, part-time, and casual sales assistants.

6.3.2 Inconclusive research finding

This section discusses the rejected hypothesis, Hypothesis 4.1, that an employee's need for clarity is independent of his or her employee engagement.

As discussed in Section 2.6.3, need for clarity is independent of the two elements of employee engagement, the 'connection' and 'additional discretionary effort'. Need for clarity has no apparent overlap with any of the predictors of employee engagement either. So, Hypothesis 4.1 was developed.

However, as presented in Section 5.5, the empirical data rejected Hypothesis 4.1. As shown in Section 5.3, the β value between need for clarity and employee engagement in the structural

regression model is 0.22. The theoretical rationale and empirical data are apparently conflicting. Because this thesis is exploratory research, and the first to examine the relationship between need for clarity and employee engagement, no theoretical explanation for the positive association between these factors can be proposed. In the absence of leadership styles, such a link would be difficult, if not impossible, to establish. As indicated in Figure 4.1, need for clarity is not normally distributed (positively skewed) in this study, so that the test result may not reflect the association between need for clarity and employee engagement. This fact could provide some empirical explanation for the conflict between the theoretical rationale and empirical data. Thus the relationship between the need for clarity and employee engagement needs to be re-examined in future research and no conclusion can be drawn about it at present.

6.4 Contributions and implications

The research findings of this thesis make an important contribution to both the body of knowledge and managerial practice in the fields of leadership, followership, employee engagement, and their relationships, as discussed below.

6.4.1 Contributions to knowledge

This thesis makes three main contributions to knowledge.

Contribution 1: By developing a new employee engagement scale with good reliability and validity, this thesis verifies the behavioral-outcome factors in the construct of employee engagement.

As discussed in Section 2.4, the behavioral-outcome factors in the construct of employee engagement have not yet been addressed, leaving a huge conceptual gap in the employee engagement literature. The newly developed employee-engagement scale (Section 3.4.3.3) was tested using collected data (Chapter 4) and showed good reliability and validity. This thesis confirms that the behavioral-outcome components of the employee engagement construct consist of say, stay, and strive.

Contribution 2: This thesis is one of the first few empirical studies indicating that perceived leadership styles have an association with employee engagement.

As discussed in Section 1.2.2, leadership has been suggested as one of the single largest elements contributing to employee perceptions in the workplace and workforce engagement (Wang and Walumbwa, 2007; Macey and Schneider, 2008). In particular, Attridge (2009) asserted that leadership style is crucial for encouraging employee engagement. However, little research has investigated the relationship between leadership styles and employee engagement.

This thesis addresses this gap in the literature by investigating the relationship between perceived leadership styles and employee engagement. Moreover, this thesis expands the range of tested leadership styles beyond the conventional transactional and transformational (or visionary) styles, to include classical and organic leadership, thereby representing a real full range of leadership styles.

This thesis provides evidence that visionary or organic leadership may positively affect employee engagement, whereas classical or transactional leadership have a negative impact on employee engagement.

Contribution 3: Providing empirical support for some leadership and followership theories, this thesis demonstrates that employee characteristics moderate the relationship between perceived leadership styles and employee engagement.

Contingency theories, such as path-goal theory (House, 1971), Least Preferred Coworker (LPC) contingency theory (Fiedler, 1967), leadership substitute theory (Kerr and Jermier, 1978), normative decision theory (Vroom and Yetton, 1973), and multiple linkage model (Yukl, 1981), suggest that leader effectiveness depends on leaders as well as situational characteristics, such as the characteristics of the task, the followers, and the environment. That is, followers' characteristics and aspects of the situation moderate the effectiveness of leader behaviors (Mathieu, 1990; Turner and Müller, 2005).

Although followers' role in the leadership situation is very important, it has been considered far too little (Follett, 1949; Dixon and Westbrook, 2003; Kellerman, 2008). Preoccupation

with leadership hinders considering the nature and significance of the follower and the interrelationship and interdependence required between leaders and followers (Vecchio, 2002; Dixon and Westbrook, 2003; Collinson, 2006). Studies have typically concentrated on leaders as if they were entirely separate from those they lead, while followers have tended to be regarded as an undifferentiated mass or collective (Collinson, 2006). Far too often gifted and talented 'followers' are labeled as passive, lacking the right stuff, or worse, as inferior or lacking ambition and drive (Frisina, 2005).

Leadership authors have maintained that it is critical to incorporate followers' individual differences into leadership models in order to deepen our understanding of the leadership process (De Vries et al., 1999; Shin and Zhou, 2003; Howell and Shamir, 2005). By considering three employee characteristics, that is, need for achievement, equity sensitivity, and need for clarity, when studying the relationship between perceived leadership styles and employee engagement, this thesis provides empirical support for the following two aspects of leadership and followership theories: (1) Followers have a very active role to play (Follett, 1949) (Conclusions 6 and 9); and (2) There are interactions between leaders and followers (Conclusions 8, 11, 12, and 13).

According to individualized leadership theory (Dansereau et al., 1995), different followers respond to the same leadership style differently, depending on how they regard their leader. Leadership is not vested in characteristics of leaders, but is often attributed to them by followers (Lord and Maher, 1991; Meindl, 1998). Liao and Chuang (2007) also concluded that employees' attitudes are determined by their different perceptions and cognitive categorizations of leadership behaviors. Effective leadership needs alignment between both leaders' and followers' ideas about leadership (Drath, 2001).

So far, a general principle has emerged from the overall findings of this thesis. That is, followers not only follow, they have an active role to play, and it is the dynamic between leader and followers that is critical and that enables the 'team' to master situations (Follett, 1949; Avery, 2004; Bergsteiner, 2008). This suggests a more systemic and interactive view of leadership.

6.4.2 Managerial implications

This thesis has three major implications for applied settings, especially for enterprises and supervisors, considering the effects of employee engagement on some important indices, such as individual, organizational, and economic performance and customer service outcomes (Section 1.2.1.1).

Implication 1: At the recruitment stage, this thesis suggests that organizations should select employees who exhibit characteristics that predict potentially high employee engagement (Wellins, Bernthal, and Phelps, 2005; Schneider et al., 2009).

Blackshear (2003) claimed that at the 'ideal' level of followership performance, there are exemplary followers with behaviors that go beyond the norm. This thesis finds that an employee's need for achievement is positively associated with his or her employee engagement; and an employee's equity sensitivity is negatively associated with his or her employee engagement. Similar to other employee characteristics, organizational characteristics, and job characteristics, the effect of considering the moderators together is 'evening out'. These findings provide important managerial implications for recruiting. That is, organizations should select employees who have a high need for achievement, low equity sensitivity, and a high need for clarity under classical/transactional leadership or a low need for clarity under visionary/organic leadership. These employee characteristics provide the potential for high employee engagement. Of course, other factors such as skills and fit with organizational culture are also important in employee recruitment, noting that part of the organizational culture includes the prevailing leadership style.

Implication 2: Organizations should work with direct supervisors to ensure that they adopt appropriate leadership styles that serve to drive employee engagement.

Conclusions 2, 3, 4, and 5 mean that using appropriate leadership styles can improve employee engagement. It is proposed that organizations and supervisors employ visionary and organic leadership styles, which are more likely to drive employee engagement than classical or transactional leadership.

Implication 3: It is recommended that organizations and supervisors consider employee characteristics when adopting leadership styles to improve employee engagement.

Conclusions 12 and 13 demonstrate that employee characteristics play a very important role in the interactions between supervisors and employees. Considering employee characteristics, supervisors should take a contingent approach and be more flexible when leading their employees.

In practice, it is likely that leaders exhibit preferences for a particular style. This is because organizational systems and processes, reward systems, and performance management need to align to suit or support a particular style. This makes it difficult to alternate between styles as a permanent feature of a well-functioning organizational system. However, it is essential to realize that generally, rather than fitting one of the styles perfectly, leaders may employ elements of several styles. The adoption of style is likely to reflect individual leaders' personal preferences or depend on the situation (Avery, 2004). For instance, even if visionary leaders work predominantly through vision and inspiration, they may not abandon all the elements of classical and transactional styles (Avery, 2004).

By including a full range of leadership styles, Avery's styles allow leadership to depend on the context, respond to organizational needs and preferences, and involve many interdependent factors that can be manipulated (Jing and Avery, 2008). In order to enhance employee engagement, visionary or organic leaders can employ some classical and transactional techniques to employees high in need for clarity to clarify their goals and approaches.

6.5 Limitations and recommendations for future research

Although this thesis makes important theoretical and managerial contributions to the literature, it has some limitations.

First, this research was conducted with sales assistants in only one country, Australia. As this thesis was the first empirical attempt to conduct research into the relationships among perceived leadership styles, employee engagement, and employee characteristics in the western context, any interpretation or generalization of the results should allow for possible

cultural bias. Future research could be conducted in other cultures (Attridge, 2009), countries, and occupations in order to validate and generalize the findings of this thesis to broader settings.

A second limitation relates to the factor analysis results. As shown in Section 4.6.1, the factor loadings of some kept observed variables in this thesis were lower than 0.32. As presented in Table 4.20, out of 48 items retained, 21 items had SMCs less than 0.30, which do not indicate good item reliability. It can be seen from Table 4.21, out of 11 latent variables in this thesis, four latent variables had Cronbach's Alpha coefficients less than 0.60, not indicating good internal consistency reliability of the four measures. Therefore relevant measures need to be refined or further examined in future research. In particular, the scale of leadership styles should be carefully examined.

During the development of the scale of leadership styles, only nine out of 13 leadership characteristics identified by Avery (2004) were adopted, without adequate justification for ignoring the other four characteristics (Jing and Avery, 2008; Jing, 2009). The content or face validity of the developed scale is lowered when the scale items do not cover all aspects of the constructs being measured (Stangor, 1998). Moreover, similar wording of items related to certain characteristics measuring different leadership styles could confuse the respondents. For instance, in this thesis, the correlation coefficient between Q1.17 'My direct supervisor consults with me and then he/she makes the final decision' and Q1.19 'My direct supervisor shares issues with me and then he/she makes the final decision' is as high as 0.565. Their literal expressions are too close to be discriminated, and may explain why the measures of different leadership styles in the same questionnaire sometimes received equivalent summing scores.

An alternative approach would be to develop a new scale based on all of Avery's (2004) 13 differentiating leadership characteristics to improve the content or face validity of the measures. Using every characteristic as a topic, a future researcher could develop single-choice or multiple-choice questions. Including similar-worded statements under one topic would make the scale clearer for respondents. Each leadership style could then receive a summing score from every answered questionnaire. This score could be used in regression or partial latent model in SEM (Kline, 1998) to test research hypotheses in later data analysis.

Third, as discussed in Section 6.3, this thesis leaves for future research the issue of re-examining the conflicting theoretical rationale and empirical test result for need for clarity and employee engagement. Moreover, as presented in Section 5.5 and discussed in Section 6.3, some research hypotheses about moderating effects were not supported by the test results and might have been masked in this thesis. Therefore, a larger sample is recommended in future research in order to disclose the real associations among these variables.

Fourth, the item 'It is important to me to know how well I am doing' from the Lyons's (1971) scale, used in this thesis as item Q2.11, does not measure need for clarity (Section 2.5.3) but assesses need for achievement. People high in need for achievement possess the need for immediate feedback on the success or failure of the tasks they have executed (Section 2.5.1). This item should be replaced in future research into need for clarity.

Future research might consider employing other moderating variables when researching the leadership styles-employee engagement relationship, examining the effects of other possible moderators. Future researchers could also investigate the relationship between leadership styles and business performance, taking employee engagement as a mediating variable. Bass's (1985, 1998) theory of visionary leadership focuses on followers' extra effort (strive) as a key mediating variable between such leadership and firm performance. This thesis has demonstrated the associations between leadership styles and employee engagement. Trahant (2009) suggested that companies that increase employee engagement levels can expect to significantly improve their subsequent business (financial) performance. Jing's (2009) study revealed an association between leadership styles and organizational performance. It would, therefore, be instructive to empirically test leadership styles, employee engagement, and organizational performance together. In addition, other than 'direct supervisors', future research might empirically investigate the effects of other employee engagement predictors suggested in the literature on employee engagement.

