Relationships between Leadership Behaviour and Subordinates'
Commitment: A Case Study in the Thai Mining Industry

by

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Abstract

This study focuses on the relationship between leadership behaviour, leadership satisfaction and organizational commitment. Based on transformational and transactional leadership models and organizational commitment models, this study determines effective leadership development in the context of the Thai mining industry. By conducting a mixed method (quantitative and qualitative) approach, this study provides extensive acknowledgement of leadership behaviour and organizational commitment in different circumstances.

This study explores and identifies the significant relationships between leadership behaviour factors and organizational commitment components by conducting surveys on 334 employees from four mining companies in Thailand. The results indicated that transformational leadership is the most preferable leadership style for employees. Transactional leadership however, is also considered necessary in some business management practices. This study investigates the causes and effects that impact leadership effectiveness by conducting in-depth interviews with senior mine staff.

In conclusion, as both styles of leadership (transformational and transactional) are significantly related to satisfaction with leadership and organizational commitment, this study suggests that combining transformational and transactional leadership characteristics can enhance leadership effectiveness in the Thai mining industry.

Declaration

I, Natchaphan Winyawong, declare that the thesis entitled "Relationships between Leadership Behaviour and Subordinates ' Commitment: a Case Study in the Thai Mining Industry" is no more than 65,000 words in length including quotes and exclusive of tables, figures, appendices, bibliography, references and footnotes. This thesis contains no material that has been submitted previously, in whole or in part, for the award of any other academic degree or diploma. Except where otherwise indicated, this thesis is my own work

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                                                    03   February, 2016

Signature   Date

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Chapter 1: RESEARCH PROBLEM

1.1 Introduction

This chapter provides an overview of previous studies of the relationship between leadership behaviour and level of commitment of subordinates in an organization. It concentrates on leadership style and the level of commitment demonstrated by employees in the Thai mining industry. This chapter is organized into six sections: 1.2 background to the research, 1.3 research problem and research questions, 1.4 research objective, 1.5 contribution to knowledge and statement of significance, 1.6 key definitions and 1.7 summary.

1.2 Background to the Research

The Thai mining industry benefits Thailand's economic and social development by contributing minerals and other primary materials to both domestic and international markets. In 2010 the Thailand mining industry supplied 7.8% of the gross domestic product (GDP) which increased from 2.9% from 2009. In 2011 Thailand became one of the world's leading mineral producers (Shi, 2012). Wu (2007) and Shi (2012) agree that productivity is a fundamental objective of the Thai mining industry, thus a study of leadership and organizational management will inform industry leaders on ways in which the performance and productivity may be improved.

According to Bass and Avolio (2004), style of leadership behaviour is generally divided into two main categories, namely 'transformational' leadership and 'transactional' leadership. Previously the relationship between these two leadership behaviours was described by two different concepts. On one hand, transformational leadership is a comprehensive concept of transactional leadership (Burns, 1978). On the other hand, transformational leadership and transactional leadership are separate concepts, as both styles have their own characteristics (Bass, 1985). Researchers agree that the transformational leadership style is more effective than the transactional style (Savery, 1994, Bass and Avolio, 1994, Sarros and Santora, 2001, Limsila and Ogunlana, 2008, Toor and Ogunlana, 2009). However, some researchers recommend that adapting and using both styles will increase the efficiency of management performance (Bass and Avolio, 1998, Brain and Lewis, 2004, Limsila and Ogunlana, 2008, Toor and Ogunlana, 2009). This study is based on the transactional and transformational leadership model. These two leadership styles consider different leadership attributes of followers. It is possible to statistically compare the differences of leadership outcomes to determine leadership behaviour development for the Thai mining industry (Cacioppe, 1997, Limsila and Ogunlana, 2008, Toor and

Ogunlana, 2009). The impact of leadership behaviour on followers is supported by Lueder's (1985a,1985b) and Hersey's (1985) studies who agree that the reaction or the perception of subordinates to their leader will be different according to their personality (Lueder 1985a; Lueder 1985b; Hersey 1985 cited in Thompson & Vecchio 2009).

Subordinates' commitment to the organization is inspired by the leader–subordinate relationship, thus the quality of subordinates' work performance can be influenced by direct (for example, job promotion) and indirect (for example, favourable relationship) benefits from their leader which will be returned in the form of dedication and commitment. In order to improve work efficiency, leaders have to observe their performance by focusing on subordinates' work commitment; as a result, monitoring their subordinates' commitment may passively influence leaders into changing or improving their leadership behaviour. Therefore, acknowledging the relationship between leadership behaviour and organizational commitment has the potential to improve work efficiency (Eden and Levitan, 1975, Albritton and Oswald, 2005, Lee, 2005, Limsila and Ogunlana, 2008, Loi et al., 2012).

1.3 Research Problem

Although there are many studies on the impact of leadership behaviour and leadership effectiveness on organizational performance, most of them concentrate on a top-down management perspective (Bass and Avolio, 1994, Cardona, 2000, Avolio and Gardner, 2005, Limsila and Ogunlana, 2008, Peterson et al., 2012). As a consequence, the leader–follower relationships at each level in the organization hierarchy, or incremental leader–follower relationships from the bottom-up perspective, still remain poorly explored (Carsten et al., 2010, Whiteley et al., 2012). Therefore, this research addresses the following questions:

    a) How to develop effective leadership behaviour for the Thai mining industry context?

In regard to the above question and the literature (Albritton and Oswald, 2005, Carsten et al., 2010, Whiteley et al., 2012), leaders and their leadership behaviour are influenced by culture and their subordinates (followership behaviour). Sub-questions to be addressed about the inter-relationship between leaders and their followers are:

    I. How can leadership behaviour be influenced by their national culture?
    II. How can leadership behaviour be influenced by subordinates who are also influenced by their national culture?

There are three main reasons for choosing the Thai mining industry as a research area. First, Thai mining companies are predominantly multinational, creating a culturally rich working environment. Second, there is broad job diversity across office and mine site operations. Last, there is no recent research specifically addressing the issue of leader/follower relationships and how they may impact the productivity and performance of the Thai mining industry.

1.4 Research Objective

The main aim of this research is to investigate leadership performance and leadership effectiveness in various levels of management and to identify appropriate leadership behaviour within the Thai mining industry and how leadership effectiveness is influenced by subordinates' behaviour, organizational commitment, organizational culture and national culture. A case study approach will be used based on results from the following investigation:

1. Questionnaires exploring leadership behaviours in four mining companies in Thailand to investigate the current situation between effective and ineffective leadership at all organizational levels and to investigate the current relationship of leadership style, leadership performance, leadership outcome and organizational commitment;
2. In-depth interviews, coupled with the results from questionnaires, to investigate the influence of: subordinates' behaviour on leadership behaviour; organizational commitment on leadership behaviour; organizational culture on leadership behaviour; and national culture on leadership behaviour.

Acknowledging the factors that influence leadership behaviour will help leaders to adjust leadership behaviour to be more appropriate in each level of operation within the Thai mining industry. Additionally, this research may assist in discussion of the appropriate leadership behaviour to support management performance across other industries in Thailand.

1.5 Contribution to Knowledge and Statement of Significance

The mining industry involves not only the Thailand economy but also Thai people for the past 300 years (Sombut, 2008). The Department of Mineral Resources reports that Thailand's identified minerals are antimony, ball clay, barite, bentonite, coal (lignite), copper, crude petroleum, diatomite, feldspar, fluorite, gold, gypsum, iron ore, kaolin, lead, limestone, manganese, marl, natural gas, phosphate rock, potash, quartz, rock salt, silica sand, tin, tungsten, and zinc (Wu, 2007). The top five most important minerals produced in terms of value in 2005 are coal (lignite), gold, gypsum, limestone, and zinc. Moreover, Thailand in 2005 was the leading mineral exporter of cement, gypsum, refined petroleum products, refined tin and zinc. Although the mining industry accounted for only 2% of

Thailand's GDP in 2000, the significant activities of the mining industry that support value-added downstream industries is significant, such as cement for the construction industry and coal (lignite) for electricity (Sombut, 2008). Unfortunately, research about business management in the mining industry in Thailand in very limited, as most of the identified reports are about mine operation, engineering and environmental aspects (Sombut, 2008, Wu, 2007, JRank, 2007). As a consequence, studies on leadership and management in the mining industry are worthwhile to be fulfilled since leadership behaviour and effective leadership are considered to support business management performance (Limsila and Ogunlana, 2008, Bass, 1985, Bass and Avolio, 1994, Burns, 1978, Dunkerley, 1972, Brain and Lewis, 2004, Rabey, 2005, Pryor et al., 2007, Aaltonen and Ikavalko, 2002).

Although effective leadership is one of the keys to organizational management success, achieving effective leadership can be complicated without acknowledging internal and external factors that influence leadership effectiveness (Aaltonen and Ikavalko, 2002, Fiona and Janet, 2001, Freedman, 2003, Raps, 2005, Sterling, 2003, Pryor et al., 2007). Therefore, acknowledging the relationships between leadership behaviour and organizational commitment reveals significant elements that support effective leadership which benefits business management and productivity in the Thai mining industry as a whole.

This section outlines the academic and practical contribution of this study to leadership. Further details are discussed in chapter 6.

1.5.1 Contribution to Knowledge (Academic Contribution)

This study investigates the relationships between leadership behaviour, subordinate behaviour, organizational commitment, organizational culture and national culture in the Thai mining industry from two perspectives: top-down and bottom-up.

1. **Top-down Perspective**: This study begins with an investigation of the relationships between leadership behaviour, subordinate behaviour and organizational commitment in the Thai mining industry through the application of Multi Leadership Questionnaires (MLQ) based on Bass and Avlio (2004) and Organization Commitment Questionnaires (OCQ) based on Meyer and Allen (1993). The quantitative results and in-depth interviews illustrate inter-relationships among leadership styles, leadership outcomes, leadership satisfaction and organizational commitment. Combined with the qualitative approach (in-depth interview), the result contributes acknowledgement of leadership and management from the top-down perspective. The information from in-depth interviews demonstrates how and why leaders and managers are performing either a particular style or various styles of leadership towards

their line of command. The top-down perspective refers to the view down the chain of command from leader to subordinate at all levels of the organization.

2. **Bottom-up Perspective**: By analyzing gathered data from both quantitative and qualitative approaches, the results reveal common statements that effect leadership effectiveness. The quantitative results illustrate the broad picture of relationships between leadership behaviour, leadership outcome and organizational commitment that are perceived by employees within the Thai mining industry. As a consequence, combining in-depth interviews and the results from the questionnaires, this study will be able to analyze interrelationships between leaders and followers from the bottom-up perspective and also be able to investigate factors that influence leadership effectiveness in different circumstances. The bottom-up perspective refers to the view up the chain of command from subordinate to leader at all levels of the organization.

The top-down perspective contributes to the understanding of the inter-relationship between leadership behaviour, leadership outcome, leadership satisfaction by subordinate and organizational commitment in the Thai mining industry. In contrast, the bottom-up perspective contributes to the understanding of leadership performance and the factors influencing leadership behaviour that supports the improvement of leadership and management in the Thai mining industry context.

1.5.2 Statement of Significance (Practical Contribution)

1. In a socially diverse environment where people share different interests and attitudes that requires different approaches from leaders, this study will clarify the understanding of how a leader is influenced by followers and a multicultural working environment to increase leadership performance and organizational productivity;
2. This study contributes empirical evidence for CEOs, leaders, managers and supervisors to enhance their leadership performance and their management performance to be more efficient and suitable to working circumstances, especially in the Thai mining industry or other industries that are similar in organizational structure;
3. This understanding will be of significant value to the Thai mining industry in terms of the organizational management perspective and also the Thai economy in general because of the impact of the industry on the national economy.

1.6 Key Definitions

Culture: An integration of norms and values that are shared by members within one society (Hofstede, 1983)

Follower (or Subordinate): A follower is a person who receives orders or follows orders through the organization hierarchy, for instance a head of a department can be a general manager's follower and a general employee is also defined as a subordinate (follower) (Sims Jr et al., 2009, Carsten et al., 2010).

Followership Behaviour: The individual behaviour of a follower in relation to a leader or anyone who has a higher status (Carsten et al., 2010).

Followership Performance: The degree of the subordinates' contribution and work motivation to their organization (Sims Jr et al., 2009, Carsten et al., 2010)

Leader: A person who leads or makes decisions for followers to follow that, in general, includes a member of the "C-Suite" (Chief Executive Officer (CEO); Chief Operating Officer (COO); Chief Information Officer (CIO); Chief Financial Officer (CFO)) and also the senior manager, supervisor and head of each department in the organization.

Leadership Behaviour: The process of influencing a group or team by using leadership characters such as vision, intellectual stimulation, inspiration and trust to lead the group towards achievement of goals (Bass, 1985, Avolio and Gardner, 2005, Limsila and Ogunlana, 2008).

Leadership Behaviour Factors: Based on Bass and Avolio (2004), the Multifactor Leadership Questionnaire (MLQ) model consisting of nine factors which cover most of the leadership behaviour elements are: Contingent Rewards, Management-by-Exception (active), Management-by-Exception (passive), Idealized Influence Charisma, Inspirational Motivation, Intellectual Stimulation, Individualised Consideration and Laissez-Faire.

Leadership Outcome: The result of leadership performance as indicated by those who express their opinion by completing a questionnaire and rating their leader that is measured by their view of the effectiveness of their leader. The ratings by subordinates provide an indication of leadership outcome in relation to three elements: a) extra effort, b) effectiveness and c) satisfaction with the leadership (Bass and Avolio, 2004).

Leaders-Member Exchange Theory (LMX): A theory focuses on the two-way relationship between a leader and a follower that is developed by Graen and Uhl-Bien (1995) who state that this LMX can

influence a subordinate's responsibility, job commitment and performance as it enhances a positive relationship between a leader and a follower.

Multifactor Leadership Questionnaires (MLQ): A leadership measurement tool that is designed and developed by Bass and Avolio (2004) in order to measure a range of leadership styles from passive to active behaviour and also identify the characteristics of transformational and transactional leadership behaviour.

Organizational Commitment: A course of action that is constantly encouraged to meet organizational goals and interests for the sake of organizational stability and productivity (Allen and Meyer, 1990). Based on Meyer and Allen (2004), organizational commitment consists of three commitment components which are a) affective commitment, b) continuance commitment and c) normative commitment.

Situational Leadership Theory (SLT): A leadership theory developed by Hersey and Blanchard (1977) with an idea of "there is no single best leadership style". The authors claimed that the most successful leader is the one who adjusts his/her leadership approaches accordingly to a particular circumstance.

Transactional Leadership: Leadership attributes associated with corrective and constructive transactions (task oriented). This type of behaviour is based on a reward and punishment system that controls followers (subordinates) by offering conditions or agreements in exchange for followers' work efforts to achieve goals or targets (Bass and Avolio, 2004). Transactional leadership behaviour consists of two leadership behaviour factors which are a) contingent reward and b) management-by-exception (active) (Bass and Avolio, 2004).

Transformational Leadership: Leadership attributes associated with the relationship between leader-subordinate (relationships oriented) that encourage followers' (subordinates) work contribution by building trust, listening and caring for the needs of followers. Transformational leadership behaviour consists of five leadership behaviour factors which are a) idealized attributes, b) idealized behaviours, c) inspirational motivation, d) intellectual stimulation and e) individualized consideration.

1.7 Summary

This chapter identifies research gaps that are constructed by acknowledging the research background of leadership and business management within Thai mining industry. This acknowledgement is consequentially setup as research objectives to investigate the current situation of leadership

performance within Thai mining industry context, and the reasons for conducting this study in the Thai mining area are also explained (see Section 1.2 'Background to the Research', p.1). As a consequence, a research proposal based on the research problems is introduced to determine leadership behaviour development within the Thai mining industry, and this acknowledgement is expected to benefit the notion of leadership and business management in both academic contribution and practical contribution for the sake of organizational performance and productivity (see Section 1.5 'Contribution to Knowledge and Statement of Significance', p.3). Some of the key definitions in regard to the research variables and related contents are also provided in this section.

Chapter 2: LITERATURE REVIEW

2.1 Introduction

This chapter provides a critical literature review that is related to the research objective. This chapter is divided into four major sections. The first section provides the various concepts of leadership behaviour, leadership performance and leadership outcome, the second section explores the concepts of followership behaviour and the impact on leadership effectiveness, the third section explores the concept of organizational commitment, and the last section reveals the linkages among leadership behaviour, followership behaviour and organizational commitment.

2.2 Leadership Behaviour

According to the concept of self-leadership, the ability of leaders to empower and encourage their followers to be more participatory requires those followers to be engaged and generate substantial contributions to the organization. Where self-leadership is required by followers, they need to be empowered and supported by the leader (Lovelace et al., 2007, Norris, 2008, Carsten et al., 2010). This concept supports the view of the leader role being present in various positions in an organization. Within the organizational structure, only some people in each department stand out as self-leaders or as team leaders (Lovelace et al., 2007, Carsten et al., 2010).

Figure 2.1: Leadership Linkage
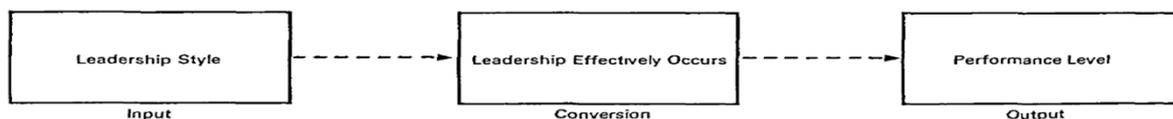
Source: (Dunkerley, 1972) 59

According to the original model of leadership style and leadership performance, Rost (1991) demonstrates that

1. The more the concern expressed by leaders, the higher the team performance level, consequently, that results in a lower rate of turnover, absenteeism and grievances;
2. The more expectation that is expressed by leaders, the higher the team performance;
3. The more open the management style, the higher the team performance level.

In the next section the definition and explanation of performance of each leadership style and disaggregation into leadership behaviour factors is provided.

2.2.1 Concepts and Definitions

MacGregor Burns (1978) was the first to introduce the concept of transforming leadership behaviour, by defining leadership as:

> Leaders including followers to act for certain goals that represent the values and the motivation — the wants and need, the aspiration and expectation —of both leaders and followers. And the genius of leadership lies in the manner in which leaders see and act on their own and their followers' values and motivations.
>
> (MacGregor Burns (1978), p.133)

Burns (1978) categorized leadership into two different forms: transactional leadership and transforming leadership. He claimed that these two leadership types are fundamentally different in terms of characteristics and behaviour. He claimed transactional leadership as a behaviour based on economically and psychologically-based exchange relationships between leaders and followers. He pointed out that the transactional leader is a negotiator who makes an agreement with subordinates in order to encourage their performance. In contrast, he described the transforming leader as based on motivation and morality with leaders and followers having ethical aspirations and supporting each other towards shared goals.

Bass (1985) extended the transforming leadership concept of Burns (1978) by arguing that transforming behaviour needs to embrace a comprehensive concept of a transactional leadership including the visionary, motivational, coaching and developmental elements of transformational leadership. Therefore, Bass replaced the term 'transforming leadership' into 'transformational leadership', as he claimed that leaders can transform followers to be more active through personal motivation and performance. A transformational leader shows determination regarding goal achievement to followers, and thus encourages followers to show their respect, trust and loyalty, and increase their motivation and performance (Bass, 1985, Bass and Avolio, 1994). In measuring leadership styles, Bass also pioneered a measurement model for leadership behaviour factors that was further developed by Bass and Avolio (Bass and Avolio, 1994, Bass and Avolio, 1998, Bass and Avolio, 2004). As a result, in 2004, Bass and Avolio introduced a full range leadership development model together with training programs designed to facilitate transformational leadership behaviour.

2.2.1.1 Transactional Leadership and Transformational Leadership Theory

Since the concepts of transactional and transformational leadership style were recognized, many studies discussing the relationship between transactional and transformational leadership that impact on followers and organizations were conducted (Cacioppe, 1997, Harter, 2002, Gardner et al., 2011,

Fisk and Friesen, 2012). Kuhnert (2012) clarifies and extends the transactional and transformational leadership model by using constructive and development theory. He claimed that personal experience and perception were found to be critical personality traits in transactional or transformational leaders. This statement was countered by Bass (2002) as he stated that although personal experience and perception may impact a leader's personality traits, a leader still desires to behave as transactional or transformational leader.

Bass (2002) recognized style of leadership in this period (the 1990s) and identifies that most leaders aim to be transactional leaders. Nevertheless, by using Multifactor Leadership Questionnaires (MLQ), transformational leadership is identified in some politicians and various organizations. Thus, he claimed that the transformational leader is positively related to motivation and work contribution.

> Transformational leadership can be learned, and it can and should be the subject of management training and development. Research has shown that leaders at all levels can be trained to be charismatic in both verbal and non-verbal performance.
> (Bass (2002)p.27)

Bass (2002) introduces transformational leadership training programs for leadership development. His training program contained MLQ scores in which trainees were divided into three groups. The first group was trained in a transformational leadership program, the second group was trained by using a transactional leadership program, and the third group was untrained, with group performance being measured before and after a set period of time. His results show that although both trained groups improved in their performance, the transformational group showed less absenteeism and better productivity and citizenship behaviours with their colleagues.

In a review of the latest version of MLQs (MLQ Form 5X), Bass and Avolio (2004) developed a model which included the wording of items, and the discriminant validity of leadership factors while incorporating behaviours and scale attribution. The results indicate that the best structure of a MLQ survey consists of two correlated higher-order factors from transactional leadership behaviour, five lower order factors from transformational leadership behaviour and two factors from passive avoidant behaviour (Bass and Avolio, 2004, Michie and Gooty, 2005).

2.2.1.1.1 Transformational Leadership Behaviour Factors

The transformational leader is concerned with the alignment of the team's interests, as is the transactional leader. However the competency of transformational leaders, in addition to negotiation and controlling transactional behaviour, is creativity and vision (Bass, 1985, Cacioppe, 1997, Cardona, 2000), influence and inspirational motivation (Bass, 1985, Cacioppe, 1997, Cardona, 2000, Limsila and

Ogunlana, 2008), encouragement of trust, loyalty, commitment and respect toward leaders (Bass, 1985, Cardona, 2000, Brain and Lewis, 2004, Limsila and Ogunlana, 2008). Hence, the transformational leader is a charismatic and visionary leader who is able to influence team members to follow his/her objectives, that results in work commitment (Burns, 1978, Bass, 1985, Bass, 1990, Bass and Avolio, 2004, Limsila and Ogunlana, 2008).

1. **Idealized Influence Charisma**: This factor is composed of idealized influential behaviour of the leader. By showing determination and diligence of achieving the objectives, the leader is trusted and respected by the team members (Hofstede, 1983, Bass and Avolio, 1993, Barling et al., 1996, Arnold et al., 2001, Bass and Avolio, 2004, Dionne et al., 2004, Eisenbeiss et al., 2008, Limsila and Ogunlana, 2008);
2. **Inspirational Motivation**: Team motivation is encouraged by challenges and the leader's expectations. The spirit of the team is inspired by cheerfulness and agreement on attractive future achievements (Bass, 1985, Bass and Avolio, 1994, Cacioppe, 1997, Cardona, 2000, Bass and Avolio, 2004, Limsila and Ogunlana, 2008);
3. **Intellectual Stimulation**: Creative and innovative problem-solving are raised by the leader to support the team members (Bass, 1985, Bass and Avolio, 1994, Cacioppe, 1997, Cardona, 2000, Brain and Lewis, 2004, Dionne et al., 2004, Limsila and Ogunlana, 2008);
4. **Individualised Consideration**: Focusing on the individual's need in order to develop and support team growth to achieve higher stages of success (Bass, 1985, Bass and Avolio, 1994, Brain and Lewis, 2004, Dionne et al., 2004, Limsila and Ogunlana, 2008).

2.2.1.1.2 *Transactional Leadership Behaviour Factors*

Transactional leaders are generally good authoritarian negotiators or are even aggressive in order to gain the highest benefit from the team performance (Cardona, 2000). The economically-based exchange relationship develops between leader and team member, correlated with performance of the business, is based on reward and punishment systems (Burns, 1978, Bass, 1985, Barling et al., 1996, Cardona, 2000, Bass and Avolio, 2004, Tyssen et al., 2014).The transactional leader totally focuses on task accomplishment by negotiating extrinsic exchanges and on controlling the commitment of the team members (Burns, 1978, Cardona, 2000, Harter, 2002, Bass and Avolio, 2004, Tyssen et al., 2014).

1. **Contingent Rewards**: Based on a bargaining-exchange relationship between the leader and subordinates for achieving directorial goals which are clearly explained to the followers. 'The reward(s), which represents recognition and company expectations when a goal is achieved, are provided to the team by the leader (Burns, 1978, Bass, 1985, Cardona, 2000, Bass and Avolio, 2004, Brain and Lewis, 2004, Limsila and Ogunlana, 2008).
2. **Management-by-Exception (active)**: Watching for errors and mistakes which are strictly assessed and corrected as quickly as possible (Burns, 1978,

Bass, 1985, Cardona, 2000, Bass and Avolio, 2004, Brain and Lewis, 2004, Limsila and Ogunlana, 2008).

2.2.1.1.3 Passive Avoidant Behaviour

Bass and Avolio (2004) modified an additional leadership behaviour category which is called 'passive avoidant behaviour'. A leader who exhibits passive avoidant behaviour does not respond to problems or situations systematically. He or she avoids instructing a standard of goal or task achievement and does not provide expectations of the follower's achievement. Technically, passive avoidant behaviour consists of management by exception (passive) and laissez-faire (non-leader) which has a negative impact on follower's desire and leadership outcome.

1. **Management-by-Exception (passive)**: This type of leader does not react to problems or situations systematically, unless a specific problem occurs which involves intervention (Burns, 1978, Bass, 1985, Cardona, 2000, Bass and Avolio, 2004, Brain and Lewis, 2004, Limsila and Ogunlana, 2008);
2. **Laissez-faire (non-leader)**: This type of manager is likely to avoid using a leadership role and leaves team members to deal with problems. As a result the followers are often in conflict and behaving 'absence' and 'non-responsibilities' (Burns, 1978, Bass, 1985, Cardona, 2000, Bass and Avolio, 2004, Brain and Lewis, 2004, Limsila and Ogunlana, 2008).

In the literature, transformational leadership behaviour is considered to be the most effective leadership style as it raises a team's contribution and motivation which significantly impact on organizational productivity (Burns, 1978, Avolio and Yammarino, 2002, Brain and Lewis, 2004, Limsila and Ogunlana, 2008).Transactional leadership, however, is still needed as it is significantly related to clarity of organizational expectation, goal achievement and organizational values (Sarros and Santora, 2001, Brain and Lewis, 2004, Epitropaki and Martin, 2005). For example, Phetmany (1997) stated that

> Neither transactional nor transformational leadership behaviour alone is required when working with multicultural work forces . . . but rather a mix of certain attributes of the two leadership behaviours. In addition, different ethnic work groups require leaders to display certain behaviour attributes to differing degrees.
> (Phetmany 1997, p. 158 cited in Brain & Lewis 2004)

Although researchers agreed that transformational leadership is the most preferred leadership behaviour, a mixture of transformational and transactional leadership is still exhibited in many organizations (Cardona, 2000, Sarros and Santora, 2001, Brain and Lewis, 2004, Epitropaki and Martin, 2005, Limsila and Ogunlana, 2008).

In a study of leadership preferences in multicultural working groups employed in Australian government departments, Brain and Lewis (2004) found that people from Australian and non-Australian

backgrounds prefer their leaders to perform a mixed style of transactional and transformational leadership behaviour which only differs on intensity of style. Those from Australian backgrounds preferred moderately transactional and transformational leadership to be displayed by their leaders, whereas those from non-Australian background preferred more transformational leadership to be exhibited than transactional leadership. This phenomenon of leaders exhibiting mixed leadership behaviour is explained in several studies, including Cardona (2000) who found that neither transformational behaviour nor transactional behaviour alone can achieve the maximum management performance. He says it is not only dependent on how well leaders can exhibit their leadership skills, but how well their subordinates perceive such skills. He found that different types of subordinates' behaviour indicate they perceive determination of their leaders differently. Therefore a leader must adapt his or her leadership behaviour according to those types of subordinate behaviour. However, Sarros and Santora (2001) explained this phenomenon of mixed leadership achieving more success in business, as creating greater reliability for leadership outcome and performing more efficiently. As leaders are able to work effectively when their followers agree to follow, using appropriate leadership behaviour is one mechanism to support success. In practice, being a good leader is not just about leading teams or followers, but being interpersonal among them. Therefore, a good leader needs to be flexible and adjustable according to the particular organizational working environment.

In conclusion, researchers are generally agreed that transformational and transactional leadership behaviour can increase work efficiency in regard to team motivation (Harter, 2002, Avolio and Yammarino, 2002, Dionne et al., 2004, Brain and Lewis, 2004), team performance (Dionne et al., 2004, Judge and Piccolo, 2004) and organizational productivity (Bass and Avolio, 1994, Avolio and Yammarino, 2002, Brain and Lewis, 2004, Judge and Piccolo, 2004, Epitropaki and Martin, 2005, Limsila and Ogunlana, 2008). Although researchers agree that transformational leadership behaviour achieves better performance than transactional leadership behaviour (Bass, 1985, Bass and Avolio, 1994, Cacioppe, 1997, Michie and Gooty, 2005, Limsila and Ogunlana, 2008), a mixture of transformational and transactional leadership is generally recommended (Phetmany, 1997, Cardona, 2000, Sarros and Santora, 2001, Brain and Lewis, 2004, Epitropaki and Martin, 2005, Limsila and Ogunlana, 2008).

2.2.1.2 Situational Leadership Theory

Hersey and Blanchard (1977) support the idea which leaders exhibit directive and/or supportive styles depending on the situation, claiming that there is no one best leadership style which is appropriate for

all circumstances. Building on this idea, the concept of situational leadership has been used as a basic tool for several situational leadership models.

2.2.1.2.1 Original Version of Situational Leadership Model (SLT)

Hersey and Blanchard (1977) first introduced a situational leadership model (SLT) based on the maturity and willingness of followers. Maturity was considered as the ability of a responsible follower who directs him or herself towards the particular circumstance, and willingness was measured by their motivation, commitment and self-confidence. Hersey and Blanchard divided situational leadership styles in this SLT model into four categories:

1. **Telling**: Compatible with low maturity levels where followers need to be directed. Here a leader is required to tell his or her followers what, when, where, why and how to complete a specific task. This type of leadership emphasizes on directive and low-relationship behaviour.
2. **Selling**: Compatible with low to moderate maturity followers who are willing to complete a task but still unable to be fully relied on the result. Here a leader needs to be directive and supportive at the same time to reinforce followers' willingness and enthusiasm.
3. **Participating**: Compatible with moderate to high maturity followers, this type of leadership behaviour builds up followers' self-confident and enthusiasm. Here two-way communication needs to be maintained between leaders and followers who shares decision-making in supporting overall activities. The leader, however, remains the key person who provides the main objectives to the group.
4. **Delegating**: Compatible with high maturity, these followers have the ability to motivate themselves to complete the task, need only moderate direction and support from their leader. As followers are psychologically mature, they are allowed to make decisions in order to complete a task, and be responsible for the result. Delegating behaviours require low level relationships between leaders and followers.

In the development of follower behaviour, Hersey and Blanchard (1977) describes three levels:

1. **Low competence and high commitment**: Developed from 'unwilling and unable' (low experience), as people who are inexperienced may still have high motivation and enthusiasm to learn new skills.
2. **Developed some competence and low commitment**: Developed from 'unable but willing' when followers have been discouraged by insufficient training or supervision in the task they have to achieve. Although followers' competences are improved, they may still feel unable to push themselves further.
3. **High competence and variable commitment**: Developed from 'able but unwilling' as followers are developed. However, their commitment level is still dependent on a "day to day" work commitment basis due to lack of encouragement from their leaders.

The key point of Hersey and Blanchard (1977), the SLT model is that a situational leader has to appropriately adjust his or her leadership behaviour according to the level of followers' maturity and willingness. A more directive behaviour is appropriate when the level of maturity and willingness is low as it encourages immature followers to be more productive. On the other hand, when the level of followers' maturity and willingness is high, a leader only needs to provide support by encouraging follower's self-confidence and giving them more independence in terms of decision-making (Hersey et al., 1979).

2.2.1.2.2 Situational Leadership Model II (SLTII)

Blanchard (2007) extended the Hersey and Blanchard (1977) situational leadership model to SLTII by developing a relationship between leadership behaviour and the follower developmental level. He renames and proposes new definitions for all three levels of the followers' development, adding one new level as follows:

1. **Enthusiastic Beginner***:* Developed from 'low competence but high commitment'. As a beginner is naturally enthusiastic. However, due to being low in competence, a directive leadership is needed to control, train and supervise him/her to improve their skill (developed from Hersey and Blanchard 1977).
2. **Disillusioned Learner***:* Extended from 'developed some competence but low commitment'. Ideally this type of follower has some skill but lacks confidence. Therefore, a coaching style of leadership, including supportive and directive behaviours, is needed to encourage followers to be more productive (developed from Hersey and Blanchard 1977).
3. **Capable but Cautious Performer**: Developed from 'high competence but variable commitment'. This type of follower is highly skilled, but lacks confidence and sense of sustained responsibility. A supportive leadership style with highly supportive behaviour but low directive behaviour is needed, as these followers only need to be encouraged rather than pushed by the leader (developed from Hersey and Blanchard 1977).
4. **Self-reliant Achiever**: High in both competence and commitment. This type of follower is suited to the delegating styles of leadership in which a leader exhibits low supportive behaviour and low directive behaviour. As followers are fully skilled and confident, they prefer only moderate supervision from their leader so they can prove themselves to their organization (developed from Hersey and Blanchard 1977).

Situational leadership models (SLT and SLTII) not only focus on leadership behaviour and the impact but also on follower's attributes based on their developmental level (Thompson and Vecchio, 2009). In which the higher the level, the lower the need of a leader support and direction (Thompson and Vecchio, 2009, Blanchard, 2007). Thompson and Vecchio (2009) describe a higher follower's developmental level as not optimizing only leadership effectiveness but also determining the 'decision-making power'

of the leader. Despite these advantages, they point out that the validity of SLT models fundamentally has been overstated, although it provides a case scenario, SLT does not show frequency of occurrence. The SLT model may enable the conceptualization of a social dynamic, but not assist in understanding the leadership principle (Blanchard, 2007, Thompson and Vecchio, 2009). Although the SLT theory has some limitations, it can account for the way leadership behaviour is executed (Hersey et al., 1979, Blanchard, 1988, Blanchard, 2007, Thompson and Vecchio, 2009, Stenmark and Mumford, 2011).

2.2.1.3 Leader-member Exchange Theory

The leader-member exchange theory (LMX) focuses on a dyadic relationship between leaders and followers when their relationships are negotiated over time (Schriesheim et al., 1999, Lee, 2005, Hooper and Martin, 2008, Volmer et al., 2012).

> Leader-member exchange is a) a system of components and their relationships b) involving both members of a dyad c) involving interdependent patterns of behaviour and d) sharing mutual outcome instrumentalities and e) producing conceptions of environments, cause maps, and value
> (Scandura, Graen and Novak 1986, p. 580 cited in Schriesheim et al. 1999)

Graen and Uhl-Bien (1995) summarized the history of LMX theory development into four stages. The first stage is referred as 'average leadership style (ALS)' when a leader displays constant leadership behaviour to all followers. The second stage is when a leader starts to explicate his or her behaviour according to LMX constructs. The third stage is when a leader starts to develop partnerships with followers on a one-to-one basis. The final stage is when a leader develops dyadic relations within the organizational system. The LMX includes social exchange relationships, individualized leadership, supervision attention, incremental influence, obligation, respect, trust and maturity of relationship (Schriesheim et al., 1999, Graen and Uhl-Bien, 1995).

Schriesheim et al. (1999) explained some confusions that exist within the LMX model, by discussing the validation of LMX theory in three aspects as follows:

1. **LMX Model**: Schriesheim et al. (1999) claimed that although the LMX model has been developed over time, there is no correlation between the explanation of changes. This lack of explanation of the difference of changes causes confusion with a further model development. Therefore, they propose to include a broader-based, systematic synthesis and integration of LMX literature within the LMX construct.
2. **Measurement**: Schriesheim et al. (1999) pointed out that there is no clarification with LMX scales development and scale validity. None of scale measurement is based on psychometric, systematic study or explicit construct, such as an 'exchange process'. This measurement scale does not significantly measure a leader-member exchange activity.

3. **Analysis**: Schriesheim et al. (1999) indicated a dissatisfaction on a level of analysis as 1) LMX should specify an analysis level where an effect is occurred and 2) an analytic method to test each level where an effect occurred should be raised within the LMX model. Therefore, they claim that without a direct and explicit level of analysis, LMX model (by itself) is insufficient to analyse such a complex phenomenon as leader-member exchange.

Although the LMX model has some confusion within its construct (Schriesheim et al., 1999), LMX is still a well-recognized approach to study in organizational behaviour (Lee, 2005, Harris et al., 2009, Kim et al., 2010, Volmer et al., 2012). LMX is commonly used as predictor of turnover (Kim et al., 2010), work commitment (Lee, 2005), employee reaction (Hooper and Martin, 2008), job satisfaction (Fisk and Friesen, 2012) and job autonomy (Volmer et al., 2012). Additionally, applying LMX together with other instruments is also commonly used, for example, Lee (2005) applies LMX along with the Bass and Avolio (2004) MLQ to study a relationship between superior and respondents. He discovered that LMX is significantly associated with transformational leadership and organizational commitment.