6.6 Concluding remarks

This thesis has contributed to both theory and practice by answering the three main research questions proposed in Chapter 1.

First, this thesis concludes that the behavioral-outcome factors of the employee engagement construct consist of say, stay, and strive, resolving an ongoing debate among consultants.

Second, this thesis concludes that perceived leadership styles have an association with employee engagement by providing evidence that visionary or organic leadership may positively affect employee engagement, whereas classical or transactional leadership has a negative impact on employee engagement.

Third, by taking account of three employee characteristics – need for achievement, equity sensitivity, and need for clarity – when researching the relationship between perceived leadership styles and employee engagement, this thesis demonstrates that employee characteristics moderate the relationship between perceived leadership styles and employee engagement. Followers have a very active part to play, and the dynamic between leader and followers is crucial, particularly in enabling the 'team' to master circumstances (Follett, 1949; Avery, 2004; Bergsteiner, 2008). This indicates a more systemic and interactive view of leadership than that provided by the traditional focus on leaders.

REFERENCES

4-consulting and DTZ Consulting & Research (2007) *Employee engagement in the public sector: A review of literature.* Available: http://www.scotland.gov.uk/Resource/Doc/176883/0049990.pdf. Last accessed 27 February 2008.

Adams, J. S. (1965) 'Inequity in Social Exchange', in Berkowitz, L. (ed.) *Advances in Experimental Social Psychology,* New York, Academic Press: pp.267-299.

Agresti, A. and Finlay, B. (2009) *Statistical Methods for the Social Sciences* (4th ed.), New Jersey: Pearson Prentice Hall.

Akan, H., Allen, S. and White, S. (2009) 'Equity sensitivity and organizational citizenship behavior in a team environment', *Small Group Research*, 40(1), pp.94-112.

Alas, R., Tafel, K. and Tuulik, K. (2007) 'Leadership style during transition in society: Case of Estonia', *Problems and Perspectives in Management,* 5(1), pp.50-60.

Algattan, A. A. (1985) 'Test of the Path-Goal Theory of leadership in the multinational domain', *Group & Organization Studies*, 10(4), pp.429-445.

Alreck, P. and Settle, R. (2003) *Survey Research Handbook* (3rd ed.)*,* Boston, MA: McGraw-Hill/Irwin.

Amos, T. L., Ristow, A., Ristow, L., and Pearse, N. J. (2009) *Human Resource Management* (3rd ed.), Cape Town: Juta Academic.

Amyx, D. and Alford, B. L. (2005) 'The effects of salesperson need for achievement and sales manager leader reward behavior', *Journal of Personal Selling and Sales Management*, 25(4), pp.345-359.

Anderson, A., Puur, A., Silver, D., Soova, H. and Vöörmann, R. (1994) 'Use of a lottery as an incentive for survey participation: A pilot survey in Estonia'**,** *International Journal of Public Opinion Research*, 6(1), pp.64-71.

Anderson, J. C. and Gerbing, D. W. (1988) 'Structural equation modelling in practice: A review and recommended two-step approach', *Psychological Bulletin*, 103(3), pp.411-423.

Anderson, T. W. (1957) 'Maximum likelihood estimates for the multivariate normal distributions when some observations are missing', *Journal of the American Statistical Association*, 52(278), pp.200-203.

Antonakis, J. and Atwater, L. E. (2002) 'Leader distance: A review and proposed theory', *Leadership Quarterly*, 13(6), pp.673-704.

Appelbaum, S. H., Carrière, D., Chaker, M. A., Benmoussa, K., Elghawanmeh, B. and Shash,

S. (2009) 'RX for excessive turnover: Lessons in communicating a vision (part 1)', *Industrial and Commercial Training*, 41(5), pp.238-247.

Arbuckle, J. L. (2008) *Amos 17.0 User's Guide*, FL: Amos Development Corporation.

Arnold, K. A., Turner, N., Barling, J., Kelloway, E. K. and McKee, M. C. (2007) 'Transformational leadership and psychological well-being: The mediating role of meaningful work', *Journal of Occupational Health Psychology,* 12(3), pp.193-203.

Aron, A. and Aron, N. (1994) *Statistics for psychology***,** Englewood Cliffs, N.J.: Prentice Hall.

As-Sadeq, H. A. and Khoury, G. C. (2006) 'Leadership styles in the Palestinian large-scale industrial enterprises', *Journal of Management Development*, 25(9), pp.832-849.

Atkinson, J. W. (1958) *Motives in Fantasy, Action and Society,* Princeton, N.J.: Van Nostrand.

Attridge, M. (2009) 'Measuring and managing employee work engagement: A review of the research and business literature', *Journal of Workplace Behavioral Health*, 24(4), pp.383-398.

Australian Bureau of Statistics (2009) *Education services glossary.* Available: http://www.abs.gov.au/websitedbs/cashome.NSF/51c9a3d36edfd0dfca256acb00118404/9bf2 4b731daf6144ca2572fe001e2ad7!OpenDocument. Last accessed 11 February 2010.

Australian Bureau of Statistics (2006a) *Australian and New Zealand Standard Classification of Occupations.* Available: http://www.abs.gov.au/AUSSTATS/abs@.nsf/DirClassManualsbyTopic/4AF138F6DB4FFD 4BCA2571E200096BAD?OpenDocument. Last accessed 21 April 2009.

Australian Bureau of Statistics (2006b) *Australian and New Zealand Standard Industrial Classification.* Available: http://www.abs.gov.au/AUSSTATS/abs@.nsf/Latestproducts/EDE5AB3B3728C605CA2571 1F00146E3E?opendocument. Last accessed 21 April 2009.

Australian Government (2008) *Australian Jobs 2008.* Available: http://www.workplace.gov.au/NR/rdonlyres/FA91FB91-73A8-4F5D-83CF-D391BEDF3538/ 0/AustralianJobsforWorkplace.pdf. Last accessed 26 March 2009.

Avery, G. C. (2004) *Understanding Leadership: Paradigms and Cases*, London: Sage.

Avery, G. C. and Bergsteiner, H. (2010) *Honeybees & Locusts: The Business Case for Sustainable Leadership*, Sydney: Allen & Unwin.

Avery, D. R., McKay, P. F. and Wilson, D. C. (2007) 'Engaging the aging workforce: The relationship between perceived age similarity, satisfaction with coworkers, and employee engagement', *Journal of Applied Psychology,* 92(6), pp.1542-1556.

Avkiran, N. (2000) 'Interpersonal skills and emotional maturity influence entrepreneurial style of bank managers', *Personnel Review*, 29 (5/6), pp.654-679.

Avolio, B. J. (1999) *Full Leadership Development: Building the Vital Forces in Organizations,* Thousands Oaks, CA: Sage.

Avolio, J., Walumbwa, O. and Weber, J. (2009) 'Leadership: Current theories, research, and future directions', *Annual Review of Psychology*, 60(1), pp.421-449.

Avolio, B. J., Zhu, W., Koh, W. and Bhatia, P. (2004) 'Transformational leadership and organizational commitment: Mediating role of psychological empowerment and moderating role of structural distance', *Journal of Organizational Behavior,* 25(8), pp.951-968.

Babbie, E. (1998) *The Practice of Social Research*, California: Wadsworth.

Bakker, A. B. and Schaufeli, W. B. (2008) 'Positive organizational behavior: Engaged employees in flourishing organizations', *Journal of Organizational Behavior*, 29(2), pp.147-154.

Ball, G.A., Trevino, L.K. and Sims, H.P., Jr. (1992) 'Understanding subordinate reactions to punishment incidents: Perspectives from justice and social affect', *Leadership Quarterly*, 3(4), pp.307-334.

Bandura, A. (1997) *Self-efficacy: The Exercise of Control,* New York: Freeman.

Barbuto, J. E. (1997) 'Taking the charisma out of transformational leadership', *Journal of Social Behavior and Personality*, 12(3), pp.689–697.

Bass, B. M. (1998) *Transformational Leadership: Industry, Military, and Educational Impact,* Mahwah, NJ: Erlbaum.

Bass, B. M. (1990) 'From transactional to transformational leadership: Learning to share the vision**,** *Organizational Dynamics*, 18(3), pp.19-31.

Bass, B. M. (1985) *Leadership and Performance Beyond Expectations*, New York: Free Press.

Bass, B. M. and Avolio, B. J. (1998) *Manual for the Multifactor Leadership Questionnaire*, Redwood, CA: Mindgarden, Inc.

Bass, B. M. and Avolio, B. J. (1994) *Improving Organizational Effectiveness through Transformational Leadership*, Thousand Oaks, CA: Sage.

Bass, B. M. and Avolio, B. J. (1990) 'Developing transformational leadership: 1992 and beyond', *Journal of European Industrial Training,* 14(5), pp.21-27.

Bass, B. M., Jung, D. I., Avolio, B. J. and Berson, Y. (2003) 'Predicting unit performance by assessing transformational and transactional leadership**,** *Journal of Applied Psychology*, 88(2), pp.207-218.

Bates, S. (2004) 'Getting engaged'*, HR Magazine*, 49(2), pp.44-51.

Baumgartner, H. and Homburg, C. (1996) 'Application of structural equation modeling in marketing and consumer research: A review', *International Journal of Research in Marketing*, 13(2), pp.139-161.

Baumruk, R. (2004) 'The missing link: The role of employee engagement in business success', *Workspan*, 47(11), pp.48-52.

Baumruk, R., Gorman Jr., B., Gorman, R. E. and Ingham, J. (2006) 'Why managers are crucial to increasing engagement', *Strategic HR Review,* 5(2), pp.24-27.

Benjamin, L. and Flynn, F. J. (2006) 'Leadership style and regulatory mode: Value from fit?', *Organizational Behavior and Human Decision Processes*, 100(2), pp.216-230.

Bennis, W. and Nanus, B. (1985) *Leaders: The Strategies for Taking Charge*, NY: Harper and Row.

Benson, P. G., Kemery II, E. R., Sauser Jr., W. I. and Tankesley, K. E. (1985) 'Need for clarity as a moderator of the role ambiguity-job satisfaction relationship', *Journal of Management*, 11(3), pp.125-130.

Berger, L. and Luckmann, T. (1967) *The Social Construction of Reality: A Treatise in the Sociology of Knowledge,* NY: Anchor.

Bergsteiner, H. (2008) 'Bergsteiner's leadership matrix', Unpublished paper, MGSM, Australia.

Bergsteiner, H. and Avery, G. C. (2007) 'Adapting accountability responses to leadership context', *International Journal of Interdisciplinary Social Sciences*, 2(2), pp.411-420.

Blackshear, P. (2003) 'The followership continuum: A model for fine tunning the workforce', *Public Manager*, 32(2), pp.25-29.

Bloemer, J. and Odekerken-Schroder, G. (2006) 'The role of employee relationship proneness in creating employee loyalty', *International Journal of Bank Marketing*, 24(4), pp.252-264.

Bollen, K. A. (1989) *Structural Equations with Latent Variables*, NY: John Wiley & Sons.

Bollen, K. A. and Stine, R. A. (1992) 'Bootstrapping goodness-of-fit measures in structural equation models', *Sociological Methods and Research*, 21(2), pp.205-229.

Bowers, D. G. and Seashore, S. E. (1966) 'Predicting organizational effectiveness with a four-factor theory of leadership', *Administrative Science Quarterly*, 11(2), pp.238-263.

Brouer, R. and Harris, K. (2007) 'Dispositional and situational moderators of the relationship between Leader–Member Exchange and work tension', *Journal of Applied Social Psychology*, 37(7), pp.1418–1441.

Brown, L. V. (2007) *Psychology of Motivation*, N.Y.: Nova Science Publishers.

Buckingham, A. and Saunders, P. (2004) *The Survey Methods Workbook: From Design to Analysis,* Cambridge: Polity Press.

Buckingham, M. and Coffman, C. (1999) *First, Break All the Rules: What the World's Greatest Managers Do Differently*, New York: Simon and Schuster.

Burns, J. M. (1978) *Leadership,* New York: Harper and Row.

Butler, S. (2009) *Macquarie Dictionary* (5th ed.), Sydney: Macquarie Dictionary Publishers.

Byrne, B. M. (2001) *Structural Equation Modeling with AMOS- Basic Concepts, Applications, and Programming,* Rahwah, NJ: Lawrence Erlbaum Associates.

Callahan, R. E., Fleenor, C. P. and Knudson, H. R. (1986) *Understanding Organizational Behavior: A Managerial Viewpoint,* Columbus, OH: Charles E. Merrill Publishing Company.

Campbell, J. P. (1977) *Leadership: The Cutting Edge*, Carbondale, IL: Southern Illinois University.

Carpenter, L. (2002) 'Inspirational leadership', *Management Services*, 46(10), pp.34-36.

Catteeuw, F., Flynn, E. and Vonderhorst, J. (2007) 'Employee engagement: Boosting productivity in turbulent times', *Organization Development Journal*, 25(2), pp.151-157.

Chaleff, I. (1995) *The Courageous Follower*, San Francisco, CA: Berrett-Koehler.

Chan, A. T. S. and Chan, E. H. W. (2005) 'Impact of perceived leadership styles on work outcomes: Case of building professionals', *Journal of Construction Engineering and Management*, 131(4), pp.413-422.

Chhokar, J. S., Zhuplev, A., Fok, L. Y. and I-Lirmis, S. J. (2001) 'The impact of culture on equity sensitivity perceptions and organizational citizenship behavior: A five-country study', *International Journal of Value-Based Management*, 14(1), pp.79-98.

CIPD (2007) *Employee engagement.* Available: http://www.cipd.co.uk/subjects/empreltns/general/empengmt.htm?IsSrchRes=1. Last accessed 27 February 2008.

CIPD (2006a) *Reflections on employee engagement.* Available: http://www.cipd.co.uk/NR/rdonlyres/E8C71850-FB75-4CAB-901B-00D2363F311E/0/reflempengca.pdf. Last accessed 27 February 2008.

CIPD (2006b) *Working Life: Employee Attitudes and Engagement 2006,* London: CIPD.

Clegg, F. G. (1990) *Simple Statistics*, Cambridge: Cambridge University Press.

Cohen, J. and Cohen, P. (1983) *Applied Multiple Regression/Correlation Analysis for the Behavioral Sciences* (2nd ed.), Hillsdale, NJ: Erlbaum.

Collins, J. (2001) 'Level 5 leadership: The triumph of humility and fierce resolve', *Harvard Business Review*, 79(1), pp.67-76.

Collins, J. and Porras, J. (1994) *Built to Last*, New York: HarperCollins.

Collinson, D. (2006) 'Rethinking followership: A post-structuralist analysis of follower identities', *Leadership Quarterly*, 17(2), pp.179-189.

Collis, J. and Hussey, R. (2009) *Business Research: A Practical Guide for Undergraduate and Postgraduate Students* (3rd ed.), New York, N.Y.: Palgrave Macmillan.

Collis, J. and Hussey, R. (2003) *Business Research: A Practical Guide for Undergraduate and Postgraduate Students* (2nd ed.), New York, N.Y.: Palgrave Macmillan.

Colman, A. M. (2003) *Oxford Dictionary of Psychology*, N.Y.: Oxford University Press.

Compton, R., Morrissey, W., and Nankervis, A. (2009) *Effective Recruitment and Selection Practices* (5th ed.), Sydney: CCH Australia.

Conger, J. A. and Kanungo, R. N. (1987) 'Toward a behavioral theory of charismatic leadership in organizational settings', *Academy of Management Review,* 12(4), pp.637-647.

Corace, C. J. (2007) 'Engagement- enrolling the quiet majority', *Organization Development Journal,* 25(2), pp.171-175.

Corporate Leadership Council (2004) *Driving performance and retention through employee engagement.* Available: www.mckpeople.com.au/SiteMedia/w3svc161/Uploads/Documents/760af459-93b3-43c7-b5 2a-2a74e984c1a0.pdf. Last accessed 27 February 2008.

Corporate Leadership Council (2002) *Building the High-performance Workforce*, Washington, DC: Corporate Executive Board.

Craig, E. and Silverstone, Y. (2010) 'Tapping the power of collective Engagement', *Strategic HR Review*, 9(3), pp.5-10.

Cunningham, E. (2008) *Structural Equation Modeling Using Amos*, Melbourne: Statsline Education & Statistics Consultancy.

Czaja, R. and Blair, J. (2005) *Designing Surveys: A Guide to Decisions and Procedures*, Thousand Oaks: Pine Forge Press.

Dansereau, F., Yammarino, F. J., Markham, S. E., Alutto, J. A., Newman, J., Dumas, M., Nachman, S. A., Naughton, T. J., Kim, K., Al-Kelabi, S. A., Lee, S. and Keller, T. (1995) 'Individualized leadership: A new multiple-level approach', *Leadership Quarterly*, 6(3), pp.413-450.

Day, D., Gronn, P. and Salas, E. (2004) 'Leadership capacity in teams', *Leadership Quarterly,* 15(6), pp.857-880.

DeConinck, J. and Bachmann, D. (2007) 'The impact of equity sensitivity and pay fairness on marketing managers' job satisfaction, organizational commitment and turnover intentions', *Marketing Management Journal*, 17(2), pp.134-141.

Deluga, R. J. (1988) 'Relationship of transformational and transactional leadership with employee influencing strategies', *Group & Organization Studies*, 13(4), pp.456-467.

Den Hartog, D. N., House, R. J., Hanges, P. J., Ruiz-Quintanilla, S. A. and Dorfman, P.W. (1999) 'Culture specific and cross-culturally generalizable implicit leadership theories - A longitudinal investigation', *Leadership Quarterly*, 10(2), pp.219-256.

Dess, G. G. and Shaw, J. D. (2001) 'Voluntary turnover, social capital, and organizational performance', *Academy of Management Review,* 26(3), pp.446-456.

De Vries, R. E. (1997) 'Need for leadership: A solution to empirical problems in situational theories of leadership', Unpublished dissertation, Tilburg University, Netherlands.

De Vries, R. E., Roe, R. A. and Taillieu, T. C. B. (2002) 'Need for leadership as a moderator of the relationships between leadership and individual outcomes', *The Leadership Quarterly*, 13(2), pp.121–137.

De Vries, R. E., Roe, R. A. and Taillieu, T. C. B. (1999) 'On charisma and need for leadership', *European Journal of Work and Organizational Psychology*, 8(1), pp.109–133.

De Vries, R. E. Roe, R. A. and Taillieu, T. C. B. (1998) 'Need for supervision', *Journal of Applied Behavioral Science,* 34(4), pp.486-501.

Dewhurst, M., Guthridge, M., and Mohr, E. (2010) 'Motivating people: Getting beyond money', *McKinsey Quarterly,* (1), pp.12-15.

Dillman, D. A. (2000) *Mail and Internet Surveys: The Tailored Design Method* (2nd ed.), New York, NY: John Wiley & Sons.

Dixon, G. and Westbrook, J. (2003) 'Followers Revealed', *Engineering Management Journal*, 15(1), pp.19-25.

Drath, W. H. (2001) *The Deep Blue Sea: Rethinking the Source of Leadership*, San Francisco, CA: Jossey-Bass.

Dubrin, A. J. (2001) *Leadership: Research Finding, Practices, and Skills* (3rd ed.), Boston: Houghton Mifflin Company.

Dulewicz, V. and Higgs, M. (2005) 'Assessing leadership styles and organisational context', *Journal of Managerial Psychology*, 20(2), pp.105-123.

Dunphy, D. and Stace, D. (1990) *Under New Management: Australian Organizations in Transition,* Sydney: McGraw-Hill.

Dunphy, D. and Stace, D. (1988) 'Transformational and coercive strategies for planned organizational change', *Organization Studies*, 9(3), pp.317-334.

Dychtwald, K., Erickson, T. J. and Morison, R. (2006) *Workforce Crisis: How to Beat the Coming Shortage of Skills and Talent*, Boston, MA: Harvard Business Press.

Eagly, A. H., Johannesen-Schmidt, M. C. and van Engen, M. L. (2003) 'Transformational, transactional, and laissez-faire leadership styles: A meta-analysis comparing women and men', *Psychological Bulletin*, 129(4), pp.569-591.

Efklides, A., Kuhl, J., and Sorrentino, R. M. (2001) *Trends and Prospects in Motivation Research*, Boston, MA: Kluwer Academic.

Ehrhart, M. G. and Klein, K. J. (2001) 'Predicting followers' preferences for charismatic leadership: The influence of follower values and personality', *Leadership Quarterly,* 12(2), pp.153-179.

Ellis, C. M. and Sorensen, A. (2007) *Assessing employee engagement: The key to improving productivity.* Available: http://www.sibson.com/publications/perspectives/volume_15_issue_1/ROW.cfm. Last accessed 27 February 2008.

Epitropaki, O. and Martin, R. (2005) 'The moderating role of individual differences in the relation between transformational/transactional leadership perceptions and organizational identification', *The Leadership Quarterly,* 16(4), pp.569-589.

Everitt, B. S. and Howell, D. (2005) *Encyclopedia of Statistics in Behavioral Science,* Hoboken, NJ: Wiley.

Fairholm, G. W. (1998) *Perspectives on Leadership: From the Science of Management to Its Spiritual Heart*, Westport, CT: Quorum Books.

Felfe, J. and Schyns, B. (2010) 'Followers' personality and the perception of transformational leadership: Further evidence for the similarity hypothesis', *British Journal of Management*, 21(2), pp.393-410.

Ferrer, J. (2005) *Employee engagement: Is it organisational commitment renamed?.* Available: http://eprints.vu.edu.au/archive/00000123/01/wp8_2005_ferrer.pdf. Last accessed 27 February 2008.

Fiedler, F. E. (1967) *A theory of Leadership Effectiveness*, New York: McGraw-Hill.

Fine, S., Horowitz, I., Weigler, H., and Basis, L. (2010) 'Is good character good enough? The effects of situational variables on the relationship between integrity and counterproductive work behaviors', *Human Resource Management Review*, 20(1), pp.73-84.

Finegold, D., Mohrman, S. and Spreitzer, G. M. (2002) 'Age effects on the predictors of technical workers' commitment and willingness to turnover', *Journal of Organizational Behavior*, 23(5), pp.655-674.

Fleishman, E. A. (1973) 'Twenty Years of Consideration and Structure', in Fleishman, E. A. and Hunt, J. G. (ed.) *Current Developments in the Study of Leadership*, Carbondale, IL, Southern Illinois University Press: pp.1-40.

Flood, P. C., Turner, T., Ramamoorthy, N. and Pearson, J. (2001) 'Causes and consequences of psychological contracts among knowledge workers in the high technology and financial services industries', *International Journal of Human Resource Management,* 12(7), pp.1152-1165.

Foote, D. and Harmon, S. (2006) 'Measuring equity sensitivity', *Journal of Managerial Psychology,* 21(2), pp.90-108.

Frank, F. D., Finnegan, R. P. and Taylor, C. R. (2004) 'The race for talent: Retaining and engaging workers in the 21st Century', *Human Resource Planning*, 27(3), pp.12-25.

Frisina, M. E. (2005) 'Learn to lead by following', *Nursing Management*, 36(3), p.12.

Furness, V. (2008) 'Employee management: Engagement defined', *Employee Benefits*, April 14, pp.57-58.

Gajraj, M., Faria, J. and Dickinson, R. (1990) 'A comparison of the effect of promised and provided lotteries, monetary and gift incentives on mail survey response rate, speed and cost', *Journal of the Market Research Society*, 32(1), pp.141-162.

Gibb, C. A. (1954) 'Leadership', in Lindzey, G. (ed.) *Handbook of Social Psychology*, Reading, MA: Addison-Wesley: pp.877-917.

Gibbons, J. (2006) *Employee Engagement: A Review of Current Research and Its Implications*, New York: The Conference Board.

Gilbert, G. R. and Hyde, A. C. (1988) 'Followership and the federal worker', *Public Administration Review*, 48(6), pp.962-968.

Goleman, D., Boyatzis, R. and McKee, A. (2002) *Primal Leadership: Realizing the Power of Emotional Intelligence,* Boston, MA: Harvard Business School Press.