2.2.1.4 Authentic Leadership Theory

Avolio and Gardner (2005) define authentic leadership as the values and beliefs of leaders who align behaviours and actions across various challenges. They present an authentic leadership as an inclusive self-based leadership model where self-awareness, positive modelling and self-regulation are encouraged. Theoretically, behaving as an authentic leader is also encouraging development of authenticity in followers. In return, authentic followers also contribute their well-being and sustain their performance to their leader:

> Owning one's personal experience, be they thoughts, emotions, needs, wants, preferences or beliefs, processes captured by the injunction to 'know oneself' and further implies that one acts in accord with the true self, expressing oneself in ways that are consistent with inner thoughts and feelings.
> (Harter 2002, p. 382)

By considering a term of rational transparency, rather than just information sharing, authentic leaders and followers have to be more transparent in a matter of 'eudemonic well-being' to maintain trust, engagement and performance (Avolio and Gardner, 2005). Gratitude and appreciation, for instance, will encourage self-transcendence in both leaders and followers to reflect their equality, honesty and loyalty (Michie and Gooty, 2005).

Avolio and Gardner (2005) state that authentic leadership theory consists of positive leadership in common such as articulating and transforming leaders and followers with leadership attribute (transformational leadership), devoting leadership behaviour and motivational mechanism (charismatic

leadership), acknowledging leader's self-awareness and regulation (servant and spiritual leadership). On the other hand, they differentiate authentic leadership theory from other theories as only authentic leadership integrates every form of positive leadership although a particular set of leadership behaviour will be displayed dependent on a specific situation.

2.2.1.4.1 Authentic Leadership Development Components

Avolio and Gardner (2005) mapped an authentic leader's theoretical territory by higlighting some initial conceptualization of leadership from alternative perspectives as follows:

1. **Positive Psychological Capital**: Described as the personal resources of a leader which is demonstrated by positive psychology (confidence, optimism, hope and resilience). Theoretically, positive psychology is hypothesized to enhance leader self-awareness and self-regulatory behaviour, in other words, a positive psychological capital leader is willing to develop and change his or her working environment and community.
2. **Positive Moral Perspective**: Described as a decision making process which creates an ethical and transparency action. A leader needs to project moral capacity, resiliency, ability and bravery to maintain moral actions.
3. **Leader Self-awareness**: Described as an initial process to understand his or her strengths, weaknesses whether talented or experienced. A leader's self-awareness is fundamentally relevant to authentic leadership development as self-awareness occurs over time when an individual continually recognizes his or her own values.
4. **Leader Self-regulation**: Described as a process where leaders align their actions, intentions and values by formulating a standard from the discrepancies of the actual or expected outcome. Authenticity regulation involves internalized, unbiased process, rational transparency and authentic behaviour.
5. **Leadership Processes/behaviour**: Proposition of leader–follower development process that shows the steps of how the leader influences the follower on their development. The development process is described as 'leading by example' that involves positive modeling, personal and social identification, emotional contagion, supporting self-determination and positive social exchanges.
6. **Follower Self-awareness/regulation**: Followers are expected to develop their values, identity and emotions towards internalized regulatory processes, balanced information processing and transparent relations with their leader.
7. **Follower Development**: As the follower acknowledged their own values and beliefs, their development is expected to be more closely related with their leaders.
8. **Original context**: Authentic leadership is expected to integrate and sustain a positive organizational culture which includes ethical, inclusion, uncertainty and positive strengths-based approach. A comprehensive organizational environment encourages both leaders and followers to be effective as they continually learn and develop their personal growth.

9. **Veritable and Sustained Performance Beyond Expectation**: Veritable and sustained performance are considered as essential elements of organizational growth in regards to organizational capital (human, financial, knowledge and intangible assets) and considers how the organization is proceeding with its continued performance.

Authentic leadership encourages followers to be more participatory through their views and questions. Therefore, authentic leadership integrates all other forms of positive leadership and aligns with values and beliefs to overcome various challenges (Avolio and Gardner, 2005).

2.2.2 Leadership and Culture

Since leadership study has been acknowledged across the world, cultural issues have been seen as one of the factors influencing leadership effectiveness. The literature recognises that individual behaviour and attitude is shaped by culture which results in leadership perception and leadership outcome (Soares et al., 2007, Dorfman et al., 2012, Lee et al., 2014). Culture therefore is defined as:

> The complex whole which includes knowledge, belief, art, morals, custom and any other capabilities and habit acquired by man as a member of society.
> (McCort D and Malhota 1993, p. 97)

Although cultural patterns are distinct from the political, legal, economic, education and technological environment, it is strictly relevant to all macro and micro levels in influencing norms, behaviour and values of a particular society (Soares et al., 2007). Therefore, this study focuses on the culture influencing leadership effectiveness in two aspects which are a) national culture and b) organizational culture.

2.2.2.1 National Culture

Globe study project on culture and leadership by Dorfman et al. (2012) explored the relationship between leadership behaviour and national culture and involved over 200 researchers from different academic disciplines to investigate the complexity of the relationship between culture, organizational behaviour and leadership behaviour. They claimed that although evidence supports leadership expectation is significantly influenced by national culture, focusing on national culture does not facilitate prediction of leadership behaviour. This statement is consistent with other literature suggests that national culture does not shape the style of leadership behaviour; however, it forms the perception and expectation of the local towards leadership behaviour (Soares et al., 2007, Testa, 2009, Dorfman et al., 2012, Lee et al., 2014).

Soares et al. (2007) described the cultural framework of Hofstede's cultural dimensions, although the authors were concerned that this framework may not be contemporary due to four out of five initiative dimensions emerged from 1967 to 1973, they still suggest that this cultural framework is an appropriate foundation for formulating a comparative cross-culture study. Hofstede's cultural five dimensions therefore, are described as follows:

Power Distance: Described as a reflection of an unequal relationship and authority between people in a specific society. A high degree of power distance encourages the society to be more individualistic and dependent on hierarchy. On the other hand, a low degree of power distance supports society to be more collectivist oriented (Hofstede, 1983, Soares et al., 2007).

Individualism–Collectivism: Described as a degree of individual contribution that is integrated into a particular society. Individualism means that an individual maintains self-interest as well as independency, whereas, collectivism means that an individual puts him or herself into group or society and prioritizes group achievement over him or herself (Hofstede, 1983, Soares et al., 2007).

Uncertainty Avoidance: Described as a sense of being threatened by uncertainty, people attempt to be more conscious in order to avoid such a situation. They determine to minimize unknown or unexpected situations by planning and proceeding with rules and regulations. This dimension therefore, reflects the need for well-classified rules, shared-norms and behaviour in a particular society (Hofstede, 1983, Soares et al., 2007).

Masculinity–Femininity: Described as the different dominant values between genders, as in 'masculine culture' based on achievement and willing to succeed (is ambitious) where males and females are valued differently dependent on competitiveness and materialism. On the other hand, 'feminine culture' is based on emotion and relationships where males and females are valued equally based on life quality and caring (Hofstede, 1983, Soares et al., 2007).

Long-term and Short-term Orientation: Described as time horizontal society or 'Confucian dynamism' where people are attached to an importance of the future. They promote practical values based on reward, efficiency, diligence and orientation. Short-term oriented in contrast, practical values are promoted based on the past-present respectively for tradition, social obligations, reciprocation which also including steadiness and preservation of one's face (Hofstede, 1983, Soares et al., 2007).

Researchers agree that culture shapes individual behaviour and attitudes in many aspects, including leadership perception, satisfaction with leadership and trust (Testa, 2009, Dorfman et al., 2012, Lee et

al., 2014). The influencing of culture, leadership perception of an individual is considered as one of the main issues that impact on leadership performance as interaction between leadership behaviour and leadership perception varies depending on the cultural background of each individual (Elangovan and Xie, 2000, Testa, 2009, Lee et al., 2014). This statement is supported by a cross-cultural leadership study which was conducted to investigate the relationship between leadership behaviour and cultural change across countries. The study provided evidence to support the influence of national culture on leadership which indicates leadership behaviour and its effectiveness are significantly influenced by national culture via the leadership perception of an individual (Fredric and Jun, 2003, Soares et al., 2007, Boonsathorn, 2007, Testa, 2009, Lee et al., 2014).

2.2.2.2 Organizational Culture

Organizational culture is shaped by organizational values, employees' behaviour, habits, norms and beliefs that are shared accordingly to assumptions (both through interpretation and action) of people in a specific organization (Brown, 1992, Taormina, 2008, Limpanitgul et al., 2013). The term 'organizational culture' emerged in the 1960s when an argument about effectiveness of business management performance was raised. Researchers claimed it was necessary to prioritize the cultural influence issue to maximize business management effectiveness (Schein 1996 cited in Taomina 2008). Limpanitgul et al. (2013) defined organizational culture as 'a social control mechanism' which instructs the work attitude of an employee, in other words, organizational culture shapes the way people perceive and react to a certain information. The authors claimed that as organizational culture forms a pattern of employees' perception and attitude towards interaction and motivation, the pattern of social-exchange therefore varies depending on the organization's cultural differences. This statement is relevant with a study of Rashid et al. (2004) which explored the organizational culture that influences employees' attitude towards organizational change. The results indicated that different organizational cultures reported different relationships between employees' attitudes and their perception towards organizational change. The authors explained that there is uniqueness in each organization which creates one culture to be different from another culture is formed by differences in nature of business culture values, leadership management style, and employee's behaviour and attitude.

Gregory et al. (2009) studied the direct and indirect impact of organizational culture on organizational effectiveness. The authors claimed that employees' attitudes vary dependent on the difference of organizational culture which impacts organizational effectiveness in the area of business management practice. Therefore, they developed multidimensional frameworks to categorize different of organizational culture, as follows:

Group Culture: Defined as an internal-focused group with high flexibility emphasizing the internal correspondent quadrant. Group contribution and motivation are considered extremely important as it encourages a sense of belonging and valuing of the group. This cultural dimension emphasizes cohesiveness, shared decision making, and supportiveness where managers exhibit the sense of shared values via team empowerment and team encouragement (Denison & Spreitzer 1991, cited in Gregory et al. 2009).

Developmental Culture: Defined as an external-focused group that emphasises the flexibility of the developmental quadrant. This cultural dimension is expected of changing and adapting growth within a particular organization where entrepreneurial venture is supported by inspired-creativity and expectation of the employee in order to acquire innovative and alternative resources for the organization (Denison and Spreitzer, 1991 cited in Gregory et al., 2009).

Rational Culture: Defined as external-focused group that emphasizes controlling the rational quadrant. Goal accomplishment and productivity are considered as important values in this cultural dimension as it reflects an ability of controlling and directing employees' behaviour and motivation towards surrounding environment or situation (Denison & Spreitzer 1991, cited in Gregory et al. 2009).

Hierarchical Culture: Defined as an internal-focused group that emphasizes controlling the hierarchical quadrant. This cultural dimension strictly instructs employees' behaviour and job security according to regulation and obligation which are standardized and coordinated to maximize internal efficiency to cope with surrounded environment or situation (Denison & Spreitzer 1991, cited in Gregory et al. 2009).

Balanced Culture: Defined as a balanced cultural dimension in which all cultural values are associated. This cultural dimension provides practical advantages of environmental change management within an organization by balancing every cultural element as a whole (Denison & Spreitzer 1991, cited in Gregory et al. 2009).

Researchers claim that organizational culture is strongly related with management performance of both the group and the individual (Brown, 1992, Rashid et al., 2004, Kwantes and Boglarsky, 2007, Taormina, 2008, Gregory et al., 2009, Limpanitgul et al., 2013). This assumption can be explained by a study of Taormina (2008), who examined correlations between theories of leadership behaviour, organizational culture, organizational socialization and other related theories. The author found that leadership behaviour reported different correlations when associated with different organizational

cultures. The author also claimed that there is always a particular leadership style that is suitable with a certain organizational culture.

According to leadership performance literature, leadership effectiveness is influenced by organizational culture via subordinates' behaviour and attitude. Unsuccessful leadership performance occurs when a subordinate perceives leadership implementation incorrectly, especially ineffective 'message delivery' from the leader can cause subordinate's negative reaction, bias and turnover (Meyer et al., 2002, Rashid et al., 2004, Plewa, 2009, Kim et al., 2010, Limpanitgul et al., 2013). Interestingly, the term 'organizational culture' is not only well-recognized among leadership literature in regards to leadership effectiveness issues, but also acknowledged in the area of followership behaviour and followers' attitude. As claimed by researchers, since organizational culture significantly influences followers' attitude and their perception of leadership, leadership effectiveness therefore can be optimized by achieving leadership expectation of the followers (Bass, 1990, Cacioppe, 1997, Epitropaki and Martin, 2005, Limsila and Ogunlana, 2008, Dahl and Olsen, 2013). The next section will explain concepts of followership behaviour, a relationship between followership behaviour and leadership behaviour, and how followership behaviour can influence leadership effectiveness.

2.3 Followership

Since the late 1900s the term 'followership' has been recognized in leadership behaviour theory and business management theory (Eden and Levitan, 1975, Savery, 1994, Elangovan and Xie, 2000, Albritton and Oswald, 2005, Carsten et al., 2010, Uhl-Bien et al., 2014). As a consequence, researchers generally began to raise the term 'followership' from two different perspectives, which are the 'leader-centric' perspective and the 'follower-centric' perspective. On one hand, leader-centric is considered as a factor influenced by leadership behaviour (that is, leader-centric) (Bass 1985; Cacioppe, 1997). On the other hand, as a factor influencing leadership effectiveness (that is, follower-centric) (Elangovan & Xie 2000; Carsten et al. 2010). This section therefore, determines to explore followership theory and its relationship to leadership behaviour.

2.3.1 Concept and Definition

Theoretically, followership is defined as an individual's behaviour and character which shapes processes of an individual's action and reaction to a leader (Carsten et al., 2010, Uhl-Bien et al., 2014). Uhl-Bien et al. (2014) distinguished the conceptual framework of followership behaviour from employee behaviour. The authors claimed that the term 'followership' is qualified by action and reaction behaviour to the leadership process where an employee designated himself or herself to be a follower rank (for

example, subordinates). Moreover, they stated that the designation of an employee as a follower does not only occur from his or her desire but also from his or her identity. This theory was explained by Carsten et al. (2010) that the nature of follower-centric draws attention to follower's identity aspect where an individual behaves intrinsically as non-hierarchical behaviour or non-leadership behaviour. Despite the discussion about the nature of followership behaviour among researchers upon various aspects, the study of Uhl-Bien et al. (2014) is the most recent research project which gathered and described some of the most recognized aspects of followership behaviour as follows:

2.3.1.1 Semantic-based Aspects

This aspect reflects confusions of the followership concept and its connotations that are influenced by the dominant leadership-centric concept (Hoption et al. 2012, cited in Uhl-Bien et al., 2014). This aspect focuses on the passive behaviour of an individual who follows and obeys a leader's rules and orders. As a result, researchers suggested terms to describe 'follower' of this aspect such as 'team member', 'participant' or 'collaborators' (Katz & Kahn 1978; Kelley 2008, cited in Uhl-Bien et al. 2014). This aspect implies that the concepts of 'followership' are influenced by a leadership process where an individual designated him or her to be a follower. This semantic aspect, as a consequence, is used as a foundation of followership acknowledgement in order to distinguish two unique followership aspects which are the role-based aspect and the constructionist aspect (Uhl-Bien et al., 2014).

2.3.1.2 Role-based Aspects

Role-based aspects reflect the relationship between leader and follower within a hierarchical context where followers (subordinates) cooperate with their leaders which contributes to organizational productivity (Carsten et al., 2010, Uhl-Bien et al., 2014). This aspect focuses on the appropriate mix of followership characteristics and other related issues; such as job responsibility, schemas and implicit followership theories, to investigate how followership traits are capable of influencing leadership effectiveness (Uhl-Bien et al., 2014). The role-based aspect therefore, Uhl-Bien et al. (2014) presented theories which described follower's characteristics and styles as follows:

Kelly's Followership Theory (Typologies)

Kelley (1998 cited in Uhl-Bien et al. 2014) defined 'followership' as a process of 'participating in a joint' which describes activities of the following to achieve common purposes, and 'effective follower' moreover, is identified as having qualities of self-motivation, problem-solving, and organizational commitment. Kelley's typology theory is based on dependent–independent and passive–active quadrants which ranges from the stereotypical 'sheep', (passive and dependent) to 'yes people' (active,

but dependent). Kelley proposed that 'passive sheep' is the best followership behaviour as they are actively committed with courageous performance (Kelley 1992, cited in Uhl-Bien et al. 2014). This theory therefore, focuses on two followership dimensions which are a) dominance–submission and b) activity–passivity. Dominance–submission refers to a subordinate who desires to stand out with his or her superior in order to control other subordinates who prefer to be controlled. Activity–passivity refers to subordinates who 'initiate and intrude' to other subordinates who are behaving avoidantly (does nothing). As a result Kelley categorized followership behaviour to four categories which are 1) impulsive subordinates 2) compulsive subordinates 3) masochistic subordinates and 4) withdrawn subordinates. Kelly's followership theory (typologies) therefore proposed that although focusing followership behaviour may help leaders better understand and deal with followers, the more attention that is paid to followers' desires, the more leadership effectiveness is being influenced (Kelley 1988; Kelley 1992; Kelley 2008, cited in Uhl-Bien et al. 2014).

Carsten's Followership Role Orientations Theory

Carsten et al. (2010) conducted the first formal empirical study of followership behaviour that investigated followership behaviour from the followers' perspective. By conducting a qualitative approach, the authors were determined to explore followers' opinions and explanations on their beliefs that influence the attitude and performance of followership roles. The authors claimed that followership schemas are dependent on leadership behaviour and circumstances. For instance, passive follower schemas are active in an authoritarian or empowering leader style within a bureaucracy whereas a proactive follower schema reports a negative outcome such as frustration, stress and dissatisfaction with an authoritarian leader style within bureaucracy and working climates. As a result, they proposed two different followership schemas which are a) passive schema where followers were recognized with their role being influenced by leadership progress (for example., 'passive sheep', Kelley 1992, cited in Uhl-Bien et al. 2014) and b) proactive schema where followers' determine to become a partner, with a leader contributing reliability and responsibility to achieve organizational objectives (Carsten et al. 2010, cited in Uhl-Bien et al. 2014).

Sy's Implicit Followership Theories

Sy (2010) determined to investigate followership from both perspectives: the follower (subordinate) perspective and the manager's perspective towards followership. The author proposed implicit followership theories (IFTs) which claimed to significantly reflect the followership behaviour model. Furthermore, Sy's categorized IFTs' platform, according to both the leader and follower perspectives, which are LIFTs (leader's perspective of implicit followership theories) and FIFTs (follower's perspective

of implicit followership theories). The author prioritized LIFTs as the key component that enhances interpersonal outcomes via the relationship quality as it can increase the level of trust and satisfaction (Sy, 2010). Although Sy's implicit followership theories paid less attention to the FIFTs elements, the author claimed that there is a significant relationship between LIFTs and FIFTs that impact followership performance and relationship quality (Sy 2010; Sy 2011; Sy 2013, cited in Uhl-Bien et al. 2014). As a result, Sy's implicit followership theories revealed two followership structures which are a) followership prototype including well-being, citizenship, enthusiasm, diligence and industriousness and b) followership anti-prototype which involves incompetence, conformity and insubordination (Sy 2010; Sy 2011; Sy 2013, cited in Uhl-Bien et al. 2014).

Role-based views are considered as the traditional approach for leadership scholars for the sake of leader-follower roles and management. In regard to the change in focus from the leader point of view to the follower point of view, these role-based perspectives evoked a novel angle within 'the old story', such as prioritizing an investigation of followership traits and behaviours that influence leadership effectiveness and leadership outcomes. Moreover, this approach contributes new followership constructs to proactive schemas and passive schemas (Carsten et al., 2010, Sy, 2010, Uhl-Bien et al., 2014).

2.3.1.3 Constructionist Aspects

Constructionist aspects reflect a social process where every member contributes and shares their thoughts, attitudes, identity and behaviour in order to form aspects of leadership and followership (DeRue & Ashford 2010; Fairhurst & Grant 2010, cited in Uhl-Bien et al. 2014). Constructionist aspects therefore, determines to investigate followership behaviour schemas where social value and relational contexts are shared among members in a society to sculpt leadership and followership models (DeRue & Ashford 2010; Fairhurst & Grant 2010, cited in Uhl-Bien et al. 2014).

DeRue and Ashford's Leadership Identity Construction Process Theory

DeRue and Ashford (2010) proposed the idea of leadership and followership within the construction process aspect as a 'claiming' and 'granting' process where reciprocal identity and interactivity are combined. On one hand, the 'claiming process' emerges when an individual designates his or her identity as a leader or a follower, whereas the 'granting process', emerges when other people grant the claimed-identity; hence they designate their identity to support and go along with the claim (that is, 'I accept you as my leader so I am your follower'). On the other hand, the authors proposed that the 'claiming' and 'granting' process emerged only when the claim and grant are accepted and supported

by members of the society. For instance, having the title 'manager' does not mean that he or she will be accepted by his or her subordinates with respect and trust in 'the manager's leadership performance'; these need to be earned, not given (DeRue & Ashford 2010, cited in Uhl-Bien et al. 2014).

Shamir's Co-production Theory

Shamir (2007) defined the constructionist aspect as a 'co-production' process based on LMX theory. The author proposed that leadership behaviour is co-produced by both leader and follower contributions where effective relationship supports productivity of leadership outcomes. The role of follower is positioned to be more productive and consequential with the leader to innovate attitudes, visions and behaviours that are essential for organizational success. A co-production aspect elevates the follower's attitude from being a 'passive recipient' to be 'active co-contributors' in order to sculpt the leadership process, as this concept emphasises a more 'balanced view' from both the leadership and followership roles (Shamir 2007, cited in Uhl-Bien et al. 2014).

Collinson's Post-structuralist Identity Theory

Collinson (2006) applied post-structuralist analysis to identify followership schemas under the assumption that people are bound with society. Hence, they are the best at understanding their own social contexts and conditions. The author described post-structuralist identity theory by proposing three types of followers' identities. First 'conformist selves', this follower's type is considered as valued assets by those who are in charge. Second 'resistant selves', this follower's type is defiant and keen to create leadership obstacles with dissenting strategies. Third 'dramaturgical selves', this follower's type recognize themselves as visible objects as they are aware of 'obligation and authority' (Collinson 2006, p. 185, cited in Uhl-Bien et al. 2014). Collinson (2006) suggests that the post-structuralist identity manipulates individuals' performance, experience and self-consciousness which create a complex relationship between leader and follower. Understanding these self-identities, however, is the key competence to create a better human resource management efficiency (Collinson 2006, cited in Uhl-Bien et al. 2014).

Fairhurst and Uhl-Bien's Relational (Discursive) Approach Theory

Fairhurst and Uhl-Bien (2012) defined discursive approach theory as an 'actors process' where followers engage their leaders with conditions and negotiate to influence organizational procedure and outcomes. Discursive approaches theory explores micro-dynamics of communication and interactions between leader and follower. Based on a co-construction aspect, this approach examines controlling patterns of leadership behaviour (that is, leading and following processes), influencing patterns (for

example, influencing and responding to process) and communication patterns of leader and follower roles (for example, roles of individuals that pattern their communication accordingly to their position and authority). Although the discursive approach does not criticize the roles of implicit follower in this process, focusing on individuals' action and response to the co-construct leadership aspect (for example, 'claiming and granting' progress, see DeRue and Ashford, 2010) can back up an acknowledgement of relationship between occupied-subordinate roles and occupied-manager roles to identify elements that construct the leadership process (Fairhurst & Uhl-Bien 2012, cited in Uhl-Bien et al. 2014)

The constructionist aspect focuses on the roles of followership which is essential and unable to be disentangled from the leadership process. Particularly, constructionist views supports co-construction of leadership aspect via leader-follower contribution elements, even though this theory also refers to the role-based approaches aspect (Fairhurst & Uhl-Bien 2012, cited in Uhl-Bien et al. p. 201). Although the concept of followership is extensively explained, researchers suggested that, in order to optimize business management effectiveness, understanding the context of followership is considered as a necessary procedure (Collinson, 2006, Shamir, 2007, Carsten et al., 2010, DeRue and Ashford, 2010, Sy, 2010, Uhl-Bien et al., 2014). The next section will discuss the nature of followership behaviour.

2.3.2 Followership Behaviour

The classic complement in the existing literature to describe 'followership behaviour' would be 'obedient and deferent' (Shamir, 2007, Carsten et al., 2010, Uhl-Bien et al., 2014), however, since researchers started to focus on the follower-centric point of view, they discovered new angles that twisted the previous stereotype of followership. Uhl-Bien et al. (2014) explained a reason for people portraying particular followership traits, based on a psychological perspective; that is because at a certain point of problem-solving or critical conflict, acting or volunteering as a follower is more efficient and, in some cases, an easier way to solve a situation. As a consequence, this trait becomes natural behaviour selection (common sense) when an individual has to respond to a situation. The authors therefore, identified followership behaviour based on a role-based perspective in order to provide a better understanding about followership behaviour, as follows:

2.3.2.1. Obedience and Subordinate Behaviour

Obedient and subordinate behaviours are exhibited when the follower trusts and relies on his or her leader's responsibility for goal setting, decision making and problem-solving. These behaviours were typified by theories of leadership and management literature based on the hierarchical-based aspect,

as supported by literature that the followership behaviour concept is a combination of subordination, and deferent and passive behaviour (Barnard 1938; Taylor 1947, cited in Uhl-Bien et al. 2014). This hierarchical-based aspect was sculpted by the term 'authority figures' (inequality of individuals' capability and effectiveness) which qualifies some people are better than others; hence obedience and subordination behaviours were exhibited by the assumption of followership roles (Weber 1968; Heckscher 1994, cited in Uhl-Bien et al. 2014). This behaviour concept is also evidenced in a study of Carsten et al.'s (2010) who found that followers expressed senses of obedient and subordinate behaviours when they described their followership roles as 'following orders' and 'obeying the leader'. Uhl-Bien et al. (2014) pointed out a drawback of exhibiting obedient and subordinate behaviours being when followers enact more passive and obedient behaviour, they are easily influenced and controlled by unethical actions or ineffective leadership of their leaders.

2.3.2.2. Resistance Behaviour

According to the literature that reported highly normative and leader-centric perspectives, researchers claimed that in the reality of business practices, 'not every follower is willing to follow' (Hollander & Julian 1969; Padilla et al. 2007, cited in Uhl-Bien et al. 2014). Tepper et al. (2006) claimed that resistance behaviours are generally categorized into two types of resistances: a) constructive and b) dysfunctional. Constructive resistance is defined as an act when a follower (subordinate) asks for clarification or negotiation in exchange for his or her effort or cooperation; this type of resistance behaviour is still considered as well-intended. Dysfunctional resistance, on the other hand, is defined as an act when a follower (subordinate) gives an excuse when avoiding or ignoring an order or duty. This behaviour might also happen when a follower is too busy with current work, hence this type of resistance is considered as a passive–aggressive response. Researchers agree that both types of follower resistance behaviour are inversely related to trust, beliefs and relationship oriented, especially when followers are engaged with an unethical request by their leaders (Tepper et al., 2006, Shamir, 2007, Carsten et al., 2010, Carsten and Uhl-Bien, 2013, Uhl-Bien et al., 2014). Nevertheless, Uhl-Bien et al. (2014) argued that although an unethical or ineffective request by a leader may evoke follower's dysfunctional resistance behaviour, a follower with a good relationship or belief in the leader may also engage in constructive resistance behaviour.

2.3.2.3 Proactive Behaviours

Grant and Ashford (2008) defined proactive behaviour as an employee's expectation which influences their attitude and action. Proactive behaviour focuses on creating a deliberate plan or action that

integrates influencing tactics, feedback-monitoring, rule breaking, initiative taking and changing behaviour in order to influence or change the environment into the direction they desire (Grant and Ashford, 2008, Uhl-Bien et al., 2014). This proactive behaviour is related to the concept of constructive resistance behaviour, as supported by studies by Carsten and Uhl-Bien (2013), and Uhl-Bien et al. (2014) that indicated a significant relationship between individual differences in followership roles and co-production of leadership process. According to the study, the authors stated that followers enact their roles according to their relationship with the leader, and the higher sense of belief in 'co-production behaviour' that creates greater constructive resistance. This proactive behaviour may be considered as beneficial when followers help a leader to prevent making a wrong or an ineffective decision. On the other hand, the authors stated that follower's proactive behaviour is not always positively perceived by a leader, instead it causes leader's to perceive 'proactivity' as a threat or insubordination (Grant and Ashford, 2008, Carsten and Uhl-Bien, 2013, Uhl-Bien et al., 2014).

2.3.2.4 Influence Tactics Behaviour

Uhl-Bien et al. (2014) defined influence tactics behaviour as a set of intentional strategies that attempt to influence or negotiate with leaders for the sake of their expected outcome. Ansari and Kapoor (1987), cited in Uhl-Bien et al. (2014), confirmed that managers' leadership performance was significantly influenced by followers' influence tactics behaviour, as they claimed that the goal setting of leaders has different outcomes according to the follower's influence tactics behaviour. The influence tactics involves rational and non-rational tactics (that is, blocking, rational and persuasion). This behaviour is exhibited when followers perceive a sense of 'being requested' with an unethical or ineffective deal from their leaders. Nevertheless, Uhl-Bien et al. (2014) introduced another statement that influence tactics is exhibited not only when the follower claimed a particular task or request as unethical or ineffective but also when they were keen to take advantage of decision making or organizational goal achievement. As the authors explained, followers always consider their goal and benefits before attempting their influence tactics behaviour, and their actions may also influence their leader's behaviour or decision making process to optimize their expected results. For instance, followers may attempt to express their proactive behaviour via influencing tactics on their leader's decision making to benefit their job promotion (Uhl-Bien et al., 2014).

2.3.3 Followership Behaviour and Leadership Behaviour

> Followership behaviours are not about how individuals interact relative to their work (for example, self-management and self-leadership) or other co-workers (for example, shared leadership) but relative to those with higher status—with respect to leaders.
> (Carsten et al. 2010, p. 545)

Researchers are agreed that now is a new era of a business management paradigm where the most proficient analysis of 'how to maximize leadership effectiveness' comes from acknowledging leadership performance, together with followership behaviour rather than distinguish them from each other (Cardona, 2000, Dionne et al., 2004, Harris et al., 2009, Carsten et al., 2010, Kim et al., 2010, Uhl-Bien et al., 2014). 'Leader-member exchange theory' is among leader-follower studies which can paraphrase this statement into an acknowledgement which emphasises interactions between leadership behaviour and followership behaviour (Lee, 2005, Hooper and Martin, 2008, Harris et al., 2009, Kim et al., 2010). Leader-member exchange literature was well established in the relationship between leadership behaviour and followership behaviour. The literature evidenced three factors that are the most cited in leader-member exchange studies: empowerment (that is, 'leader-member exchange and empowerment' by Harris et al. 2009), job satisfaction (that is, 'employee's reaction and job satisfaction' by Hooper and Martin 2008) and turnover (that is, 'turnover and turnover intent' by Kim 2010). This acknowledgement of leader-follower dyadic is shown not only within the human resource management context, but also referred in leadership performance and its effectiveness. As claimed by researchers, quality of relationship between leader and follower significantly impacts leadership effectiveness, hence understanding the leader-follower dyadic is considered a key leadership development procedure (Bass, 1990, Avolio and Bass, 1999, Avolio and Gardner, 2005, Limsila and Ogunlana, 2008). In regards to maximizing leadership effectiveness, leaders have to develop a leader-follower relationship according to a follower's behaviour and attitude of who he or she is dealing with. Acknowledging the leader-follower relationship therefore supports leadership performance in practice, because leadership behaviour and followership behaviour are related as a dyad in which 'quality of relationship' will develop consequentially with different group of members (Cardona, 2000, Epitropaki and Martin, 2005, Kim et al., 2010). Harris et al. (2009) explained 'quality of relationship' as a relationship between leader and follower which includes trust and emotional support, impacts job-communication, preferential treatment, reward and promotion, and work productivity. As a result, the authors claim that effectiveness of leadership performance relies on the quality of relationship between leadership behaviour and followership behaviour.

Although 'quality of relationship' is suggested to be the cause of influencing leadership effectiveness, several researchers introduced another factor which claimed to display a potential effect on influencing leadership effectiveness, which is the 'follower's perception with leadership' factor. This presumption was generated when researchers agreed that personality and attitude differences cause complex relationships among team members, that impact individual's perception of leadership (Elangovan and

Xie, 2000, Epitropaki and Martin, 2005, Carsten et al., 2010, Uhl-Bien et al., 2014). Elangovan and Xie (2000) explained how a subordinate's perception with leadership can impact leadership effectiveness; the effectiveness of leadership performance is not only about how well leadership behaviour is being implemented, but how well it is perceived by the subordinate. The authors further explained that a follower's perception with leadership is influenced by several factors, for instance, national culture, organizational culture, job satisfaction and an individual's behaviour and attitude. Furthermore, the author cited some existing studies of ineffective leadership to determine the necessity of considering how follower's perception with leadership is a factor influencing leadership effectiveness. They claimed that perception with supervisor power (leadership) is significantly related with subordinate's work motivation and stress, and different types of leadership behaviour reported different responses with subordinates. Therefore, acknowledging a follower's perception with leadership is recommended as a development procedure for improving leadership effectiveness (Kuhnert, 1987, Elangovan and Xie, 2000, Epitropaki and Martin, 2005, Walumbwa et al., 2008, Peterson et al., 2012).

Although researchers were discussing the factors influencing leadership effectiveness, the issue of a follower shaping leadership behaviour was raised. In the next section therefore, how a follower's traits and behaviour can shape leadership performance and leadership effectiveness will be discussed.

2.3.4 Followers Influencing Leaders' Behaviour

Interestingly, the traditional leadership literature stereotyped leadership behaviour as a power that influences a follower's motivation and performance. Some researchers, however, argued that although traditional leadership research claimed that the power of leadership significantly influences followership, there is some significant evidence proving that there are several factors based on individual differences (for example, personality and attitude) which cause different reactions towards leaders (Carsten et al., 2010, Uhl-Bien et al., 2014). Moreover, in some situations followership can also influence or shape leadership style, behaviour and leadership effectiveness (Dvir et al., 2002, Dvir and Shamir, 2003, Howell and Shamir, 2005, Uhl-Bien et al., 2014).

Dvir and Shamir (2003) introduced a concept of the follower shaping leaders' action based on follower influencing leadership behaviour which claimed that the follower potentially shapes 'latitude of leader's action and emergence' via followership roles. The authors supported their theories by demonstrating results from their study which indicated that follower developmental characteristics (for example, collectivist, self-consciousness, critical-independent approach, task engagement, and self-efficacy) are associated with followers' ability and proclivity which contributes to and shapes the emergence of

leadership behaviour. This concept is consistent with a study of Howell and Shamir (2005) who proposed a framework of 'dynamic followership' where followers' roles are more active than the original followership roles (see Section 2.3.1.2 'role-based aspect', p. 25) based on traditional leadership literature. The authors further explained that a charismatic leader may evoke negative responses from followers with their deleterious charisma (monitoring, self-reflection and feedback seeking). Consequently, when followers misperceive leader's action as a threat, they will express their senses of resistance behaviour (see section 2.3.2.2 'resistance behaviour', p. 30) against their leaders (Howell and Shamir, 2005, Uhl-Bien et al., 2014). The aspect of followership influencing leadership effectiveness is recommended by researchers as an essential subject to be focused on in order to maximize leadership effectiveness (Dvir et al., 2002, Dvir and Shamir, 2003, Howell and Shamir, 2005, Uhl-Bien et al., 2014). Uhl-Bien et al. (2014) therefore, categorized factor influencing leadership effectiveness within followership context into three categories: a) followership roles, b) followership traits and c) followership attitude.

Followership Roles

There are several followership roles that are claimed to be factors influencing leadership effectiveness. The first type is 'interactive role' as it supports and complements interactive roles between leader and follower (Uhl-Bien et al., 2014). This interactive role can be either an effective and dedicated follower or a passive, ineffective or even destructive follower (that is, Kelley's 'sheep' theory. See Section 2.3.1.2 p. 25). The second type is called 'independent role' and it is claimed that this type of follower knows and understands their job and work description. Although they are positioned as 'follower' or 'subordinate' and are directed to provide their contribution towards to organizational success, their roles are highly independent according to their level of professionalism (for example, senior engineers, university professors and physicians) (Uhl-Bien et al., 2014). The third type is called 'shifting role' follower who do not only work independently, but in some situations they work at cross-proposes, compromise or even oppose the leader's direction. This type of follower obligate themselves as collaborative members who are determined to step up as a leader when there is an opportunity and possibility (see 'self-leadership' by Lovelace et al. 2007).

Followership Traits

Followership traits such as extraversion (Schyns and Felfe, 2006), self-efficacy and motivation (Dvir & Shamir 2003), are claimed as factors influencing leadership effectiveness, which is supported by the followership literature states that these follower traits significantly enhance followers' perceptions with transformational leadership behaviour (Dvir and Shamir, 2003, Schyns and Felfe, 2006, Antonakis et al.,

2012, Uhl-Bien et al., 2014). Moreover, Uhl-Bien et al. (2014) support their claim by several studies of Phillips and Bedeian (1994) and Pastor, Mayo and Shamir (2007) who supported this theory with their finding that followership traits, such as extraversion and emotional arousal, indicates a positive relationship between followers' perception with leadership and quality of relationship with leadership charisma.

Followership Attitude

Followership attitude is claimed by researchers to report significant impacts on leadership perception, which results in leadership effectiveness (Savery, 1994, Elangovan and Xie, 2000, Walumbwa et al., 2008, Jung et al., 2009, Limpanitgul et al., 2013, Uhl-Bien et al., 2014). Researchers supported the notion that the positive attitude of subordinates (followers) supports a productive working environment. As a consequence, subordinates are willing to learn, solve and challenge any situations (Elangovan and Xie, 2000, De Hoogh et al., 2005, Burnard, 2006, Jung et al., 2009, Gursoy et al., 2012). This supports Uhl-Bien et al. (2014) who claimed that followership attitude is significantly related to a follower's perception with leadership, as evidenced that followership attitude and job satisfaction are positively related with perception of leadership behaviour.