Gong, Y. and Chang, S. (2008) 'Institutional antecedents and performance consequences of employment security and career advancement practices: Evidence from the People's Republic of China', *Human Resource Management*, 47(1), pp.33-48.

Gopal, A. (2004) 'Flawed assumptions can defeat your business: What an Indian cricket star's disastrous turn as a team captain tells us about selecting and developing employees', *The Gallup Management Journal Online,* pp.1-4.

Graham, J. W., Hofer, S. M., Donaldson, S. L., MacKinnon, D. P. and Schafer, J. L. (1997) 'Analysis with Missing Data in Prevention Research', in Bryant, K., Windle, M. and West, S. (ed.) *The Science of Prevention: Methodological Advances from Alcohol and Substance Abuse Research*, Washington, DC, American Psychological Association: pp.325-366.

Gubman, E. (2004) 'From engagement to passion for work: The search for the missing

person', *Human Resource Planning*, 27(3), pp.42-46.

Gubman, E. (2003) *The Engaging Leader: Winning with Today's Free Agent Workforce*, Berkshire: Kaplan Business.

Hair, J. F., Anderson, R. E., Tatham, R. L. and Black, W. C. (1998) *Multivariate Data Analysis with Readings*, Englewood Cliffs, NJ: Prentice Hall.

Hair, J. F., Jr., Black, W. C., Babin, B. J., Anderson, R. E. and Tatham, R. L. (2006) *Multivariate Data Analysis* (6th ed.), Upper Saddle River, New Jersey: Pearson Prentice Hall.

Harley, A., Lee, D. and Robinson, D. (2005) 'How O2 built the business case for engagement', *Strategic HR Review,* 4(6), pp.24-27.

Harris Interactive (2005) *Many U.S. employees have negative attitudes to their jobs, employers and top managers.* Available: http://www.harrisinteractive.com/harris_poll/index.asp?PID=568. Last accessed 26 March 2008.

Hathi, S. (2010) 'Research finds a rise in employee engagement levels during recession', *Strategic Communication Management*, 14(2), p.2.

Healy, M. C., Lehman, M. and Mcdaniel, M. A. (1995) 'Age and voluntary turnover: A quantitative review', *Personnel Psychology*, 48(2), pp.335-345.

Heger, B. K. (2007) 'Linking the Employment Value Proposition (EVP) to employee engagement and business outcomes: Preliminary findings from a linkage research pilot study', *Organization Development Journal*, 25(2), pp.121-132.

Hemdi, M. A. and Nasurdin, A. M. (2006) 'Predicting turnover intentions of hotel employees: The influence of employee development human resource management practices and trust in organization', *Gadjah Mada International Journal of Business,* 8(1), pp.21-42.

Hersey, P. and Blanchard, K. H. (1977) *The Management of Organizational Behavior* (3rd ed.), Englewood Cliffs, NJ: Prentice-Hall.

Hersey, P. and Blanchard, K. H. (1972) *The Management of Organizational Behavior,* Englewood Cliffs, NJ: Prentice-Hall.

Hewitt Associates (2008) *2008 Hewitt Best Employers in Australia and New Zealand Study Highlights Report.* Available: http://was2.hewitt.com/bestemployers/anz/pdfs/2008_Hewitt_Best_Employers_in_ANZ_Highlights_Report.pdf. Last accessed 4 March 2010.

Hewitt Associates (2004) 'Hewitt associates study shows more engaged employees drive improved business performance and return', Business Wire Press Release, May 18.

Hines, G. H. (1973) 'Achievement motivation, occupations, and labor turnover in new Zealand', *Journal of Applied Psychology*, 58(3), pp.313-317.

Hinton, R. (1995) *Statistics Explained: A Guide for Social Science Students,* London: Routledge.

Hirschhorn, L. (1997) *Reworking Authority: Leading and Following in the Post-Modern Organization*, Cambridge, MA: MIT Press.

Hofstee, W. K. B. (2001) 'Intelligence and Personality: Do They Mix?', in Collis, J. M. and Messick, S. (ed.) *Intelligence and Personality: Bridging the Gap in Theory and Measurement*, Mahwah, NJ: Erlbaum: pp.43-60.

Holmes-Smith, P., Coote, L. and Cunningham, E. (2004) 'Structural Equation Modeling: From the fundamentals to advanced topics', *ACSPRI*: *Summer Training Program*, Canberra, Australia.

House, R. J. (1977) 'A 1976 Theory of Charismatic Leadership', in Hunt, J. G. and Larson, L. L. (ed.) *Leadership: The Cutting Edge*, Carbondale, IL: Southern Illinois Press: pp.189-207.

House, R. J. (1971) 'A path–goal theory of leadership effectiveness', *Administrative Science Quarterly,* 16(3), pp.321-338.

House, R. J. and Aditya, R. N. (1997) 'The social scientific study of leadership: Quo vadis?', *Journal of Management*, 23(3), pp.409-473.

House, R. J. and Dessler, G. (1974) 'The Path-Goal Theory of Leadership: Some Post Hoc and a Priori Tests', in Hunt, J. G. and Larson, L. L. (ed.) *Contingency Approaches in Leadership,* Carbondale, IL: Southern Illinois University Press: pp.29-55.

House, R. J. and Mitchell, T. R. (1974) 'Path-goal theory of leadership', *Journal of Contemporary Business*, 3(4), pp.81-97.

Howell, C. (2007) *Statistical Methods for Psychology* (6th ed.)*,* CA: Thomson Higher Education.

Howell, J., Dorfman, P. and Kerr, S. (1986) 'Moderator variables in leadership research', *Academy of Management Review*, 11(1), pp.88–102.

Howell, J. M. and Shamir, B. (2005) 'The role of followers in the charismatic leadership process: Relationships and their consequences', *Academy of Management Review,* 30(1) pp.96-112.

Huang, M., Cheng, B. and Chou, L. (2005) 'Fitting in organizational values: The mediating role of person-organization fit between CEO charismatic leadership and employee outcomes', *International Journal of Manpower,* 26(1), pp.35-49.

Hughes, C. and Rog, E. (2008) 'Talent management: A strategy for improving employee recruitment, retention and engagement within hospitality organizations', *International Journal of Contemporary Hospitality Management*, 20(7), pp.743-757.

Huseman, R. C., Hatfield, J. D. and Miles, E. W. (1987) 'A new perspective on equity theory: The equity sensitivity construct', *Academy of Management Review*, 12(2), pp.222-234.

Huseman, R. C., Hatfield, J. D. and Miles, E. W. (1985) 'Test for individual perceptions of job equity: Some preliminary findings', *Perceptual and Motor Skills*, 61(3), pp.1055-1064.

Hussey, J. and Hussey, R. (1997) *Business Research: A Practical Guide for Undergraduate and Postgraduate Students,* Basingstoke, Hampshire: Palgrave Macmillan.

Ivancevich, J. M. and Donnelly Jr., J. H. (1974) 'A study of role clarity and need for clarity for three occupational groups', *Academy of Management Journal*, 17(1), pp.28-36.

Jackson, D. N. (1974) *Personality Research Form Manual* (2nd ed), Port Huron, MI: Research Psychologists Press.

Jackson, W. (1988) *Research Methods-Rules for Survey Design and Analysis*, Ontario: Prentice-Hall.

Jamrog, J. (2004) 'The perfect storm: The future of retention and engagement', *Human Resource Planning,* 27(3), pp.26-33.

Jang, C. (2009) 'The moderating effect of self-efficacy on the antecedents of online satisfaction with an electronic document exchange system', *Social Behavior and Personality*, 37(2), pp.239-254.

Jing, F. (2009) 'An investigation of the relationship between leadership paradigms and organisational performance in pharmaceutical sales organisations', Unpublished thesis, Macquarie University, Australia.

Jing, F. F. and Avery, G. C. (2008) 'Missing links in understanding the relationship between leadership and organizational performance', *International Business & Economics Research Journal*, 7(5), pp.67-78.

Johns, G. (2006) 'The essential impact of context on organizational behavior', *Academy of Management Review,* 31(2), pp.386-408.

Jones, R., Jinlan, N. and Wilson, C. (2009) 'Comparative effects of race/ethnicity and employee engagement on withdrawal behavior', *Journal of Managerial Issues*, 21(2), pp.195-215.

Jones, R., Wilson, C. and Jones, P. (2008) 'Toward achieving the "beloved community" in the workplace lessons for applied business research and practice from the teachings of Martin Luther King Jr.', *Business & Society,* 47(4), pp.457-483.

Joreskog, K. G. (1971) 'Statistical analysis of sets of congeneric test', *Psychometrica*, 36(2), pp.109-133.

Joreskog, K. G. and Sorbom, D. (1979) *Advances in Factor Analysis and Structural Equation Models*, Cambridge, MA: Abt Books.

Judge, T. A. and Piccolo, R. F. (2004) 'Transformational and transactional leadership: A meta-analytic test of their relative validity', *Journal of Applied Psychology*, 89(5), pp.755-768.

Kahn, W. A. (1990) 'Psychological conditions of personal engagement and disengagement at work', *Academy of Management Journal*, 33(4), pp.692-724.

Kantabutra, S. (2003) 'An empirical examination of relationships between vision components, and customer and staff satisfaction in retail apparel stores in Sydney, Australia', Unpublished PhD thesis, Macquarie University, Sydney, Australia.

Kanter, R. (1989) *When Giants Learn to Dance*, New York: Simon and Schuster.

Kark, R. and Shamir, B. (2002) 'The influence of transformational leadership on followers' relational versus collective self-concept', *Academy of Management Proceedings*, OB:D1-D6.

Keller, R. T. (2006) 'Transformational leadership, initiating structure, and substitutes for leadership: A longitudinal study of research and development project team performance', *Journal of Applied Psychology,* 91(1), pp.202-210.

Keller, R. T. (1989) 'A test of the Path-Goal theory of leadership with need for clarity as a moderator in research and development organizations', *Journal of Applied Psychology*, 74(2), pp.208-212.

Kellerman, B. (2008) *Followership: How Followers Are Creating Change and Changing Leaders,* Boston, MA: Harvard Business School Press.

Kellerman, B. (2007) 'What every leader needs to know about followers', *Harvard Business Review*, 85(12), pp.84-91.

Kelley, R. E. (2004) 'Followership', in Burns, J. M., Goethals, G. R. and Sorenson, G. J. (ed.) *Encyclopedia of Leadership*, Oxford, Sage Reference/Berkshire: pp.504-513.

Kelley, R. (1988) 'In praise of followers', *Harvard Business Review,* 66(6), pp.142-148.

Kenis, I. (1978) 'Leadership behavior, subordinate personality and satisfaction with supervision', *Journal of Psychology,* 98(1), pp.99-107.

Kerr, S. and Jermier, J. M. (1978) 'Substitutes for leadership: Their meaning and measurement', *Organizational Behavior and Human Performance*, 22(3), pp.375-403.

Kickul, J. and Lester, S. W. (2001) 'Broken promises: Equity sensitivity as a moderator between psychological contract breach and employee attitudes and behavior', *Journal of Business & Psychology*, 16(2), pp.191-218.

King, W. C. Jr. and Miles, E. W. (1994) 'The measurement of equity sensitivity', *Journal of Occupational and Organizational Psychology*, 67(2), pp.133-142.

King, W. C. Jr., Miles, E. W. and Day, D. D. (1993) 'A test and refinement of the equity sensitivity construct', *Journal of Organizational Behavior*, 14(4), pp.301-317.

Kleinman, C. (2004) 'The relationship between managerial leadership behaviors and staff nurse retention', *Hospital Topics*, 82(4), pp.2-9.

Kline, P. (2000) *A Psychometrics Primer*, London: Free Association Books.

Kline, R. B. (1998) *Principles and Practice of Structural Equation Modelling*, NY: The Guilford Press.

Koh, W. L., Steers, R. M., and Terborg, J. R. (1995) 'The effects of transformational leadership on teacher attitudes and student performance in Singapore', *Journal of Organizational Behavior*, 16(4), pp.319-333.

Kohli, A. K. (1989) 'Effects of supervisory behavior: The role of individual differences among salespeople', *Journal of Marketing*, 53(4), pp.40-50.