The above supports a statement of followership influencing leadership effectiveness, as suggested by Cardona (2000) and (Uhl-Bien et al., 2014), that there are several types of follower emotions and traits which impact follower's perceptions with leadership behaviour (Cardona, 2000, Dvir et al., 2002, Hooper and Martin, 2008, Carsten et al., 2010, Uhl-Bien et al., 2014). As claimed by Uhl-Bien et al. (2014), according to the follower-centric model, a leadership construct is significantly activated and changing accordingly when followership variables are changed. Despite the statement that researchers are paying more attention to followership study in regard to follower-centric, research results and assumptions still draw attention to leadership process for the sake of the leader-centric. The follower-centric study hence illustrates alternative aspects to the traditional leadership construct which claims to be an essential contribution to leadership development procedure (Dvir et al., 2002, Dvir and Shamir, 2003, Howell and Shamir, 2005, Uhl-Bien et al., 2014). Nevertheless, in order to provide an in-depth analysis of factors influencing leadership effectiveness, the effectiveness of leadership has to be measured to compare appropriateness and effective leadership attributes. Organizational commitment components are therefore introduced as a research measurement mechanism. Its concept and definition are discussed in the following section.

2.4 Organizational Commitment

Commitment is considered as a course of action that is constantly encouraged for the sake of organizational stability and productivity (Meyer and Allen, 2004). For decades researchers have been referencing organizational commitment as a theory of relationship between employees' behaviour and work attitude towards to an organization (Allen and Meyer, 1990, Meyer and Herscovitch, 2001, Brown, 2003, Lambert et al., 2013), as the organizational commitment model is considered as a measurement mechanism that is used to determine employees' course of action and their psychological attachment to an organization (Allen and Meyer, 1996a, Brown, 2003, Meyer and Allen, 2004, Lambert et al., 2013). This section therefore, discusses the concept and definition of organizational commitment in order to provide a better understanding of how it is related to leadership behaviour and followership behaviour within a business management context.

2.4.1 Concept and Definition

In general, organizational commitment is defined as a psychological attachment of an employee towards to his or her organization where 'employees' desires to stay or to leave the organization can be measured' (Allen and Meyer, 1990, Meyer et al., 2002, Meyer and Allen, 2004, Meyer et al., 2012). Brown (2003) utilised an organizational commitment questionnaire model (OCQ) of Porter's et al. (1974) as the first authors who introduced a concept of organizational commitment to public. However, Brown (2003) claimed that Porter's organizational commitment model lacked clear definition in various organizational commitment components, and this issue may consequentially manipulate the scoring of respondents. The author therefore, suggested another model by Allen and Meyer who developed the conception of Porter's model. Furthermore, especially in an issue of employee's commitment categorization which was supported by Brown (2003), that Allen and Meyer's model is more measurable and accountable in terms of commitment construct clarification.

2.4.1.1 Grounded Concepts of Allen and Meyer's Organizational Commitment Model

Allen and Meyer (1990) validated their organizational commitment theory by presenting the original concept of the organizational commitment model, even though several concepts of attitudinal commitment were based on existing literature (that is, Porter's et al. 1974). The in-depth explanations were organized into three grounded concepts (affective attachment, perceived costs and obligation) in order to clarify the organizational model validity (Meyer & Allen 1987, as cited in Allen & Meyer 1990).

Affective Attachment

Affective attachment is recognized world-wide in organizational commitment literature as a form of 'psychological attachment' where an individual is strongly committed with his or her identity, involvement, enjoyment, satisfaction and loyalty to his or her organization. This view is based on Kanter (1968) and Buchanan (1974) who illustrated terms of 'commitment' as cohesive activity and partisan attachment of an individual who is emotionally attached to group, goals or values of organization. An individual therefore, delivers his or her expression via their membership's role, action, responsibility and reliability to the goals and values of the organization (Kanter 1968; Buchanan 1974, cited in Allen & Meyer 1990).

Perceived Costs

Perceived costs are considered as an individual's rules of engagement where consistency of his or her commitment is above a condition of an individual's costs (loss or side-bets) (Allen and Meyer, 1990). Perceived costs are associated with 'continuance commitment' where profit and loss become the main priority of the rules of engagement. For instance, an employee decides to stay with a company as he or she perceives the cost of leaving the company is not profitable, however, considering discontinuing their activity or leaving the company still remains until a certain condition is met in order to decide whether to stay or leave the company (Becker 1960; Kanter 1968; Farrell & Rusbult 1981; Rusbult & Farrell 1983, cited in Allen & Meyer 1990). Ritzer and Trice (1969) and Hrebiniak & Alutto (1972) are developers and modifiers of the 'cost-induced commitment' model that indicates the likelihood of an employee leaving an organization by providing various inducements (for example, increases in pay, status, freedom, and promotion). Although the accuracy of reflecting the cost-based commitment is still doubtful, researchers agree that high scores of a respondent significantly reflects the unwillingness of leaving the organization (Kanter 1968; Ritzer & Trice 1969; Hrebiniak & Alutto 1972; Meyer & Allen 1984, cited in Allen & Meyer, 1990).

Obligation

Obligation is considered as an individual's responsibility and belief to contribute goodness towards an organization. This type of commitment is considered as 'normative pressures' which internalizes the moral obligation of an individual's attitude and behaviour to perform the best for the sake of organizational success. This form of commitment is suggested as an individual behaviour due to it is conceived by moral belief and responsibility which is essential for every contributor within an organization (Wiener 1982; Prestholdt et al. 1987, cited in Allen & Meyer 1990). Obligation-based commitment is accounted for when respondents express their feeling of loyalty to the organization, and

their willingness to sacrifice themselves on their behalf without criticizing any doubtfulness (Wiener 1982; Prestholdt et al. 1987, cited in Allen & Meyer 1990). The original concepts were proposed to support the organizational commitment theory of Allen and Meyer (1990). In the next section, Allen and Meyer's commitment model and concepts development is revealed.

2.4.1.2 Allen and Meyer's Three Commitment Components

First Generation of Three Commitment Components Model

The first version of Allen and Meyer's organizational commitment model was introduced by Allen and Meyer in 1987 (cited in Allen & Meyer 1990). The authors claimed three organizational commitment components (affective, continuance and normative commitment) as 'distinguishable components', but not 'types of attitudinal commitment' as they explained that psychological states of an employee can be experienced in various degrees, depending on an individual's behaviour and attitude. In other words, an employee may express various senses of organizational commitment towards a company. For instance, some employees stay with their company as they 'need to' and 'are obligated to' but do not 'desire to; whereas, some stay because they only 'desire to'. The version of Allen and Meyer's organizational commitment model, therefore, reflects the psychological states of a person's commitment towards to an organization (Allen and Meyer, 1990).

Affective commitment or affective attachment was considered as the antecedent psychological state of commitment to the organization, which consists of work experiences, personality, structural characteristics and job characteristics. Researchers claim that work experience significantly influences employees' psychological attachment, as work experience encourages a sense of comfort with the work component and job responsibility in the organization (Mowday et al. 1982; Meyer & Allen 1987, as cited in Allen & Meyer 1990).

The continuance commitment component was developed based on the magnitude of life investments (or side-bets) when an individual makes one decision which causes a lack of opportunity. For instance, when an individual is committed to 'side-bets' with one decision, the committed-decision increases 'costs' of discontinuing with alternative decisions (Becker 1960; Farrell & Rusbult 1983, cited in Allen & Meyer 1990). Committed to 'side-bets' means choosing life opportunity including time, energy and synergy of a person. These side-bets are essential as he or she only wishes for life investment to be profitable. In terms of employment, however, winning the bet means that he or she has to continue working in one organization and still has to sacrifice other alternative employment. This 'side-bet' as a

consequence, causes an increasing cost of leaving the organization (Becker 1960; Farrell & Rusbult 1983, cited in Allen and Meyer, 1990).

Normative commitment is considered as a commitment state where an employee's attitude is influenced by family (social-culture) and organizational culture when he or she desires to stay with the organization (Wiener 1982, cited in Allen & Meyer, p. 19). For instance, an employee expresses a strong normative commitment towards an organization since he or she is influenced by significant persons (for example, parents) who also express senses of loyalty to the same organization as a long-term employee (Allen and Meyer, 1990). In regard to organizational socialization, Allen and Meyer (1990) proposed that when employee's loyalty is accounted for, the normative commitment is considered as an essential commitment component which is strongly expected by an organization.

Second Generation of Three Commitment Components Model

The second generation of the organizational commitment model focuses on developing the concept of the normative commitment component. Since Allen and Meyer (1990) first introduced the original concept of the normative commitment component, the model was mainly based on 'social loyalty norms' by Wiener (1982). This model was argued by researchers about overlapping and unclear definition of its construct (Allen and Meyer, 1996a, Meyer et al., 2002, Jaros, 2007, Meyer et al., 2012). This concept was revised by Meyer et al. (2002) who introduced an aspect of the model that reflected a benefit of reciprocity, and this aspect was further developed again by Meyer et al. (2006) who added two dimensional concepts including 'indebted obligation' (achieving others' expectations) and 'moral imperative' (achieving valued-outcomes) that were theorized to correlate with continuance commitment and affective commitment respectively.

Affective Commitment

Affective commitment is defined as an emotional or psychological attachment state when employees perceive value, respect and dignity from their organization. The employees therefore, are likely to express a sense of belonging, identification, loyalty and pride towards the values of their organization (Allen and Meyer, 1996a, Meyer et al., 2002, Jaros, 2007, Meyer et al., 2012). Researchers revealed the affective commitment components that consist of work experience variables including job challenge, job description, goal setting, management receptiveness, cohesive relationships, work dependability, equity, shared-values, organizational motivation and participation (Meyer et al., 2002, Jaros, 2007, Meyer et al., 2012, Lambert et al., 2013). These work experience variables are claimed to be significantly related with employee's work satisfaction, work competency and sense of comfort with the

working environment which encourages employees' psychological attachment to the organization, and results in an organizational culture (positive working environment) and organizational productivity (Allen and Meyer, 1990, Meyer et al., 2002, Brown, 2003, Jaros, 2007, Meyer et al., 2012, Lambert et al., 2013).

Continuance Commitment

Continuance component is defined as the magnitude of life investments where an employee is committed to an organization by focusing on the costs of leaving an organization. This commitment type is considered as a 'side-bet' which occurs when an employee invests his or her bond (for example effort, time or money) in an organization while being employed by the organization. This side-bet can be either a benefit or loss which the employee therefore recognizes as a personal cost of leaving the organization (Allen and Meyer, 1990, Meyer et al., 2002). Researchers revealed continuance commitment components consists of costs of leaving the organization including salary, job benefits, social relationships, job opportunities, job promotion, changing of geographical area and pension. As a consequence, these costs influence employees' decisions on whether to stay or leave their organization, and continuance commitment reflects employees' senses of 'being locked' within the organization, not because they willing to stay with the organization (Allen and Meyer, 1990, Meyer et al., 2002, Brown, 2003, Jaros, 2007, Meyer et al., 2012, Lambert et al., 2013).

Normative Commitment

Normative commitment is defined as a commitment state where an individual is committed to an organization as he or she is influenced by the moral obligation of being a good employee for the organization (Allen and Meyer, 1996a, Meyer et al., 2002, Jaros, 2007, Meyer et al., 2012). Researchers claim that there are two periods when an employee will be psychologically influenced by obligations which are 'before and after' joining an organization (Allen and Meyer, 1990, Meyer et al., 2002). The 'before' period is when an employee is influenced by significant persons (for example, family) who are involved with the organization for a long time (for example a person's lifetime or generations) which encourages the next generation to express the similar feeling of obligation to the organization, whereas, the 'after' period is when a person is employed and trained by the organization which also encourages senses of well-behaving and well-contributing to the organization. Therefore researchers claim that the expression of normative commitment by an employee towards an organization is because he or she 'ought to' (Allen and Meyer, 1996a, Meyer et al., 2002, Jaros, 2007, Meyer et al., 2012). Allen and Meyer (1996a) included two extra components into the normative commitment model to improve the lack of behaviour and commitment terms which are 'indebted

obligation' (achieving others' expectations) and 'moral imperative' (achieving valued outcomes), and these components are claimed to be potential predictors of normative commitment components (Allen and Meyer, 1996a, Meyer et al., 2002, Jaros, 2007, Meyer et al., 2012).

Nevertheless, some researchers are still able to point out a lack of behavioural terms and wording items. Jaros (2007), for instance, commented on the lack of affective commitment item wording that, although from the predictive validity perspective, wording items are expected to be equally stated for all of three commitment components (affective, continuance and normative), wording of explicit outcomes of each commitment component that is correlated or predicted shall be unequal. In respect to this matter, it can be argued by the empirical research of Meyer et al. (2002), which indicated that even though there is a considerable lack of behavioural wording, affective commitment scales still illustrated much greater correlation and prediction than continuance and normative commitment component scales.

Although there are still some arguments with the short-comings of Allen and Meyer's organizational commitment model, the second generation of Allen and Meyer's organizational commitment model is well recognized in many research areas (see Brown, 2003, Limsila and Ogunlana, 2008, Meyer et al., 2012). The next section, therefore, discusses a linkage between organizational commitment with other work and attitude related constructs.

2.4.2 Linkage between Leadership, Followership and Organizational Commitment

The organizational commitment model has been widely cited in various work and attitude related studies, especially in the leadership performance and management area (Savery, 1994, Elangovan and Xie, 2000, Brown, 2003, Lee, 2005, Falkenburg and Schyns, 2007, Limsila and Ogunlana, 2008, Loi et al., 2012, Lambert et al., 2013). According to various empirical studies, the organizational commitment model was claimed to be a significant and predictive mechanism to measure employee's work attitude, such as job satisfaction (Lambert et al., 2013), turnover (Falkenburg and Schyns, 2007) and subordinates' commitment (Limsila and Ogunlana, 2008). For example, Limsila and Ogunlana (2008) claimed that followers (subordinates) express their organizational commitment level via their work commitment which is significantly associated with the style of leadership. As claimed by the authors, develop appropriate leadership styles with the highest "initiative structure" provides a greater commitment of subordinates.

One of the recent studies about organizational commitment and work-attitude relationships was presented by Lambert et al. (2013) who investigated a relationship between life satisfaction and organizational commitment components. The study indicated that among the three organizational

commitment components, only two indicated a significant relationship with employees' life satisfaction, on one hand the affective commitment component reported a positive relationship with life satisfaction, on the other hand, the continuance commitment component reported a negative relationship. The author explained that this occurrence supports the statement that, within one person, when he or she expresses a greater sense of affective commitment towards an organization, consequently, his or her sense of continuance commitment will be decreased. The authors further explained that employees perceived working attitude and organizational value when they are treated at work; a positive working environment for instance, enhances employees' life satisfaction, which results in work performance, organizational commitment and organizational productivity. They stated that affective commitment is negatively related with work stress, which means that the affective commitment component reflects a sense of life satisfaction when an employee enjoys being with the organization. Work stress, on the other hand, correlates with unfairness, stress, lack of safety and work conflict which causes a decrease in affective commitment (Meyer et al., 2006, Jaros, 2007, Loi et al., 2012, Lambert et al., 2013).

In regard to organizational management practice, improving the organizational commitment value of employees can increase work performance including stability, responsibility and productive performance of those employees, which results in organizational performance and productivity. For example, an employee who values affective commitment over continuance commitment can be perceived as having a sense of belonging and loyalty to the organization, therefore there is a possibility that he or she will perform the best for the organization (Meyer et al., 2006, Jaros, 2007, Loi et al., 2012, Lambert et al., 2013).

The organizational commitment model is considered to be a predictive mechanism that is capable of measuring an employee's work attitude towards an organization (Allen and Meyer, 1990, Meyer et al., 2002, Brown, 2003, Jaros, 2007, Meyer et al., 2012, Lambert et al., 2013). Although there is some argument on the wording clarification and overlapping among some items, the model is still recommended worldwide as a considerably reliable model by many researchers (Savery, 1994, Elangovan and Xie, 2000, Brown, 2003, Lee, 2005, Falkenburg and Schyns, 2007, Limsila and Ogunlana, 2008, Loi et al., 2012, Lambert et al., 2013). Therefore, organizational commitment is included in this research in order to measure and compare the impact of leadership effectiveness on followers' (subordinate) attitude towards to an organization within the Thai mining industry.

2.5 Summary

This chapter provided reviews of existing leadership, followership and organizational commitment literature which acknowledged the overall concept and definition of each research variable, including relationships among these variables. This chapter is divided into three main parts. Firstly, the leadership section explored the leadership behaviour concept and definition by covering most of well-known leadership theories in order to understand leadership foundation, performance and effectiveness; including impacts of culture on leadership effectiveness. This study revealed four leadership theories which are a) transactional-transformational leadership theory which focuses on task oriented and relationship oriented behaviour, b) situational leadership theory which focuses on the relationship between situational differences and effectiveness of leadership performance, c) leader-member exchange theory focuses on relationship and interaction between leaders and followers and d) authentic leadership which focuses on the relationship between self-based leadership and situational differences. Although some areas in leadership literature frequently overlapped among different theories statements (for example, 'situational leadership' (Hersey & Blanchard (1977) and 'authentic leadership' (Avolio and Gardner (2005)), it does not compromise the diversity of leadership acknowledgement. This section, moreover, illustrates the significant impacts of national culture and organizational culture on leadership effectiveness. As stated by literature, culture is one of the main factors influencing locals' behaviour and attitude which impacts leadership perception and expectation of the locals. Cultural issues therefore, are considered to be one of factors influencing leadership effectiveness (Bass, 1990, Cacioppe, 1997, Epitropaki and Martin, 2005, Limsila and Ogunlana, 2008, Dahl and Olsen, 2013).

Second, the followership section explores the concept and definition of followership and explores followership behaviour and impact on leadership behaviour. The literature revealed several aspects which construct each individual's concept of followership which are a) semantically based aspect that focuses on the passive behaviour of an individual (Hoption et al. 2012, cited in Uhl-Bien et al., 2014), b) role-based aspect that focuses on the relationship between leaders and followers' role in the hierarchy (Carsten et al., 2010, Uhl-Bien et al., 2014) and c) constructionist based aspect that focuses on social contribution and shared value (Fairhurst and Uhl-Bien, 2012). Although there are several aspects that extensively described the concept of followership, followership behaviour is still categorized into four specific categories which are a) obedience and subordination behaviour, which is described as 'follow and obey the leader' (Shamir, 2007, Carsten et al., 2010, Uhl-Bien et al., 2014), b) resistance behaviour which is described as 'refusal to follow the leader' (Hollander & Julian 1969; Padilla et al. 2007, cited in

Uhl-Bien et al. 2014), c) proactive behaviour, which is described as 'followers' expectation' (Grant and Ashford, 2008, Uhl-Bien et al., 2014) and d) influencing tactics behaviour which is described as 'attempting to influence or negotiate with the leader' (Uhl-Bien et al., 2014). Furthermore, this section also identified significant relationships between leader and follower and how followers can potentially influence leadership effectiveness. Followership factors that influence leadership effectiveness are grouped into three main categories, which are a) followership roles, b) followership traits and c) followership attitude (Cardona, 2000, Dvir et al., 2002, Hooper and Martin, 2008, Carsten et al., 2010, Uhl-Bien et al., 2014).

Lastly, the organizational commitment section determines to understand the concept of and define organizational commitment components by exploring grounded theories that contribute to the organizational commitment model and identify its relationship with leadership behaviour and followership behaviour. In general, organizational commitment is considered as a measurement mechanism which determines psychological attachment to an organization of an employee (Allen and Meyer, 1996a, Brown, 2003, Meyer and Allen, 2004, Lambert et al., 2013). The literature illustrates that this psychological attachment illustrates a sense of loyalty which determine employees' behaviour and work attitude towards the organization; the higher the sense of psychological attachment that is expressed by employees, the more stability and productivity can be achieved by organization as a whole (Allen and Meyer, 1990, Allen and Meyer, 1996a, Meyer and Herscovitch, 2001, Brown, 2003, Meyer and Allen, 2004, Lambert et al., 2013). Moreover, organizational commitment is divided into three commitment components which are a) affective commitment which is a sense of 'wanting to' stay with an organization, b) continuance commitment which is a sense of 'having to' stay with an organization and c) normative commitment which is described as a sense of 'ought to' stay with an organization (Allen and Meyer, 1990, Meyer et al., 2002, Meyer and Allen, 2004, Meyer et al., 2012). Academically, organizational commitment theory is involved with processes of exploring and identifying leadership and followership attributes and performance (Savery, 1994, Elangovan and Xie, 2000, Brown, 2003, Lee, 2005, Falkenburg and Schyns, 2007, Limsila and Ogunlana, 2008, Loi et al., 2012, Lambert et al., 2013). The organizational commitment model is recommended to determine employee's loyalty and work attitude in order to qualify employment or promotion (Meyer et al., 2006, Jaros, 2007, Loi et al., 2012, Lambert et al., 2013). Although researchers had found some shortcoming and overlapping of wording in the questionnaires, the organizational commitment model is still recommended as a predictive work attitude measurement mechanism (Allen and Meyer, 1990, Meyer et al., 2002, Brown, 2003, Jaros, 2007, Meyer et al., 2012, Lambert et al., 2013).

CHAPTER 3: THEORETICAL FRAMEWORK

3.1 Introduction

This chapter provides a conceptual framework which identifies the key determinant of the relationship between leadership behaviour, subordinate behaviour and organizational commitment. Researchers agree that leadership is one of the key factors that can increase organizational productivity (Bass and Avolio, 1994, Brain and Lewis, 2004, Limsila and Ogunlana, 2008, Wang and Howell, 2012). As leadership performance is perceived by subordinates, a subordinate's reaction which is then scrutinized by their behaviour and their satisfaction on leadership, results in an organizational commitment level (Brown, 1992, Brown, 2003, Avolio et al., 2004). In order to describe the validity of this conceptual framework, this chapter is divided into four parts, which are 3.2 the research question, 3.3 the conceptual framework, 3.4 development of research questions and 3.5 summary.

3.2 Research Question

In the late 1900s, a debate on the best leadership style was raised and many researchers attempted to define 'the best leadership style'. As a consequence, researchers agreed that there are circumstances where it is possible to compare two styles of leadership and justify why one style is more effective than the other style (Burns, 1978, Savery, 1994, Cacioppe, 1997, Avolio and Bass, 1999, Hartog et al., 1997). Although there are numerous studies on leadership performance and its impact on subordinates and organizational commitment that have been well established by many researchers (Stogdill, 1950, Bass, 1985, Cardona, 2000, Dionne et al., 2004, Avolio and Gardner, 2005, Limsila and Ogunlana, 2008, Tyssen et al., 2014), these researchers agreed that there is no one style which is suitable for every circumstance (Bass and Avolio, 1998, Sarros and Santora, 2001, Limsila and Ogunlana, 2008, Toor and Ogunlana, 2009). This statement therefore generates a research question as follows:

a) How to develop effective leadership for each management level in the context of the Thailand mining industry?

Limsila and Ogunlana (2008) explored leadership behaviour in the Thai construction industry by comparing two leadership styles; these were transformational leadership and transactional leadership. The results show that transformational leadership is the most preferable for Thais; however, transactional leadership is still needed. They claim that although transformational leadership behaviour is the most appropriate for 'management' in the Thai construction industry, executing an appropriate level of transactional leadership is required to fulfill management efficiency (Hofstede, 1983, Limsila and Ogunlana, 2008). This phenomenon can be explained by the observation that Thai people are

characterized by a strong hierarchical system and a traditional top-down management style. As a consequence gaining the best leadership outcome, a leader has to be aware of how and when to implement different styles of leadership behaviour (Hofstede, 1983, Sarros and Santora, 2001, Judge and Piccolo, 2004, Epitropaki and Martin, 2005, Limsila and Ogunlana, 2008).

This statement suggests two more factors that can influence leadership behaviour which are 'culture' (Hofstede, 1983) and 'subordinate behaviour' (Limsila and Ogunlana, 2008). Consequently, two sub-questions regarding the relationship between leadership, followership (subordinate's behaviour) and culture can be asked:

b) How can leadership behaviour be influenced by national culture?
c) How can leadership behaviour be influenced by subordinates who are also influenced by their national culture?

The next section demonstrates a conceptual framework which structures a relationship of all research elements.

3.3 Conceptual Framework

The aim of this research is to focus on finding appropriate leadership behaviour to be implemented at each level of management in the Thai mining industry. In a general mining company structure, there are two types of different working areas: a) the mining site and b) the office area. Conceptually, these two areas require different areas of expertise. For example, in a mining site there is a need for employees who come from an engineering background whereas management and administration expertise are privileged to the office area.

This research generates a concept of how the difference of the leadership behaviour implementation and the perception of leadership behaviour on each working area can be identified, and how to support leadership development in the context of the Thai mining industry. Therefore, identifying leadership behaviour in an organization, multifactor leadership questionnaires (MLQ) based on the Bass and Avolio (2004) model is one of the most appropriate instruments to use. The MLQ can measure and identify various types of leadership characteristics and it can also indicate the level of leadership outcome (extra effort, effectiveness and satisfaction with the leader).

Nevertheless, to provide an in-depth analysis of leadership performance at each management level, the MLQ result has to be measured and tested. Thus an organizational commitment questionnaires, based on the Allen and Meyer (1996a) model, is used. The OCQ model is one of the instruments used to measure a positive working atmosphere (organizational commitment) and this model has been broadly

used by researchers to correspond with the MLQ model, which develops leadership performance by identifying the commitment level of subordinates and thus reflecting the effectiveness of leadership (Allen and Meyer, 1996a, Brown, 2003, Limsila and Ogunlana, 2008, Carsten et al., 2010, Elangovan and Xie, 2000).

Theoretically MLQ, which is based on the Bass and Avolio (2004) model, is used to analyse and identify the current situation of leadership behaviour (transformational, transactional and passive avoidant) and its performance in a particular research area. The results draw out a certain amount of each leadership characteristic that has been implemented, including leadership outcomes which are used to describe its performance and how satisfied the subordinates are with their leader (Bass and Avolio, 2004).

On the other hand OCQ, based on Allen and Meyer (1996a), is used to analyse the level of employees' commitment to an organization and is categorized on three different levels (active commitment, continuance commitment and normative commitment). Each level reflects an employee's willingness to stay with or to leave the company, and also determines how much they're psychologically attached to the company (Allen and Meyer, 1996a).

Previous research on leadership behaviour and its performance has used both the MLQ and OCQ models to determine the correlation between leadership performance and organizational commitment in many social constructs. Brown (2003) conducted a study based on the MLQ and OCQ framework to determine the relationship between subordinates and their perception of their supervisor. The results showed that there is a significant relationship between leadership performance and the level of follower organizational commitment. Similarly to Limsila and Ogunlana (2008), who conducted MLQ and OCQ models to examine the correlation between leadership style, leadership outcome, subordinates' work performance and subordinates' organizational commitment, the result also highlights a significant relationship between leadership style, leadership performance and organizational commitment level.

This research framework therefore determines to adapt the constructs of those previous research models by conducting both MLQ and OCQ together in order to explore the relationship between leadership behaviour, leadership outcome and organizational commitment in the context of the Thailand mining industry.

In order to fulfill the research objectives, the following elements are brought into a conceptual framework for the hypothesis development.

1. National culture and organizational culture
2. Organizational control variables
3. Leadership behaviour
4. Subordinates behaviour and satisfaction with their leader
5. Organizational commitment

3.3.1 National Culture and Organizational Culture

Hofstede (1983) defines national culture as an integration of members' norms and values within a society. He claims that every country has its own uniqueness which is passed down through generations. Hence, the behaviour and norms of members in one society are influenced by their culture. This research was conducted in Thailand, thus the national culture in this study focuses on Thai culture. The complexity of Thai culture is demonstrated when Thai people adapting for a new organizational management system; however, they are hedged by high power distance and hierarchical social systems which results in the way that Thais are still culturally conservative (Hofstede, 1983, Limsila and Ogunlana, 2008).

Organizational culture, on the other hand, is defined as people in an organization who are passionate about what they do (Limpanitgul et al., 2013). Researchers claim that organizational culture has a significant interrelation with leadership performance, job attitude and job satisfaction which results in organizational productivity (Shim and Steers, 2012, Limpanitgul et al., 2013).

The purpose of this conceptual framework, therefore, is to illustrate the correlation between leadership and followership within the organizational culture (mining industry) and the national culture (Thai culture). Both the leader and subordinates are correlated with national culture and organizational culture, as many researchers claim that culture has a significant influence on the behaviour and attitudes of both the leaders and subordinates (Hofstede, 1983, Testa, 2009, Dorfman et al., 2012). Hence, when leaders or subordinates conduct themselves in a certain way, they are always either directly or indirectly influenced by culture (Hofstede, 1983, Shao and Webber, 2006, Dorfman et al., 2012, Shim and Steers, 2012, Limpanitgul et al., 2013).

3.3.2 Organizational Control Variables

Organizational control variables are considered to be one of the key constructs that report a significant impact on employees' attitudes and behaviour. Gender (Li et al., 2011) or work experience (Brown, 2003) for instance, have been widely used as key factors to determine a research perspective. In this conceptual framework, organizational control variables consist of company sizes, layers of hierarchy and employee's demography (gender, education, work position and work experience). Each factor

influences both leadership and followership implementation (Coetzee, 2005, Limsila and Ogunlana, 2008, Sims Jr et al., 2009, Chaudhuri, 2010).

3.3.3 Leadership Behaviour

Leadership behaviour is defined as the ability of leaders to empower and encourage their followers to participate and provide substantial contributions to the organization (Bass, 1985, Lovelace et al., 2007, Norris, 2008, Carsten et al., 2010). Based on the transformational and transactional models (Bass and Avolio, 2004), leadership behaviour is implemented alongside a top-down organizational hierarchy, where subordinates will synchronize their behaviour, attitude and their satisfaction with the leader to respond in a form of organizational commitment (Sims Jr et al., 2009, Thompson and Vecchio, 2009, Carsten et al., 2010). Any change to leadership behaviour will impact on subordinates' satisfaction with leadership, and therefore their organizational commitment. The efficiency of tasks or goals achieved, therefore, is dependent on how appropriate the leadership approach is on capturing subordinates' interest (Brown, 2003, Brain and Lewis, 2004, Dionne et al., 2004, Limsila and Ogunlana, 2008, Carsten et al., 2010).

3.3.4 Subordinate Behaviour and Subordinates' Satisfaction with Leadership

Followership behaviour (subordinates' behaviour) is defined as that behaviour which is influenced by leaders to be more participatory and contribute more to an organization (Albritton and Oswald, 2005, Carsten et al., 2010, Crossman and Crossman, 2011). Followership is considered to be a key element of organizational productivity, as follower traits, attitudes and satisfaction, for instance, are significant attributes to the success of effective leadership (Elangovan and Xie, 2000, Carsten et al., 2010). Followership behaviour is claimed to report significant correlation with leadership perception, especially, with the appropriate leadership approach, as this relationship will enhance team productivity (Albritton and Oswald, 2005, Carsten et al., 2010, Crossman and Crossman, 2011). A follower (subordinate) in this conceptual framework therefore perceives leadership effectiveness as either a positive or negative contribution depending on how the follower synchronized leadership perception and satisfaction of leadership. Consequently, leadership effectiveness can be observed through subordinate's commitment or team productivity (Elangovan and Xie, 2000, Albritton and Oswald, 2005, Falkenburg and Schyns, 2007, Carsten et al., 2010).

3.3.5 Organizational Commitment

Organizational commitment is defined as an employee's psychological attachment to an organization. The difference in the level of commitment by individual employees is highlighted by their desire to leave

or to stay with an organization (Allen and Meyer, 1996a). Together with other key-social constructs, for example, leadership constructs, can generate an in-depth explanation of employees' attitudes and behaviour (Brown, 2003, Limsila and Ogunlana, 2008). Therefore, organizational commitment constructs based on the Allen and Meyer (1996a) model, are used to measure the employees' commitment level in this conceptual framework. As a leader displays his or her leadership behaviour on a subordinate, the intensity of a subordinate's satisfaction with the leader will result in a level of organizational commitment (Brown, 2003, Limsila and Ogunlana, 2008, Walumbwa et al., 2008).

3.4 Development of Research Questions

Figure 3.1: Relationship between Leadership, Followership and Organizational Commitment
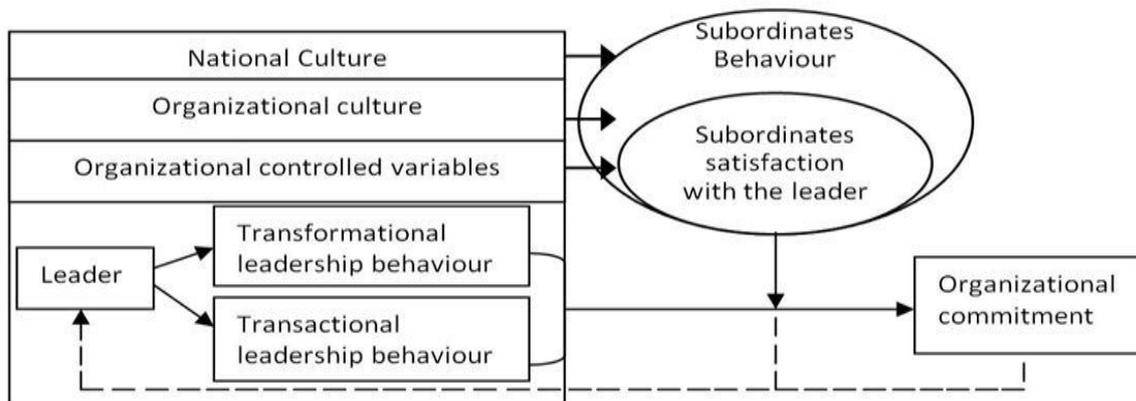
Leadership behaviour is one of the key elements for organizational management success. Leadership performance empowers and encourages followers to participate in order to provide substantial contributions to the organization (Lovelace et al., 2007, Norris, 2008, Carsten et al., 2010). However, leadership behaviour has to be precise and suit each circumstance because effective leadership performance is complicated by the statement that the most effective leadership performance is not about the best leadership style but the most suitable one (Avolio and Bass, 1999, Limsila and Ogunlana, 2008, Lovelace et al., 2007, Carsten et al., 2010). When a 'suitable leadership style' becomes the main issue of how to be an effective leader, a study of factors that cause ineffective leadership has to be taken into account.

Leadership behaviour experts Bass and Avolio (2004) developed a model called Multifactor Leadership Questionnaires (MLQ) which consists of three different leadership categories: a) transformational leadership, b) transactional leadership and c) passive avoidance (no leadership). Each category contains various factors which represent a stereotype of leadership behaviour. This model has been tested worldwide by many researchers, and this research shows that transformational leadership

behaviour is the most preferable style (Sarros and Santora, 2001, Kirkbride, 2006, Limsila and Ogunlana, 2008, Wang and Howell, 2012, Hartog et al., 1997). However, the transactional leadership style still important for practical management, as it significantly enhances subordinates' work commitment (Cardona, 2000, Sarros and Santora, 2001, Brain and Lewis, 2004, Limsila and Ogunlana, 2008, Wang and Howell, 2012). Therefore, it can be assumed that even most preferable leadership style (transformational leadership) may not be suitable in some situations. In other words, in some states, transactional leadership can be more effective than transformational leadership. This statement is developed into the following research question:

Q1: Does the transactional behaviour correlate with organizational commitment?

The reason that both leadership styles are required can be explained by studies about the factors that influence leadership effectiveness. Hofstede (1983) granted the foundation of cross-culture studies to determine the cultural differences across fifty countries in three regions (that is, power distance, masculinity, individualism and uncertainty avoidance). He claimed that, since the diversity of national cultures have been discovered, the awareness of cross-culture in leadership management is important. As their leadership perceptions and leadership preferences are influenced by an individual culture, people from different societies will react differently to the same leadership behaviour. In other words, an effective leadership style which displays a great leadership outcome may not report the same effectiveness on another society.

Transformational leadership, for instance, is supported by researchers to be one of the most preferable and one of the most effective leadership styles as it consists of positive leadership factors (that is, innovative, creative, visionary, motivating, inspiring and coaching) (Cacioppe, 1997, Sarros and Santora, 2001, Dionne et al., 2004, Limsila and Ogunlana, 2008, Wang and Howell, 2012). However, the argument that transformational leadership may not be suitable in some circumstances has been raised in some countries, where culture is dominated by a paradigm of high power distance or hierarchical systems (Hofstede, 1983, Cardona, 2000, Brain and Lewis, 2004).

Moreover, ineffective transformational leadership is reported in some circumstances where people have different interests or different perceptions. This situation is when the transactional leadership behaviour, such as contingent rewards, is needed to substitute leadership effectiveness from transformational leadership. Thus, the mixing of both leadership styles has occurred (Sarros and Santora, 2001, Epitropaki and Martin, 2005, Limsila and Ogunlana, 2008, Walumbwa et al., 2008).

As culture influences leadership effectiveness, subordinates' behaviour (followership) is an additional factor that also impacts on leadership effectiveness (Albritton and Oswald, 2005, Carsten et al., 2010). The theory of followership predominantly focuses on a relationship between a leader and a follower, in other words it focuses on how leadership perception is scrutinized by follower's characteristics (Albritton and Oswald, 2005, Schyns and Felfe, 2006, Carsten et al., 2010).

Since culture and followership are the main factors that influence leadership effectiveness, gaining the most benefit from leadership performance, a leader needs to understand and gain the highest level of followership attitude (satisfaction with the leader). The more positive the followership trait, the higher the leadership perception (Albritton and Oswald, 2005, Schyns and Felfe, 2006). Accordingly, the above statements explain how the relationship between leaders and followers interact with each other and how both are influenced by culture and personality which affects the level of leadership perception and leadership effectiveness. Therefore, this generates the following research question to explore the relation between the positive leadership attributes and leadership satisfaction:

Q2: Does transformational behaviour correlate with satisfaction from subordinates?

Dionne et al. (2004) described the relationship between transformational leadership behaviour and team performance as follows: transformational leadership behaviour can enhance the team to be more productive by sharing visions, motivation and commitment. The authors, however, claimed that the complexity of integrating transformational leadership with team performance and development is caused by additional elements such as team harmonization or team diversity which impact the leadership performance and the team performance. This statement is supported by Cardona (2000) who introduced a concept of team diversity. He claims that team diversity is one of the key elements that add another layer of complexity to team performance, as team diversity consists of individual differences which can cause the team to go in various directions, instead of being aligned.

Consequently, the quality of the relationship between leaders and followers can be positive or negative depending on the effectiveness of leadership implementation (Limsila and Ogunlana, 2008, Dionne et al., 2004). As researchers agree that factors such as culture or followership behaviour can influence the leadership effectiveness (Dionne et al., 2004, Testa, 2009, Carsten et al., 2010), therefore, it is necessary to acknowledge the correlation between leadership effectiveness and organizational commitment in order to identify the factors that influence leadership effectiveness (Bass and Avolio, 1994, Dionne et al., 2004, Limsila and Ogunlana, 2008, Wang and Howell, 2012).

The organizational commitment theory is commonly used as one of the measurement tools to complement a leadership behaviour theory. Allen and Meyer (1996a) are the founders and developers of organizational commitment theory which focuses on the concept of work attitude, employee behaviour and job satisfaction. Organizational commitment consists of three categories (affective commitment, continuance commitment and normative commitment) which identifies the level of psychological attachment an employee has to their company. In regard to the relationship between organizational commitment theory and leadership behaviour theory, researchers claim that leadership behaviour has the ability to positively influence its team members (followers) not only in their performance but also their attitudes. In other words, positive leadership performance will result in positive organizational commitment (Bass, 1985, Bass and Avolio, 1994, Allen and Meyer, 1996a, Cardona, 2000, Dionne et al., 2004). This statement generates a research question to explore the relationship between leadership behaviour and organizational commitment as follows:

Q3: Does the transformational behaviour correlate with organizational commitment?

Allen and Meyer (1990) developed the concept of organizational commitment theory, stating that it is a multidimensional construct of work attitude, employees' behaviour and job satisfaction. They claim that work attitude and job satisfaction are significantly influenced by the psychological attachment to an organization of an employee (organizational commitment) as the more positive the work attitude and job satisfaction, the higher the possibility that they will want to stay with the organization. Interestingly, the study indicates that the affective commitment approach (one of organizational commitment constructs) is positively correlated with supervisor job rating and supervisor job promotion. In other words, the satisfaction with leadership performance generates a significant impact on followers' attitude and behaviour (Allen and Meyer, 1990, Allen and Meyer, 1996a).

Carsten et al. (2010) describe the followers' attitudes as the contribution of followership traits which significantly impacts the perceptions of the leadership. He claims that the degree of the followers' interaction with the leader can be varied by their attitudes towards their leader. Theoretically, a follower who is satisfied with his or her leader is supportive of the leader, which results in a greater ability to accept and respect leadership behaviour (Albritton and Oswald, 2005, Schyns and Felfe, 2006, Carsten et al., 2010).

Defining the leader–follower relationship becomes increasingly important for leadership effectiveness and leadership development (Albritton and Oswald, 2005, Schyns and Felfe, 2006, Limsila and Ogunlana, 2008, Carsten et al., 2010). Interpersonal influence and characteristics support effective

management and it is not only about how well the leader performs but also how well the followers respond to the leader (Lee, 2005, Hooper and Martin, 2008).

According to the research, the relationship between a leader and a follower is considered as key to the development of leadership performance; the higher the quality of the leader-follower relationship, the more satisfaction and greater perception the follower will respond to the leadership performance (Lee, 2005, Hooper and Martin, 2008, Limsila and Ogunlana, 2008, Carsten et al., 2010). Lee (2005) explains the quality of the leader–follower relationship is dependent on the level of trust, support, reward and interaction between leaders and followers. The author claims that the quality of the leader–follower relationship supports the effectiveness of leadership in terms of influencing the follower which results in a positive level of follower commitment.

According to the above statement, the relationship between leaders and followers is influenced by the effectiveness of leadership implementation and team performance. This relationship, in other words, can be described as how much the leader can impress or can satisfy followers by executing his or her leadership style effectively (Bass, 1985, Lee, 2005, Hooper and Martin, 2008). This study, therefore, generates a research question to explore a relationship between the leadership satisfaction and the organizational commitment as follows:

> Q4: Does the subordinates' satisfaction with the leaders correlate with
> organizational commitment?

3.5 Summary

In summary, this chapter introduced the research questions which explore the relationship between leadership behaviour, followership behaviour and organizational commitment. The research questions mainly focus on the appropriate leadership styles to be implemented in the Thai mining industry and draw attention to some factors which influence the effectiveness of leadership performance. The conceptual framework then explains the relationship among determinant factors and how they impact on each other. The theories of leadership behaviour, followership behaviour and organizational commitment were introduced along with briefly defining all determining factors to support the validity of conceptual framework. Finally, the development of research questions was constructed by gathering all presented information in order to highlight research gaps that respond to the conceptual framework model.

CHAPTER 4: RESEARCH DESIGN AND METHODOLOGY

4.1 Introduction

This chapter provides the research methodology for examining the research questions and testing the research hypotheses. This chapter also presents the validation of research methodology, including research instruments and sample data, in order to justify the research. This chapter is therefore divided into six sections: 4.2 research methodology, 4.3 research instrument validation, 4.4 research sampling data, 4.5 data collection, 4.6 empirical analysis and 4.7 summary.

4.2 Research Methodology

This study uses mixed-methods as the research approach because the aim of the research is to identify current leadership behaviour and factors influencing leadership effectiveness. It also evaluates factors that support leadership development for the Thai mining industry. This research includes statistical data (quantitative) to identify the overall leadership behaviour in the Thai mining industry and also interview data (qualitative) to provide an in-depth analysis, where using mixed-methods is considered as the suitable research methodology for the subject matter.

4.2.1 Mixed Methods Definition and Justification

Johnson et al. (2007) defines the mixed-method approach as the systematic integration of qualitative and quantitative research, conducted together to fully cover every aspect of the research criteria (Johnson et al., 2007, Sosulski and Lawrence, 2008).

Sosulski and Lawrence (2008) explain that an appropriate situation for conducting the mixed-method research approach is when the study is designed to explore a comprehensive acknowledgement of a phenomenon, on different levels. Accordingly, the quantitative method is a technique used to determine the research hypothesis where the observed phenomenon is believed to happen in a particular way; however, the causes and effects results do not extensively cover the problem-solving criteria. In contrast, qualitative research provides an in-depth data analysis which describes, identifies and explores the nature of tangible facts. The qualitative results therefore fill the gap left when using only a quantitative technique. Mixed-method research, therefore, is used to provide comprehensive results by combining qualitative and quantitative research techniques in one research study (Sosulski and Lawrence, 2008, Johnson et al., 2007).

4.2.2 Advantages of Mixed Methods

The combination of quantitative and qualitative data allows the results to be detailed and thorough as combining methods generate a foundation of factors which can be analysed according to the research objective (Sosulski and Lawrence, 2008, Johnson et al., 2007). Johnson et al. (2007) demonstrate the advantages of using the mixed-method approach that can be effective during three stages of research development. The first stage is when the research design is conducted; the qualitative approach can support the quantitative component to conceptualize the research model, thus this approach can enhance the quality of the research development criteria. The second stage is when data collection is committed; the quantitative approach provides the standard criteria of the research area, helping to prevent research bias. Conversely, the qualitative approach corresponds with the research gap which enhances effectiveness of the data collection process. The final stage is when the data analysis is committed; the quantitative approach complements the major research area by statistically simplifying the data and providing the trend of the results from the analysis. On the other hand, the qualitative approach contributes an in-depth data analysis by compromising between the research gap and the results from quantitative analysis. The description of emerging data analysis from quantitative and qualitative approaches illustrates how the research variables respond diversely at a different level of data analysis, thus the narrative of an in-depth data analysis can be achieved (Denzin and Lincoln, 2005, Johnson et al., 2007).

This research explores and analyses the relationship between leadership behaviour, followership behaviour and organizational management; therefore, in order to maximize an in-depth analysis, conducting the mixed-method approach is required. The qualitative approach will explore the overall leadership behaviour and how its performance is implemented through business management whereas the qualitative approach identified the influencing factors which impact the effectiveness of the leadership behaviour in the context of the Thai mining industry.

4.2.3 Research Approach

According to the mixed-method approach, the data gathering process needs to be conducted in two orderly stages to accommodate quantitative and qualitative analytical approaches. In stage one, the quantitative approach, the questionnaire consists of two parts: the Multifactor Leadership Questionnaire (MLQ), based on the Bass and Avolio (2004) model, and the Organizational Commitment Questionnaire (OCQ), based on the Allen and Meyer (1996) model. The first part of the questionnaire, the MLQ section, consists of nine leadership behaviour factors which illustrate the trend of leadership

behaviour currently being implemented. It also includes the rating of leadership outcomes which consist of extra effort, effectiveness and satisfaction. Importantly, there are two questionnaire forms in the MLQ which have to be completed separately: the 'Self Rating Form', where supervisors or leaders rate themself as leaders, and the 'Rater Form', where followers (subordinates) or colleagues rate their leader or their supervisors. The 'Rater Form' also represents four organizational levels as the above level, the same level, the below level and the other relationships such as suppliers or customers (Bass and Avolio, 2004).

The second part of the questionnaire is the OCQ section, based on the Allen and Meyer (1996a) model. The organizational commitment questionnaires consist of three different levels of commitment (affective commitment, continuance commitment and normative commitment) which illustrate the psychological attachment to the organization of an employee. This OCQ can be distributed to everyone without any concern about job position or organizational division.

The quantitative approach, the research questions of the relationship between leadership style, leadership performance, leadership outcome and organizational commitment can be determined as follows:

Q1: Does the transactional behaviour correlate with organizational commitment?
Q2: Does the transformational behaviour correlate with satisfaction from subordinates?
Q3: Does the transformational behaviour correlate with organizational commitment?
Q4: Does the subordinates' satisfaction with the leaders correlate
with organizational commitment?

In stage two (the qualitative approach), after the broad picture of relationships between leadership behaviour, leadership performance, leadership outcome and organizational commitment is reviewed from the quantitative analysis, individual, in-depth interviews (compiled with the survey results) were be conducted with the leaders and supervisors to identify all significant variables that influence leadership behaviour and its effectiveness in the context of the Thai mining industry. The following prompts are employed in order to penetrate an interview;

1) Prompt to explore self-leadership from two angles:

How would you describe your leadership style and how would your staff and colleagues describe you? Please give some example to support your point.

As the recognition of self-leadership is the key competence of leadership development, the interview prompt therefore begins with pointing out the self-leadership classification. As is common, the first stage of leadership development is where a leader can identify his or her leadership behaviour and be

conscious about how to implement their leadership effectively (Cacioppe, 1997, Albritton and Oswald, 2005, Lovelace et al., 2007).

2) Prompt to explore how subordinates' behaviour can influence leadership behaviour:

How would you adapt your leadership behaviour to suit your colleagues or your subordinates? Can you explain using examples of your past experiences?

As claimed by researchers that the effectiveness of leadership performance is not only how well it is implemented but also how well leadership is perceived by the subordinates (Sarros and Santora, 2001, Limsila and Ogunlana, 2008, Wang and Howell, 2012). Therefore this prompt attempts to identify the factors influencing leadership effectiveness as received by the subordinates.

3) Prompt to explore the influence of subordinates' work commitment based on leadership behaviour

What methods have you used to gain commitment from your team? Please give your reasons for using this method.

Although the effectiveness of leadership has a significant impact on subordinates' behaviour and performance (Bass and Avolio, 1994, Peterson et al., 2012), The bottom line is how a leader can encourage subordinates (followers) to be responsible and reliable in order to achieve the maximum performance from them (Brown, 2003, Peterson et al., 2012, Wang and Howell, 2012).This prompt therefore, determines to categorize the leadership approach when the leaders need to gain more work commitment from their subordinates, and this prompt also identifies factors influencing leadership effectiveness within the work commitment criteria.

4) Prompts used to explore the influence of organizational culture (the mining industry) on leadership behaviour:

Can you describe some difficulties you have encountered when your job has required you to cooperate across other departments including lower departments? What kind of leadership approach have you used?

How would you describe the difference between cooperating with office employees and mining employees? What kind of leadership approach have you used? Please give your reasons.

The relationship between leadership and organizational culture has been published in several studies with the results pointing in the same direction, determining that organizational culture is one of the factors that influence leadership effectiveness (Limpanitgul et al., 2013, Shim and Steers, 2012, Azanza et al., 2013, Bass and Avolio, 2004). However, in a large organization where many departments are cooperating, the shared norms and values can be different between departments. A finance department must strictly to follow work procedure but an operating site department has to be flexible according to

circumstances (Chun et al., 2009, Shim and Steers, 2012, Limpanitgul et al., 2013, Williams and Glisson, 2013). These prompts, therefore, detemine to categorize and compare the variety of leadership approach which has been implemetning among the different department in an organization.

5) These prompts explore the influence of national culture on leadership behaviour.

> *What difficulties have you experienced when cooperating with expatriates who are your boss/colleague/subordinate?*
> *Is your leadership approach different when you need to cooperate with an expatriate? Please give your reasons.*

Researchers agree that culture is one of the key factors which significantly influence leadership effectiveness as they claim that people who practice a different culture perceive leadership behaviour differently (Hofstede, 1983, Drogendijk and Slangen, 2006, Soares et al., 2007, Testa, 2009, Dorfman et al., 2012). Although the cross cultural studies clarify that culture diversity causes the difference of leadership perception, they agree that the national culture does not predict leadership behaviour (Ergeneli et al., 2007, Testa, 2009, Dorfman et al., 2012, Baker et al., 2013). These prompts, therefore, intend to clarify and identify the current leadership approach which has been implemented across the national culture between Thais and expatiates within Thai mining industry. A submission for ethics approval was endorsed by Victoria University Ethics Committee to ensure that these research prompts complies with the standards of the Australian research ethics.

4.3 Research Instrument Validation

The purpose of this study is to explore the relationship between leadership behaviour, followership behaviour and organizational commitment where these elements are accommodated by the suitable instruments which support an effective analysis for the results. This section, therefore, clarifies the research instruments that have been used in this study.

4.3.1 Multi-factor Leadership Questionnaires (MLQ)

Although this study proposed various leadership theories, the justification of using multifactor leadership questionnaires (MLQ) can be explained as follows:

Firstly, the MLQ can explain a much broader range of effective and ineffective leadership behaviours which can in turn be used to evaluate perceptions of leadership effectiveness across organizational management levels and across cultures (Bass and Avolio, 1998, Bass and Avolio, 2004).

Secondly, the MLQ emphasizes on leadership development and the MLQ survey can be used to assess a leader's effect on others which encourages the leaders to develop themselves and their subordinates (Bass and Avolio, 1998, Bass and Avolio, 2004).

Finally, the MLQ model is based on a practical understanding to support a leader's development by revealing a range of leadership styles and performance which gives direction for leaders to be more effective (Bass and Avolio, 1998, Bass and Avolio, 2004).

The MLQ determines to measure leadership dimensions which also provides a computerized feedback form for leadership development. MLQ (5X short) consists of forty-five items to identify leadership behaviour and its performance, which differentiates between highly effective leadership and ineffective leadership in the organization and the individual (Bass and Avolio, 2004). Bass and Avolio (2004) claim, that according to the leadership report, the MLQ is equally effective through all industries across more than thirty countries.

Theoretically, the testing of the MLQ scores can be conducted in two different stages. The first stage is the early period of leadership development, as the gathered data provides a wide range of observable leadership styles within an organization, which would be more effective when evaluated together with an in-depth interview of an employee's live experience. A leader therefore, will be more conscious with an individual developmental experience which limits leadership effectiveness (Avolio and Bass, 1999, Bass and Avolio, 2004). Conversely, in another stage, MLQs can be conducted before and after a training program, as it can compare an individual and overall leadership profile of employees in an organization against organizational policy changes. Thus the MLQ results can be used as the basis of the evaluation of a leadership training program. Moreover the focus of the MLQ report, where applied, can vary through all different units and departments in one organization. The collective leadership score can be compared against specific performance criteria from individuals or groups (Avolio and Bass, 1999).

4.3.1.1 Theoretical Background and Development

Downton (1973), cited in Bass and Avolio (2004), is the first person who distinguishes transformational leadership from transactional leadership to differentiate the leadership revolution at that period of time. However, Downton's definitions of transformational leadership were not well recognized until 1978 when Burns unveiled 'the political transactional leader motivated followers by offering reward for services rendered'. The transactional leadership is recognized by its identity as he claimed that

[Transactional leaders'] approach associates with an eye to exchanging one thing for another: jobs for votes, or subsidies for campaign contributions. Such transactions comprise the bulk of the relationships among leaders and associates, especially in groups, legislatures and parties.

(Burn 1978 p. 3)

Consequently, based on the political transactional leadership definition of Burns (1978), the studies of Zaleznik (1977) and Downton (1973), cited in Bass and Avolio (2004), were recalled to re-conceptualize the transformational leadership criteria by Burn (1978), starting with the extended definition of transactional leadership to become more participative and interactive and to be more responsive and open to his or her colleagues or associates (Bass and Avolio, 2004). Since the late 1900s, the term transformational leadership has become well recognized and has been observed extensively in the military, political, industrial, nursing and educational settings (Barling et al., 1996, Cacioppe, 1997, Cardona, 2000, Sarros and Santora, 2001, Bass and Avolio, 2004, Limsila and Ogunlana, 2008, Wang and Howell, 2012).

Figure 4.1: Transformational and Transactional Leadership
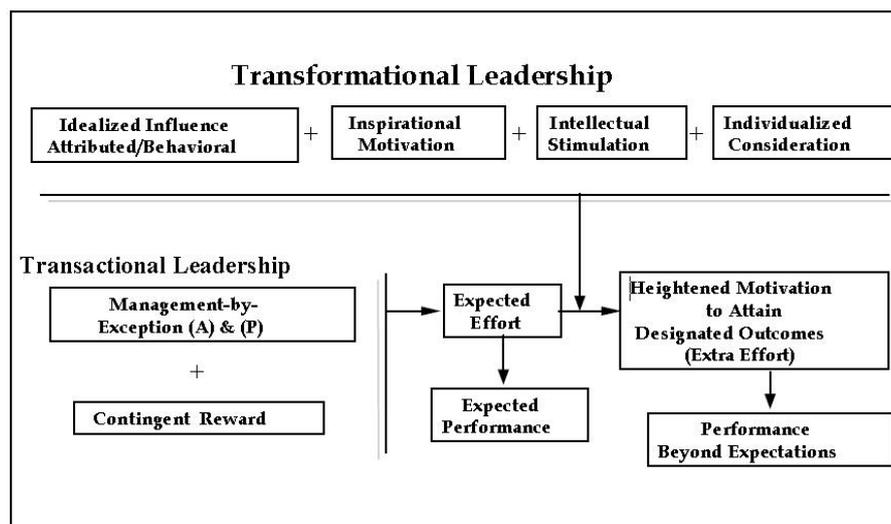
Source: Bernard Bass and Bruce Avolio (2004) p.19.

Theoretically, transformational and transactional leadership creates respect, trust and work commitment towards the same direction. On one hand, transactional leadership exhibits the task-oriented relationship which means a transactional leader dedicates the necessary effort based on the reward and punishment basis to elicit followers' satisfaction, desires and needs to accomplish a task or goal (Cardona, 2000, Sarros and Santora, 2001, Brown, 2003, Bass and Avolio, 2004, Stone et al., 2004 , Walumbwa et al., 2008). Although a reward and punishment approach can encourage the work commitment of followers, may easily fail when the agreement between the leaders and the followers cannot be negotiated (Bass and Avolio, 2004, Burke, 2006). Having stated that, transactional

leadership is still considered as an occasional necessity, as some relationships between a leader and a follower are based on work performance and reward. This necessity supports situations when an urgent negotiation needs to be discussed between the leader and the follower to address a critical issue (Sarros and Santora, 2001, Bass and Avolio, 2004, Epitropaki and Martin, 2005, Walumbwa et al., 2008).

Transformational leadership on the other hand, is a long-term relationship that can be associated with the term 'motivation beyond expectation'. In other words, a transformational leader demonstrates relationship behaviour where the subordinates (followers) are expected to perform responsibly and reliably. The transformational leaders, therefore, enhance followers' perceptions, self-efficacy and performance development (Arnold et al., 2001, Avolio and Yammarino, 2002, Bass and Avolio, 2004, Howard A. Adams, 2009). Researchers agree that transformational leadership generates higher work satisfaction and team performance than transactional leadership because it integrates the positive element between subordinates' attitude and motivation (Bass and Avolio, 2004, Limsila and Ogunlana, 2008, Howard A. Adams, 2009). The transformational leadership model is well recognized as one of the most preferable leadership styles as it achieves trust, satisfaction, potential performance and development which enhances the effective contribution from team members and team productivity (Cacioppe, 1997, Bass and Avolio, 2004, Dionne et al., 2004, Limsila and Ogunlana, 2008). However, there are factors that cause an ineffective transformational leadership performance such as culture (Hofstede, 1983), organizational culture (Bass and Avolio, 2004) and followership behaviour (Carsten et al., 2010). The transformational leader, therefore, can occasionally be substituted by the transactional leader style. In other words, both transformational and transactional leadership constructs can be potentially adopted by one leader who implements according to the circumstances (Cardona, 2000, Bass and Avolio, 2004, Brain and Lewis, 2004, Epitropaki and Martin, 2005).

4.3.1.2 Construct Validation

Bass (1985), cited in Bass and Avolio (2004), initiated and conceptualized the MLQ 5R model which is the original six-factors model to measure transformational, transactional and laissez-faire (non-leadership). The author has unveiled some extended factors through the revisions of the MLQ Bass & Avolio 1993 and 1994 versions where the model provides the transformational leadership attributes which distinguishes the idealized charismatic behaviours and attributes (charisma, inspiration, intellect, stimulation and individualized consideration). The transactional leadership attributes, on the other hand, consist of the contingent reward and the management-by-exception. In the MLQ 5R model, the original model of Management-by-Exception attribute is divided into two different dimensions, the Management-

by-Exception: Active (MBEA) and the Management-by-Exception: Passive (MBEP). However, several subsequent empirical studies indicate insufficient discrimination between the factors of MLQ 5R model, as it fails to replicate the model constructs (Bass and Avolio, 2004).

The MLQ 5X model (current model) as a consequence, has been developed in regard to the criticism of MLQ 5R model. It is a combination of a) a series factor analysis of MLQ 5R to maximize the item evaluation in which only the best exhibited discriminant validities and convergent items were chosen, b) selected items based on the previous results from the early version of MLQ 5X of Howell and Avolio's (1993), cited in Bass and Avolio (2004), which are scrutinized by using Partial Least Squares analysis (PLS) (Bass and Avolio, 2004), c) new developed items of transformational leadership from recent charismatic literature and d) modified leadership learning based on recommendations from the field study of the earlier MLQ 5X model.

Table 4.1: Inter-correlations Among MLQ 5X Factor Scores

	II(A)	II(B)	IM	IS	IC	CR	MBEA	MBEP	LF	EE	EFF	SAT
II(A)	(.75)											
II(B)	.64**	(.70)										
IM	.68**	.68**	(.83)									
IS	.64**	.59**	.59**	(.75)								
IC	.71**	.60**	.60**	.68**	(.77)							
CR	.67**	.61**	.61**	.61**	.68**	(.69)						
MBEA	-.07**	.02**	.02**	-.01	-.12**	.01	(.75)					
MBEP	-.36**	-.27**	-.27**	-.33**	-.32**	-.32**	.10**	(.70)				
LF	-.49**	-.34**	-.34**	-.39**	-.42**	-.44**	.08**	.61**	(.71)			
EE	.71**	.57**	.57**	.62**	.68**	.63**	-.06**	-.33**	-.42**	(.83)		
EFF	.73**	.56**	.56**	.63**	.67**	.67**	-.06**	-.43**	-.56**	.72**	(.82)	
SAT	.75**	.54**	.54**	.62**	.70**	.64**	-.12**	-.40**	-.52**	.71**	.79**	(.79)

[a] N = 27,285, Numbers in parentheses are reliability scores.
* p < .05 ** p < .01

LEGEND: II(A) = IDEALIZED INFLUENCE (ATTRIBUTED)
II(B) = IDEALIZED INFLUENCE (BEHAVIOR)
IM = INSPIRATIONAL MOTIVATION
IS = INTELLECTUAL STIMULATION
IC = INDIVIDUALIZED CONSIDERATION
CR = CONTINGENT REWARD
MBEA = MANAGEMENT-BY-EXCEPTION (ACTIVE)
MBEP = MANAGEMENT-BY-EXCEPTION (PASSIVE)
LF = LAISSEZ-FAIRE
EE = EXTRA EFFORT
EFF = EFFECTIVENESS
SAT = SATISFACTION

Source: Bernard Bass and Bruce Avolio (2004) p. 67

According to Table 4.1, Bass and Avolio (2004) prove the correlations of the MLQ 5X model by testing the discriminant-validity among the leadership behaviour factors. Transformational leadership behaviour is especially highly positive with Extra Effort (EE), Effectiveness (EFF) and Satisfaction (SAT). In the same positive direction, Contingent Reward (transactional leadership) is also related with leadership

outcome. On the other hand, the Management-by-Exception: Passive (MBEP) and Laissez-Faire (non-leadership) are negatively related with the leadership outcome (EE, EFF and SAT). The multifactor leadership questionnaires model (MLQ) is, therefore, one of the most valid leadership measurement instruments which is well recognized and replicated worldwide in various leadership research fields (Limsila and Ogunlana, 2008, Sarros and Santora, 2001, Dionne et al., 2004, Wang and Howell, 2012, Walumbwa et al., 2008). Thus in this study, the MLQ is considered as the suitable measurement tool to explore and identify the leadership behaviour and its performance in Thai mining industry.

4.3.2 Organizational Commitment Questionnaire (OCQ)

Organizational commitment is one of the key competencies of organizational productivity as, when employees are emotionally attached to the company, they will put themselves into the organization with maximum contribution and motivation (Allen and Meyer, 1990, Porter et al., 1974, Brown, 2003). Allen and Meyer (1996a) define organizational commitment as an employee's psychological attachment to his or her organization. They claim that organizational commitment was negatively related to employees' turnover, as when an employee was committed to his or her company the synergy between company loyalty and the employee's attitude was encouraged (Allen and Meyer, 1996a, Meyer and Allen, 2004, Allen and Meyer, 1990). Distinguishing between the level of organizational commitment and the employees' attitudes can be developed over three different forms of commitment: a) affective commitment (desire-basis) was where an employee wanted to remain with the company because he or she identified with and was emotionally attached to the company, b) continuance commitment (obligation-basis) was where an employee remains with the company because considering to leave the company could be costly for his or her career and c) normative commitment (cost-basis) was where an employee felt that he or she should remain with the company because of his or her responsibility for the organization (Allen and Meyer, 1990, Allen and Meyer, 1996b, Meyer and Allen, 2004).

4.3.2.1 Theoretical Background and Development

Meyer and Allen (1987) (cited in Meyer et.al. 1990) initially introduced the original concept of attitudinal commitment by distinguishing the commitment from affective commitment and continuance commitment. Affective commitment indicated an employee's identification, involvement and emotional attachment within the organization. The continuance commitment, on the other hand, denoted the perception of associated costs if the employee was willing to leave the organization. Later in 1990, Allen and Meyer (1990) distinguished an extra component which was normative commitment to replicate an employee's perception of obligation to continue working within the same organization. The concept of three

organizational commitment forms were first completed by Myer and Allen (1991) (cited in Myer and Allen 2004) in regard to the proposition of 'interaction effect behaviour' (for example, job satisfaction, work attitude, behaviour, turnover intention and actual turnover) which some researchers also recognize as a 'multidimensional work attitude' (Mathieu & Zajac 1990; Becker 1992; Mayer & Schoorman 1992, cited in Allen & Myer 1996a). In the first period of the theory development, Myer and Allen (1987) (cited in Myer & Allen 1990) presented the grounded organizational commitment theory of Porter et al. (1974). They introduced three forms of organizational commitment as a) affective attachment which was the employee's emotionally link, identification and enjoyment in the organization, b) perceived cost which was the tendency of consistent engagement activity to rely on the cost of earning and losing of an employee, in other words, 'cost-based commitment' and c) obligation, which was the moral act of an employee to contribute his or her loyalty and to sacrifice his or her interests for the organization.

The forms of organizational commitment were developed in the second period as when Myer and Allen (1987) cited in Allen and Meyer (1990) recognized the negative relationship between organizational commitment and the probability of turnover. The results indicated that it was not only organizational commitment level that made an employee willing to stay or to leave the company, but also his or her personal though and desires that influenced the decision making of the employee. The authors therefore, re-conceptualized and relabeled the three forms of organizational commitment individually, as they claimed that those conceptual differences were independently developed by the functions from different psychological backgrounds (Allen and Meyer, 1990, Meyer and Allen, 1993, Allen and Meyer, 1996a, Meyer et al., 2002).

Figure 4.2: Three-component Model of Organizational Commitment
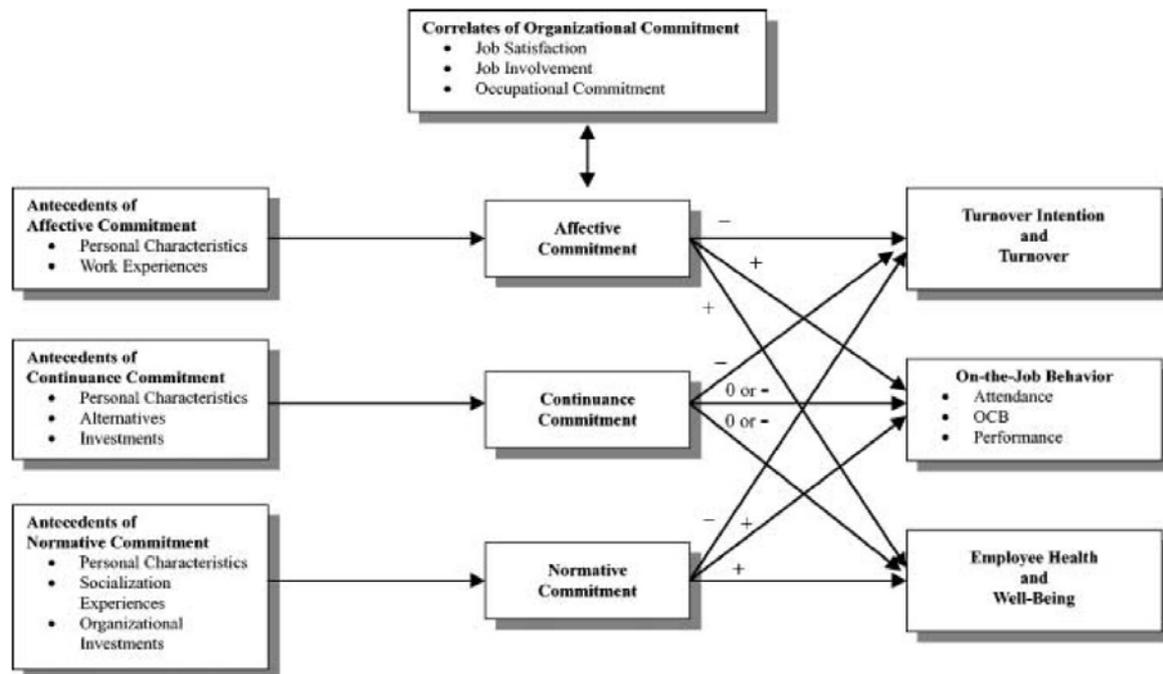
Affective Commitment is when an employee remains with the company since he or she is emotionally attached to the company and he or she wants to stay. Affective commitment consists of four elements that are personal traits, job attributes, work experiences and organizational culture. These elements fulfill the employees' psychological desires for being comfortable with the company. The positive attitude towards the company therefore, not only influences the employee's decision to stay but also maximizes their competency and their responsibility for the company (Allen and Meyer, 1990, Allen and Meyer, 1996a, Meyer et al., 2002, Meyer et al., 2012).

Continuance Commitment is when an employee stays with the company because the cost of leaving the company is too high. The continuance commitment is developed based on the side-bets (individual investments). An individual perceives a side-bet when he or she considers the cost of taking an action on one thing affects the associated cost on another related action (opportunity cost) (Allen and Meyer, 1990, Allen and Meyer, 1996a, Meyer et al., 2002, Meyer et al., 2012). In essence, the opportunity cost of action or commitment is considered as 'betting' for an individual who invests the time, energy and synergy where he or she is obviously expecting to win the bet (Becker 1960, cited in Allen & Meyer 1990) . Although winning the bet is positively related to the success of an individual investment and magnitude where an employee correctly chooses to stay or to leave the organization, the consideration of leaving the organization is biased by the fear of unemployment which increases the associated cost

of leaving the organization (Allen and Meyer, 1990, Allen and Meyer, 1996a, Meyer et al., 2002, Meyer et al., 2012).

Normative commitment is when an employee stays with the company for loyalty and sacrifice, thus, he or she feels they ought to stay. Normative commitment is influenced by the individual's experiences and background including familial culture, socialization and organizational socialization (Allen and Meyer, 1990, Allen and Meyer, 1996a, Meyer et al., 2002). For example, a sense of normative commitment (for example, work obligation) can be expressed by an employee who is influenced by his or her significant persons (for example, family and colleagues) who are also long-term employees in the same organization (Wiener 1982, cited in Allen & Meyer 1990). In regard to organizational socialization, strong normative commitment is expected from an employee who believes in the organization's reputation and is keen to become a part of various organizational practices where the organization loyalty becomes the bottom line of the organizational socialization paradigm (Allen and Meyer, 1990, Allen and Meyer, 1996a, Meyer et al., 2002, Meyer et al., 2012).

4.3.2.2 Construct Validation

Allen and Meyer (1996a) examined the construct validity of organizational commitment scales by reviewing their subsequent empirical studies. The development of organizational commitment scales consists of the Affective Commitment Scales (ACS), Continuance Commitment Scales (CCS) and Normative Commitment Scales (NCS) based on the principles outline in Jackson (1970) (cited in Allen & Meyer, 1996a). In order to construct the validation of organizational commitment scales, Allen and Meyer (1996a) conducted the test-retest relationship study which replicated over forty empirical samples to cover most of the organizational variables. The administration of the test-retest relationship study ranged from seven weeks to eleven months in order to measure and compare the longitudinal data collection as the commitment scales (ACS, CCS and NCS) were expected to yield the difference between the lowest reliability from inexperienced employees as they were new to the organization, and the highest reliability from the same group when they gained experience from the organization (Allen and Meyer, 1996a). Thus the following table illustrates the results of test–retest reliabilities for organizational commitment measure validation.

Table 4.2: Test–retest Reliabilities for Commitment Measures

Measure	Reliabilities			Timing of measures	Reference
	rt_1t_2	rt_1t_3	rt_2t_3		
ACS	.94			7 weeks apart (average tenure = 5.5 years)	Blau et al. (1993)
ACS	.68	.62	.78	1, 6, and 11 months post-entry	Meyer et al. (1991)
CCS	.71	.63	.72		
ACS	.66	.61	.73	1, 6, and 12 months post entry	Meyer et al. (1993)
CCS	.56	.58	.67		
NCS	.61	.62	.73		
ACS	.48	.38	.77	1 day and 3 and 6 months post entry	Vandenberg & Self (1993)
CCS	.44	.44	.63		

Source: Allen and Meyer (1996a) p. 258

According to Table 4.2, Allen and Meyer (1996a) explained that first they separated the test of the ACS items from the related measuring assessment work value and work occupation constructs, and were also distinct from CCS items. Second, the ACS and NCS items are consigned to the same factor, but separated from CCS items. Finally, all three items (ACS, CCS and NCS) were loaded according to work value and work occupation constructs. According to the results (Table 4.2), the factor analyses confirmed that the ACS, CCS and NCS items were consigned to the separate factors (for example, work value, work occupation, job satisfaction and organizational support).

The authors scheduled the measurement process to start from the first day, after three months and six months employment. By focusing on both the ACS and CCS items, they discovered sufficient evidence of value changing, thus the interpretation of changing in mean scores was taken into account. The interpretation of changing confirms the factor analytic evidence that was relevant to the commitment measures, consequently, the value changing was influenced by three aspects a) the alpha change, when the surplus of mean scores was considered to be significant evidence of the self-report attitude measurement, b) the gamma change, when the mean scores surplus was caused by the changing of the measurement instrument structure and c) the beta change, when the metric being used in the administration was changed. The varying of gamma and beta could be either extensively or modestly changed, however, interpretation of mean score changing could detect the alpha change and could be controlled in analyses designed only when the gamma or beta change was in the modern aspect (Allen and Meyer, 1996a). Furthermore, Allen and Meyer (1996a) acknowledge the empirical study of Vandenberg and Self (1993) which illustrated the dynamic of ACS and CCS structures across

administrations where the result of the study supported the appropriate data analysis procedure for both ACS and CCS constructs. Meyer and Gardner (1994) (cited in Allen & Meyer, 1996a) claimed that the ACS and CCS were the constructive instruments to investigate the changing of commitment at the beginning of an employment period. However, the need for a significant justification on the conflicting evidence in terms of gamma and beta changing was still necessary. As a result, the acknowledgment of Vandenberg and Self (1993) and Meyer and Gardner (1994) studies supported the stability and validity of the ACS, CCS and NCS structures (Allen and Meyer, 1996a).

> The first based on perceptions that few employment alternatives exist and the second on high personal sacrifice associated with leaving the organization'.
> Allen and Meyer (1996a), p. 258

The Organizational Commitment Questionnaire (OCQ) and the three commitment measure scales (ACS, CCS, and NCS) were significantly correlated (Allen and Meyer, 1996a, Meyer and Allen, 2004, Meyer et al., 2002, Meyer et al., 2012). The OCQ and TMC were used in many similar patterns where the OCQ converged with the ACS, except was distinct from the other two items (CCS and NCS). The OCQ administration could predict and examine the correlations of variable patterns among the organizational commitment measures and work-related characteristics, work-related behaviour, other attitude measures, non-work variables, turnover intentions and turnover (Allen and Meyer, 1996a, Meyer et al., 2002, Meyer and Allen, 2004, Meyer et al., 2012).