Konovsky, M. A. and Organ, D. W. (1996) 'Dispositional and contextual determinants of organizational citizenship behavior', *Journal of Organizational Behavior*, 17(3), pp.253-266.

Kotter, J. P., Schlesinger, L. A. and Sathe, V. (1979) *Organization: Text, Cases and Readings on the Management of Organizational Design and Change*, Homewood, IL: Richard D. Irwin.

Kozlowski, S. W. J. and Doherty, M. L. (1989) 'Integration of climate and leadership: Examination of a neglected issue', *Journal of Applied Psychology*, 74(4), pp.546-553.

Krejcie, R. V. and Morgan, D. W. (1970) 'Determining sample size for research activities', *Educational and Psychological Measurement,* 30(3), pp.607-610.

Kunnanatt, J. T. (2008) 'Strategic question in Indian banking sector: Are Indian bank managers achievement oriented?', *Journal of Management Development,* 27(2), pp.169-186.

Latham, G. P. and Pinder, C. C. (2005) 'Work motivation theory and research at the dawn of the twenty-first century', *Annual Review of Psychology*, 56(1), pp.485-516.

Lee, Y. and Chang, H. (2006) 'Leadership style and innovation ability: An empirical study of Taiwanese wire and cable companies', *The Journal of American Academy of Business,* 9(2), pp.218-222.

Le Pine, J. A., Colquitt, J. A. and Erez, A. (2000) 'Adaptability to changing task contexts: Effects of general cognitive ability, conscientiousness, and openness to experience', *Personnel Psychology*, 53(3), pp.563-593.

Lewis, D. (1996) 'New Perspectives on Transformational Leadership', in Parry, K.W. (ed.) *Leadership Research and Practice: Emerging Themes and New Challenges,* Melbourne, Pitman: pp.17-28.

Liao, H. and Chuang, A. (2007) 'Transforming service employees and climate: A multilevel, multisource examination of transformational leadership in building long-term service relationships', *Journal of Applied Psychology,* 92(4), pp.1006-1019.

Liaw, Y., Chi, N., and Chuang, A. (2010) 'Examining the mechanisms linking transformational leadership, employee customer orientation, and service performance: The

mediating roles of perceived supervisor and coworker support', *Journal of Business & Psychology*, 25(3), pp.477-492.

Liebler, J. G. and McConnell, C. R. (2004) *Management Principles for Health Care Professionals* (4th ed.), Sudbury, MA: Jones and Bartlett Publishers.

Likert, R. (1932) 'A technique for the measurement of attitudes', *Archives of Psychology*, 140(*), pp.5-53.

Little, B. and Little, P. (2006) 'Employee engagement: Conceptual issues', *Journal of Organizational Culture, Communications and Conflict,* 10(1)*,* pp.111-120.

Little, R. and Rubin, D. (1989) 'The analysis of social science data with missing values', *Sociological Methods and Research*, 18(3), pp.292-326.

Liu, W., Lepak, D. P., Takeuchi, R. and Sims, Jr., H. P. (2003) 'Matching leadership styles with employment modes: Strategic human resource management perspective', *Human Resource Management Review,* 13(1), pp.127-152.

Looi, W., Marusarz,T. and Baumruk, R. (2004) *What makes a best employer?.* Available: was7.hewitt.com/bestemployers/pdfs/BestEmployer.pdf. Last accessed 5 Nov. 2008.

Lord, R. G. and Maher, K. J. (1991) *Leadership and Information Processing: Linking Perceptions and Performance*, Boston: Unwin and Hyman.

Lundin, S. C. and Lancaster, L. C. (1990) 'Beyond leadership...the importance of followership', *Futurist*, 24(3), pp.18-22.

Luthans, F. and Peterson, S. J. (2002) 'Employee engagement and manager self-efficacy', *Journal of Management Development*, 21(5), pp.376-387.

Lyons, T. F. (1971) 'Role clarity, need for clarity, satisfaction, tension, and withdrawal', *Organizational Behavior and Human Performance*, 6(1), pp.99-110.

Macey, W. H. and Schneider, B. (2008) 'The meaning of employee engagement', *Industrial and Organizational Psychology*, 1(1), pp.3-30.

Mackenzie, S. B., Podsakoff, P. M., and Rich, G. A. (2001) 'Transformational and transactional leadership and salesperson performance', *Journal of the Academy of Marketing Science,* 29(2), pp.115-134.

Malhotra, N. K., Hall, J., Shaw, M. and Oppenheim, P. P. (2002) *Marketing Research: An Applied Orientation* (2nd ed.), Sydney, Australia: Prentice-Hall.

Martin, C. A. and Bush, A. J. (2006) 'Psychological climate, empowerment, leadership style, and customer-oriented selling: An analysis of the sales manager–salesperson dyad', *Journal of the Academy of Marketing Science,* 34(3), pp.419-438.

Martin, L. E., Brock, M. E., Buckley, M. R., and Ketchen, D. J. (2010) 'Time banditry: Examining the purloining of time in organizations', *Human Resource Management Review*,

20(1), pp.26-34.

Martins, B. and Remenyi, D. (2007) *ECKM 2007: 8th European Conference on Knowledge Management 2007*, Reading, UK: Academic Conferences Limited.

Maslow, A. H. (1954) *Motivation and Personality,* New York, N.Y.: Harper & Brothers.

Masood, S. A., Dani, S. S., Burns, N. D. and Backhouse, C. J. (2006) 'Transformational leadership and organizational culture: The situational strength perspective', *Journal of Engineering Manufacture*, 220(b), pp.941-949.

Matell, M. S. and Jacoby, J. (1971) 'Is there an optimal number of alternatives for Likert scale items? Study I: Reliability and validity', *Educational and Psychological Measurement*, 31(3), pp.657-674.

Mathieu, J. E. (1990) 'A test of subordinates' achievement and affiliation needs as moderators of leader path-goal relationships', *Basic and Applied Social Psychology*, 11(2), pp.179-189.

Mayer, R. C., Davis, J. H. and Schoorman, F. D. (1995) 'An integrative model of organizational trust', *Academy of Management Review*, 20(3), pp.709-734.

McCann, J. A. J., Langford, P. H. and Rawlings, R. M. (2006) 'Testing Behling and McFillen's syncretical model of charismatic transformational leadership', *Group and Organization Management*, 31(2), pp.237-263.

McClelland, D. C. (1990) *Human Motivation*, Cambridge: Cambridge University Press.

McClelland, D. C. (1987) 'Characteristics of successful entrepreneurs', *Journal of Creative Behavior*, 21(3), pp.219-233.

McClelland, D. C. (1985) *Human Motivation*, Glenview, IL: Scott Foresman.

McClelland, D. C. (1966) 'The Urge to Achieve', in Kolb, D.A. (ed.) Organizational Psychology: A Book of Readings, Englewood Cliffs, NJ: Prentice-Hall.

McClelland, D. C. (1961) *The Achieving Society*, Princeton, NJ: Van Nostrand.

McClelland, D. C., Atkinson, J. W., Clark, R. A. and Lowell, E. L. (1953) *The Achievement Motive*, New York, NY: Appleton-Century-Crofts.

McCrindle, M. (2006) *New Generations at Work: Attracting, Recruiting, Retraining & Training Generation Y.* Available: www.mav.asn.au/.../NewGenerationsAtWork/.../NewGenerationsAtWork.pdf. Last accessed 1st Nov 2010.

McDowell, W. C., Boyd, N. G. and Bowler, W. M. (2007) 'Overreward and the impostor phenomenon', *Journal of Managerial Issues*, 19(1), pp.95-110.

McGee, L. (2006) 'How to interview for engagement', *People Management*, 12(15), pp.40-41.

McKnight, H., Cummings, L. L. and Chervany, N. (1998) 'Initial trust formation in new organizational relationships', *Academy of Management Review*, 23(3), pp.473-490.

McLain, D. L. and Hackman, K. (1999) 'Trust, risk & decision making in organization change', *Public Administration Quarterly*, 23(2), pp.152-176.

Medley, F. and Larochelle, D. (1995) 'Transformational leadership and job satisfaction', *Nursing Management*, 26(9), pp.64-65.

Medlin, B. and Green Jr., W. (2009) 'Enhancing performance through goal setting, engagement, and optimism', *Industrial Management and Data Systems*, 109(7), pp.943-956.

Meere, M. (2005) The high cost of disengaged employees. Available: http://www.swinburne.edu.au/corporate/industrysolutions/ee/reports/Employee%20Engagem ent%20Industry%20Briefing%20Paper%20Dec%202005%20.pdf. Last accessed 8 March 2008.

Mehra, A., Smith, B. R., Dixon, A. L. and Robertson, B. (2006) 'Distributed leadership in teams: The network of leadership perceptions and team performance', *The Leadership Quarterly,* 17(3), pp.232-245.

Meindl, J. R. (1998) 'Invited reaction: Enabling visionary leadership', *Human Resource Development Quarterly,* 9(1), pp.21-24.

Melcrum (2004) 'Research and results: A look at current trends and data', *Strategic HR Review,* 3(2), pp.14-15.

Meyer, J. P. and Allen, N. J. (1997) *Commitment in the Workplace: Theory, Research and Application*, Thousand Oaks, CA: Sage Publications.

Miles, E. W., Hatfield, J. B. and Huseman, R. C. (1994) 'Equity sensitivity and outcome importance', *Journal of Organizational Behavior*, 15(7), pp.585-596.

Miles, E. W., Hatfield, J. D. and Huseman, R. C. (1989) 'The equity sensitivity construct: Potential implications for worker performance', *Journal of Management*, 15(4), pp.581-588.

Milne, J. (1999) *Questionnaires: Advantages and Disadvantages.* Available: http://www.icbl.hw.ac.uk/ltdi/cookbook/info_questionnaires/index.html. Last accessed 10 May 2009.

Molinaro, V. and Weiss, D. (2007) *Driving employee engagement.* Available: www.banffcentre.ca/departments/leadership/library/pdf/driving_employee_engagement_Weis s-Molinaro.pdf. Last accessed 27 February 2008.

Montesino, M. U. (2002) 'A descriptive study of some organizational-behavior dimensions at work in the Dominican Republic: Implications for management development and training', *Human Resource Development International*, 5(4), pp.393-409.

Moore, L. I. (1976) 'The FMI: Dimensions of follower maturity', *Group & Organization Studies,* 1(2), pp.203-222.

Morhart, F. M., Herzog, W., and Tomczak, T. (2009) 'Brand-specific leadership: Turning employees into brand champions', *Journal of Marketing*, 73(5), pp.122-142.

Morris, J. H. and Snyder, R. A. (1979) 'A second look at need for achievement and need for autonomy as moderators of role perception--outcome relationships', *Journal of Applied Psychology*, 64(2), pp.173-178.

Murray, H. A. (1938) *Explorations in Personality,* New York: Oxford University Press.

Nadler, D. A. and Tuschman, M. L. (1990) 'Beyond the charismatic leader: Leadership and organizational change', *California Management Review*, 32(2), pp.77-97.

Neuman, A. and Kickul, R. (1998) 'Organizational citizenship behaviors: Achievement orientation and personality', *Journal of Business and Psychology,* 13(2), pp.263-280.

NSW Office of Liquor, Gaming and Racing (2008) *Gratuitous lotteries.* Available: http://www.olgr.nsw.gov.au/pdfs/gofc_fs_gratuitous_lotteries.pdf. Last accessed 26 March 2009.

O'Connell, M. and Kung, M. (2007) 'The cost of employee turnover'*, Industrial Management,* 49(1), pp.14-19.

O'Driscoll, M. P. and Beehr, T. A. (2000) 'Moderating effects of perceived control and need for clarity on the relationship between role stressors and employee affective reactions', *Journal of Social Psychology*, 140(2), pp.151-159.

O'Neill, B. S. and Mone, M. A. (1998) 'Investigating equity sensitivity as a moderator of relations between self-efficacy and workplace attitudes', *Journal of Applied Psychology*, 83(5), pp.805-816.

Organ, D. W. (1988) *Organizational Citizenship Behavior: The Good Soldier Syndrome*, Lexington, MA: Lexington Books.