Allen and Meyer (1996a) claimed that all three commitment measure scales were significantly related to organizational commitment which consists of personal traits, job attributes, job satisfaction, work experiences and work value. However, the factors of each commitment form (ACS, CCS, NCS) were separately loaded from those items. Accordingly, the affective and the continuance commitment were generally associated with the hypothesized variables, however for the normative commitment form there were no unique antecedent variables identified. Although all three commitment forms were negatively correlated with turnover and withdrawal cognition behaviour, the affective commitment illustrated the most favourable and strongest correlation with organizational variables (job attendance, job performance and organizational behaviour) and employee variables (stress of work and life conflict). The continuance commitment on the other hand, was negatively related with these outcomes. Conversely, normative commitment was associated with desirable outcomes (Allen and Meyer, 1996a, Meyer et al., 2002, Meyer and Allen, 2004, Meyer et al., 2012).

4.4 Sampling Data

For generations, the study of leadership behaviour and leadership performance has occurred worldwide and is well recognized in many industry contexts (Stogdill, 1950, Bass, 1985, Bass and Avolio, 1994, Bass and Avolio, 2004, Limsila and Ogunlana, 2008, Wang and Howell, 2012, Dahl and Olsen, 2013). Unfortunately, there is very limited acknowledgement of leadership behaviour in the mining industry as most of the empirical studies focus on engineering and environmental perspectives (Winterton, 1989 , Hilson and Murck, 2000, Jenkins and Yakovleva, 2006, Zhu and Cherni, 2009, Amponsah-Tawiah et al., 2013). This study, therefore, is dedicated to exploring leadership behaviour and its performance in the Thai mining industry to extend acknowledgement of leadership behaviour in the mining industry.

Four qualified mining companies in Thailand were the targeted population in this research. Empirical research of Hofstede (1983), Limsila and Ogunlana (2008) and Dorfman et al. (2012), highlighted the research interest on the cultural influence on leadership behaviour. Although the literature stated transformational leadership was the most preferable leadership behaviour and transactional leadership is less preferable, in some cultures however, transactional leadership was still considered to be occasionally necessary behaviour.

Selection of the companies was based on for nationality, company culture and work environment. The company culture differed between those that accommodate only Thai nationals and those containing both Thai and other nationals. The data analysis, as a consequence, was able to investigate and compare the difference of leadership behaviour and performance when administered across or within the same culture and nationality context.

The second qualification of the targeted population was the size of the company, as team diversity had a significant impact on the team management performance (Epitropaki and Martin, 2005, Dionne et al., 2004, Limsila and Ogunlana, 2008). By focusing on the company size, the differences of organizational management and leadership performance were acknowledged. The divisions of four selected companies as a result, were two big and two small, measured by the number of employees in each company. Consequently, the data for this research was drawn from the four selected mining companies in Thailand from every department, including office work and mine operations. The surveys used were the MLQ and OCQ, and in-depth interviews were conducted with key personnel such as the CEO, head of department, senior managers and supervisors.

4.5 Data Collection

In total, five hundred copies of questionnaires were assigned through HR departments of four companies for distribution to two different groups of respondents which are a)"leader group" who designate themselves as leaders including CEO/top management team, senior managers, managers/supervisors at both office and mine operation sites, and b)"rater group" who designated themselves as followers (subordinates) at both office and mine operation sites. The MLQ questionnaires are designed for two separate groups which are a) respondents who designated themselves as leaders to describe their own leadership style but not to rate their own leadership and b) respondents who designated themselves as followers to rate the leadership performance according to their perception. In contrast the OCQ questionnaires use the same form for both the "leader group" and the "follower group".

Afterwards, the in-depth interviews were conducted in each company as follows:

CEO/top management team	1	person
Senior Managers	3	people
Managers / Supervisors	4	people
In total from four companies	32	people

The data collection was carried out in the four selected mining companies in Thailand. The first company was the biggest coal mining company, which was a state-owned enterprise. The second was the biggest gold mining company, which was a joint-venture between a Thai and Australian company. The third was another coal mine which was a Thai private company, and the last one was a mining company which was a private company owned by Thai and Australian. These four companies were different in company size and organizational culture, and were used to compare relationships of leadership behaviour, leadership performance, leadership outcome and organizational commitment. The MLQ and OCQ questionnaires were used to survey the board of directors, managing director, top management team, senior managers, managers and subordinates of the mining companies. The result showed the trend of the relationship of leader, follower and organizational commitment. In the next step, Individual in-depth interviews informed by the survey results were undertaken to further investigate variables that influence leadership behaviour in the Thai mining industry. Key personnel such as the managing director, board directors, project manager, senior managers and supervisors were the main focus as their experience and attitudes towards their position and responsibility reflect the full scope of the objectives in this research.

4.6 Empirical Analysis

First, this study began with the quantitative analysis of the targeted demographic variables from each company. According to the research objectives, all the data are grouped up into various divisions: a) the group of leader and follower and b) the group of mining staff and office staff (including both leader and follower). The same group types across the four companies were also combined to recognize the broad picture in each group type.

Second, MLQ and OCQ instruments were implemented with ranges from 'strongly disagree' to 'strongly agree'; a numerical score was reported from each response to project the significance of each attribute. A multiple-choice checklist was used to examine the relationship between the significant attributes of leadership behaviour, leadership outcome and organizational commitment. The Statistical Package for the Social Science (SPSS) was used to analyse the data from the survey. Explanatory statistics, including frequency, cross tabulation and descriptive ratio statistics were used to observe, describe and summarize the sample characteristics. This analysis was discovered the relationship of the leader-follower attribute in the context of the Thai mining industry.

Finally the results of in-depth interviews were carefully analysed by computer-assisted qualitative data analysis software (CAQDAS), namely NVivo. This software allowed a 'word-by-word' analysis by identifying for common themes among the interviewees' answers. This content analysis gathered the most frequently used words from the interviews, thus revealing key factors which provided a solid understanding of how leadership behaviour was influenced by followership behaviour, organizational commitment, organizational culture and Thai culture.

4.6.1 Multifactor Leadership Questionnaires (MLQ)

The MLQ instrument consists of two sets of questionnaires, the first form is the 'leader form' which is for a leader or a supervisor to rate him or herself as a leader, and the second form is the 'rate form' which is the form for a subordinate (follower) to rate his or her leader as a rater. Each form is based on forty-five questions where each question is scored by the five-point Likert-scales range from: 0 (not at all), 1 (once in a while), 2 (sometimes), 3 (fairly often) and 4 (frequently, if not always). The forty five-questions represent the leadership characteristics and leadership outcomes (Bass and Avolio, 2004). Every single question is coded and grouped to represent the leadership characteristics as in the following table:

Table 4.3: Coded Items for Leadership Characteristics

Characteristic	Scale Name	Scale Abbrev	Items
Transformational	Idealized Attributes or Idealized Influence (Attributes)	IA or II(A)	10,18,21,25
Transformational	Idealized Behaviors or Idealized Influence (Behaviors)	IB or II(B)	6,14,23,34
Transformational	Inspirational Motivation	IM	9,13,26,36
Transformational	Intellectual Stimulation	IS	2,8,30,32
Transformational	Individual Consideration	IC	15,19,29,31
Transactional	Contingent Reward	CR	1,11,16,35
Transactional	Mgmt by Exception (Active)	MBEA	4,22,24,27
Passive Avoidant	Mgmt by Exception (Passive)	MBEP	3,12,17,20
Passive Avoidant	Laissez-Faire	LF	5,7,28,33
Characteristic	**Scale Name**	**Scale Abbrev**	**Items**
*Outcomes of Leadrshp	Extra Effort	EE	39,42,44
Outcomes of Leadrshp	Effectiveness	EFF	37,40,43,45
Outcomes of Leadrshp	Satisfaction	SAT	38,41

Source: (Bass and Avolio, 2004) p.111

The results of MLQ illustrate the trend of each leadership characteristic being implemented and the level of leadership outcome (extra effort, effectiveness and leadership satisfaction). Leadership satisfaction in particular, by analysing only data from respondents who designate themselves as "subordinate", illustrates how well subordinates are satisfied with the current leadership characteristics of the their leader. Although the MLQ results identify the current situation of leadership behaviour and its performance, the research does not label the leader to perform a specific style (transformational or transactional) (Bass and Avolio, 2004). The MLQ, therefore, is designed to yield the trend of leadership behaviour showing where the leader is being more transformational or transactional than the norm, and considering the results of leadership outcome provides the information of how well that leadership is performed.

4.6.2 Organizational Commitment Questionnaires (OCQ)

The organizational commitment questionnaire (OCQ) consists of eighteen questions which are equally divided into three groups (affective commitment, continuance commitment and normative commitment. Each group contains the seven-point Likert-scales ranging from 'strongly disagree' to 'strongly agree'. The data analysis is commonly approached by using Pearson's correlation (PPMC) to examine the relationship between each commitment level and other organizational variables which are hypothesized for the correlation, antecedent or consequences. Once the survey is administered, three sets of scores are received from each respondent in order to yield the level of three commitment scores (affective,

continuance and normative). This OCQ is designed to observe the additive or the independent effects (for example, organizational behaviour, turnover, job attendance and job performance) on the three component outcomes (Meyer and Allen, 2004). Originally, the formulation of organizational commitment, proposed the three commitment components that influence behaviour. Thus, the relationship of each commitment type and its outcome can be varied dependent on the strength of the research variable in the particular circumstance.

4.6.3 Research Variables

This study emphasizes categorizing the group of respondents to justify the effectiveness of current leadership behaviour and performance on the organizational variables. The research variables therefore, are divided into three categories a) MLQ variable, b) OCQ variable c) moderator variable and d) control variable.

4.6.3.1 MLQ Variables

Leader and Leadership Behaviour Factors

The MLQ variables in this study are leadership behaviour factors (transformational, transactional and leadership outcome). According to Bass and Avolio (2004), when a leader displays his or her leadership along the hierarchy, leadership behaviour both actively and passively influenced his or her followers (subordinates), by testing MLQ variables, that consisted of transformational, transactional and leadership outcome factors, will provide an acknowledgement of leadership behaviour and leadership performance in Thai mining industry.

4.6.3.2 OCQ variables

Organizational Commitment

The model validity of organizational commitment (Affective, normative and continuance commitment) are established by Allen and Meyer (1996a) for measuring employee's psychological attachment to their company. By including this OCQ variables into the research variables, this finding shall display the relationship between leadership behaviour, leadership performance and organizational commitment in order to determined leadership effectiveness (Allen and Meyer, 1996b, Yousef, 2001, Brown, 2003, Chen and Francesco, 2003). The organizational commitment variables therefore, are set up to test the relationship with leadership performance on followers' attitude.

4.6.3.3 Moderator Variable

Subordinates satisfaction with leadership

The subordinates satisfaction with leadership is considered as moderator variables due to the followers interact as a third variable that effect relationship between leadership effectiveness and organizational commitment (Bass and Avolio, 2004, Carsten et al., 2010). Thus this study recognizes follower and followership behaviour as the moderator variables, according to the research objective which explores the performance of the current leadership behaviour on the followership (subordinate) commitment.

4.6.3.4 Control Variables

Size of the Company

By focusing on the company's size, the difference in organizational management systems can be seen. This focus was applied according to researchers claim that team diversity is related with the personal characteristics and reactions towards the team which impacts the team performance (Dionne et al., 2004, Van Knippenberg et al., 2013). The difference of leadership behaviour and performance are expected to be shown about the difference in each firm's size as the control variable.

Field Job Related (Mining Operation Staff and Office Staff)

In order to distinguish the style of leadership in various circumstances, the related field job has to be controlled. The literature illustrates that leadership performance and effectiveness can be varied depending on circumstances, especially in an organization where job are diversified by working environment and work achievement (Dionne et al., 2004, Lee, 2013, Van Knippenberg et al., 2013, Tekleab and Quigley, 2014).

4.7 Summary

This chapter began by introducing the research methodology where 'mixed-methods' was argued to be used as appropriate for this research. The MLQ and OCQ were introduced as the research instruments which supported the quantitative approach. The qualitative approach, on the other hand, is progressed by conducting the in-depth interviews where the research prompts are introduced to identify 'the factors influencing leadership effectiveness'. The instrument validation of MLQ and OCQ were declared by referencing the theoretical background and development along side with the instrument construction validation. Furthermore, this chapter explained the reason for choosing the mining industry in Thailand as the research setting and how to qualify the data sampling. The targeted population was also identified in this section. The final section was the empirical analysis. This section explained how the

gathered data was analysed which included instructions for conducting the research instrument (MLQ and OCQ) and how to analyse the results from those instruments according to the research objectives.

CHAPTER 5: DATA ANALYSIS AND FINDING

5.1 Introduction

This chapter provides research data analysis and discussion of the research finding. Utilizing the mixed-methods technique according to the research objectives, this study determines to present an in-depth analysis of the leadership behaviour and performance within the Thai mining industry. Moreover, the advantage of the mixed-methods technique allows the flexibility of data analysis to be examined from various dimensions (top-down and bottom-up) which provides the significant contributions towards research academic and practical application. This research, therefore, is divided according to the research objectives as follows: 5.1 introduction, 5.2 the results of instruments' reliability and validity, 5.3 demography, 5.4 trend of leadership behaviour and organizational commitment in Thai mining industry, 5.5 examination of the research questions, 5.6 results of in-depth interviews, 5.7 summary.

5.2 The Results of Instruments' Reliability and Validity

The test of instrument's reliability and validity is considered necessary as the testing results shall report the justification of the research validation. In other words, the measurement construct within this study is reliable and can be used for further analysis. This section therefore, conducted Cronach's alpha model to test the instrument's reliability and validity.

5.2.1 Measurement of Construct Reliability

Cronbach (1951) introduces Cronbach's alpha model equation to demonstrate reliability coefficient examination. The author claimed that a factor analysis cannot be interpreted without an appropriate reliability and validity testing for an error of measurement magnitude.

Cronbach's alpha model equation is given by:

$$\alpha = \frac{n}{n-1}\left(1 - \frac{\sum_i V_i}{V_t}\right)$$

Source: (Cronbach, 1951) p.299

Cronbach's alpha is a well established psychometric and reliability test model which is represented as expected correlation between two tests that are measured within the same construct. An average correlation of the testing set of items is considered as an "accurate estimate of an average correlation".

Cronbach (1951) represented "α (alpha)" as a functional index number of tested variance attributes to a common-factor concentration which is equal to the coefficient of equivalence "parallel-form" and "parallel-split". This study therefore, conducted Cronbach's alpha by using the SPSS program to test the results of instrument reliability and validity in the following section.

5.2.2 Construct Validity and Reliability

For assessing a single uni-dimensional construct for validity and reliability, this study conducted Cronbach's alpha reliability test where the theoretical value of "α (alpha)" ranges from zero to one. Although the degree of reliability is dependent on the appropriate usage of the instrument, the standard value for an acceptable reliability ratio is commonly considered at 0.7 (Cronbach, 1951, Hair et al., 1998, Holmes-Smith, 2001). This study therefore, provided the test results as follows in this subsection.

5.2.2.1 Reliability Statistic

Reliability Statistics

Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
.816	.913	13

The results of Cronbach's alpha reliability test showed 0.816 which is greater than 0.7 according to the rules of acceptable reliability ratios (Cronbach, 1951, Hair et al., 1998, Holmes-Smith, 2001). This confirms the reliability and validity of the measurement instruments. The conduction of Cronbach's alpha reliability test further illustrated more other in-depth results as follows.

5.2.2.2 Item Statistic

Item Statistics

	Mean	Std. Deviation	N
IA	8.71	2.966	334
IB	9.31	3.194	334
IM	9.32	3.305	334
IS	9.39	3.244	334
IC	8.76	2.989	334
CR	9.03	3.159	334
MBEA	9.10	3.391	334
EE	7.08	2.509	334
EFF	9.60	3.220	334
SAT	4.82	1.852	334
AC	32.14	6.330	334
CC	29.62	7.442	334
NC	31.77	5.100	334

The item statistics show the mean score and standard deviation of two sets of instruments, namely MLQ and OCQ. The standard deviation value of MLQ (IA-SAT) varies between1.852 to 3.391 which is considered a reasonable range or, similar to the standard deviation value of OCQ (AC-NC) which varies between 5.1 to 7.442 (Cronbach, 1951, Hair et al., 1998, Holmes-Smith, 2001).

On the other hand, the output range of the mean score between MLQ and OCQ is quite large due to the different scales used in the measurement tools of each instrument. However the variances of the mean score are relatively similar among items of each instrument.

5.2.2.3 Item-Total Statistics

Item-Total Statistics

	Scale Mean if Item Deleted	Scale Variance if Item Deleted	Corrected Item-Total Correlation	Squared Multiple Correlation	Cronbach's Alpha if Item Deleted
IA	169.96	743.310	.676	.605	.792
IB	169.35	714.710	.800	.784	.782
IM	169.35	717.302	.753	.758	.784
IS	169.28	717.185	.770	.755	.784
IC	169.91	739.097	.698	.635	.791
CR	169.64	722.256	.761	.706	.785
MBEA	169.56	719.442	.718	.679	.786
EE	171.59	750.423	.762	.742	.791
EFF	169.06	714.684	.793	.763	.782
SAT	173.84	781.321	.741	.734	.799
AC	146.53	676.743	.439	.335	.813
CC	149.05	943.409	-.300	.261	.909
NC	146.90	748.996	.310	.241	.819

The item-total statistics show how much these items affect the reliability of the instrument's scale. By focusing on the direction of corrected item-total correlation values, the higher the correlation value means the stronger the correlation of an item with the composite score of the remaining items. The negative value on the other hand, shows an inverse correlation relationship of an item with the remaining items.

 "Cronbach's alpha if item deleted" is another necessary scale that demonstrates the impact of deleting an item on the reliability of Cronbach's alpha value. According to the item-total statistic table, when compared with the initial value of 0.816 (see Section 5.2.2.1 'reliability statistic', p.77) most items cause a decrease of Cronbach's alpha value if deleted. This illustrates the importance of including these items in the measurement scale to increase the reliability and validity of the research instruments.

The next section presents the correlation matrix of all items that were used in this study in order to demonstrate the correlation and significant relationships between all measurement items.

5.2.2.4 Item Correlation Matrix

Correlations

		IA	IB	IM	IS	IC	CR	MBEA	EE	EFF	SAT	AC	CC	NC
IA	Pearson Correlation	1	.665**	.677**	.672**	.673**	.696**	.648**	.662**	.648**	.608**	.274**	-.244**	.137*
	Sig. (2-tailed)		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.012
	N	334	334	334	334	334	334	334	334	334	334	334	334	334
IB	Pearson Correlation	.665**	1	.814**	.780**	.703**	.732**	.775**	.751**	.731**	.718**	.442**	-.307**	.208**
	Sig. (2-tailed)	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000
	N	334	334	334	334	334	334	334	334	334	334	334	334	334
IM	Pearson Correlation	.677**	.814**	1	.775**	.665**	.726**	.714**	.723**	.756**	.731**	.439**	-.376**	.148**
	Sig. (2-tailed)	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.000	.007
	N	334	334	334	334	334	334	334	334	334	334	334	334	334
IS	Pearson Correlation	.672**	.780**	.775**	1	.723**	.770**	.718**	.748**	.747**	.710**	.433**	-.347**	.156**
	Sig. (2-tailed)	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.000	.004
	N	334	334	334	334	334	334	334	334	334	334	334	334	334
IC	Pearson Correlation	.673**	.703**	.665**	.723**	1	.697**	.660**	.648**	.686**	.609**	.294**	-.241**	.142**
	Sig. (2-tailed)	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000	.009
	N	334	334	334	334	334	334	334	334	334	334	334	334	334
CR	Pearson Correlation	.696**	.732**	.726**	.770**	.697**	1	.680**	.723**	.734**	.694**	.381**	-.290**	.205**
	Sig. (2-tailed)	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.000	.000
	N	334	334	334	334	334	334	334	334	334	334	334	334	334
MBEA	Pearson Correlation	.648**	.775**	.714**	.718**	.660**	.680**	1	.688**	.720**	.637**	.370**	-.279**	.109*
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.000	.047
	N	334	334	334	334	334	334	334	334	334	334	334	334	334
EE	Pearson Correlation	.662**	.751**	.723**	.748**	.648**	.723**	.688**	1	.779**	.792**	.382**	-.286**	.173**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000	.001
	N	334	334	334	334	334	334	334	334	334	334	334	334	334
EFF	Pearson Correlation	.648**	.731**	.756**	.747**	.686**	.734**	.720**	.779**	1	.793**	.445**	-.282**	.207**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.000	.000
	N	334	334	334	334	334	334	334	334	334	334	334	334	334
SAT	Pearson Correlation	.608**	.718**	.731**	.710**	.609**	.694**	.637**	.792**	.793**	1	.455**	-.323**	.140*
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000	.011
	N	334	334	334	334	334	334	334	334	334	334	334	334	334
AC	Pearson Correlation	.274**	.442**	.439**	.433**	.294**	.381**	.370**	.382**	.445**	.455**	1	-.238**	.304**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000	.000
	N	334	334	334	334	334	334	334	334	334	334	334	334	334
CC	Pearson Correlation	-.244**	-.307**	-.376**	-.347**	-.241**	-.290**	-.279**	-.286**	-.282**	-.323**	-.238**	1	.227**
	Sig. (2-tailed)	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000	.000		.000
	N	334	334	334	334	334	334	334	334	334	334	334	334	334
NC	Pearson Correlation	.137*	.208**	.148**	.156**	.142**	.205**	.109*	.173**	.207**	.140*	.304**	.227**	1
	Sig. (2-tailed)	.012	.000	.007	.004	.009	.000	.047	.001	.000	.011	.000	.000	
	N	334	334	334	334	334	334	334	334	334	334	334	334	334

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

*. Correlation is significant at the 0.05 level (2-tailed).

The items correlation matrix evidenced all measurement items that were used in this study are significantly correlated. Many of the significant values are less than 0.01 and some are less than 0.05. By observing the direction of item inter-correlation, there is one item of the organizational commitment questionnaire (OCQ) instrument, namely continuance commitment (CC), that showed a negative relationship with all other items. This inverse relationship can be explained as the increase in any other item by one unit will cause a decrease in the CC item by one unit.

In conclusion, the results from Cronbach's alpha reliability test and correlation matrix evidenced the significant relationships between all measurement items and supports the reliability and validity of the results of the measurement instruments. The next section in this study provides in-depth data analysis and discusses research findings.

5.3 Demography

This section provides the demography of all of the respondents in this study. Four mining companies in Thailand were selected to be the subjects in this study, the selection was based on the size of the company (small, large) and the company structure (private, public company). In total, 500 copies of the questionnaire were distributed through human resource departments of each company, and 334 (approximately a 67% return rate) participants responded in this study. The following table shows the demography of all four mining companies in order to acknowledge the general information of the selected population.

Chart 5.1: Demography
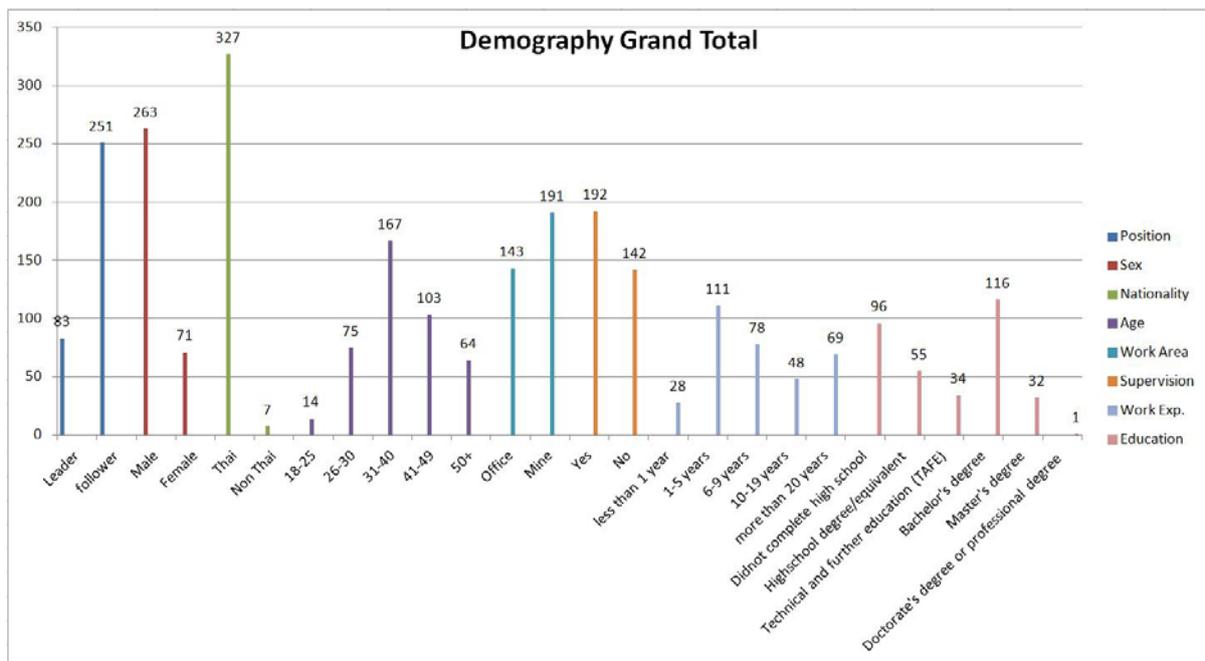
Chart 5.1 provides general information of the targeted population of the mining industry in Thailand. The respondents who are leaders include the CEO, top management team, head of departments and supervisors, totalling 25% while 75% are subordinates. The overall gender make up is 79% male and 21% female, and the predominant nationality is Thai with a proportion of 98%, followed by 2% who are not Thai. The majority of participants are aged between 31 and 40 years old, make up 50% of the target population, followed by participants aged 41 to 49 years old which make up 31% and then those aged 26 to 30, making up 22% of the population. Surprisingly, 19% of employees' are older than 50 years and the 18 to 25 year olds are the minority of the targeted population. The working area there is 43% of employees who are working in the mining area and another 57% who work in the office. Furthermore, 57% of the entire research population includes absolute leader, leader-follower and absolute follower

who provide supervision to their colleagues and their junior staff. On the other hand, 47% did not provide supervision. The employees with 1 to 5 years' experience dominate at 33%, followed by those with 6 to 9 years' experience at 23%, the percentage of employees who have experience more than 20 years' is 21%, the percentage of those with 10 to 19 years' experience is 14% and the minority are employees who have less than 1 year experience at 8%. For education, 35% of population graduated with a bachelor degree, 29% did not complete high school, 16% graduated from high school, 10% for both TAFE and master's degree and less than 1% graduated with a doctor's degree.

Upon a deeper analysis, however, an error in regard to the participants' designation of themselves as a leader or follower has been found. For instance, it was found from some responses that some people identify themselves as leaders, however they were not supervising any individual, whereas some others who designated themselves as followers, indicated that they were supervising others people. In this level of analysis (see Appendix D – Analysed Data). Therefore, the research population is categorized according to a) they are supervising someone or not and b) the working location (the mine or the office).

5.3.1 Gender and Nationality Group

Table 5.1: Gender and Nationality

		Male				Female			
		Thai		None-Thai		Thai		None-Thai	
Mine	Supervision	116	35%	4	1%	10	3%	0	0%
	None-Supervision	85	25%	0	0%	19	6%	0	0%
Office	Supervision	38	11%	2	1%	22	7%	0	0%
	None-Supervision	18	5%	0	0%	19	6%	1	0%
	Total	334	100%						

Table 5.1 categorizes the respondents according to their gender and their nationality. The results show that 35% of the mining staff who supervise others are male Thais, 3% are female Thais, 1% are none-Thai males and there no none-Thai females. On the other hand, 25% of the mining staff who do not supervise others are male Thais and 6% are female Thais. Furthermore, 11% of the office staff who supervise others are male Thais, 7% are female Thais, 1% are none-Thai males and there are no none-Thai females. 5% of the office staff who do not supervise others are male Thais and 6% are female Thais.

Categorizing by gender shows that the numbers of male employees are greater than female employees in both the mining area and the office area. Nevertheless, there are more female employees working in the office area than the mining area. By focusing on the supervision dimension, Table 5.1 shows male employees have a higher percentage of supervising others than not supervising others in both the

mining and office groups. In contrast, only the female office employees show a higher percentage of supervising others than not supervising others.

5.3.2 Age Group

Table 5.2: Age

		18-25		26-30		31-40		41-49		50+	
						Age					
Mine	Supervision	1	0%	21	6%	28	8%	48	14%	32	10%
	None-Supervision	8	2%	26	8%	26	8%	33	10%	11	3%
Office	Supervision	2	1%	9	3%	17	5%	15	4%	19	6%
	None-Supervision	3	1%	19	6%	7	2%	7	2%	2	1%
	Total	334	100%								

Table 5.2 categorizes the entire respondents according to their age. The results show that less than 1% of the mining staff who supervise others are aged 18-25 years old, 6% are aged 26-30 years old, 8% are aged 31-40 years old, 14% are aged 41-49 years old and 10% are aged 50 years old and older. 2% of the mining staff who does not supervise others are aged 18-25 years old, 8% are aged 26-30 years old, 8% are aged 31-40 years old, 10% are aged 41-49 years old and 3% are aged 50 years old and older. Furthermore, 1% of the office staff who supervise others are aged 18-25 years old, 3% are aged 26-30 years old, 5% are aged 31-40 years old, 4% are aged 41-49 years old and 6% are aged 50 years and older. 1% of the office staff who does not supervise others are aged 18-25 years old, 6% are aged 26-30 years old, 2% are aged 31-40 years old, 2% are aged 41-49 years old and 1% is aged 50 years and older.

Interestingly, the majority of mining staff including both supervising others and not supervising others are older than 41 years old. For the office staff on the other hand, the majority is employees aged 26-40 years old.

5.3.3 Work Experience Group

Table 5.3: Work Experience

		Less than 1 year		1-5 years		6-9 years		10-19 years		More than 20 years	
						Work Experience					
Mine	Supervision	4	1%	29	9%	34	10%	30	9%	33	10%
	None-Supervision	12	4%	40	12%	28	8%	11	3%	13	4%
Office	Supervision	5	1%	19	6%	12	4%	7	2%	19	6%
	None-Supervision	7	2%	23	7%	4	1%	0	0%	4	1%
	Total	334	100%								

Table 5.3 categorizes the respondents according to their work experience. The results show 1% of the mining staff who supervise others have less than 1 year of experience, 9% have 1 to 5 years of experience, 10% have 6 to 9 years of experience, 9% have 10 to 19 years of experience and 10% have

more than 20 years of experience. On the other hand, the results show 4% of the mining staff who do not supervise others have less than 1 year of experience, 12% have 1 to 5 years of experience, 8% have 6 to 9 years of experience, 3% have 10 to 19 years of experience and 4% have more than 20 years of experience. Furthermore, 1% of office staff who supervise others have less than 1 year of experience, 6% have 1 to 5 years of experience, 4% have 6 to 9 years of experience, 2% have 10 to 19 years of experience and 6% have more than 20 years of experience. 2% of office staff who do not supervise others have less than 1 year of experience, 7% have 1 to 5 years of experience, 1% have 6 to 9 years of experience, 0% have 10 to 19 years of experience and 1% have more than 20 years of experience.

The results from Table 5.3 reveal that within the group of those with less than 1 year to 5 years of work experience, the percentage of staff who are supervising others is lower than those who are not supervising others, in both mining and office staff. On the other hand, for those who have from 6 years of work experience to over 20 years of work experience, the results show the percentage of staff who are supervising others is greater than those who are not supervising others, in both mining and office staff.

5.3.4 Education

Table 5.4: Education

		Education							
		Under Highschool		High School		TAFE		Higher Education	
Mine	Supervision	37	11%	19	6%	21	6%	53	16%
	None-Supervision	54	16%	29	9%	5	1%	16	5%
Office	Supervision	2	1%	5	1%	6	2%	49	15%
	None-Supervision	3	1%	2	1%	2	1%	31	9%
	Total	334	100%						

Table 5.4 categorizes the respondents according to their education. The results show 11% of the mining staff who provides supervision to others have not graduated from high school, 6% graduated from high school, 6% graduated from TAFE and 16% graduated with a higher education. 16% of the mining staff who does not supervise others did not graduate from high school, 9% graduated from high school, 1% graduated from TAFE and 5% graduated from higher education. On the other hand, 1% of the office staff who supervise others did not graduate from high school, 1% graduated from high school, 2% graduated from TAFE and 15% graduated from higher education. 1% of the office staff who do not supervise others did not graduate from high school, 1% graduated from high school, 1% graduated from TAFE and 9% graduated from higher education.

The results from table 5.4 reveal that the mining staff who did not graduate from high school is the majority of the group within mining area; in contrast for office staff, the majority of the group is those who graduated from higher education. In the group of those who didn't graduate from high school and those who graduated from high school, the percentages of staff who supervise others is lower than the staffs who do not supervise others; however, the group of those educated at TAFE and graduated from higher education show a higher percentages of the staff who supervise others compared with those who do not supervise others.

5.4 Trend of Leadership Behaviour and Organizational Commitment in the Thai Mining Industry

This section reveals the management system, including trend of leadership behaviour, leadership outcome and the organizational commitment within the Thai mining industry.

Figure 5.1: Hierarchy System
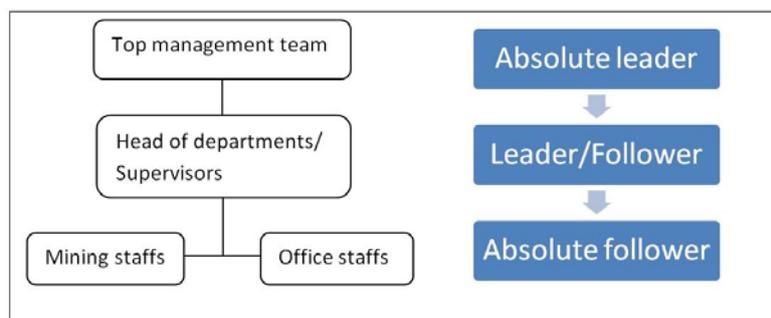
Figure 5.1 describes the line of command of the leader-follower in this study by classifying the three categories as follows: a) absolute leader is the top management team, CEO or a person who is in the top of the command line, in other words he or she does not dispatch but receives reports from people underneath him or her, b) leader/follower is the senior managers who are leading and following at the same time, thus they have to report to the top management and also receive reports from their followers and c) absolute followers are the junior staff in the organization who report to their supervisors or their head of department.

5.4.1 Leadership Behaviour in the Thai Mining Industry

The trend of each leadership behaviour factor is gathered from the scores of the respondents when they recognize the elements of each leadership behaviour factor being implemented.

5.4.1.1 Transactional Leadership Behaviour

Chart 5.2: Trend of Transactional Leadership Behaviour

Chart 5.2 shows the trend of the transactional leadership factors being recognized by the staff in both the mining group and office group. Contingent reward is recognized by 23% of the mining staff who supervise others, by 18% of the mining staff who do not supervise others, by 31% of the office staff who supervise others and by 34% of the office staff who do not supervise others.

Management by exception is recognized by 28% of the mining staff who supervise others, by 13% of the mining staff who do not supervise others, by 37% of the office staff who supervise others and by 32% of the office staff who do not supervise others.

Interestingly, both groups of the office staff (those who provide supervision and do not provide supervision) report a higher percentage of leadership factors being recognized than both groups of mining staff. The office staff who supervise others report the highest percentage of contingent reward, and the office staff who do not supervise others report the highest percentage of management by exception (active).

5.4.1.2 Transformation Leadership Behaviour

Chart 5.3: Trend of the Transformational Leadership Behaviour

Chart 5.3 shows the responses of the transformational leadership behaviour factors being recognized by the staff in both the mining groups and office groups. The idealized attributes are recognized by 19% of the mining staff who supervise others, by 13% of the mining staff who do not supervise others, by 24% of the office staff who supervise others and by 16% of the office staff who do not supervise others.

Idealized behaviour is recognized by 26% of the mining staff who supervise others, by 15% of the mining staff who do not supervise others, by 37% of the office staff who supervise others and by 47% of the office staff who do not supervise others.

Inspirational motivation is recognized by 32% of the mining staff who supervise others, by 17% of the mining staff who do not supervise others, by 34% of the office staff who supervise others and by 42% of the office staff who do not supervise others.

Intellectual stimulation is recognized by 30% of the mining staff who supervise others, by 15% of the mining staff who do not supervise others, by 35% of the office staff who supervise others and by 47% of the office staff who do not supervise others.

Individualized consideration is recognized by 18% of the mining staff who supervise others, by 9% of the mining staff who do not supervise others, by 24% of the office staff who supervise others and by 26% of the office staff who do not supervise others.

Both groups of the office staff show higher percentages in most of the transformational leadership behaviour factors being recognized, except the idealized attributes factor where the group of mining staff who provide supervision show greater percentages than the group of office staff who do not

provide supervision. On the other hand, the office staff who do not provide supervision to others shows the highest percentages in most of the factors being recognized.

5.4.1.3 Leadership Outcome

Chart 5.4: Trend of the Leadership Outcome

Chart 5.4 shows the trend of the leadership outcome consisting of extra effort, leadership effectiveness and leadership satisfaction that are recognized by both of groups of mining staff and office staff. The extra effort is recognized by 31% of the mining staff who supervise others, by 26% of the mining staff who do not supervise others, by 40% of the office staff who supervise others and by 39% of the office staff who do not supervise others.

The leadership effectiveness is recognized by 33% of the mining staff who supervise others, by 25% of the mining staff who do not supervise others, by 42% of the office staff who supervise others and by 37% of the office staff who do not supervise others.

The leadership satisfaction is recognized by 38% of the mining staff who supervise others, by 31% of the mining staff who do not supervise others, by 52% of the office staff who supervise others and by 58% of the office staff who do not supervise others.

Chart 5.4 indicates the percentages of the leadership outcome components being recognized by both groups of office staff are higher than both groups of the mining staff. The office staff who supervise others show the highest percentage in extra effort and leadership effectiveness, whereas the office staff who do not supervise others has the highest percentage in the leadership satisfaction.

5.4.2 Organizational Commitment in Thai mining Industry

Chart 5.5: Trend of the Organizational Commitment

Chart 5.5 shows the percentages of organizational commitment consisting of affective commitment, continuance commitment and normative commitment that are recognized by groups of mining staff and office staff. Affective commitment is recognized by 72% of the mining staff who supervise others, by 80% of the mining staff who do not supervise others, by 98% of the office staff who supervise others and by 97% of the office staff who do not supervise others.

Continuance commitment is recognized by 74% of the mining staff who supervise others, by 87% of the mining staff who do not supervise others, by 71% of the office staff who supervise others and by 68% of the office staffs who do not supervise others.

Normative commitment is recognized by 90% of the mining staff who supervise others, by 90% from the mining staff who do not supervise others, by 97% of the office staff who supervise others and by 97% of the office staff who do not supervise others.

Chart 5.5 indicates that of affective commitment, the group of office staff who supervise others has the highest percentage and the group of mining staff who supervise others has the lowest percentage. Continuance commitment, the group of mining staff who do not supervise others has the highest percentage and the group of office staff who do not supervise others has the lowest percentage. With normative commitment, both groups of the office staff report the highest percentages and both groups of the mining staff report the lowest percentages.

5.5 Research Questions Examination

This section provides an exploration of the research questions. A Pearson's correlation (PPMC) was conducted to test the correlation coefficient between the research variables, and the results of a null-hypothesis being either accepted or rejected will contribute to a conclusion for each research question.

5.5.1 Q1: Does Transactional Behaviour Correlate with Organizational Commitment?

Transactional leadership behaviour is determined by two leadership behaviour factors, which are contingent reward and management by exception (Bass and Avolio, 2004) (see Section 2.2.1.1 'Transformational and Transactional Leadership', p.10), whereas, organizational commitment is determined by three commitment components which are affective commitment, continuance commitment and normative commitment (Allen and Meyer, 1996a) (see Section 2.4 'Organizational Commitment', p.35). In order to determine the relationship between these variables, six hypotheses are being tested and described as follows, in alternate form:

Figure 5.2: Transactional Leadership and Organizational Commitment Variables
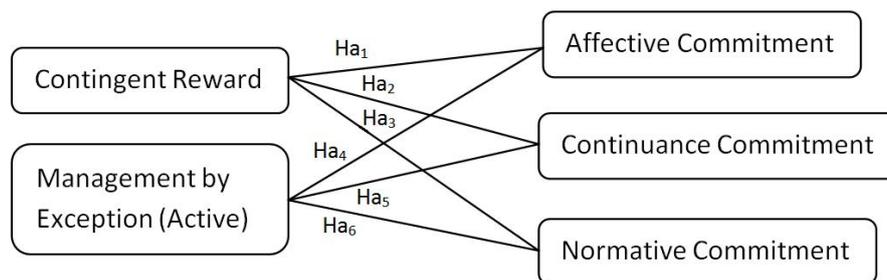
Hypothesis Ha$_1$: Contingent reward is correlated with affective commitment.

Hypothesis Ha$_2$: Contingent reward is correlated with continuance commitment.

Hypothesis Ha$_3$: Contingent reward is correlated with normative commitment.

Hypothesis Ha$_4$: Management by exception (active) is correlated with affective commitment.

Hypothesis Ha$_5$: Management by exception (active) is correlated with continuance commitment.

Hypothesis Ha$_6$: Management by exception (active) is correlated with normative commitment.

Table 5.5: The Correlation between Transactional Leadership Factors and Affective Commitment

		Affective Commtiment						
		Contingent Reward			Management by exception (active)			n
		Correlation (r)	Coefficient	Sig.(2 tailed)	Correlation (r)	Coefficient	Sig.(2 tailed)	
Mine	Supervision	0.450	0.909	7.61E-08 *	0.539	1.019	3.74E-11 *	130
	None-Supervision	0.223	0.444	0.023 *	0.131	0.259	0.186	104
Office	Supervision	0.225	0.337	0.079 **	0.025	0.035	0.848	62
	None-Supervision	0.418	0.694	0.009 *	0.392	0.517	0.015 *	38

*Correlation is significant at the 0.05 level (2-tailed, $p < 0.05$), ** Correlation is significant at the 0.10 level ($2 - $tailed, $p < 0.10$)

The correlation matrix in Table 5.5 tests Ha_1 and Ha_4 in order to indicate the relationship between transactional leadership behaviour factors and the affective commitment. The results show that, of the group of mining staff who supervise others, both Ha_1 and Ha_4 are accepted in regard to a strong positive correlation at 95% significance level between contingent reward and affective commitment (r=0.45, p<0.05) and a strong positive correlation at the 95% significance level between management by exception (active) and affective commitment (r=0.539, p<0.05).

Of the group of mining staff who do not supervise others, Ha_1 is accepted as the results show a weak positive correlation at the 95% significance level between contingent reward and affective commitment (r=0.223, p<0.5). There is no relationship, however, between management by exception (active) and affective commitment as the significance value is greater than 0.1 degree. Thus it fails to reject H_0.

Of the group of office staff who supervise others, Ha_1 is accepted as the results show a weak positive correlation at the 90% significance level between contingent reward and affective commitment (r=0.225, p<0.1). There is no relationship however, between management by exception (active) and affective commitment as the significance value is greater than 0.1 degree, thus it fails to reject H_0.

Of the group of office staff who do not supervise others, Ha_1 and Ha_4 are accepted as the results show a strong positive correlation at the 95% significance level between contingent reward and affective commitment (r=-0.418, p<0.05), the same as a strong correlation between management by exception (active) and affective commitment, which also has a moderate positive correlation at the 95% significance level (r=-0.392, p<0.05).

Therefore Table 5.5 indicates that most of the alternative hypotheses are accepted, which means there is a relationship between transactional leadership behaviour factors and affective commitment. However, the appearance of a strong and weak relationship is varied among the group of respondents. For instance, the group of mining staff who supervise others and the group of office staff who do not supervise others both show the strong positive relationship between transactional behaviour factors

and affective commitment, whereas other groups only show a weak positive relationship between contingent reward factor and affective commitment. Nevertheless, the results also report that there are some factors that fail to reject null hypotheses in this testing.

Table 5.6: The Correlation between Transactional Leadership Factors and Continuance Commitment

		Continuance Commtiment						
		Contingent Reward			Management by exception (active)			n
		Correlation (r)	Coefficient	Sig.(2 tailed)	Correlation (r)	Coefficient	Sig.(2 tailed)	
Mine	Supervision	-0.390	-1.029	4.59E-06 *	-0.361	-0.894	2.38E-05 *	130
	None-Supervision	-0.218	-0.399	0.026 *	-0.193	-0.352	0.049 *	104
Office	Supervision	-0.055	-0.121	0.671	-0.048	-0.099	0.709	62
	None-Supervision	-0.071	-0.179	0.672	-0.154	-0.308	0.356	38

*Correlation is significant at the 0.05 level (2-tailed, $p < 0.05$), ** Correlation is significant at the 0.10 level ($2 - $ tailed, $p < 0.10$)

The correlation matrix in Table 5.6 tests Ha2 and Ha_5 in order to indicate the relationship between transactional leadership behaviour factors and continuance commitment. The results show that the group of mining staff who supervise others, both Ha_2 and Ha_5 are accepted. A moderate negative correlation at the 95% significance level between contingent reward and continuance commitment (r=-0.39, p<0.05) and a moderate negative correlation at the 95% significance level between management by exception (active) and affective commitment (r=-0.361, p<0.05).

Of the group of mining staff who do not supervise others, both Ha_2 and Ha_5 are accepted. A weak negative correlation at the 95% significance level between contingent reward and affective commitment (r=-0.218, p<0.5) and a negligible correlation between management by exception (active) and affective commitment (r=-1.93., p<0.5).

Both groups of office staff show no relationship between transactional factors and continuance commitment as the significance values are greater than 0.1 degree, in other words, its fails to reject H_0. Therefore Table 5.2 indicates that the alternative hypotheses are accepted in both groups of the mining staff, which means there is a relationship between transactional leadership behaviour factors and continuance commitment within these groups, whereas both groups of the office staff show no relationship between those variables due to failure to reject null hypotheses in this testing.

Table 5.7: The Correlation between Transactional Leadership Factors and Normative Commitment

| | | Normative Commtiment | | | | | | |
| | | Contingent Reward | | | Management by exception (active) | | | n |
		Correlation (r)	Coefficient	Sig.(2 tailed)	Correlation (r)	Coefficient	Sig.(2 tailed)	
Mine	Supervision	0.158	0.257	7.18E-02*	0.085	0.129	3.35E-01*	130
	None-Supervision	0.069	0.104	0.486	-0.015	-0.023	0.877	104
Office	Supervision	0.381	0.610	0.002*	0.098	0.145	0.448	62
	None-Supervision	0.269	0.410	0.103	0.187	0.227	0.261	38

*Correlation is significant at the 0.05 level (2-tailed, p < 0.05), ** Correlation is significant at the 0.10 level (2 − tailed, p < 0.10)

The correlation matrix in Table 5.7 tests Ha$_3$ and Ha$_6$ in order to indicate the relationship between transactional leadership behaviour factors and continuance commitment. The results show that the group of mining staff who supervise others has a negligible correlation between contingent reward and normative commitment (r=0.158, p<0.05), and a negligible correlation between management by exception (active) and normative commitment (r=0.085,p<0.05).

The group of the office staff who supervise others only has a moderate positive correlation at the 95% significance level between contingent reward and normative commitment (r=0.381, p<0.5). Whereas, management by exception (active) has no relation with normative commitment as it fails to reject H$_0$.

The group of mining staff and office staff who do not supervise others show no relationship between transactional factors and continuance commitment as the significance values are greater than 0.1 degree, in other words, testing fail to reject H$_0$

Table 5.7 indicates that the relationship between transactional leadership behaviour factors and organizational commitment exist. As some alternative hypotheses are accepted, the appearance of relationships between transactional behaviour factors and normative commitment only occurs among the groups of staff who supervise others. Although the entire relationships are positively correlated, the strength of them indicate a weak positive to only moderate positive relationship.

Q1: Does Transactional Behaviour Correlate with Organizational Commitment?	
Group	Summary of Findings
Mining Staff and Supervision	The results show a strong positive correlation between both the transactional behaviour factors and affective commitment, which means that transactional leadership behaviour can influence the psychological attachment to the company of the staff in this group. This statement is supported by the moderate negative correlations between transactional behaviour factors and continuance commitment

	means that the staff's attitude towards the company is influenced by transactional behaviour. In other words, the more an employee is psychologically attached to the company, the less chances they will consider the cost of leaving the company. Nevertheless, a negligible relationship between management by exception (active) and normative commitment means that the staff in this group do not recognize how transactional leadership will encourage their sense of obligation towards to the company (Bass and Avolio, 2004, Meyer and Allen, 2004).
Mining Staff and None-supervision	The results show a weak positive correlation between contingent reward and affective commitment which means that the staff in this group appreciate the recognition from the leader when they accomplished a task, and they expect a transactional leader to be a negotiator who offers recognition when a goal or a task is achieved. A weak negative correlation between contingent reward and continuance commitment means that their concern about the cost of leaving the company is slightly influenced by transactional leadership behaviour. The results show no relationship between transactional behaviour factors and normative commitment which means that the staff in this group do not recognize how transactional behaviour will encourage their sense of obligation towards to the company (Bass and Avolio, 2004, Meyer and Allen, 2004).
Office Staff and Supervision	The results show that only the contingent reward factor has a weak correlation with affective and a moderate correlation with normative commitment and it can be assumed that the staff in this group are expected to be shown appreciation from their leaders when goals or tasks are achieved. However, they do not recognize how the influence of transactional leadership behaviour impacts their concern about the cost of leaving the company either their sense of obligation (Bass and Avolio, 2004, Meyer and Allen, 2004).
Office Staff and None-supervision	The results show a strong positive correlation only between contingent reward and affective commitment and a moderate positive correlation between management by exception

	(active) and affective commitment, which means that the staff in this group appreciate transactional leadership behaviour. However they do not recognize that transactional leadership will manipulate their concern about cost of leaving the company either their sense of obligation (Bass and Avolio, 2004, Meyer and Allen, 2004).

5.5.2 Q2: Does Transformational Behaviour Correlate with Satisfaction with Leadership?

Transformational leadership behaviour is determined by five leadership behaviour factors which are idealized attributes, idealized behaviour, inspirational motivation, intellectual stimulation and individualized consideration (Bass and Avolio, 2004) (see Section 2.2.1.1 'Transformational and Transactional Leadership', p.10). Furthermore, the satisfaction from subordinates is determined by leadership satisfaction (Bass and Avolio, 2004). Therefore five hypotheses are tested to determine a significant correlation between variables, which are described as follows, in alternate form:

Figure 5.3: Transformational Leadership and Leadership Satisfaction Variables
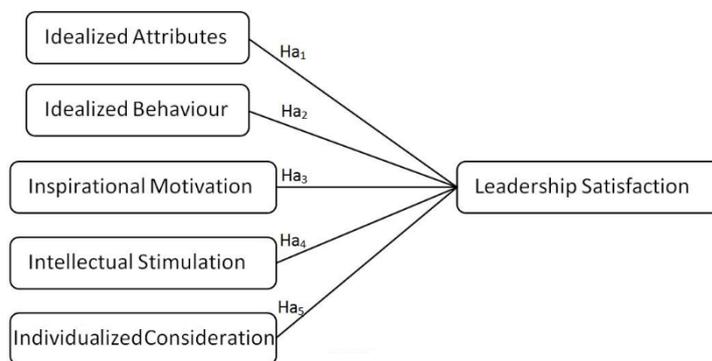
Hypothesis Hb$_1$: Idealized attributes is correlated with leadership satisfaction.

Hypothesis Hb$_2$: Idealized behaviour is correlated with leadership satisfaction.

Hypothesis Hb$_3$: Inspirational motivation is correlated with leadership satisfaction.

Hypothesis Hb$_4$: Intellectual stimulation is correlated with leadership satisfaction.

Hypothesis Hb$_5$: Individualized consideration is correlated with leadership satisfaction.

Table 5.8: The Correlation between Transformational Leadership and Leadership Satisfaction

		Leadership Satisfaction															
		Idealized Attributes			Idealized Behaviors			Inspirational Motivation			Intellectual Stimulation			Individualized Consideration			n
		Correlation (r)	Coefficient	Sig.(2 tailed)	Correlation (r)	Coefficient	Sig.(2 tailed)	Correlation (r)	Coefficient	Sig.(2 tailed)	Correlation (r)	Coefficient	Sig.(2 tailed)	Correlation (r)	Coefficient	Sig.(2 tailed)	
Mine	Supervision	0.745	0.479	2.89E-24*	0.791	0.487	3.92E-29*	0.782	0.441	5.11E-28*	0.777	0.448	1.86E-27*	0.691	0.444	8.98E-20*	130
	None-Supervision	0.512	0.315	2.72E-08*	0.645	0.385	1.55E-13*	0.648	0.370	1.02E-13*	0.596	0.377	2.45E-11*	0.445	0.264	2.24E-06*	104
Office	Supervision	0.632	0.317	3.55E-08*	0.632	0.326	3.66E-08*	0.766	0.442	4.27E-13*	0.670	0.357	2.50E-09*	0.605	0.337	1.89E-07*	62
	None-Supervision	0.275	0.194	0.094**	0.661	0.380	6.40E-06*	0.625	0.371	2.71E-05*	0.696	0.342	1.26E-06*	0.682	0.462	2.38E-06*	38

*Correlation is significant at the 0.05 level (2-tailed, $p < 0.05$), ** Correlation is significant at the 0.10 level (2 – tailed, $p < 0.10$)

The correlation matrix in Table 5.8 tests Hb_1, Hb_2, Hb_3, Hb_4, and Hb_5 in order to indicate the relationship between transformational leadership behaviour factors and leadership satisfaction. The results show that, of the group of mining staff who supervise others, Hb_1, Hb_2, Hb_3, Hb_4, and Hb_5 are accepted. A very strong positive correlation at the 95% significance level between idealized attributes and leadership satisfaction (r=0.745, p<0.05), a very strong positive correlation at the 95% significance level between idealized behaviour and leadership satisfaction (r=0.791, p<0.05), a very strong positive correlation at the 95% significance level between inspirational motivation and leadership satisfaction (r=0.782, p<0.05), a very strong positive correlation at the 95% significance level between intellectual stimulation and leadership satisfaction (r= 0.777, p<0.05), and a strong positive correlation at the 95% significance level between individualized consideration and leadership satisfaction (r=0.691, p<0.05).

Of the group of mining staff who do not supervise others, Hb_1, Hb_2, Hb_3, Hb_4, and Hb_5 are accepted. A strong positive correlation at the 95% significance level between idealized attributes and leadership satisfaction (r=0.512, p<0.05), a strong positive correlation at the 95% significance level between idealized behaviour and leadership satisfaction (r=0.645, p<0.05), a strong positive correlation at the 95% significance level between inspirational motivation and leadership satisfaction (r=0.648, p<0.05), a strong positive correlation at the 95% significance level between intellectual stimulation and leadership satisfaction (r= 0.596, p<0.05) and a strong positive correlation at the 95% significance level between individualized consideration and leadership satisfaction (r=0.445, p<0.05).

Of the group of office staff who supervise others, Hb_1, Hb_2, Hb_3, Hb_4, and Hb_5 are accepted. A strong positive correlation at the 95% significance level between idealized attributes and leadership satisfaction (r=0.632, p<0.05), a strong positive correlation at the 95% significance level between idealized behaviour and leadership satisfaction (r=0.632, p<0.05), a strong positive correlation at the 95% significance level between inspirational motivation and leadership satisfaction (r=0.766, p<0.05), a strong positive correlation at the 95% significance level between intellectual stimulation and leadership

satisfaction (r= 0.670, p<0.05) and a strong positive correlation at the 95% significant level between individualized consideration and leadership satisfaction (r=0.605, p<0.05).

Of the group of office staff who do not supervise others, Hb_1, Hb_2, Hb_3, Hb_4, and Hb_5 are accepted. A moderate positive correlation at the 90% significance level between idealized attributes and leadership satisfaction (r=0.275, p<0.05), a strong positive correlation at the 95% significance level between idealized behaviour and leadership satisfaction (r=0.661, p<0.05), a strong positive correlation at the 95% significance level between inspirational motivation and leadership satisfaction (r=0.625, p<0.05), a strong positive correlation at the 95% significance level between intellectual stimulation and leadership satisfaction (r= 0.696, p<0.05), and a strong positive correlation at the 95% significance level between individualized consideration and leadership satisfaction (r=0.682, p<0.05).

Table 5.8 indicates that all of the alternative hypotheses are accepted which means the correlation between transformational leadership behaviour and leadership satisfaction is confirmed. A strong relationship is indicated in most of the tested groups, except a relationship between idealised attributes and leadership satisfaction within the group of the office staff who do not supervise others shows a weak positive relationship.

Q2: Does Transformational Behaviour Correlate with Satisfaction with Leadership?	
Group	Summary of Findings
Mining Staff and Supervision	The results show very strong positive correlations between transformational leadership factors and leadership satisfaction, which means staff in this group appreciate how transformational leadership is being implemented. In addition, respect and trust of staff in this group can be encouraged when their leaders are expressing the share-value, the optimistic-vision and the innovation (Bass and Avolio, 2004).
Mining Staff and None-supervision	The results show strong positive correlations between transformational leadership factors and leadership satisfaction can be assumed that staff in this group appreciate how transformational leadership is being implemented. Especially when they are inspired by the optimistic vision and how goals can be accomplished (Bass and Avolio, 2004).
Office Staff and Supervision	The results show very strong positive correlations between transformational leadership factors and leadership satisfaction

	which shows that staff in this group appreciate how transformational leadership is being implemented. Interestingly, the value of inspirational motivation factor stands out among the rest of the factors, which means that staff are satisfied when their leader motivate them by tasks or challenges (Bass and Avolio, 2004).
Office Staff and None-supervision	The results show very strong positive correlations between most of the transformational leadership factors and the leadership satisfaction, which means that the staff in this group appreciate how transformational leadership is being implemented. The leadership satisfaction is expressed by how the leader encourages followers to be creative and innovative, and pays attention to each individual's need and coaches his or her staff accordingly (Bass and Avolio, 2004).

5.5.3 Q3: Does Transformational Behaviour Correlate with Organizational Commitment?

Bass and Avolio (2004) identify the five leadership factors that contribute to transformational leadership behaviour which are idealized attributes, idealized behaviour, inspirational motivation, intellectual stimulation and individualized consideration. On the other hand, Allen and Meyer (1996a) identify the composition of the organizational commitment which are affective commitment, continuance commitment and normative commitment. In order to determine a significant correlation between variables, fifteen hypotheses are tested and described as follows, in alternate form:

Figure 5.4: Transformational Leadership and Organizational Commitment Variables
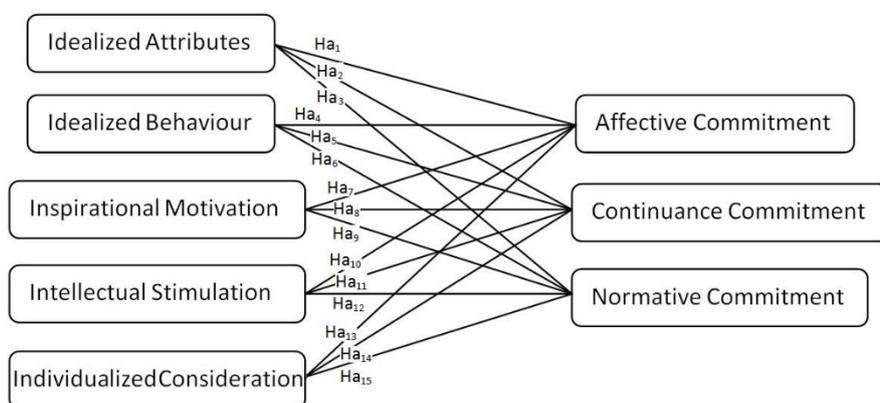
Hypothesis Hc₁: Idealized attributes is correlated with affective commitment.

Hypothesis Hc₂: Idealized attributes is correlated with continuance commitment.

Hypothesis Hc₃ Idealized attributes is correlated with normative commitment.

Hypothesis Hc₄: Idealized behaviour is correlated with affective commitment.

Hypothesis Hc₅: Idealized behaviour is correlated with continuance commitment.

Hypothesis Hc₆: Idealized behaviour is correlated with normative commitment.

Hypothesis Hc₇: Inspirational motivation is correlated with affective commitment.

Hypothesis Hc₈: Inspirational motivation is correlated with continuance commitment.

Hypothesis Hc₉: Inspirational motivation is correlated with normative commitment.

Hypothesis Hc₁₀: Intellectual stimulation is correlated with affective commitment.

Hypothesis Hc₁₁: Intellectual stimulation is correlated with continuance commitment.

Hypothesis Hc₁₂: Intellectual stimulation is correlated with normative commitment.

Hypothesis Hc₁₃: individualized consideration is correlated with affective commitment.

Hypothesis Hc₁₄: individualized consideration is correlated with continuance commitment.

Hypothesis Hc₁₅: individualized consideration is correlated with normative commitment.

Table 5.9: The Correlation between Transformational Behaviour and Affective Commitment

| | | Affective Commtiment | | | | | | | | | | | | | | | n |
| | | Idealized Attributes | | | Idealized Behaviors | | | Inspirational Motivation | | | Intellectual Stimulation | | | Individualized Consideration | | | |
		Correlation (r)	Coefficient	Sig.(2 tailed)	Correlation (r)	Coefficient	Sig.(2 tailed)	Correlation (r)	Coefficient	Sig.(2 tailed)	Correlation (r)	Coefficient	Sig.(2 tailed)	Correlation (r)	Coefficient	Sig.(2 tailed)	
Mine	Supervision	0.462	1.001	3.04E-08*	0.552	1.145	9.62E-12*	0.580	1.101	4.55E-13*	0.545	1.057	1.98E-11*	0.401	0.867	2.28E-06*	130
	None-Supervision	0.166	0.340	0.092**	0.297	0.591	0.002*	0.195	0.370	0.047*	0.264	0.556	0.007*	0.110	0.216	0.268	104
Office	Supervision	-0.023	-0.034	0.861	0.045	0.070	0.729	0.074	0.128	0.570	0.152	0.243	0.238	0.011	0.018	0.935	62
	None-Supervision	0.111	0.201	0.508	0.492	0.729	0.002*	0.627	0.956	2.56E-05*	0.512	0.648	0.001*	0.466	0.811	0.003*	38

*Correlation is significant at the 0.05 level (2-tailed, p < 0.05), ** Correlation is significant at the 0.10 level (2 – tailed, p < 0.10)

The correlation matrix in Table 5.9 tests Hc1, Hc4, Hc7, Hc10, and Hc13 in order to indicate the relationship between transformational leadership behaviour factors and affective commitment. The

results show that the group of mining staff who supervise others, Hc1, Hc4, Hc7, Hc10, and Hc13 are accepted. A strong positive correlation at the 95% significance level between idealized attributes and affective commitment (r=0.462, p<0.05), a strong positive correlation at the 95% significance level between idealized behaviour and affective commitment (r=0.552, p<0.05), a strong positive correlation at the 95% significance level between inspirational motivation and affective commitment (r=0.580, p<0.05), a strong positive correlation at the 95% significance level between intellectual stimulation and affective commitment (r= 0.545, p<0.05), and a strong positive correlation at the 95% significance level between individualized consideration and affective commitment (r=0.401, p<0.05).

For the group of mining staff who do not supervise others, Hc_1, Hc_4, Hc_7, and Hc_{10} are accepted. A negligible correlation at the 90% significance level between idealized attributes and affective commitment (r=0.166, p<0.1), a weak positive correlation at the 95% significance level between idealized behaviour and affective commitment (r=0.297, p<0.05), a negligible correlation at the 95% significance level between inspirational motivation and affective commitment (r=0.195, p<0.05), a weak positive correlation at the 95% significance level between intellectual stimulation and affective commitment (r= 0.264, p<0.05). The correlation matrix between individualized consideration and affective commitment however, fails to reject H_0 as it's' significance value is greater than 0.1 degree.

For the group of office staff who provide supervision to others, there is no correlation between transformational behaviour and affective commitment. This result is shown factor by factor in table 5.9 where testing fails to reject the null hypothesis in each case due to very weak r-values.

For the group of office staff who do not provide supervision to others, Hc_4, Hc_7, Hc_{10}, and Hc_{13} are accepted. A strong positive correlation at the 95% significance level between idealized behaviour and affective commitment (r=0.492, p<0.05), a strong positive correlation at 95% significant level between inspirational motivation and affective commitment (r=0.627, p<0.05), a strong positive correlation at the 95% significant level between intellectual stimulation and affective commitment (r=0.512, p<0.05), and a strong positive correlation at the 95% significance level between individualized consideration and affective commitment (r=0.492, p<0.05). The correlation matrix between idealized influence and affective commitment however, fails to reject H_0 as its' significant value is greater than 0.1 degree.

Table 5.9 indicates that the office staff who supervise others is the only group that show no relationship between transformational behaviour factors and affective commitment, whereas other groups indicate that most of the alternative hypotheses are accepted. For instance, the entire alternative hypotheses are accepted within the group of mining staff who supervise others, but only Hc_1, Hc_4, Hc_7, and Hc_{10} are

accepted in the group of mining staff who do not supervise others as same as the group of office staff who do not supervise others where Hc$_4$, Hc$_7$, Hc$_{10}$, and Hc$_{13}$ are accepted. Nevertheless, the strength of the correlation is varied from a negligible to a strong relationship dependent on the group of respondent.

Table 5.10: The correlation between transformational behaviour and continuance commitment

| | | Continuance Commitment | | | | | | | | | | | | | | n |
| | | Idealized Attributes | | | Idealized Behaviors | | | Inspirational Motivation | | | Intellectual Stimulation | | | Individualized Consideration | | | |
		Correlation (r)	Coefficient	Sig.(2 tailed)	Correlation (r)	Coefficient	Sig.(2 tailed)	Correlation (r)	Coefficient	Sig.(2 tailed)	Correlation (r)	Coefficient	Sig.(2 tailed)	Correlation (r)	Coefficient	Sig.(2 tailed)	
Mine	Supervision	-0.348	-0.985	5.00E-05*	-0.420	-1.139	6.40E-07*	-0.470	-1.166	1.65E-08*	-0.423	-1.074	5.21E-07*	-0.319	-0.903	2.14E-04*	130
	None-Supervision	-0.168	-0.316	0.088**	-0.102	-0.185	0.305	-0.219	-0.381	0.026*	-0.082	-0.159	0.408	-0.031	-0.056	0.754	104
Office	Supervision	-0.072	-0.160	0.577	-0.081	-0.184	0.533	-0.148	-0.378	0.252	-0.223	-0.527	0.081**	-0.162	-0.400	0.209	62
	None-Supervision	-0.185	-0.508	0.266	-0.215	-0.483	0.195	-0.237	-0.548	0.152	-0.408	-0.783	0.011*	-0.279	-0.737	0.089**	38

*Correlation is significant at the 0.05 level (2-tailed, p < 0.05), ** Correlation is significant at the 0.10 level (2 − tailed, p < 0.10)

The correlation matrix in Table 5.10 tests Hc$_2$, Hc$_5$, Hc$_8$, Hc$_{11}$ and Hc$_{14}$ in order to indicate the relationship between transformational leadership behaviour factors and continuance commitment. The results show that the group of mining staff who supervise others, Hc$_2$ Hc$_5$ Hc$_8$ Hc$_{11}$ and Hc$_{14}$ are accepted. A moderate negative correlation at the 95% significance level between idealized attributes and continuance commitment (r=-0.348, p<0.05), a strong negative correlation at the 95% significance level between idealized behaviour and continuance commitment (r=-0.420, p<0.05), a strong negative correlation at the 95% significance level between inspirational motivation and continuance commitment (r=-0.470, p<0.05), a strong negative correlation at the 95% significance level between intellectual stimulation and continuance commitment (r=-0.423, p<0.05), and a moderate negative correlation at the 95% significance level between individualized consideration and continuance commitment (r=0.319, p<0.05).

Of the group of mining staff who do not supervise others, Hc$_2$ and Hc$_8$ are accepted. A negligible correlation at the 90% significance level between idealized attributes and continuance commitment (r=-0.168, p<0.1), a weak negative correlation at the 95% significance level between inspirational motivation and continuance commitment (r=0.219, p<0.05). Hc$_5$, Hc$_{11}$ and Hc$_{14}$, however, are rejected in regard to idealized behaviour, intellectual stimulation and individualized consideration fail to reject the null hypotheses as its significant values are greater than 0.1 degree, which means there is no relationship between those variables and the continuance commitment.

The group of office staff who supervise others, only Hc$_{11}$ is accepted. A moderate negative correlation at the 90% significance level between intellectual stimulation and continuance commitment (r=-0.223,

p<0.1). Hc_2, Hc_5, Hc_8 and Hc_{14} however, are rejected as its' significant values are greater than 0.1 degree. Consequently, idealized attributes, idealized behaviour, inspirational motivation and individualized consideration fail to reject the null hypothesis which means that there is no relationship between those variables and continuance commitment.

The group of office staff who do not supervise others, Hc_{11} and Hc_{14} are accepted. A strong negative correlation at the 95% significance level between intellectual stimulation and continuance commitment (r=-0.408, p<0.05), and a moderate negative correlation at the 95% significance level between individualized consideration and continuance commitment (r=-0.279, p<0.05). Hc_2, Hc_5 and Hc_8 however, are rejected as its significant values are greater than 0.1 degree. Consequently, idealized attributes, idealized behaviour and inspirational motivation fail to reject the null hypothesis which means that there is no relationship between those variables and continuance commitment.

Table 5.10 indicates that the relationship between transformational leadership behaviour factors and continuance commitment exist; however, the acceptance of the alternative hypotheses varies among the respondents. For instance, the mining staff who supervise others is the only the group where the entire alternative hypotheses are accepted, whereas the group of mining staff who do not supervise others indicates only Hc_2 and Hc_8 are accepted, the group of office staff who supervise others indicates only Hc_{11} is accepted, and the group of office staff who do not supervise others indicates only Hc_{11} and Hc_{14} are accepted. Nevertheless, the strength of the correlation starts from a negligible to a strong relationship.

Table 5.11: The Correlation between Transformational Behaviour and Normative Commitment

| | | Normative Commitment | | | | | | | | | | | | | | | n |
| | | Idealized Attributes | | | Idealized Behaviors | | | Inspirational Motivation | | | Intellectual Stimulation | | | Individualized Consideration | | | |
		Correlation (r)	Coefficient	Sig.(2 tailed)	Correlation (r)	Coefficient	Sig.(2 tailed)	Correlation (r)	Coefficient	Sig.(2 tailed)	Correlation (r)	Coefficient	Sig.(2 tailed)	Correlation (r)	Coefficient	Sig.(2 tailed)	
Mine	Supervision	0.126	0.220	0.152	0.165	0.275	0.061 **	0.156	0.237	0.076 **	0.129	0.200	0.144	0.170	0.295	0.053 **	130
	None-Supervision	0.074	0.115	0.453	0.148	0.223	0.133	0.020	0.029	0.840	0.152	0.243	0.123	0.060	0.090	0.544	104
Office	Supervision	0.245	0.393	0.055 **	0.165	0.274	0.199	0.164	0.305	0.202	0.066	0.112	0.612	0.086	0.154	0.505	62
	None-Supervision	0.162	0.270	0.332	0.326	0.444	0.046 *	0.092	0.129	0.583	0.210	0.244	0.207	0.183	0.293	0.271	38

*Correlation is significant at the 0.05 level (2-tailed, p < 0.05), ** Correlation is significant at the 0.10 level (2 – tailed, p < 0.10)

The correlation matrix in Table 5.11 tests Hc_3, Hc_6, Hc_9, Hc_{12} and Hc_{15} in order to indicate the relationship between transformational leadership behaviour factors and normative commitment. The results show that in the group of mining staff who supervise others, Hc_6, Hc_9 and Hc_{15} are accepted. A negligible correlation at the 90% significance level between idealized behaviour and normative commitment (r=0.165, p<0.1), a negligible correlation at the 90% significance level between inspirational motivation and normative commitment (r=0.156, p<0.1) and a negligible correlation at the

90% significant level between individualized consideration and normative commitment ($r=0.170$, $p<0.1$). Hc_3 and Hc_{12} however, are rejected as its significance values are greater than 0.1 degree. Consequently, idealized attributes and intellectual stimulation fail to reject the null hypotheses, which means that there is no relationship between those variables and normative commitment.

Of the group of mining staff who do not supervise others, all of the transformational factors fail to reject the null hypotheses, which means there is no relationship between all of transformational leadership factors and normative commitment within this group as its significance values are greater than 0.1 degree.

Of the group of office staff who supervise others, only Hc_3 are accepted. A positive correlation at the 90% significance level between idealized attributes and normative commitment ($r=0.245$, $p<0.1$), however; Hc_6, Hc_9, Hc_{12} and Hc_{15} are rejected as its' significance values are greater than 0.1 degree. Consequently, idealized behaviour, inspirational motivation, intellectual stimulation and individualized consideration fail to reject the null hypotheses, which means there is no relationship between those variables and continuance commitment.

Of the group of office staff who do not supervise others, only Hc_6 has a moderate positive correlation at the 95% significance level between idealized behaviour and normative commitment ($r=0.326$, $p<0.1$). Hc_3, Hc_9, Hc_{12} and Hc_{15} however, are rejected as their significance values are greater than 0.1 degree. Consequently, idealized attributes, inspirational motivation, intellectual stimulation and individualized consideration fail to reject the null hypotheses, which means there is no relationship between those variables and continuance commitment.

Table 5.11 indicates that the relationships between transformational leadership behaviour factors and normative commitment are existed. However, the acceptance of alternative hypotheses vary among the groups of respondent as same as the strength of the correlation which starts from a negligible relationship to a weak relationship.

5.5.4 Q4: Do Subordinates' Satisfaction with Leadership Correlate with Organizational Commitment?

The subordinates' satisfaction with the leadership is determined by one of the leadership outcome factors, which is leadership satisfaction factor (Bass and Avolio, 2004). The organizational commitment is determined by three commitment components which are the affective commitment, the continuance commitment and the normative commitment (Allen and Meyer, 1996a). Hypothesis tests, therefore, are conducted and described in order to determine a significant correlation between variables as follows, in alternate form:

Figure 5.5: Leadership Satisfaction and Organizational Commitment Variables
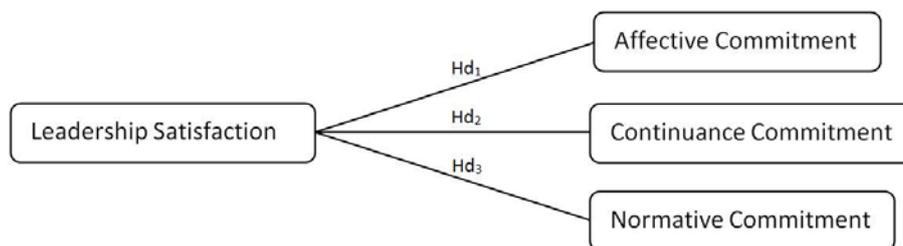
Hypothesis Hd$_1$: Leadership satisfaction is correlated with affective commitment.

Hypothesis Hd$_2$: Leadership satisfaction is correlated with continuance commitment.

Hypothesis Hd$_3$: Leadership satisfaction is correlated with normative commitment.