Osgood, C. E., Suci, G. J. and Tannenbaum, P. H. (1957) *The Measurement of Meaning*, Urbana: University of Illinois Press.

Pallant, J. (2007) *SPSS Survival Manual: A Step by Step Guide to Data Analysis Using SPSS for Windows* (3rd ed.), Maidenhead: Open University Press.

Park, J. and Yang, S. (2006) 'The moderating role of consumer trust and experiences: Value driven usage of mobile technology', *International Journal of Mobile Marketing*, 1(2), pp.24-32.

Parkes, L. P. and Langford, P. H. (2008) 'Work-life balance or work-life alignment? A test of the importance of work-life balance for employee engagement and intention to stay in organisations', *Journal of Management and Organization,* 14(3), pp.267-284.

Parry, K. W. and Sinha, P. N. (2005) 'Researching the trainability of transformational organizational leadership', *Human Resource Development International*, 8(2), pp.165-183.

Parsley, A. (2006) 'Road map for employee engagement', *Management Services*, 50(1), pp.10-11.

Pearce, C. L. and Conger, J. A. (2003) *Shared Leadership: Reframing the Hows and Whys of Leadership,* Thousand Oaks, CA: Sage.

Pech, J. (2009) 'Delegating and devolving power: A case study of engaged employees', *Journal of Business Strategy*, 30(1), pp.27-32.

Phelps, M. (2009) *Is it time to rethink employee engagement?*. Available: www.ddiworld.com/pdf/isittimetorethinkemployeeengagement_wp_ddi.pdf. Last accessed 27 February 2010.

Pinder, C. (1998) *Work Motivation in Organizational Behavior*, Saddle River, NJ: Prentice-Hall.

Pinsonneault, A. and Kraemer, K. L. (1997) 'Middle management downsizing: An empirical investigation of the impact of information technology', *Management Science,* 43(5), pp.659-679.

Podsakoff, N. P., Podsakoff, P. M., and Kuskova, V. V. (2010) 'Dispelling misconceptions and providing guidelines for leader reward and punishment behavior', *Business Horizons*, 53(3), pp.291-303.

Podsakoff, P. M., MacKenzie, S. B. and Fetter, R. (1993) 'Substitutes for leadership and the management of professionals', *Leadership Quarterly,* 4(1), pp.1-44.

Podsakoff, P. M., MacKenzie, S. B., Morrman, R. H. and Bommer, W. H. (1995) 'Searching for a needle in a haystack: Trying to identify the illusive moderators of leadership behaviors', *Journal of Management*, 21(3), pp.422-470.

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

Podsakoff, P. M., Niehoff, B. P., MacKenzie, S. B. and Williams, M. L. (1993) 'Do substitutes for leadership really substitute for leadership? An empirical examination of Kerr and Jermier's situational leadership model', *Organizational Behavior and Human Decision Processes,* 54(1), pp.1-44.

Porter, L. W., Bigley, G. A., and Steers, R. M. (2003) *Motivation and Work Behavior* (7th ed.), Boston: McGraw-Hill/Irwin.

Potter, E. H., Rosenbach, W. E. and Pittman, T. S. (2001) 'Followers for the Times: Engaging Employees in a Winning Partnership', in Rosenbach, W. E. and Taylor, R. L. (ed.) *Contemporary Issues in Leadership* (5th ed.), Boulder, Colorado: Westview Press: pp.163-181.

Punch, K. F. (1998) *Introduction to Social Research: Quantitative and Qualitative Approaches*, London: Sage.

Purvanova, R. K., Bono, J. E. and Dzieweczynski, J. (2006) 'Transformational leadership, job characteristics, and organizational citizenship performance', *Human Performance,* 19(1), pp.1-22.

Raelin, J. (2003) *Creating Leaderful Organizations*, San Fransisco: Berrett-Koehler.

Rafferty, A. M., Maben, J., West, E. and Robinson, D. (2005) *What makes a good employer?* . Available: http://www.icn.ch/global/Issue3employer.pdf . Last accessed 06 July 2008.

Rasch, R. H. and Harrell, A. (1990) 'The impact of personal characteristics on the turnover behavior of accounting professionals', *Auditing*, 9(2), pp.90-102.

Rasch, R. H. and Harrell, A. (1989) 'The impact of individual differences on MAS personnel satisfaction and turnover intentions', *Journal of Information Systems*, 4(1), pp.13-22.

Ray, J. (1975) 'A behavior inventory to measure achievement motivation', *The Journal of Social Psychology*, 95(1), pp.135-136.

Raykov, T. and Marcoulides, G. A. (2000) *A First Course in Structural Equation Modeling*, Mahwah, NJ: Lawrence Erlbaum Associates, Inc.

Restubog, S., Bordia, P. and Bordia, S. (2009) 'The interactive effects of procedural justice and equity sensitivity in predicting responses to psychological contract breach: An interactionist perspective', *Journal of Business and Psychology*, 24(2), pp.165-178.

Restubog, S. L. D., Bordia, P. and Tang, R. L. (2007) 'Behavioral outcomes of psychological contract breach in a non-western culture: The moderating role of equity sensitivity', *British Journal of Management*, 18(4), pp.376-386.

Richman, A. L., Civian, J. T., Shannon, L. L., Jeffrey H. E. and Brennan, R. T. (2008) 'The relationship of perceived flexibility, supportive work-life policies, and use of formal flexible arrangements and occasional flexibility to employee engagement and expected retention', *Community, Work & Family*, 11(2), pp.183-197.

Right Management (2006) *Measuring True Employee Engagement*, Philadelphia: Right Management.

Riipinen, M. (1994) 'Extrinsic occupational needs and the relationship between need for achievement and locus of control', *Journal of Psychology*, 128(5), pp.577-587.

Robert, J. V. (2006) *Employee engagement and commitment: A guide to understanding, measuring and increasing engagement in your organization.* Available: http://www.shrm.org/about/foundation/research/Documents/1006EmployeeEngagementOnlineReport.pdf. Last accessed 27 February 2010.

Robinson, D., Perryman, S. and Hayday, S. (2004) *The Drivers of Employee Engagement*, Brighton, UK: Institute for Employment Studies.

Rosenau, J. (2004) 'Followership and discretion', *Harvard International Review*, 26(3), pp.14-17.

Rossi, P. H., Wright, J. D. and Anderson, A. B. (1983) *Handbook of Survey Research*, New York: Academic Press.

Roszkowksi, M. J. and Bean, A. B. (1990) 'Believe it or not! Longer questionnaires have lower response rates', *Journal of Business and Psychology*, 4(4), pp.495-508.

Rotemberg, J. and Saloner, G. (1993) 'Leadership style and incentives', *Management Science,* 39(11), pp.1299-1318.

Rothschild, J. and Whitt, J. A. (1986) *The Cooperative Work Place: Potentials and Dilemmas of Organizational Democracy and Participation*, Cambridge, England: Cambridge University Press.

Rotter, J. (1966) **'**Generalized expectancies for internal versus external control of reinforcements', *Psychological Monographs*, 80(1, Whole No. 609), pp.1-28.

Rubin, D. B. (1976) 'Inference and missing data', *Biometrika*, 63(3), pp.581-592.

Sako, M. (1992) *Prices, Quality and Trust: Inter-firm Relations in Britain and Japan*, Cambridge, UK: Cambridge University Press.

Saks, A. M. (2006) 'Antecedents and consequences of employee engagement', *Journal of Managerial Psychology*, 21(7), pp.600-619.

Sardo, S. (2006) *What keeps employees engaged with their workplace?*. Available: www.aim.com.au/publications/AIMwhitepaper_EngagedEmployees.pdf . Last accessed 27 February 2008.

Schaufeli, W. B., Salanova, M., Roma, V. G., and Bakker, A. B. (2002) 'The measurement of engagement and burnout: A two sample confirmatory factor analytic approach', *Journal of Happiness Studies,* 3(1), pp.71-92.

Schneider, B., Macey, H., Barbera, M. and Martin, N. (2009) 'Driving customer satisfaction and financial success through employee engagement', *People and Strategy*, 32(2), pp.22-27.

Schottenbauer, M. A., Rodriguez, B. F., Glass, C. R. and Arnkoff, D. B. (2006) 'Religious coping research and contemporary personality theory: An exploration of Endler's (1997) integrative personality theory', *British Journal of Psychology,* 97(4), pp.499-519.

Scott, J., Thorne, A., and Horn, P. (2002) 'Effect of a multifaceted approach to detecting and managing depression in primary care', *BMJ*, 325(7370), pp.951-954.

Seijts, G. H. and Crim, D. (2006) 'What engages employees the most or, The Ten C's of employee engagement', *Ivey Business Journal*, 70(4), pp.1-5.

Service Skills Australia (2009) *Retail Ready*. Available: http://www.serviceskills.com.au/index.php?option=com_content&task=view&id=924&Itemid=2239. Last accessed 26 March 2009.

Seteroff, S. S. (2003) *Beyond Leadership to Followership*, Victoria, B.C.: Trafford.

Sharma, S., Durand, R. M. and Gur-Arie, O. (1981) 'Identification and analysis of moderator variables', *Journal of Marketing Research*, 18(3), pp.291-300.

Shaw, K. and Bastock, A. (2005) *Employee Engagement: How to Build a High-Performance Workforce*, London: Melcrum Publishing.

Shin, S. J. and Zhou, J. (2003) 'Transformational leadership, conservation, and creativity: Evidence from Korea', *Academy of Management Journal,* 46(6), pp.703-714.

Shore, T. (2004) 'Equity sensitivity theory: Do we all want more than we deserve', *Journal of Managerial Psychology*, 19(7), pp.722-728.

Shore, T. H. and Strauss, J. (2008) 'Measurement of equity sensitivity: A comparison of the equity sensitivity instrument and equity preference questionnaire', *Psychological Reports*, 102(1), pp.64-78.

Shore, T., Sy, T. and Strauss, J. (2006) 'Leader responsiveness, equity sensitivity, and employee attitudes and behavior', *Journal of Business and Psychology*, 21(2), pp.227-241.

Simpson, R. M. (2009) 'Engagement at work: A review of the literature', *International Journal of Nursing Studies,* 46(7), pp.1012–1024.

Slavitt, D., Stamps, P., Piedmont, E. and Hasse, A. (1986) *Index of Work Satisfaction*, MI: University of Michigan Press.

Smith, N. C. and Dainty, P. (1991) *The Management Research Handbook*, London: Routledge.

Smythe, J. (2007) 'Employee engagement – its real essence', *Human Resource Management International Digest,* 15(7), pp.11-13.

Sosik, J. J. (2005) 'The role of personal values in the charismatic leadership of corporate managers: A model and preliminary field study', *The Leadership Quarterly,* 16(2), pp.221-244.

Sousa-Poza, A. and Henneberger, F. (2004) 'Analyzing job mobility with job turnover intentions: An international comparative study', *Journal of Economic Issues*, 38(1), pp.113-136.

Spinelli, R. J. (2006) 'The applicability of Bass's model of transformational, transactional, and laissez-faire leadership in the hospital administrative environment', *Hospital Topics*, 84(2), pp.11-18.

Stahl, G. K., Chua, C. H., Caligiuri, P., Cerdin, J. and Taniguchi, M. (2009) 'Predictors of turnover intentions in learning-driven and demand-driven international assignments: The role of repatriation concerns, satisfaction with company support, and perceived career advancement opportunities', *Human Resource Management*, 48(1), pp.89-109.

Stairs, M., Galpin, M., Page, N. and Linley, A. (2006) 'Retention on a knife edge: The role of

employee engagement in talent management', *Selection and Development Review,* 22(5), pp.19-23.

Stangor, C. (1998) *Research Methods for the Behavioral Sciences*, New York: Houghton Mifflin.

Steane, P., Ma, J. H., and Teo, S. T. (2003) 'Effective leadership as a human resource capacity in joint venture management', *Asia Pacific Journal of Human Resources*, 41(2), pp.215-230.

Steers, R. M. (1987) 'Murray's Manifest Needs Theory', in Steers, R. and Porter, L. (ed.) *Motivation and Work Behaviour,* New York, McGraw-Hill: pp.59-67.