Table 5.12: The Correlation between Leadership Satisfaction and Organizational Commitment

		Leadership satisfaction									*n*
		Affective Commitment			Continuance Commitment			Normative Commitment			
		Correlation (r)	Coefficient	Sig.(2 tailed)	Correlation (r)	Coefficient	Sig.(2 tailed)	Correlation (r)	Coefficient	Sig.(2 tailed)	
Mine	Supervision	0.529	1.779	9.99E-11*	-0.385	-1.693	6.25E-06*	0.134	0.361	0.129	130
	None-Supervision	0.450	1.499	1.61E-06*	-0.191	-0.582	5.27E-02*	0.053	0.134	0.592	104
Office	Supervision	0.010	0.029	0.940	-0.202	-0.895	0.115	0.226	0.725	0.077**	62
	None-Supervision	0.450	1.158	0.005*	-0.256	1.158	0.005*	0.153	0.363	0.358	38

*Correlation is significant at the 0.05 level (2-tailed, p < 0.05), ** Correlation is significant at the 0.10 level (2 − tailed, p < 0.10)

The correlation matrix from in Table 5.12 tests Hd$_1$, Hd$_2$ and Hd$_3$ in order to indicate the relationship between leadership satisfaction and organizational commitment. The results show that for the group of mining staff who supervise others, Hd$_1$ and Hd$_2$, are accepted. A strong positive correlation at the 95% significance level between leadership satisfaction and affective commitment (r=0.529, p<0.05), a moderate negative correlation at the 95% significance level between leadership satisfaction and

continuance commitment (r=-0.385, p<0.05). Hd_3, however, is rejected as its significance value is greater than 0.1 degree. Consequently, the correlation matrix between leadership satisfaction and normative commitment failed to reject the null hypothesis which means that there is no relationship between those two variables.

For the group of mining staff who do not provide supervision to others, Hd_1 and Hd_2, are accepted. A strong positive correlation at the 95% significance level between leadership satisfaction and affective commitment (r=0.450, p<0.05), a negligible correlation at the 95% significance level between leadership satisfaction and affective commitment (r=-0.191, p<0.05). Hd_3, however, is rejected as its significance value is greater than 0.1 degree. Consequently, the correlation matrix between leadership satisfaction and normative commitment failed to reject the null hypothesis, which means that there is no relationship between those two variables.

For the group of office staff who provide supervision to others, only Hd_3 is accepted. A weak positive correlation at the 90% significance level between leadership satisfaction and normative commitment (r=0.226, p<0.1). Hd_1 and Hd_2, however, are rejected as their significance values are greater than 0.1 degree. Consequently, the correlation matrix between leadership satisfaction with both of continuance commitment and normative commitment failed to reject the null hypotheses which means that there is no relationship between those variables.

For the group of office staff who do not supervise others, Hd_1 and Hd_2 are accepted. A strong positive correlation at the 95% significance level between leadership satisfaction and affective commitment (r=0.450, p<0.05), a moderate negative correlation at the 95% significant level between leadership satisfaction and continuance commitment (r=-0.256, p<0.05). Hd_3, however, is rejected as its significance value is greater than 0.1 degree. Consequently, the correlation matrix between leadership satisfaction and normative commitment failed to reject the null hypothesis which means that there is no relationship between those two variables.

Table 5.12 indicates that the relationship between leadership satisfaction and organizational commitment existed. The results show that only Hd_3 is accepted within the group of the office staff who supervise others, whereas only Hd_1 and Hd_2 are accepted within other three groups.

Q4: Does Subordinates' Satisfaction with Leadership Correlate with Organizational Commitment?	
Group	Summary of Findings
Mining Staff and Supervision	The strong positive correlation between leadership satisfaction and affective commitment means that the loyalty of staff in this group is psychologically manipulated by leadership satisfaction. The moderate negative correlation between leadership satisfaction and continuance commitment means that their consideration about the cost of leaving the company is decreased by leadership satisfaction. Nevertheless, The staff in this group do not recognize how leadership satisfaction will influence their sense of obligation towards to the company as the results show no relationship between leadership satisfaction and normative commitment (Bass and Avolio, 2004, Meyer and Allen, 2004).
Mining Staff and None-supervision	The results show a strong positive correlation between leadership satisfaction and affective commitment, which means that leadership satisfaction can influence the psychological attachment to the company of the staff in this group. The negligible negative correlation between leadership satisfaction and continuance commitment support the changing of staff's attitude towards the company as when the level of leadership satisfaction is increased the concern of cost of leaving the company will slightly decrease accordingly. Although leadership satisfaction can influence the staff's psychological attachment to the company, the staff in this group do not recognize how the leadership satisfaction can influence the concern about the cost of leaving the company (Bass and Avolio, 2004, Meyer and Allen, 2004).
Office Staff and Supervision	The results show only one weak positive correlation between leadership satisfaction and normative commitment which means that staff in this group do not recognize how leadership satisfaction will influence their psychological attachment to the company; however, they perceive leadership satisfaction in the way of increasing their sense of obligation towards to

	the company (Bass and Avolio, 2004, Meyer and Allen, 2004).
Office Staff and None-supervision	The results show a strong positive correlation between leadership satisfaction and affective commitment which mean that the staff in this group recognizes that leadership satisfaction can influence psychological attachment to the company. A weak negative correlation between leadership satisfaction and continuance commitment as a result means leadership satisfaction can influence their consideration about the cost of leaving the company. Although the loyalty of staff in this group is manipulated by leadership satisfaction, they do not recognize how leadership satisfaction will influence their sense of obligation to the company (Bass and Avolio, 2004, Meyer and Allen, 2004).

5.6 Results of In-depth Interviews

Twenty-one participants from four selected mining companies in Thailand: the CEO, top management, head department and supervisor were included in these interviews. The interviews were conducted by applying the interview prompts; all of the interviews were audio clip recorded with participant permission (see Section 4.2.3 'Research Approach', p.56). The length of each interview was approximately thirty to forty-five minutes. All of the interview results were translated into English and transcribed into documents.

All interviewees were grouped according to their working area (mining and office) and the issues in the following table were categorized in regard to answers from interview prompts by the interviewees.

Table 5.13: Interviewee's Demography

Interviewees' Demography											
21 Leaders		Nationality		Age		Work Area		Work Exp.		Education	
13 Male 8 Female		Male	Female	Male	Female	Male	Female	Male	Female	Male	Female
Thai		11	8								
Non Thai		2	0								
18-25				0	0						
26-30				0	0						
31-40				5	4						
41-49				6	3						
50+				2	1						
Office						2	6				
Mine						11	2				
less than 1 year								0	0		
1-5 years								2	3		
6-9 years								5	4		
10-19 years								3	0		
more than 20 years								2	1		
Didnot complete high school										0	0
Highschool degree/equivalent										0	0
Technical and further education (TAFE)										6	2
Bachelor's degree										7	4
Master's degree										2	2
Doctorate's degree or professional degree										0	0

Table 5.14: Interview Summary

	Issue		Office		Mining	
			n = 8	%	n = 13	%
Leadership characteristics	Transformational leadership behaviour	Idealized Attributes (IA)	5	63%	5	42%
		Idealized Behaviors (IB)	5	63%	7	58%
		Inspirational Motivation (IM)	3	38%	6	50%
		Intellectual Stimulation (IS)	1	13%	5	42%
		Individualized Consideration (IC)	4	50%	10	83%
	Transactional leadership behaviour	Contingent Reward (CR)	3	38%	9	75%
		Management-by-Exception: Active (MBEA)	5	63%	8	67%
Factors influencing leadership effectiveness	Company culture	Hierarchy system	4	50%	7	58%
		Policy and work assignment	6	75%	9	75%
		Team work system	4	50%	6	50%
		Relationship oriented	3	38%	9	75%
	Culture differences	Language	3	38%	6	50%
		Working style	6	75%	6	50%
	Workplace communication	Different job expertise	3	38%	5	42%
		Different approaches	5	63%	6	50%
		Miscommunication	3	38%	4	33%
		Time & Location differences	3	38%	3	25%
	Situational differences	Job related	6	75%	7	58%
		Personal related	6	75%	8	67%
	Individual differences	Work Experience	5	63%	8	67%
		Personality and attitude	7	88%	10	83%
		Performance	5	63%	8	67%
		Family background	4	50%	2	17%
		Education	6	75%	2	17%
		Gender	3	38%	6	50%
		Age	4	50%	5	42%

5.6.1 Leadership Characteristics

The interview data was transcribed and categorized into two leadership behaviour categories (transformational leadership and transactional leadership) when an interviewee mentions leadership characteristics both directly and indirectly. Interviewees were divided to two groups according to their recognition either to be in the mining group or the office group. The results are reported according to the highest factor's percentage in each category as follows.

5.6.1.1 Transformational Leadership Behaviour

a)   Office Group

Table 5.13 shows that the office group paid the most attention to two factors of transformational behaviour, which are idealized attributes (IA) and idealized behaviours (IB), both factors represent a leadership approach that earns trust and respect from his or her subordinates (followers) (Bass and Avolio, 2004).

A CEO of a Thai company gave his opinion on his leadership approach to gain more trust and respect from his subordinates. He stated that, earning trust from subordinate, he/she has to be able to prove his/her capability.

> I knew it is not easy to convince them, it needs time to prove. It's quite tough at the initial stage, but once the problem has happened, I'll point out to let them see the fault from real situation in comparison with my system. That way, they will believe me more. Thereof, I can manage things easier because most of the supervisors here are older than me.
> (CEO of a Thai mining company)

A managing director from a Thai–Australian mining company gave her opinion on her leadership philosophy. She showed a collective sense of being a true leader as:

> A true leader is the one who leads employees to work as team with good policy and bring our company to the success.
> (Managing Director of a Thai –Australian mining company)

> We must give motivation and encouragement to let them realize that they are a part of the company. If the company is growing wealth, they will get good benefit relatively. To let them feel they are a part of the company.
> (Managing Director of a Thai –Australian mining company)

A human resources manager of a Thai –Australian mining company gave her philosophy of influencing staff's loyalty with the company by stating that:

> Before they will be loyal, we must make them feel they are a part of the company. Every employee is like a cog that runs the company. If any of them stops, sure it will affect to some though, it will cause a difficulty to the company somehow. We must emphasize we need all of you.
> (HR manager of a Thai –Australian mining company)

An office manager gave her opinion on her leadership approach to gain trust from her subordinate. She stated that a leader has to make his or her follower understand clearly what is expected.

> We must let them see first. Or if it is for social purpose, we must let them know what shall be returned to the society
> (Manager of Management System Department of a Thai – Australian mining company)

b)   Mining Group

Table 5.13 shows that the mining group paid the most attention to the individualized consideration factor. This factor represents a supportive climate from the leader by coaching or mentoring regards to individual needs for achievement and development (Bass and Avolio, 2004).

An operation director of a Thai –Australian mining company gave his opinion on focusing on individual personality to increase team work performance as a whole.

> Well, everybody's different. Everybody has different personality. Some people adjust normally, adjust naturally, strong efficient worker, other workers are just lazy. You need to work with those problems and try to develop them and let them see the outcome which benefits everybody, not an individual.
> (Operations Director of a Thai –Australian mining company)

A chief exploration manager of a state enterprise company gave an example of his thoughts on individualized consideration and also proposed his concept of 'putting the right man on the right job' which relates to individual job performance.

> I did rotate many people for more suitable roles. The people who are good at academic work and theory shall work about documentaries and academic jobs because data doesn't need flexibility or deviation.   The concept is to put the right man on the right job. These are just what I have set as the principle of management.
> (Chief exploration & drill department of a state enterprise mining company)

A top ranked geologist of a state enterprise company gave his opinion on individual differences regarding job responsibility of each subordinate.

> Level of responsibility of each person is different because their work responsibility. A job can have different tasks separately to each person to do and I am the centre who combines all the data from each one.
> (Top ranked geologist of a state enterprise mining company)

A geologist manager of a Thai –Australian mining company gave his opinion on individualized consideration as he claimed that job reliability can be generally observed by the physical reaction of an individual.

> I considered their physical actions, body action because we would know if they were willing to do the assignments. The action tells us a lot even one's trust in work, capability or fails percentage.
> (Geologist manager of a Thai –Australian mining company)

5.6.1.2 Transactional Leadership Behaviour

a)   Office Group

Table 5.13 shows that the office group paid the most attention to management by exception (active). This factor represents an environment where a standard of compliances is stated by a leader for

constituting ineffective performance and a rule of punishment is also applied to this matter (Bass and Avolio, 2004).

According to the management by exception factor, the interview results indicate some of the factors that cause the appearance of management by punishment (see Section 2.2.1.1.2 'Transactional Leadership Behaviour Factor', p.11) and also the company regulation which is relevant to some of the interviewees in the office group who mentioned setting up a reward and punishment system:

> Sometimes we have to use a deadline method, we are unable to walk the same path if your quality is unable to be improved as the company's expected goal. We may have to say good bye.
> (Managing Director of a Thai - Australian mining company)

> I will consider the deadline. But also depending on the jobs on their hands if there is any rusher work, or quite a lot of workload, I am flexible on the deadline reasonably.
> (Accounting Manager of a Thai mining company)

> We have both soft and hard control policy, soft control for the people who are in the rules and hard control for the people who are trying to break the rules.
> (Chief of Geology Department of a state enterprise mining company)

> What to be strict is the rule we use with every people such as fighting case, this is a must. If we leave one case, there will be case two for sure.
> (HR manager of a Thai–Australian mining company)

The reward and punishment system is also related to some of the performance measurement tools such as key performance indicators (KPI):

> We just monitor afar because we've already taken control on the KPI. We sure monitor on the 'prioritized matter'. For small matter, sometimes we can leave it as it gave lessons for development. But KPI shall not be left somehow.
> (CEO of a Thai mining company)

b)   Mining Group

Table 5.13 shows that the mining group paid the most attention to the contingent reward factor. This factor represents expectations and recognition of a leader which are clarified to subordinates when goals are accomplished. The recognition can result in both individual and group achievement in regards to performance levels (Bass and Avolio, 2004).

The results from the interview show that there are two types of reward which have been given to employees who can achieve goals or targets which are:

(1) Reward from a leader: This type of reward is an offer from a leader him or herself and the offer is based on personal basis.
> If the pay raise appears in low rate for them, I will try to submit the add-up proposal for their pay raise from the boss for ones who have a good performance."
> (Top ranked geologist of a state enterprise mining company)

There are some in the section. Example, when we will do any project, we will set a reward too for people who have participated giving a reward for people who give feedback.
(Safety department head officer of a Thai –Australian mining company)

We use goals and rewards for field staff. Out of the work hours we use relationship and discussion such as drinking alcohol or dinner to brief about what part of the jobs has been finished today and what we're going to do tomorrow."
(Survey Department Head Officer of a Thai mining company)

Personally, I will not work in the kid of dictate my staff but rather work in team and try to respond the goals that the management has given which may be attractive by the rewards or whatever and we have to communicate this through our team.
(Mine operation supervisor of a Thai mining company)

(2) Reward from a company reward system (welfare): This type of reward is based on the company offer for promotion, salary and welfare.
I think it's because our company has very good welfare in return to its employees and the reward is not too bad if we compare with private companies, such as pay raise, welfare and medical refund.
(Chief Geology Department of a state enterprise mining company)

The organization also consider about pay raise, welfare and other benefit for every employees equivalently on the system.
(Chief Exploration and Drill Department of a state enterprise mining company)

The company attracts by bonus, rewards after achievement. I just emphasize that if we help the job to be done with good result, we will receive the bonus and rewards.
(Mining Technique Engineer of a Thai mining company)

This section therefore, shows the summary of the leadership characteristics of leaders in both the office group and mining group. The results from Table 5.13 indicate that both groups paid attention towards leadership behaviour differently. For transformational behaviour, the office group focussed on the idealized attribute and idealized behaviour factors, whereas the mining group focussed on individualized consideration. For the transactional behaviour, the office group were focussed on management by exception (active), whereas, the mining group were focusing on contingent reward. The reason for the different focuses between the office group and the mining group may be explained by the following section where the interview results of factors influencing leadership effectiveness are presented.

5.6.2 Categorizing Factors Influence Leadership Effectiveness

Table 5.13 reveals factors that were mentioned by the interviewees as the factors influencing leadership effectiveness. Each factor is categorized into different categories according to the answers of interviewees. There are five main categories and each one consists of a number of different factors. This section, therefore, reports the highest percentage factor including some related factors to explain the situation.

5.6.2.1 Organizational Culture

Organizational culture was discussed when the interviewees were asked about a factor that either supports or causes difficulty when asking for cooperation. As a result, most of the interviewees frequently mentioned organizational culture which consists of company structure, hierarchy system, and policy and work assignment factors; the opinion of those factors are revealed as follows:

a)   Office Group

Table 5.13 shows that the office group paid most attention to the policy and work assignment factor. This factor represents the factor that causes an effect on his or her leadership performance. The interviewees who agreed with this factor gave their opinion to support that, at the first stage of work assessment, they normally rely on policy and work assignment instead of using a leadership approach to convince their subordinates.

> We will always have an official work chase-up meeting once a month in department level and division level.
> (Chief of Geology Department of a state enterprise mining company)

> Because, giving any assignments shall be derived along the hierarchy to the managers of each department. I may not jump down to the mechanics but the assignments would be passed through the line managers and things are as discussed in the meeting regarding the directions, strategies and success factors.
> (CEO of a Thai mining company)

> I must receive the policy and required matter from the boss first and then discuss with my staff in the next step. We must truly understand their real requirement and objectives.
> (Accounting Manager of a Thai mining company)

b)   Mining Group

Table 5.13 shows that the mining group paid most attention to two factors, which are the policy and work assignment factor and the relationship oriented factor. The mining group claimed that a group meeting is a part of the routine job of mining and work assessment, as a consequence, cooperative work has to follow the plan rather than the leadership.

> We have morning meeting in mining section every day to discuss about daily work plan. After that, I will distribute jobs to the supervisors and foremen depending on the plan.
> (Senior Supervisor of a Thai –Australian mining company)

> Start with the policy, the work policy and work plan. We follow the plan of each month about activities to be done and then we will coordinate with them informing via email for work."
> (Safety Department Head Officer of a Thai –Australian mining company)

> We have held meetings together for raising and listening opinions to determine plans. This activity was the first step of an employee's development. They would learn how to plan and set the goal in work."
> (Manager of the Government Coordination Department of a Thai–Australian mining company)

For the relationship oriented factor, there are several reasons of a good relationship is necessary for the cooperative work within mining. As claimed by the interviewees, first, good relationships support cooperative work to be more effective and productive.

> If you do not ever work close to each other, you surely haven't got a clue about each other's mind. I'm not joking but sometimes you can know what they're going to say just seeing the face.
> (Top ranked Geologist of a state enterprise mining company)

> I make friends with inferiors, subordinates. So I can talk and tell them what I want from them. I will use the talk as the key letting them understand my aim and what I want.
> (Senior Supervisor of a Thai–Australian mining company)

> It depends on how you will work on the relationship between you and your subordinates. I will never act like I am in the upper position above them. They will sure feel even better and okay to work for me.
> (Mining Technique Engineer of a Thai mining company)

Second, in Thai culture, a good relationship also supports working harmony.

> In Thai 'Pii' is considered a polite word to call someone who is older. This respect makes the works easier and good for cooperation or when I want to ask someone to assist. Also, it is a word to show that we are in a closer relationship."
> (Chief Exploration & Drill Department of a state enterprise mining company)

> It's going to be alright if they can accept who I am. But there's no any case like this one before as we always work in team. Both the staff and I try to get close as much as possible.
> (Top ranked Geologist of a state enterprise mining company)

Finally, a good relationship can close up space between leaders and subordinate which supports work efficiency.

> I try and talk, associate with everybody at all level from the low level up to the senior level. I try not to talk with people that I know they always say yes. So I try to courage my staff to speak up whether it's good or bad, I don't care, I want to hear their opinion.
> (Operations Director of a Thai –Australian mining company)

> Greeting someone even when his position is lower than you in the hierarchy structure and he does not know you. But once you greet him first and show you are friendly, next time he will greet you back. That's how you get rid of the space that people build.
> (Blasting Supervisor of a Thai –Australian mining company)

Interestingly, the hierarchical system was mentioned as a factor related to policy and work assignment. In regard to the line of command, both the office and mining group mentioned that policy and work assignments are delivered respectively along the company hierarchy system. The following interview quotes therefore, explain how work assignments are delivered along the line of command.

> This is a state enterprise organization. There will be a lot of line of commands as it is semi-government system. Down from the head division there will be head department which they will responsible on technical and monitoring jobs. So, there's nothing much left for the division to do because the subordinates in the hierarchy will monitor and manage most of work.
> (Chief of Planning and Administration Department of a state enterprise mining company)

Any assignments shall be going along the hierarchy line and the managers of each department. I may not jump down to the mechanics but the assignments would be passed through the line managers and things are as discussed in the meeting regarding the directions, strategies and success factors.

(CEO of a Thai mining company)

Well, with the daily normal operation, of course, there is a hierarchy. You deal directly with the engineers, supervisors which they need to work with the foreman and the foreman need to work with the operator. As a team you try to talk to them as a group in a specific task, of course you deal with immediate supervisor and let them run the line of command.

(Operations Director of a Thai –Australian mining company)

5.6.2.2 Culture Differences

Culture differences were discussed when the interviewees were asked about the difficulty of cooperating with people from different nationalities. The results raised up two main issues, a) languages differences and b) working style differences which all of interviewees' opinions toward these factors are revealed as follows:

a)   Office Group

Table 5.13 shows that the office group paid the most attention to the working style factor. In regard to working style differences, they claimed that Thais are more flexible and negotiable; the expatriates on the other hand, strictly followed plans and regulations.

We have to be aware to work with expatriates as you must truly understand what you are going to instruct them. Thai staff is more flexible with a small mistake when you instruct Thai employees. But for expatriate staff you have to understand from A to Z, because of their cultures, only a competent leader is accepted.

(Managing Director of a Thai –Australian mining company)

Expatriate will speak what they have in mind whereas Thais will try as much as possible not to create conflicts by trying to be nice not obviously show how we feel with the down side.

(Chief of Planning and Administration Department of a state enterprise mining company)

Talking about expatriates, it was due to different culture. Thai people are more flexible, meanwhile, the expatriates stick to the plan.

(CEO of a Thai mining company)

An Assistant Accounting Manager mentioned her experience when she was working with Japanese company. She claimed that Japanese relied heavily on trust and work performance.

They would completely lose their trust on us forever if we had performed any mistake. As they will consider the work correctness and hardworking which means you must do everything correctly before submission. It's a kind of Japanese culture, once they give us any job, we must do it immediately, correctly and always be on time.

(Assistant Accounting Manager of a Thai mining company)

Interestingly, a senior manager gave her opinion of cultural differences as she claimed that culture can be different not only across Thailand and expatriates but also among Thais themselves according to the place of origin.

> There are some differences as you may understand that the life style of Bangkok people is not the same with other provinces even about usage of language, reactions and how we act are different either.
> (Senior Manager in Management System Department of a Thai–Australian mining company)

> Rural people, things have to be simplified, not way too complex. For in Bangkok however, our performance must be professional, work is work.
> (Senior manager in Management System Department of a Thai–Australian mining company)

b)   Mining Group

Table 5.13 shows that the mining group paid attention equally to both language and working style differences factors. The mining group is concerned with language differences because communication across different languages can cause difficulties on working efficiency and working harmony.

> The first thing was language barrier. Native English speakers are not quite tough like Chinese or Japanese because they speak English as their mother tongue, especially when Japanese or Chinese people speak English with their accents, made our communication even tougher because I am not good at English too."
> (Chief Exploration and Drill Department of a state enterprise mining company)

> Such as expatriate who has been working in Australia for most of their working life and they come to Thailand. It's tough sometime to put on the Thai thinking. The language barrier is also a problem can violent their instructions or methods across to the Thai national it is quite difficult and frustrating.
> (Operations Director of a Thai –Australian mining company)

For the working style differences, the mining group claimed that the working style between Westerners and Thais are different, which causes conflict and ineffective working environment.

> Many times I had to pull expatriates to the side and let them understand how Thais think. They don't think like Australian if you want to get the result. This strategy is the way you have to work with them. You can't use western methodology to achieve the result.
> (Operations Director of a Thai –Australian mining company)

> Westerners will count on only fact and data. They do not care much about age or who you are because they rely on the fact, which difference from Thai people, we respect an older people. Sometimes when the older speak something which is not exactly correct, we will just never mind and get over it.
> (Chief Exploration and Drill Department of a state enterprise mining company)

An Operation Manager shared his experience when he was working with Laos employees. He claimed that although Thai and Lao are very close in terms of national culture, the working style still has to be adjusted.

> Lao people will take some time to learn because this kind of work is very new for them.
> (Operations Manager of a Thai mining company)

5.6.2.3 Workplace Communication

The issue of workplace communication was raised by interviewees when they were asked to give their opinion on the difference between approaching office staff and mining staff. Both the office group and mining group gave similar opinions as in both the office staff and mining staff need different approaches to maximize productivity.

a)   Office Group

Table 5.9 shows the workplace communication, the office group paid most attention to the different approaches factor. The office group pointed out several reasons that require different approaches to improve the staff's perception of leaders. First, due to the work environment between office staff and mining staff is different:

> To speak with labour level, we have to get straight to the point with kindly behave. Because labours are working outdoors in the sun, rain and wind condition, they sometimes can't stand with any aggressive speaking. Differently from the office staff, they will close their doors if you speak straight. We have to speak indirectly using more reasons, so they will understand.
> (Managing Director of a Thai –Australian mining company)

Second, due to of the relationship between a leader and subordinate:

> The office staff will be closer for us to assess the performance because we can see anytime what they are doing and they do not feel strange or stressed with us. But in the field, they would feel scared us. It's different to approach them.
> (Chief of Planning & Administration Department of a state enterprise mining company)

Finally, due to of an individual education level:

> Labour staff did not quite understand if we talked too academic [sic]. We got to keep it simple. But for office staff, we should talk reasonably, like making proposal providing instructions."
>
> (Manager of Management System Department of a Thai–Australian mining company)

b)   Mining Group

Table 5.13 shows that mining group paid the most attention to the different approaches factor. The mining group expressed their concern on three facts which are job description, individual attitude and individual capability which cause their leadership approach to be different.

> Yes, there are some different factors of each staff, between the operators and office staff dependent on the job's description as it refers to their responsibility.
> (Safety Department Head Officer of a Thai –Australian mining company)

> Well, put it specifically for Thai sometimes had a 'don't worry', 'it's ok' attitude, so you have to work with that. And a few push too hard, they will not work, so you need to work with them slowly. If you start cracking a whip, you just turn them into robots they are unproductive all just do what they have to do and finish.
> (Operations Director of a Thai –Australian mining company)

> Yes, someone is okay with instruction but someone is better with cooperation. Because sometimes the person is more capable and knows better than us or in other parts so that we have to ask for cooperation.
> (Survey Department Head Officer of a Thai mining company)

A mining engineer gave his experience on the conflict between the office and mining staff in regard to the differences in individual's attitude.

> A lot of it, for instance, the mining staff always say that office staff are very comfortable, not much work and stay comfortably in an air condition room. Whereas, the office staff will say that they too close to the top management with so much stress. Instead, the people at the field job still got extra benefits better than office staff, such as accommodation providing, meals and other type of remunerations.
> (Mining Technique Engineer of a Thai mining company)

5.6.2.4 Situation Differences

The issue of situation differences was raised by interviewees when they were asked to give their opinion of the impact of situational differences on leadership effectiveness. The interviewees mentioned two factors about situational differences, which are job related and personal related. The job related factor represents a situation when the leadership approach has to be adjusted according to work progress. Whereas personal related is a situation when leadership approach has to be adjusted according to a personal matter.

a)   Office Group

Table 5.13 shows that the office group paid attention equally to both job related and personal related factors. The office group agreed that leadership style can be changed according to situational differences. The following interview quotes, therefore, explain situations when leadership behaviour is influenced by work related issue.

> Because sometime the situation was not able to ask for cooperation and needed to use dictatorship and we have to accept it. Especially it would cause damage to work and progress.
> (Chief of Planning and Administration Department of a state enterprise mining company)

> In some situation we will be quite flexible with mining staff about work attendance record. For example, in the hot season or rainy season they will be unable to go down in the pit because of weather difficulties, too hot or muddy. So the rules and regulation cannot be fixed with the situations. In the office work on the other hand, the time record will be prioritized.
> (Chief of Geology Department of a state enterprise mining company)

> I will consider the deadline; however, it is dependent on the jobs on their hands if there is any rusher work, or quite a lot of workload, I will be flexible regards to the deadline.
> (Accounting Manager of a Thai mining company)

For the personal related factor the office group agreed that, in some situations, leadership effectiveness is influenced.

To be a leader, you must know how to use our power at the right time. If you are only nice, you will become too weak. In contrast, if you are too strong, obviously you are on a power trip. It depends on the leader's experience to know when to be nice and when to be strong at the right time and the right person. Because there are sure some people who can be very strong against you as mining work environment is tough."
(Managing Director of a Thai –Australian mining company)

Certainly, we must admit that our staffs have different personality and level of education. Same as our children, some are good and always obey the rules while some are trying to break the rules.
(Chief of Geology Department of a state enterprise mining company)

It depends on who I am talking with, each person is different characters.
(Chief of Planning and Administration Department of a state enterprise mining company)

b)   Mining Group

Table 5.13 shows that the mining group paid most attention on the personal related factor. They agreed that, in some situations, leadership effectiveness is influenced by personal related factor; for instance relationship quality and individual differences.

Certainly, it depends on relationship and individual characteristic of who we are dealing with. Are they staffs or government officers? We have to consider before asking for cooperation or assistance.
(Top ranked Geologist of a state enterprise mining company)

It actually depends on the quality of relationship. The section chief required good relationship person, so we should place a good relationship person in it as they will deal with the discussion or situation properly.
(Chief Exploration and Drill Department of a state enterprise mining company)

Someone is suitable for instruction but others are also better with cooperation. Sometimes a person is more capable than us in some parts then that we have to ask for cooperation instead of instructing them.
(Survey Department Head Officer of a Thai mining company)

5.6.2.5 Individual Differences

The issue of individual differences was raised by interviewees when they were asked to give their opinion about the influence of individual differences on leadership effectiveness. Both the office group and the mining group agreed on the same factor, which was the personality and attitude factor. As claimed by both groups, people are different therefore leaders have to consider suitable leadership approaches to maximize leadership effectiveness.

a) Office

Table 5.13 shows that the office group paid most attention to the personality and attitude factor. As claimed by interviewees that different people express different character and attitude, therefore, a leader needs to adjust the leadership approach accordingly in order to be an effective leader.

> Because of everyone [sic] thoughts are not the same, if you want the high potential of success, you need to consider your approach for giving them the assignment.
> (Chief of Planning and Administration Department of a state enterprise mining company)

> As employees are from different places and families, they are absolutely not the same. For an aggressive staff, we have to use psychology. We should not speak ambiguous [sic] as they will be confused; instead, we need to speak soft but straight to the point. On the other hand, some people are more rational, so they will be more understandable [sic] with any reason.
> (Managing Director of a Thai –Australian mining company)

In addition, some interviewees in this group indicated the factor that causes the personality and attitude of each individual to be different is family background:

> Attitude that is grown by his/her family is also a point too.
> (HR manager of a Thai - Australian mining company)

> I think the major effective factor is family in my opinion. I will give my kid and my friend's kid as an example. My friend works a different career. Since she was young, I do not teach my kid by words that much but my behaviour instead. She will be curious, 'Hey mum, why I have to be that sharp and very strict to the rules, like you have to clean after dining and never let things mess around'. She absorbs it from what she saw me done.
> (Accounting Manager of a Thai mining company)

b) Mining Group

Table 5.13 shows that the mining group paid most attention on the personality and attitude factors. Several reasons for focusing on individual personality and attitude factor were mentioned. First, the interviewees claimed that focusing on individual personality and attitude factor may prevent ineffective leadership performance:

> We can notice from their behaviours somehow if they look blue, inactive, kind of troubles or furious.
> (Top ranked Geologist of a state enterprise mining company)

> There are certain people that will not interact with all departments to find out the real problem or the real what's going on. They just want to hear what they want to hear.
> (Operations Director of a Thai - Australian mining company)

> Just think positive, speak positive and do whatever is good company to your subordinates. We will also try to change their attitudes to be positive like us for a group of staffs who keep criticizing and speaking negatively about the company.
> (Blasting Supervisor of a Thai–Australian mining company)

Secondly, focusing on individual personality and attitude can increase work assessment:

> I will consider the personality. Example, excavator operator will need to be active, so, the young employee will be suitable with this type of equipment."

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(Senior Supervisor of a Thai –Australian mining company)

Such as the case when senior engineers and juniors were having a meeting together and the juniors did try to not say anything because they were afraid it would be wrong.
(Mining Technique Engineer of a Thai mining company)

5.7 Summary

The results from MLQ and OCQ illustrate the overall picture of leadership behaviour and organizational commitment within Thai mining industry. The respondents are divided into four groups a) mining & supervision, b) mining and none-supervision, c) office and supervision and d) office and non-supervision. The results indicate that each group responded to leadership behaviour questionnaires and organizational commitment questionnaires differently (see Section 5.4 'Trend of Leadership Behaviour and Organizational Commitment in the Thai Mining Industry', p.86). Furthermore, the collected data from MLQ and OCQ were analysed in order to examine the research question. As the results show, a relationship between leadership behaviour and organizational commitment does exist; however, the appearance of the relationship (positive or negative) can be varied dependent on the type of organizational commitment variable. For instance, affective commitment and normative commitment show a positive correlation with all of the leadership behaviour factors, whereas continuance commitment shows negative correlation with all of the leadership behaviour factors (see Section 5.5 'Research Question Examination', p. 91).

Moreover, the results from in-depth interviews provide a comprehensive explanation of leadership behaviour characteristics and factors influencing leadership effectiveness. Table 5.13 reveals that all of the transformational and transactional leadership behaviour factors were recognized by interviewees. Although the interviewees gave their opinion differently to their leadership acknowledgement, it proves that both transformational leadership behaviour and transactional leadership behaviour are considered as necessary leadership approaches for business management in the mining industry in Thailand. Table 5.13, moreover, reveals factors influencing leadership effectiveness that was explained by the interviewees.

In the next chapter, both the quantitative results and qualitative results are analysed and discussed.

CHAPTER 6: DISSCUSSION OF THE RESEARCH RESULTS

6.1 Introduction

This section provides discussions of the research findings. All information including quantitative results and qualitative results are analysed in order to explain the nature of leadership styles (transformational and transactional) and its performance in the Thai mining industry. Four groups of research participants (mining staff who supervise others, mining staff who do not supervise others, office staff who supervise others and office staff who do not supervise others) are interviewed to determine the differences of relationship between leadership styles, leadership outcome and organizational commitment among those groups. Chapter 6, therefore, is divided to six main sections which are a) leadership in Thai mining industry, b) leadership and organizational commitment, c) factors influencing leadership effectiveness, d) conclusion and implication, e) limitation and suggestion for future research and (f) chapter summary.

6.2 Leadership in Thai Mining Industry

This section discusses factors that support leadership development for Thai mining industry based on the literature, data analysis and in-depth interview results. Comparing Chart 5.2 and Chart 5.3, the MLQ results indicates that transformational leadership behaviour is preferable for Thai mining industry as the aspect of this behaviour encourages and inspires team members to contribute their performance beyond expectation (Bass, 1985, Dionne et al., 2004, Kirkbride, 2006, Limsila and Ogunlana, 2008). Table 5.8, furthermore, explores relationships between transformational leadership factors and satisfaction with the leadership. All four groups of participants indicate strong relationships between transformational leadership factors and satisfaction with the leadership which supports the fact that transformational leadership style is the most preferred style by Thai mining employees.

Interestingly, the results shows that there is only a slightly difference between the preference of transformational and transactional preference where, in fact, the percentages of transactional factors (CR and MBEA) are higher than some of transformational behaviour factors (IA and IC).I In other words, transactional leadership behaviour is recognized more often than transformational leadership behaviour in some states of organizational management. This appearance of both transformational and transactional leadership styles is relevant to the statement of Sarros and Santora (2001) who claimed that, in order to maximize leadership effectiveness, a leader has to adapt both leadership styles (transformational leadership and transactional leadership) according to each individual situation.

Although Chart 5.2 and Chart 5.3 indicate that most of transformational leadership factors report higher percentages of preferable rate than transactional behaviour, the necessity of transactional leadership behaviour within Thai business culture can be explained by the statement of Limsila and Ogunlana (2008), who explore leadership behaviour, leadership performance and address the most appropriate leadership style within the Thai construction industry. The author claims that even though the transformational leadership is the most preferable style for Thai people, transactional leadership is considered necessary as Thai subordinates are influenced by Thai culture and its hierarchical system, thus they are characterized to keep following an order and so can avoid taking risks from their decision making (Kumbanaruk 1987 cited in Limsila & Ogunlana 2008).

> Because of the Thai style of hierarchy, a lot of staffs [sic] were afraid to give their real opinion to speak up.
> (Operations Director of a Thai –Australian mining company)

An Operation Director gave his opinion on the Thai hierarchical system, saying that the system influences Thai subordinates to be less motivated and they tend to follow orders and instruction from their leaders instead. This statement supports the necessity of the transactional leadership style in Thai business culture, as transactional leadership behaviour can encourage subordinates to perform productively by offering them a benefit or agreement in exchange for their effort (Bass and Avolio, 2004, Walumbwa et al., 2008). Walumbwa et al. (2008) state that contingent reward (one of the transactional leadership behaviour factors) is associated with a subordinate's satisfaction and organizational commitment. In other words, contingent rewards can influence a subordinate's satisfaction which results in improved organizational commitment levels. Sarros and Santora (2001) studied leadership behaviour in practice and explained that transformational leadership expresses the sense of taking care and listening to subordinates as it encourages trust and motivation to individuals. Transactional leadership, on the other hand, expresses the sense of focusing on achievement of working processes as it is strictly concerned with policy and work procedure. This statement supports the occurrences of both transformational and transactional leadership styles in business practice as illustrated in Chart 5.2 and Chart 5.3 (see Section 5.4.1.3 'Leadership Outcome', p. 89). This occurrence, as a result, draws an assumption that both transformational and transactional leadership styles are a parallel leadership substitution that is compatible with Thai business management practice (Hofstede, 1983, Sarros and Santora, 2001, Judge and Piccolo, 2004, Limsila and Ogunlana, 2008, Walumbwa et al., 2008, Intachakra, 2012).

Researchers who support a mixed leadership style, propose that maximizing leadership performance and its outcome, a leader has to customize both leadership styles (transformational and transactional)

depending on each individual situation (Hersey and Blanchard, 1977, Cardona, 2000, Sarros and Santora, 2001, Epitropaki and Martin, 2005, Sims Jr et al., 2009, Stenmark and Mumford, 2011). Sims Jr et al. (2009) studied situational theory of leadership approaches and claimed that a certain leadership style is only suitable for a specific circumstance. They stated that every leadership style has advantages and disadvantages in regard to different situations. A leader, therefore, has to be aware of situational differences that potentially influence his or her leadership performance.