Steers, R. M. and Braunstein, D. N. (1976) 'A behaviourally-based measure of manifest needs in work setting', *Journal of Vocational Behaviour,* 9(2), pp.251-266.

Steers, R. M. and Spencer, D. G. (1977) 'The role of achievement motivation in job design', *Journal of Applied Psychology*, 62(4), pp.472-479.

Stogdill, R. M. (1974) *Handbook of Leadership: A Survey of the Literature*, New York: Free Press.

Swift, L. and Piff, S. (2005) *Quantitative Methods for Business, Management and Finance* (2nd ed.), NY: Palgrave Macmillan.

Tharenou, P., Donohue, R. and Cooper, B. (2007) *Management Research Methods,* Melbourne: Cambridge University Press.

Thomas, B. (2004) *Research Skills for Management Studies*, London: Routledge.

Thorsteinson, T. J. (2003) 'Job attitudes of part-time vs. full-time workers: A meta-analytic review', *Journal of Occupational and Organizational Psychology,* 76(2), pp.151–177.

Tinline, G. and Crowe, K. (2010) 'Improving employee engagement and wellbeing in an NHS trust', *Strategic HR Review*, 9(2), pp.19-24.

Tomarken, A. J. and Waller, N. G. (2005) 'Structural equation modeling: Strengths, limitations, and misconceptions', *Annual Review of Clinical Psychology*, 1, pp.31-65.

Tomlinson, G. (2010) 'Building a culture of high employee engagement', *Strategic HR Review*, 9(3), pp.25-31.

Towers Perrin (2006) *Ten steps to creating an engaged workforce: Key European findings.* Available:
http://www.towersperrin.com/tp/getwebcachedoc?webc=HRS/GBR/2006/200603/GWS_europe.pdf. Last accessed 26 February 2010.

Towers Perrin (2003) *Working today: Understanding what drives employee engagement.* Available:
www.towersperrin.com/tp/getwebcachedoc?webc=hrs/usa/2003/200309/talent_2003.pdf. Last accessed 27 February 2008.

Towers Watson (2009) *Turbocharging employee engagement: The power of recognition from managers - Part 1: The engagement engine.* Available: http://www.towerswatson.com/united-kingdom/research/629. Last accessed 27 February 2010.

Trahant, B. (2009) 'Driving better performance through continuous employee engagement', *Public Manager*, 38(1), pp.54-58.

Trottier, T., Van Wart, M. and Wang, X. (2008) 'Examining the nature and significance of leadership in government organizations', *Public Administration Review,* 68(2), pp.319-333.

Turner, J. R. and Müller, R. (2005) 'The project manager's leadership style as a success factor on projects: A literature review', *Project Management Journal,* 36(1), pp.49-61.

UBD (2007) *Sydney and Blue Mountains Street Directory* (43rd ed.), Sydney: UBD.

Veal, J. (2005) *Business Research Methods: A Managerial Approach*, South Melbourne: Pearson Addison Wesley.

Vecchio, R. P. (2002) 'Leadership and gender advantage', *Leadership Quarterly,* 13(6), pp.643-671.

Verbeke, W., Belschak, F. and Bagozzi, R. P. (2004) 'The adaptive consequences of pride in personal selling', *Journal of the Academy of Marketing Science*, 32(4), pp.386-402.

Vroom, V. H. **(**1960) *Some Personality Determinants of the Effects of Participation*, Englewood Cliffs, N.J.: Prentice-Hall.

Vroom, V. H. and Yetton, P. W. (1973) *Leadership and Decision Making*, Pittsburgh, PA: University of Pittsburgh Press.

Wagner, S. E. (2006) 'Staff retention: From "satisfied" to "engaged"', *Nursing Management,* 37(3), pp.24-29.

Walker, H. J., Feild, H. S., Giles, W. F., Bernerth, J. B. and Jones-Farmer, L. A. (2007) **'**An assessment of attraction toward affirmative action organizations: Investigating the role of individual differences', *Journal of Organizational Behavior*, 28(4), pp.485-507.

Walumbwa, F. O. and Lawler, J. J. (2003) 'Building effective organizations: Transformational leadership, collectivist orientation, work-related attitudes and withdrawal behaviours in three emerging economies', *International Journal of Human Resource Management,* 14(7), pp.1083-1101.

Walumbwa, F. O., Lawler, J. J. and Avolio, B. J. (2007) 'Leadership, individual differences, and work-related attitudes: A cross-culture investigation', *Applied Psychology: An International Review,* 56(2), pp.212-230.

Wang, P. and Walumbwa, F. O. (2007) 'Family-friendly programs, organizational commitment, and work withdrawal: The moderating role of transformational leadership', *Personnel Psychology*, 60(2), pp.397-427.

Watt, D. and Piotrowski, C. (2008) 'Organizational change cynicism: A review of the literature and intervention strategies', *Organization Development Journal*, 26(3), pp.23-31.

Wellins, R. S., Bernthal, P., and Phelps, M. (2005) *Employee engagement: The key to realizing competitive advantage.* Available: www.ddiworld.com/pdf/ddi_employeeengagement_mg.pdf. Last accessed 26 February 2010.

Werbel, J. D. and Bedeian, A. G. (1989) 'Intended turnover as a function of age and job performance', *Journal of Organizational Behavior*, 10(3), pp.275-281.

Westley, F. and Mintzberg, H. (1989) 'Visionary leadership and strategic management', *Strategic Management Journal*, 10(S1), pp.17-32.

Whittington, J. L., Goodwin, V. L. and Murray, B. (2004) 'Transformational leadership, goal difficulty, and job design: Independent and interactive effects on employee outcomes', *The Leadership Quarterly*, 15(5), pp.593-606.

Wildermuth, C. and Pauken, P. D. (2008a) 'A perfect match: Decoding employee engagement — Part I: Engaging cultures and leaders', *Industrial & Commercial Training*, 40(2/3), pp.122-128.

Wildermuth, C. and Pauken, P. D. (2008b) 'A perfect match: Decoding employee engagement — Part II: engaging jobs and individuals', *Industrial & Commercial Training*, 40(4), pp.206-210.

Wofford, J. C., Whittington, J. L. and Goodwin, V. L. (2001) 'Follower motive patterns as situational moderators for transformational leadership effectiveness', *Journal of Managerial Issues*, 13(2), pp.196-211.

Woods, P. A., Bennett, N., Harvey, J. A. and Wise, C. (2004) 'Variabilities and dualities in distributed leadership: Findings from a systematic literature review', *Educational Management Administration and Leadership,* 32(4), pp.439-457.

Wosnitza, M., Karabenick, S. A., Efklides, A., and Nenniger, P. (2009) *Contemporary Motivation Research: From Global to Local Perspectives*, Toronto: Hogrefe & Huber Publishers.

Yammarino, F. J., Skinner, S. J. and Childers, T. L. (1991) 'Understanding mail survey response behavior', *Public Opinion Quarterly*, 55(4), pp.613-629.

Yukl, G. (1999a) 'An evaluative essay on current conceptions of effective leadership', *European Journal of Work and Organizational Psychology,* 8(1), pp.33-48.

Yukl, G. (1999b) 'An evaluation of conceptual weaknesses in transformational and charismatic leadership theories', *The Leadership Quarterly*, 10(2), pp.285-305.

Yukl, G. (1989) 'Managerial leadership: A review of theory and research', *Journal of Management,* 15(2), pp.251-289.

Yukl, G. (1981) *Leadership in Organizations*, Englewood Cliffs, NJ: Prentice-Hall.

Yun, S., Cox, J. and Sims Jr., H. P. (2006) 'The forgotten follower: A contingency model of leadership and follower self-leadership', *Journal of Managerial Psychology,* 21(4), pp.374-388.

Yunker, G. W. and Yunker, B. D. (2002) 'Primal leadership: Realizing the power of emotional intelligence', *Personnel Psychology*, 55(4), pp.1030-1033.

Zelick, P. R. (2007) *Issues in the Psychology of Motivation*, N.Y.: Nova Science Publishers.

Zhou, J. (1998) 'Feedback valence, feedback style, task autonomy, and achievement orientation: Interactive effects on creative performance'**,** *Journal of Applied Psychology*, 83(2), pp.261-276.

Zhu, W., Avolio, B. J., and Walumbwa, F. O. (2009) 'Moderating role of follower characteristics with transformational leadership and follower work engagement', *Group & Organization Management*, 34(5), pp.590-619.

林嵩（2008）结构方程模型原理及 AMOS 应用，武汉：华中师范大学出版社。[Lin, S. (2008) *The Principle and Amos Application of Structural Equation Modeling*, Wuhan: Huazhong Normal University Press.]

邱皓政、林碧芳（2009）结构方程模型的原理与应用，北京：中国轻工业出版社。[Qiu, H. and Lin, B. (2009) *The Principle and Application of Structural Equation Modeling*, Beijing: China Light Industry Press.]

Appendix 1 Questionnaire

Macquarie University Management Study Questionnaire

Code:

Thank you for participating in this survey about management. Please indicate your answers to the following questions by ticking the appropriate boxes where specified.

1. Please tick the scale from <u>strongly disagree</u> to <u>strongly agree</u> to indicate how much you agree or disagree with each of the following statements.

Statements	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
1. My direct supervisor has all the say.					
2. I do not have much power here.					
3. My direct supervisor's vision of the future governs what I do around here.					
4. Staff tend to have all the say in this group.					
5. Agreements between management and me govern what I do around here.					
6. I have a medium amount of power here.					
7. I am held accountable for achieving my direct supervisor's vision.					
8. My direct supervisor controls everything I do in this group.					
9. My direct supervisor plans, organizes and monitors everything in this group.					
10. My direct supervisor is concerned about helping me to lead and organize myself.					
11. My direct supervisor and I make decisions together.					
12. I am held accountable only for achieving goals agreed upon between my direct supervisor and me.					

Statements	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
13. My commitment comes mostly from our relationship and because I share my direct supervisor's vision.					
14. My direct supervisor likes to keep some distance from staff in this group.					
15. My direct supervisor does not display all the power he/she has.					
16. My direct supervisor's view dominates in this group.					
17. My direct supervisor consults with me and then he/she makes the final decision.					
18. My commitment comes mostly from the rewards, agreements and expectations I negotiate with my direct supervisor.					
19. My direct supervisor shares issues with me and then he/she makes the final decision.					
20. I am held accountable for achieving a mutual vision with other staff members in this group.					
	1	2	3	4	5

2. Please tick the scale from <u>strongly disagree</u> to <u>strongly agree</u> to indicate how much you agree or disagree with the following statements.

Statements	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
1. I do my best work when my job assignments are fairly difficult.					
2. In any organization I might work for, it would be more important for me to get from the organization rather than give to the organization.					
3. It is important to me to know in detail what I have to do on a job.					
4. In any organization I might work for, it would be more important for me to watch out for my own good rather than help others.					
5. I try very hard to improve on my past performance at work.					
6. It is important to me to know in detail how I am supposed to do a job.					

Statements	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
7. I take moderate risks and stick my neck out to get ahead at work.					
8. In any organization I might work for, I would be more concerned about what I received from the organization rather than what I contributed to the organization.					
9. It is important to me to know in detail what the limits of my authority on a job are.					
10. (R) I try to avoid any added responsibilities on my job.					
11. It is important to me to know how well I am doing.					
12. In any organization I might work for, my personal philosophy in dealing with the organization would be that 'if I don't look out for myself, nobody else will' rather than that 'it's better for me to give than to receive'.					
13. I try to perform better than my co-workers.					
14. In any organization I might work for, the hard work I would do should benefit me rather than benefit the organization.					
	1	2	3	4	5

3. Please tick the scale from <u>strongly disagree</u> to <u>strongly agree</u> to indicate how much you agree or disagree with the following statements.

Statements	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
1. I speak highly of this organization to my friends.					
2. I consider this organization my first choice.					
3. The company inspires me to do my best work.					
4. The offer of a bit more money with another employer would not seriously make me think of changing my job.					

Statements	Strongly disagree	Disagree	Not sure	Agree	Strongly agree
5. I would be happy for my friends and family to use this organization's products/services.					
6. I always do more than is actually required.					
7. I would say my company is a good place to work.					
8. I try to help others in this organization whenever I can.					
9. I would prefer to stay with this company as long as possible.					
10. I frequently make suggestions to improve the work of my team/department/service.					
11. I emphasize the positive aspects of working for this organization when talking with coworkers.					
12. I try to keep abreast of current developments in my area.					
13. I volunteer to do things outside my job that contribute to the organization's objectives.					
	1	2	3	4	5

4. Are you *(Please tick one box)* ☐ Male ☐ Female?
   1   2

5. Which age group are you in? *(Please tick one box)*

Under 25 years	25 to 34 years	35 to 44 years	45 to 54 years	55 years or more
1	2	3	4	5

6. How are you employed at this store? *(Please tick one box)*

Full-time	Part-time	Casual
1	2	3

7. How long have you been working at this store? *Please tick one space.*

Under 1 year	1 to 2 years	3 to 5 years	6 to 10 years	Over 10 years
1	2	3	4	5

8. How long have you been working under your direct supervisor? *Please tick one space.*

Under 1 year	1 to 2 years	3 to 5 years	6 to 10 years	Over 10 years
1	2	3	4	5

9. How many employees are there in your whole company in total? *Please tick one space.*

Under 20 employees	20 to 199 employees	200 employees or more	Not sure
1	2	3	4

Thank you for your participation in the survey! If you would like to take part in the lottery for an iPod, please write down your email address and if possible, mobile phone number below.

Email address: _____

☐ For research report ☐ For lottery

Mobile phone: _____

Appendix 2 Data entry

Questionnaire code			Q1.1	Q1.2	Q1.3	Q1.4	Q1.5	Q1.6
Q1.7	Q1.8	Q1.9	Q1.10	Q1.11	Q1.12	Q1.13	Q1.14	Q1.15
Q1.16	Q1.17	Q1.18	Q1.19	Q1.20	Q2.1	Q2.2	Q2.3	Q2.4
Q2.5	Q2.6	Q2.7	Q2.8	Q2.9	Q2.10	Q2.11	Q2.12	Q2.13
Q2.14	Q3.1	Q3.2	Q3.3	Q3.4	Q3.5	Q3.6	Q3.7	Q3.8
Q3.9	Q3.10	Q3.11	Q3.12	Q3.13	Q4	Q5	Q6	Q7
Q8	Q9	Email	For research report		For lottery		Mobile	

Note: The original Excel file has been merged into one page, as shown above.

Appendix 3 Data-collection procedure emphases

1. Getting admission

■ Request center manager to sign in the introduction letter.

■ Visit assigned stores sequentially, and approach the store managers (or the person in charge at that time).

■ Introduction

■ Ask the store manager if he/she would allow the research assistant to conduct an investigation in his/her store.

Yes: Encourage store managers to write down their email information on the Survey Situation Report form for the research report.

No: Approach the next store on the list.

2. Approaching the sample

■ Approaches the first sales assistant he/she meets in the store.

■ Ask if he or she is a sales assistant.

■ Introduction

■ Ask if he/she is willing to participate in the study.

Yes:

- Sign Information and Consent Forms.

- Fill out the questionnaire.

- If the respondent wants to participate in the lottery for an iPod, he/she needs to write down his/her email address, and if possible, mobile phone number on the questionnaire.

- If they would like the report, they are encouraged to fill in their email information in the last section of the questionnaire.

- Check whether the questionnaire is complete to prevent missing items.

- Note down the questionnaire code.

No:

- Approach next sales assistant.

- If the potential respondent refuses to participate in the face-to-face survey because of time limits or inconvenience before the store manager, he or she can answer the questionnaire, which has been coded by the research assistant beforehand, in their own time and send it back to the researcher's address. The research assistant can also note the situation down and return to the store to ask for the completed questionnaire at an agreed time.

- After the first sales assistant's participation, the research assistant then continues by approaching the next sales assistant he/she meets at the store until there have been five respondents in the store or it is impossible to complete more questionnaires.

- After finishing data collection of one store, fill out the Survey Situation Report form.

3. Other managing processes

3.1 Timely data entry and reports

■ Enter the collected data into the file of Data Entry and email it to the researcher for his statistics on that very day.

■ Return completed questionnaires together with survey situation reports to the researcher once a week.

3.2 Meetings or telephone conversations

Appendix 4 Introductory scripts

In order to facilitate on-the-spot introduction, research assistants are strongly recommended to recite or be very familiar with the following materials:

1.1 Who you are?

Good Morning (Good afternoon, Good evening)! I am a research assistant at MGSM.

1.2 What you are doing?

We are conducting a survey in the field of management.

1.3 What you are requesting him or her to do?

1) To the first person you meet in the retail store:

May I speak to the person in charge in your store to request his or her permission (to investigate in your store)?

2) To the store manager or the person in charge:

Would you please allow me to survey in your store?

3) To sales assistants:

Would you please answer a questionnaire for me? We have a lottery arrangement of three iPods for our respondents.

Appendix 5 Information and consent form

Information and Consent Form

An investigation of the relationship between leadership styles and employee engagement: The moderating role of employee characteristics

You are invited to participate in a study investigating how leadership styles and behaviors of direct supervisors might influence employees.

This study is being conducted by Odyssey Zhang, PhD student, Macquarie Graduate School of Management (MGSM), Macquarie University. He can be contacted on 04-3158-6758 and odyssey.zhang@gmail.com. This research is part of his doctoral thesis being conducted to meet the requirements for the degree of Doctor of Philosophy in Management (PhD) under the supervision of Professor Gayle Avery (contact number: 9850-9930; email address: gayle.avery@mgsm.edu.au), Professor Elizabeth More (contact number: 9850-9136; email address: elizabeth.more@mgsm.edu.au) and Dr. Harald Bergsteiner (contact number: 9648-0220; email address: harrybergsteiner@internode.on.net) of the Macquarie Graduate School of Management (MGSM), Macquarie University.

If you decide to participate, you will be asked to complete a questionnaire that takes approximately 15 minutes to finish. The questions, which are adopted from the literature and slightly modified, are such that you can answer them without having to look up any information. Answering the questionnaire will mean you are put into the draw with a chance of winning one of three iPods. The details of the lottery arrangement are provided on the back of this sheet.

Any information or personal details gathered in the course of the research are confidential. No individual participants will be identified in any publication of the results. Only the researcher and his supervisors will have access to the data.

Your comments will be analyzed together with responses from others. A summary report with no individual identification would be released as requested to store managers and respondents. If you would like the report, please write down your email information on the questionnaire. The research report will be emailed to you when the study is completed. Overall findings may be published in some academic journals or management magazines.

Participation in this study is entirely voluntary. You are not obliged to participate.

I, *(participant's name)* have read *(or, where appropriate, have had read to me)* and understand the information above and any questions I have asked have been answered to my satisfaction. I agree to participate in this research, knowing that I can withdraw from further participation in the research at any time without consequence. I have been given a copy of this form to keep.

Participant's Name:
(block letters)

Participant's Signature: _____ Date:

Investigator's Name:
(block letters)

Investigator's Signature: _____ Date:

The ethical aspects of this study have been approved by the Macquarie University Ethics Review Committee (Human Research). If you have any complaints or reservations about any ethical aspect of your participation in this research, you may contact the Ethics Review Committee through the Director, Research Ethics (telephone 9850 7854; email ethics@mq.edu.au). Any complaint you make will be treated in confidence and investigated, and you will be informed of the outcome.

(INVESTIGATOR'S [OR PARTICIPANT'S] COPY)

Appendix 6 Survey situation report

Survey Situation Report

Store Code		Date		Time	
Survey Situations		**Answers**			
1. Store manager's email address if he/she would like the research report					
2. Questions that respondents asked					
3. Any special matter that might influence the respondents in answering the questionnaires? (write it down if any)					
4. Mail survey?		Reply Paid service		Agreed return-and-collect time	
5. Invitations to participate		6. Number of eligible responses			
7. Any other special issues you encountered in this store while you were collecting data? (write it down if any)					
Memo					
Name of Research Assistant					

Appendix 7 Introduction letter sample

Centre Management Office (or Concierge Desk)
Westfield Parramatta
159-175 Church St
Parramatta NSW 2150

18/08/2009

Dear Sir or Madam,
We are writing in the hope that you can permit us to conduct a survey in your shopping mall.

The research topic of the survey is *An investigation of the relationship between leadership styles and employee engagement: The moderating role of employee characteristics*. 400 sales assistants working in retail stores in eight shopping malls across Sydney will be invited to participate in a study investigating how leadership styles and behaviors of direct supervisors might influence employees.

This study is being conducted by Odyssey Zhang, PhD student, Macquarie Graduate School of Management (MGSM), Macquarie University. He can be contacted on 04-3158-6758 and odyssey.zhang@gmail.com. This research is part of his doctoral thesis being conducted to meet the requirements for the degree of Doctor of Philosophy in Management (PhD) under the supervision of Professor Gayle Avery (contact number: 9850-9930; email address: gayle.avery@mgsm.edu.au), Professor Elizabeth More (contact number: 9850-9136; email address: elizabeth.more@mgsm.edu.au) and Dr. Harald Bergsteiner (contact number: 9648-0220; email address: harrybergsteiner@internode.on.net) of the Macquarie Graduate School of Management (MGSM), Macquarie University.

If potential respondents decide to participate, they will be asked to complete a questionnaire that takes approximately 15 minutes to finish. The questions, which are adopted from the literature and slightly modified, are such that the respondents can answer them without having to look up any information.

Any information or personal details gathered in the course of the research are confidential. No individual participants will be identified in any publication of the results. Only the researcher and his supervisors will have access to the data. The respondents' comments will be analyzed together with responses from others. A summary report with no individual identification would be released to store managers and sales-assistant respondents. Overall findings may be published in some academic journals or management magazines.

Participation in this study is entirely voluntary. Potential respondents are not obliged to participate.

The ethical aspects of this study have been approved by the Macquarie University Ethics Review Committee (Human Research). If respondents have any complaints or reservations about any ethical aspect of their participation in this research, they may contact the Ethics Review Committee through the Director, Research Ethics (telephone 9850 7854; email ethics@mq.edu.au). Any complaint they make will be treated in confidence and investigated, and they will be informed of the outcome.

If you have any queries about the study, please do not hesitate to contact the researcher or his supervisors for further explanation. In two months, the research assistants of the study will visit your office to get your formal permission for undertaking research in your shopping mall. A report of the findings of this study would be sent to you if requested. If you would like the report, please reply to indicate. The research report will be emailed to you when the study is completed.

Your kind permission is greatly appreciated.

Yours sincerely,

Professor Elizabeth More
Professor Gayle Avery
Dr. Harald Bergsteiner
Mr. Odyssey Zhang
Macquarie Graduate School of Management
Macquarie University, NSW 2109
Australia

I, *(centre officer's name)* have read *(or, where appropriate, have had read to me)* and understand the information above and any questions I have asked have been answered to my satisfaction. I permit them to conduct their research in this shopping mall. I have been given a copy of this form to keep.

Centre officer's Name:
(block letters)

Centre officer's Signature: _____ Date:

Appendix 8 Lottery arrangement

The lottery will take place at Macquarie Centre at 1 pm on Monday, 16/11/2009.

How much: Three iPods in total

The procedure of the lottery: The researcher will email all the participants to invite them to the drawing spot. Since the drawing spot is in the area of Macquarie Centre where many participants work, some of them would attend. The attendees will elect three representatives to respectively draw a slip from a box, in which all the participants' email address slips are put. The representatives will read the iPod winners' email addresses loudly. The whole process will be videoed with a camcorder. Then the relevant video will be uploaded to a cyberspace, e.g., You Tube. After that, all the participants will be emailed with the hyperlink of the video clip within two days after deciding the winners. The relevant prize is given to each prize winner within seven days after the result is decided (NSW Office of Liquor, Gaming and Racing, 2008). The procedure is designed to assure the participants of the fairness of the lottery process and results. To ensure the legality of the lottery arrangement, the Fact Sheet for Gratuitous Lotteries derived from NSW Office of Liquor, Gaming and Racing (2008) is followed.

Appendix 9 Dataset

Please email to odyssey.zhang@gmail.com for the dataset of this thesis.