> To be a leader, you must know how to use our power at the right time. If you are only nice, you will become too weak. In contrast, if you are too strong, obviously you are on a power trip. It depends on the leader's experience to know when to be nice and when to be strong at the right time and the right person. Because there are sure some people who can be very strong against you as mining work environment is tough."
> (Managing Director of a Thai –Australian mining company)

A Managing Director gave her philosophy of effective leadership which focuses on leadership approach and a subordinate's behaviour. Researchers agreed that a follower's trait and attitude is related with job satisfaction and motivation, which can be influenced by a leader depending on his or her leadership behaviour and leadership approaches (Bass, 1985, Elangovan and Xie, 2000, Sarros and Santora, 2001, Dionne et al., 2004, Avolio and Gardner, 2005). Consequently, a follower's trait and attitude towards leaders directly impacts leadership perception which results in leadership outcome (Elangovan and Xie, 2000, Schyns and Felfe, 2006, Carsten et al., 2010, Shalit et al., 2010).

Chart 5.4 provides the results of leadership outcome which consists of extra effort, leadership effectiveness and satisfaction with leadership. By focusing on the leadership satisfaction factor, the results indicate that four different groups of participants recognized leadership satisfaction differently. For instance, the mining groups show 38% and 31% of leadership satisfaction whereas the office groups show 52% and 58% of leadership satisfaction. The results, therefore, indicate that among these four groups of participants who designated themselves differently based on working area (mining and office) and different in providing supervision (provide supervision and do not provide supervision), they recognized and preferred different leadership styles to be exhibited by their leaders. In other words, a leader needs to evaluate a suitable leadership style to maximize its effectiveness according to the circumstances.

The above acknowledgement supports that both leadership styles (transformational and transactional) are necessary for business management practice in the Thai mining industry. As a result, in regard to determining effective leadership development in the Thai mining industry, there is no specific leadership style which can be applied to every situation. Nevertheless, the mixed style of both transformational and transactional leadership, is required for the sake of business management practice in order to

optimize leadership effectiveness (Cardona, 2000, Sarros and Santora, 2001, Brain and Lewis, 2004, Judge and Piccolo, 2004, Epitropaki and Martin, 2005, Limsila and Ogunlana, 2008, Carsten et al., 2010)

The next section, explains relationships between leadership behaviour, subordinates' perception of leadership and organizational commitment within Thai mining industry. This explanation acknowledges how subordinates react and reflect to a certain type of leadership characteristic through the level of organizational commitment.

6.2.1 Leadership and Organizational Commitment in the Thai Mining Industry

The analysis of survey data (see section 5.5 'Research Question Examination', p. 91) explored relationships between transformational behaviour, transactional behaviour, leadership satisfaction and organizational commitment among four groups of participants. The results indicate the presence of relationships between significant factors which are leadership styles, leadership satisfaction and organizational commitment. However, the trend of each relationship varies depending on the organizational commitment components. For instance, affective commitment and normative commitment exhibit a positive correlation with leadership styles and leadership satisfaction, whereas continuance commitment exhibits a negative correlation with leadership styles and leadership satisfaction. This section, therefore, discusses the occurrence of these relationships based on the literature review, data analysis and in-depth interviews.

6.2.1.1 Transformational Leadership and Organizational Commitment

The correlation matrix between transformational leadership factors and organizational commitment components shows that the patterns of relationships among the significant variables indicated a significant relationship between the transformational behaviour factor and affective commitment. It also reports a positive relationship the same as the relationship between normative commitment and the transformational behaviour factor. Continuance commitment, however, indicates a negative relationship with all significant variables of transformational leadership factors (See Table 5.9 to 5.11, p. 100–103).

The appearance of the relationships suggest that, within the Thai mining industry, transformational leadership behaviour is able to increase a subordinate's satisfaction and positive attitude towards to an organization which is indicated when a subordinate recognizes affective commitment (willingness of staying with the company) and normative commitment (willingness of doing the best for the company), whereas, continuance commitment (concern about cost of leaving the company) is inversely recognized

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(Allen and Meyer, 1990, Allen and Meyer, 1996a, Meyer et al., 2002, Meyer and Allen, 2004). This relationship is supported by a study of Lambert et al. (2013) who claim that an employee's satisfaction has positive associations with affective commitment and is negatively associated with continuance commitment. In other words, the more a subordinate is satisfied with his or her company, the more emotional and psychological attachment with the company is exhibited (Allen and Meyer, 1990, Allen and Meyer, 1996a, Meyer et al., 2002, Brown, 2003, Lambert et al., 2013).

> I make friends with inferiors, subordinates. So I can talk and tell them what I want from
> them. I will use the talk as the key letting them understand my aim and what I want.
> (Senior Supervisor of a Thai–Australian mining company)

A senior supervisor exhibited transformational leadership behaviour (relationship oriented) which created a positive social environment to increase work performance and productivity (Elangovan and Xie, 2000, Lovelace et al., 2007, Peterson et al., 2012). Elangovan and Xie (2000) claim that the social environment is one of the key competences that can optimize an employee's work satisfaction and attitude towards the organization. This statement is relevant to the result of the correlation matrix from Table 5.9 to 5.11 which suggest that transformational leadership behaviour can increase the level of affective commitment and normative commitment (willingness of loving and performing their best for the company), whereas it can decrease the level of continuance commitment (the concern about cost of leaving the company). This occurrence draws a statement based on the relationship between transformational leadership and organizational commitment as transformational leadership behaviour is necessary for business management practice in the Thai mining industry as it can enhance a positive work environment and employee's organizational commitment, which results in improved work performance and productivity (Bass, 1985, Bass and Avolio, 1994, Elangovan and Xie, 2000, Dionne et al., 2004, Epitropaki and Martin, 2005, Limsila and Ogunlana, 2008, Peterson et al., 2012, Tyssen et al., 2014).

6.2.1.2 Transactional Leadership and Organizational Commitment

The correlation matrix between transactional leadership factors and organizational commitment components indicate a relationship between the significant variables of affective commitment and normative commitment that report positive correlations with all significant variables of transactional behaviour factors. On the other hand, continuance commitment reports negative correlations with all significant variables of transactional behaviour factors (see Table 5.5 to 5.7, p. 92–94). Technically, transactional leadership behaviour is based on constructive and corrective transaction (a reward and

punishment system) where a subordinate is expected to contribute the best performance and will be promoted once an achievement is met (Bass and Avolio, 2004).

The results of in-depth interviews, in relation to the transactional leadership behaviour issue, indicate the rational way of motivating Thai subordinates is a reward and punishment system which can be used in two ways a) through company policy and regulation and (b) through an authorized person. Nevertheless, the system determines to encourage a subordinate's motivation and control an employee's wellbeing (Elangovan and Xie, 2000, Bass and Avolio, 2004, Walumbwa et al., 2008, Peterson et al., 2012).

> The company attracts by bonus, rewards after achievement. I just emphasize that if we help the job to be done with good result, we will get the bonus and rewards.
> (Mining Technique Engineer of a Thai mining company)

Walumbwa et al. (2008) examine the relationship between contingent reward (transactional leadership behaviour factor), satisfaction with leadership and organizational commitment. They state that contingent reward has a strong relationship with procedural justice (fairness of conflict solving and distributing resources) and they found that it also creates a strong relationship with leadership satisfaction and organizational commitment. The authors explain that an advantage of transactional leadership character is a fair and just leader who treats his or her subordinates equally, which can create a harmonious work environment and improve a subordinate's attitude.

Data analysis from Table 5.5, 5.6 and 5.7 indicates that transactional leadership behaviour factors influence a subordinate's recognition of affective commitment (willingness to stay with the company) and normative commitment (willingness to do the best for the company), whereas, continuance commitment (concern about the cost of leaving the company) is inversely recognized. According to the results, within the Thai mining industry, transactional leadership behaviour is capable of enhancing a subordinate's satisfaction and optimizing their attitude towards to organizational commitment (Allen and Meyer, 1990, Allen and Meyer, 1996a, Meyer et al., 2002, Bass and Avolio, 2004, Meyer and Allen, 2004, Limsila and Ogunlana, 2008, Walumbwa et al., 2008, Peterson et al., 2012).

6.2.1.3 Leadership Satisfaction and Organizational Commitment

The correlation matrix between satisfaction with leadership factors and organizational commitment components indicates that satisfaction with leadership factors has a positive relationship with affective commitment and a positive relationship with normative commitment, whereas it has a negative relationship with continuance commitment (see Table 5.12, p. 105). These results suggest that

satisfaction with leadership factor can influence a subordinate's attitude towards to organizational commitment components. In other words, the more an employee is satisfied with leadership behaviour and leadership performance, the higher the level of psychological attachment with the organization. This statement is supported by the increasing satisfaction with leadership level, affective commitment (willingness to stay with the company) and normative commitment (willingness to do the best for the company). However, continuance commitment (concern on cost of leaving the company) is decreased. Although studies of the relationship between satisfaction with leadership and organizational commitment components reported different results, researchers agree that the degree of a subordinate's satisfaction with leadership is significantly related with a subordinate's attitude towards organizational commitment (Elangovan and Xie, 2000, Falkenburg and Schyns, 2007, Shalit et al., 2010).

Falkenburg and Schyns (2007) claim that employee's attitude and behaviour are significantly related with job satisfaction and organizational commitment. The authors explain that exhibiting appropriate HRM practices can influence an employee's attitude which results in job satisfaction and organizational commitment. This statement is relevant with Elangovan and Xie (2000) who propose that leadership perception and satisfaction with leadership can vary depending on the styles of leadership in a specific circumstance. The recognition of organisational commitment components, therefore, can depend on how well a subordinate is influenced and satisfied with a current leadership style and its performance (Elangovan and Xie, 2000, Falkenburg and Schyns, 2007).

The results therefore, show that within the Thai mining industry, satisfaction with leadership is significantly related with a subordinate's attitude towards to organizational commitment. In other words, when a subordinate is satisfied with the leader, his or her psychological attachment with the organization will be expressed through the recognition of organizational commitment components (Allen and Meyer, 1996a, Elangovan and Xie, 2000, Lovelace et al., 2007, Falkenburg and Schyns, 2007, Limsila and Ogunlana, 2008, Shalit et al., 2010, Peterson et al., 2012).

6.3 Factors Influencing Leadership Effectiveness

Table 5.9 identifies factors influencing leadership effectiveness based on in-depth interviews with twenty-one leaders from four mining companies in Thailand: COE, top management, heads of departments and senior managers. The interviews were conducted using interview prompts in regard to leadership styles and performance. The interviewees mentioned several factors that influence

leadership effectiveness. According to the interviewees' answers, the factors influencing leadership effectiveness are categorized into five groups as follows:

Organizational Culture

Interviewees mentioned organizational culture as a factor influencing leadership effectiveness when they were giving their opinion on an effect of company culture on leadership performance. The literature ilustrates that the elements which shape the uniqueness of organization cultures to be different from one and another culture are the nature of the business, shared values, working culture, leadership styles and employees' attitude and behaviour (Lund, 2003, Rashid et al., 2004, Taormina, 2008, Limpanitgul et al., 2013). In order to maximize organizational performance and productivity, these elements require different approaches to leadership style and management strategy. This is supported by studies of the relationship between leadership behaviour and organizational culture which revealed the effectiveness of leadership performance and leadership outcomes vary depending on the different types of organizational culture. The literature states that employees' perception with leadership varies because employees' behaviour and attitude are significantly influenced by organizational culture (Rashid et al., 2004, Taormina, 2008, Limpanitgul et al., 2013)

Furthermore, similar reasons were given by interviewees that the influence of organizational culture where every company has its own policy and work assignment system. The leadership approach, as a consequence, is less active at this stage as the cooperative work of employees occurs according to their job description and work assignment plan. On the other hand, a 'hierarchical system' and 'relationship oriented' were emphasized as sub-factors influencing leadership effectiveness within the company culture. As claimed by some interviewees, in an organization where lines of command are layered, the effectiveness of leadership performance can be most active from one layer to another layer but does not cross over the line of command. The effectiveness of leadership performance, therefore, is dependent on how well a message is delivered through the layers of hierarchical system (see Section 5.6.2.1'Organizational Culture', p. 115). The above information supports the assumption that organizational culture is one of the factors influencing leadership effectiveness.

Culture Differences

Culture differences were raised by interviewees when they were giving their opinion on working with expatriates. They were concerned with two sub-factors within the cultural differences category, namely language differences and working style differences. Working style differences, interviewees gave their opinion in the same direction that Thais' working styles were flexible and negotiable as Thai-style

cooperative work was based on 'relationship oriented', whereas expatriates' work was strictly based on the working schedule and planning. Furthermore, they claimed that apart from working style differences, there was a language barrier which causes difficulties for cooperative work and communication. These comments are relevant with the culture and leadership literature which compared Thai-style working culture with other countries. The results indicated that there is a possibility of conflict when two cultures are organised according to working style differences, social preferences and language differences (Fredric and Jun, 2003, Boonsathorn, 2007, Limsila and Ogunlana, 2008).

The global study by Dorfman et al. (2012) found that leadership behaviour is indirectly influenced by national culture and subordinates' expectation. They further claimed that leaders who exhibit leadership performance according to expectation are the most effective; however, expectations are very different across each culture and society. This statement is relevant with the study of Testa (2009) who determined the impact of national culture on employees' perception of leadership behaviour and leader-member exchange. The author claimed that, in management practices, it is important for a leader to exceed the expectations of subordinates to encourage their wellbeing. Furthermore, the author explained the reason for national culture having a dominant part in management practices is that it consists of a common attitude and ideas and these elements impact on employees' attitude and their perception of leadership.

Workplace Communication

Workplace communication was raised when interviewees were giving their opinion on cooperative work with other colleagues, for both Thais and foreigners. They stated that, in order to harmonize the working environment, a leader has to evaluate a suitable leadership approach when asking for cooperation and trying to motivate employees. Interestingly, most of the interviewees agreed that, in order to maximize leadership effectiveness, different leadership approaches were required for dealing with staff who work in a mine site and staff who work in the office.

Zulch (2014) claimed that effective communication allows collaboration and team work to develop trust and shared-values, which results in encouraging the team to be reliable and responsible. The author suggested that, in order to maximize communication competency, a leader has to adapt a leadership style according to a specific situation. This statement is relevant with studies of Kramer and Crespy (2011) and Çetin et al. (2012), who claim that the a collaborative climate occurs when leadership and communication are effective. Therefore communication competency, together with leadership effectiveness, are considered to be the mechanism for the success of business management practice

as it creates work harmony, which results in job collaboration and organizational productivity (Hambley et al., 2007, Boonsathorn, 2007, Kramer and Crespy, 2011, Çetin et al., 2012, Zulch, 2014).

Situational Differences

Situational differences were mentioned when interviewees were giving their opinion on factors that can influence leadership effectiveness. In addition, two sub-factors were mentioned by interviewees which are job related and personal related. For the job related issue, interviewees gave their explanation in the same direction as although relationship oriented behaviour is commonly exhibited, in an urgent situation when immediate decision making or task achievement is required, task oriented is necessarily prioritized (see Bass & Avolio 2004). For the personal related issue, interviewees explained that a leader has to understand and evaluate his or her leadership approach according to a person who they are dealing with, as people are not only different in attitude, character and behaviour, but they also perceive leadership behaviour differently (see Carsten et al 2010). This statement is supported by studies of situational leadership including followership (Carsten et al., 2010), leadership perception (Schyns and Felfe, 2006), situational variables (Stenmark and Mumford, 2011) and communication (Zulch, 2014) which claim that leadership behaviour and its effectiveness are significantly influenced by surrounding circumstances and the changing situation. They tended to agree that an effective leadership style may not be useful in a different situation as the change in situational variables may impact leadership perception and its performance.

Zulch (2014) claimed that maximizing leadership effectiveness, a leader needs to combine leadership styles and adapt according to each situation. The author explained one reason why a mixed style of leadership behaviour is the appropriate way to develop leadership effectiveness is that the effectiveness does not depend on the best style of leadership, but on the effective style within a specific situation. In order to develop leadership effectiveness, therefore, a leader has to understand a surrounding situation which causes ineffective leadership performance (Hersey and Blanchard, 1977, Sims Jr et al., 2009, Carsten et al., 2010, Stenmark and Mumford, 2011, Zulch, 2014).

Individual Differences

The individual differences factor was raised when interviewees were giving their opinion on how leadership effectiveness is influenced by individual differences. They claimed that in an organization where people from different places are working together, the working environment is diversified by individual personality and attitude. They mentioned that individual differences not only cause ineffective leadership but also difficulties in a cooperative work environment. They further explained that since subordinate perceptions of leadership varies depending on the subordinate's working environment, personality, attitude and education, it is necessary to evaluate a suitable style of leadership approach when asking for collaboration.

The term 'individual' is mentioned through most of the leadership behaviour literature, as claimed that leadership foundation is characterized when an individual distinguishes him or herself beyond a group as a leader. Leadership behaviour as a consequence, includes traits that influence the team and organization as a whole (Bass, 1985, Bass and Avolio, 1994, Sarros and Santora, 2001, Dionne et al., 2004, Avolio and Gardner, 2005, Limsila and Ogunlana, 2008, Ewen et al., 2013). 'Individual differences', on the other hand, is considered as one of factors influencing leadership effectiveness in regard to leadership perception and the issue of team performance issue (Savery, 1994, Elangovan and Xie, 2000, Epitropaki and Martin, 2005, Antonakis et al., 2012). When followership theory was first discussed, the term of 'individual differences' emerged in the literature. For instance, a study of Carsten et al. (2010) explored how individuals are socially constructed followers in an organization. The author claimed that there is a strong relationship between variations of social construct and individual differences, which impact the interaction between leader and follower. In other words, individual differences significantly influence subordinates' perception with leadership. According to personality and attitude differences therefore, understanding individual differences is considered necessary to achieve leadership effectiveness.

6.4 Conclusion and Implication

As the issue of leadership effectiveness becomes essential to leadership and business management, appropriate leadership behaviour which enhances subordinates commitment towards an organization is taken into account, in order to maximize organizational performance and productivity (Cardona, 2000, Dionne et al., 2004, Limsila and Ogunlana, 2008, Wang and Howell, 2012). Nevertheless, researchers claim that the same leadership styles can exhibit different leadership outcomes, according to the factors influencing leadership effectiveness (Savery, 1994, Cacioppe, 1997, Avolio and Yammarino, 2002,

Avolio and Gardner, 2005, Limsila and Ogunlana, 2008, Zhu et al., 2011, Tyssen et al., 2014). Especially on the relationship between leader and follower, researchers agree that followers who are working in different work environments require different leadership approaches to maximize leadership outcome. The diversity of work environment, as a consequence, may cause ineffective leadership for those leaders who approach followers with inappropriate leadership behaviours (Dionne et al., 2004, Lee, 2013, Van Knippenberg et al., 2013, Tekleab and Quigley, 2014). The Thai mining industry is selected to be the research area according to structures of different working environments in the mining industry (office area and mine site), it supports leadership acknowledgement and compares leadership performance and leadership outcomes within various circumstances to establish leadership appropriateness. This study, therefore, investigates relationships between leadership behaviour, followership satisfaction with the leader and organizational commitment to determine leadership development within Thai mining industry.

6.4.1 Conclusion of the Study

The literature review indicated relationships of research variables (that is, leadership behaviour, followership behaviour and organizational commitment) which leadership behaviour and performance correspond with followership behaviour, where the effectiveness of the relationships generates positive responses via organizational commitment components (see Section 2.4.2 'Linkage between Leadership, Followership and Organizational Commitment', p.41). This acknowledgement evokes the research question of 'how to develop effective leadership behaviour for Thai mining industry?'.

The results of this study indicated that within the Thai mining industry, transformational leadership behaviour evidenced to be the most preferred style, as the results revealed significant relationships between transformational leadership factors, satisfaction with the leadership, and organizational commitment components (See Table 5.8 to 5.12, pp. 97–105). The result is supported by the leadership literature which illustrates that the sense of taking care and listening to subordinates of transformational leadership encourages and inspires subordinates to perform beyond expectation with their trust and loyalty to the organization (Bass, 1985, Sarros and Santora, 2001, Dionne et al., 2004, Kirkbride, 2006, Limsila and Ogunlana, 2008). These statements, supported that in the Thai mining industry, the concept of transformational leadership behaviour is favoured by Thais and expatriates employees.

Transactional leadership, however, is also considered necessary for Thai business culture as it encourages subordinates' motivation and effort by offering agreements and benefits in exchange for

their productive performance (Bass and Avolio, 2004, Walumbwa et al., 2008). Interestingly, although the study demonstrated that transactional leadership behaviour is less preferable than transformational leadership behaviour, the results from the correlation matrix suggest that transactional leadership is a significant influence on subordinates' attitude towards to organizational commitment (see Section 5.5.1 'Q1', p. 91). As explained by the literature, some characteristics of transactional leadership's advantages can motivate a positive working environment and encourage subordinates' positive attitude towards to an organization (that is, 'reward and punishment' by Bass & Avolio 2004 and 'fair justice' by Walumbwa et al. 2008). The necessity of transactional leadership behaviour therefore, is supported by the statement that business management practice within Thai culture and Thai hierarchical system requires leaders to exhibit transactional behaviour in order to control and reinforce organizational performance and productivity (Hofstede, 1983, Elangovan and Xie, 2000, Sarros and Santora, 2001, Bass and Avolio, 2004, Epitropaki and Martin, 2005, Limsila and Ogunlana, 2008, Carsten et al., 2010, Uhl-Bien et al., 2014).

Interestingly according to literature, transformational leadership behaviour is supposed to be the preferred leadership style for the Thai mining industry (Hofstede, 1983, Cardona, 2000, Sarros and Santora, 2001, Brain and Lewis, 2004, Judge and Piccolo, 2004, Epitropaki and Martin, 2005, Limsila and Ogunlana, 2008, Walumbwa et al., 2008, Carsten et al., 2010, Intachakra, 2012). The results, however, indicate that transactional factors (CR and MBEA) are more highly rated than some of transformational behaviour factors (IA and IC) (see Chart 5.2 and 5.3 p. 87–88). This occurrence illustrated that, in some states of organizational management practices within the Thai mining industry, transactional leadership behaviour is recognized more often than transformational leadership by employees. This statement is consistent with the results from leadership outcome (see Chart 5.4 'Leadership Outcome', p. 87) which indicated different groups of participants reported different recognition of satisfaction with leadership (that is, both mining groups show 38% and 31% of leadership satisfaction whereas both office groups show 52% and 58%). This study, as a consequence, addressed 'factors influencing leadership effectiveness' as one of the causes manipulating diverse relationships between followers' interaction and leadership behaviour. This study suggests that different groups of participants require different leadership approaches to determine leadership effectiveness (see Section 6.3 'Factors Influencing Leadership Effectiveness', p.130).

Leadership effectiveness is considered an important issue to business management because effective leadership performance can encourage subordinates' good behaviour and attitude which supports organizational productivity (Elangovan and Xie, 2000, Bass and Avolio, 2004, Walumbwa et al., 2008,

Peterson et al., 2012). This statement is supported by the significant relationship between satisfaction with leadership and the organizational commitment component, which illustrates the relationship of employee satisfaction with leadership that can enhance the level of psychological attachment with the organization (see Table 5.12, p. 105). Researchers claim that a sense of belonging and loyalty to the organization optimizes employees' performance, which contributes to organizational productivity (Meyer et al., 2006, Jaros, 2007, Loi et al., 2012, Lambert et al., 2013).

In conclusion, within the Thai mining industry, where employees from different family backgrounds, personality, attitude and working environment, this study supports the idea of develop mixing styles of leadership behaviours can determine effective leadership performance. The mixture of leadership styles may be one of the most effective because it can be adjusted according to each specific circumstance (Phetmany, 1997, Cardona, 2000, Sarros and Santora, 2001, Brain and Lewis, 2004, Epitropaki and Martin, 2005, Limsila and Ogunlana, 2008). This assumption is based on the results that includes the leadership literature which suggests that combining both transformational leadership behaviour and transactional leadership behaviour can maximize leadership effectiveness, as using both styles in parallel leadership substitution is required for business and management practice within Thai mining industry (Hofstede, 1983, Cardona, 2000, Sarros and Santora, 2001, Brain and Lewis, 2004, Judge and Piccolo, 2004, Epitropaki and Martin, 2005, Limsila and Ogunlana, 2008, Walumbwa et al., 2008, Carsten et al., 2010, Intachakra, 2012)

6.4.2 Research Implication

This section provides research implications of academic contributions and practical contributions illustrate the benefits of conducting this research. Moreover, this section illustrates the research limitations and highlights some potential issues that are essential in future research.

6.4.2.1 Academic contribution

This study provides extensive contributions to the field of leadership and business management within the Thai mining industry. According to existing leadership studies on the mining industry is very limited, as most of the literature predominantly deals with environmental issues (Treadgold, 2005, Zhu and Cherni, 2009), corporate social responsibility (Jenkins and Yakovleva, 2006, Allsop and Calveley, 2009, Kemp and Owen, 2013), finance related (Lassen et al., 2002 , Fang et al., 2007), and technical engineering and safety (Winterton, 1989 , Hilson and Murck, 2000, Berrah et al., 2007, JRank, 2007, Amponsah-Tawiah et al., 2013). This study, therefore, has focused directly on leadership behaviour in

business management in the Thai mining industry, considering two perspectives of leadership behaviour and performance.

Top-down Perspective

Results of in-depth interviews demonstrated from a top-down perspective of how leaders and managers implemented their leadership styles. The interviews provided insight on how they manage their leadership performance through the line of command (see Section 5.6 'result of in-depth interview' p.109). Furthermore, a quantitative investigation of the relationships between leadership behaviour, subordinates' satisfaction with leadership and organizational commitment, demonstrated how well subordinates can perceive leadership performance in their leaders (see Section 5.4.1.3 'Leadership Outcome" p.89 and 5.4.2 'Organizational commitment in Thai mining industry' p.90), This study therefore has generated a top-down perspective of the effects of leadership performance on subordinate attitudes and organizational commitment, in order to determine effective leadership.

Bottom-up Perspective

By investigating subordinates' reactions to particular styles of leadership via their expressions of leadership satisfaction and organizational commitment, this study provides a bottom-up perspective of leader-follower interaction and also addresses the impacts of followership behaviour and factors that negatively influence leadership effectiveness (see Section 5.5 'Research Question Examination', p. 91 and 5.6 'Results of In-depth Interview', p. 109).

Through in-depth interviews, this study further reveals factors that influence leadership effectiveness (see Section 6.3 'Factors Influencing Leadership Effectiveness', p. 130). The study supports the academic foundation of leadership and business management development in the Thai mining industry and it will benefit future studies in leadership behaviour.

6.4.2.2 Practical Contribution

The empirical results of this study have formulated a foundation of leadership development to increase leadership performance and leadership effectiveness in business management practices. By revealing leadership performance and leadership outcomes in different circumstances, these findings benefit CEOs, top management teams, leaders, managers and supervisors to understand situations and adjust their leadership approaches to achieve a more effective leadership style.

By highlighting the notion that certain factors influence leadership effectiveness (see Section 6.3 'Factors Influencing Leadership Effectiveness', p.130), this study provides an essential contribution to

leadership development, as those who benefit will be aware of any situation where these factors or conditions are applied. As a consequence, this acknowledgement enhances the capability of human resource management performance in various working circumstances. This finding is especially relevant to the Thai mining industry and other industries with similar organizational structure that strongly support the national economy of Thailand.

Finally, combining the research results with relevant leadership literature has generated some solid evidence to support the study recommendations of appropriate leadership behaviour for business practices within context of the Thai mining industry (see Section 6.4.1 'Conclusion of the Study', p. 135). As a consequence, this study will be of benefit to leadership implementation and human resource management which aim for better organizational performance and productivity.

6.5 Limitations and Suggestion for Future Research

Although this study accomplished the research objectives which cover most of the essential contents in regard to leadership performance and business management, several research limitations still remained unexplored, which contributes an opportunity for future research. First, even though the research survey was based on validated research instruments and questionnaires (that is, MLQ by Bass & Avolio, (2004) and OCQ by Allen & Meyer (1996a), there were situations where respondents missed designating themselves as leaders or followers. According to the demography survey for instance, several respondents designated themselves as leaders or followers based on their roles but not their authority (see Section 5.3 'Demography', p. 82). This situation can be seen randomly during the data analysis procedure which can bias the results. As a consequence, the recommendation for future research has to emphasize conceptualizing a solid structure of designating an employee's position as either a leader or a follower.

Second, the appearance of passive avoidant behaviour during the process of qualitative data analysis, as interviewees frequently expressed their sense of management by exemption (passive) behaviour (MBEP) as a factor supporting learning skills and employee's performance development process. This aligns with the results from the quantitative analysis (i.e. "MLQ" by Bass and Avolio 2004) which also indicated the appearance of the MBEP factor as being recognized by respondents. Bass and Avolio (2004) defines passive avoidant behaviour as a situation when a leader reacts or responds to a situation passively. In other words, followers (subordinates) avoid facing or solving problems on their own. This evokes an alternative dimension of passive avoidant behaviour as a negative leadership attribute, to considering this behaviour as having potential benefits that synergize skill learning and

employees' performance development together. This study, however, does not focus on passive avoidant behaviour, but rather providing an opportunity for future research on the relationship between passive avoidant behaviour and business management in practice, especially in an area of employee's skills development.

Finally, this study revealed factors influencing leadership effectiveness based on in-depth interviews in which the factors were verbally stated by interviewees. Although the factors were defined and categorized according to the existing literature (see Section 6.3 'Factors Influencing Leadership Effectiveness', p.130), some factors such as company culture and individual differences may lead to consideration of reverse causality. In other words, it is possible that the effective leadership may lead to improvement in company culture or individual differences to support work efficiency. This study does not statistically test the mediating effects of the reverse causality relationship among those factors or the significant relationship between factors influencing leadership effectiveness and leadership behaviour. This represents a limitation of the research study that should be explored in future research.

6.6 Summary

This chapter is divided into five main sections which determine to explore a) leadership performance and its effectiveness within the Thai mining industry, b) the relationship between leadership behaviour and organizational commitment, c) factors influencing leadership effectiveness, d) the research conclusion and implication and e) limitation and suggestion for future research. The results are discussed based on data analysis of both quantitative and qualitative from the previous chapter (see chapter 5 'Data Analysis and Findings', p.77).

The first section explored leadership behaviour and its performance in the Thai mining industry based on quantitative results from MLQ (Bass and Avolio, 2004), together with the qualitative results (in-depth interviews). The results reveal that, although transformational leadership behaviour had the better reputation with employees as it enhances a relationship oriented between leader and follower, transactional leadership behaviour is still considered to be an important leadership trait for task and goal achievement. Furthermore, the results suggest that maximizing leadership effectiveness, adapting both styles of leadership behaviour according to each specific situation is recommended. As a result, it is concluded that both styles of leadership behaviour (transformational behaviour and transactional behaviour) are necessary for business practicing within the Thai mining industry.

The second section discusses the relationship between leadership behaviour, satisfaction with leadership and organizational commitment components. The results reveal that affective commitment

and normative commitment reported positive relationships with leadership behaviour factors and satisfaction with leadership factors, whereas continuance commitment reported a negative relationship with leadership behaviour factors and satisfaction with leadership factors. The results draw a conclusion between leadership behaviour and organizational commitment that, within the Thai mining industry, transformational and transactional leadership behaviour effectively influence employees' attitude towards the organization which results in the recognition of organizational commitment components.

The third section discusses factors influencing leadership effectiveness which were identified based on the recognition of interviewees when they were giving their opinion on leadership behaviour and its performance. Factors influencing leadership effectiveness were categorized into five main categories which are a) organizational culture, b) cultural differences, c) workplace communication, d) situational differences and d) individual differences, all of which were supported by the existing literature.

The last section consists of three subsections, which are a) the research conclusion, b) the research implication and c) the research limitations. First, the research conclusion provides a conclusion based on the research results and discussion which determined effective leadership development for the Thai mining industry that is mixing styles of leadership. In other words, a leader has to adapt both transformational and transactional leadership characteristics according to each specific circumstance in order to maximize leadership performance and leadership effectiveness. An effective leader can encourage team performance and commitment towards an organization which results in better organizational performance and productivity. Second, the research implication illustrates the research contribution, from an academic perspective. This research contributes leadership acknowledgement from two dimensions, which are top-down and bottom-up and also identifies factors influencing leadership effectiveness which supports a future leadership research foundation. From the practical perspective, this study provides a better understanding of leadership behaviour and performance in various circumstances, which supports leaders by enhancing their leadership effectiveness. Last, the limitations and suggestions for future research illustrate research difficulties and identify unexplored areas which can be developed extensively for future research on leadership and business management.

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APPENDICES

Appendix A – Demographic Questionnaire

Demographic Questions

The following questions focus on your personal information within your company and your department. Completion of this information is voluntary and all of individual data will be confidential.

THANK YOU FOR YOUR COOPERATION!

1. What is your sex?
   ☐ Male
   ☐ Female

2. What is your nationality?

3. What is your Age Group?
   ☐ 18 – 25   ☐ 26 – 30
   ☐ 31 – 40   ☐ 41 – 49
   ☐ 50 +

4. What is your working area?
   ☐ Office work
   ☐ Mine site

5. What is your job description?

6. Do you supervise others?
   ☐ Yes
   ☐ No

7. How long have you worked for this company?
   ☐ Less than 1 year
   ☐ 1 – 5 years
   ☐ 6 – 9 years
   ☐ 10 – 19 years
   ☐ More than 20 years

8. What is your highest level of Education?
   ☐ Did not complete High School
   ☐ High school degree/equivalent
   ☐ Technical and Further Education (TAFE)
   ☐ Bachelor's degree
   ☐ Master's degree
   ☐ Doctorate degree or professional degree

<u>เอกสารแนบ</u>   คำถามข้อมูลส่วนตัว

คำถามต่อไปนี้ ถามข้อมูลส่วนตัวของท่านภายในบริษัทของท่าน และแผนกของท่าน การตอบคำถามเหล่านี้เป็นไปตามความสมัครใจ และ
ข้อมูลเฉพาะบุคคลทั้งหมดจะถือว่าเป็นความลับ

ขอขอบคุณในความร่วมมือของท่าน

1. เพศของท่าน

    ☐ ชาย

    ☐ หญิง

2. เชื้อชาติของท่านคืออะไร?

3. อายุของท่านอยู่ในกลุ่มใด?

    ☐ 18-25   ☐ 26-30
    ☐ 31-40   ☐ 41-49
    ☐ 50+

4. บริเวณที่ทำงานของท่านคือที่ไหน?

    ☐ ที่สำนักงาน

    ☐ ที่เหมือง

5. งานในหน้าที่ของท่านมีอะไรบ้าง?

6. ท่านนิเทศหรือควบคุมดูแลผู้อื่นหรือไม่?

    ☐ ใช่   ☐ ไม่ใช่

7. ท่านทำงานให้บริษัทนี้มานานแค่ไหน?

    ☐ น้อยกว่า 1 ปี

    ☐ 1-5 ปี

    ☐ 6-9 ปี

    ☐ 10-19 ปี

    ☐ มากกว่า 20 ปี

8. ระดับการศึกษาสูงสุดของท่านคืออะไร?

    ☐ ไม่จบมัธยมปลาย หรือ ม. 6

    ☐ ระดับมัธยมปลายหรือเทียบเท่า

    ☐ วิทยาลัยเทคนิคหรือการศึกษาต่อเนื่อง

    ☐ ปริญญาตรี

    ☐ ปริญญาโท

    ☐ ปริญญาเอก หรือ ปริญญาผู้เชี่ยวชาญพิเศษ

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Appendix B -- Organizational Commitment Questionnaire

TCM Employee Commitment Survey

Academic Users Guide 2004

John P. Meyer and Natalie J. Allen

Department of Psychology

The University of Western Ontario

Commitment Scales
Instructions

Listed below is a series of statements that represent feelings that individuals might have about the company or organization for which they work. With respect to your own feelings about the particular organization for which you are now working, please indicate the degree of your agreement or disagreement with each statement by circling a number from 1 to 7 using the scale below.

1 = strongly disagree

2 = disagree

3 = slightly disagree

4= undecided

5 = slightly agree

6 = agree

7 = strongly agree

Revised Version (Meyer, Allen, & Smith, 1993)

Affective Commitment Scale

1. I would be very happy to spend the rest of my career with this organization. 1 2 3 4 5 6 7
2. I really feel as if this organization's problems are my own. 1 2 3 4 5 6 7
3. I do not feel a strong sense of "belonging" to my organization. (R) 1 2 3 4 5 6 7
4. I do not feel "emotionally attached" to this organization. (R) 1 2 3 4 5 6 7
5. I do not feel like "part of the family" at my organization. (R) 1 2 3 4 5 6 7
6. This organization has a great deal of personal meaning for me. 1 2 3 4 5 6 7

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Continuance Commitment Scale

1. Right now, staying with my organization is a matter of necessity as much as desire. 1 2 3 4 5 6 7

2. It would be very hard for me to leave my organization right now, even if I wanted to. 1 2 3 4 5 6 7

3. Too much of my life would be disrupted if I decided I wanted to leave my organization now. 1 2 3 4 5 6 7

4. I feel that I have too few options to consider leaving this organization. 1 2 3 4 5 6 7

5. If I had not already put so much of myself into this organization, I might consider working elsewhere. 1 2 3 4 5 6 7

6. One of the few negative consequences of leaving this organization would be the scarcity of available alternatives. 1 2 3 4 5 6 7

Normative Commitment Scale

1. I do not feel any obligation to remain with my current employer. (R) 1 2 3 4 5 6 7

2. Even if it were to my advantage, I do not feel it would be right to leave my organization now. 1 2 3 4 5 6 7

3. I would feel guilty if I left my organization now. 1 2 3 4 5 6 7

4. This organization deserves my loyalty. 1 2 3 4 5 6 7

5. I would not leave my organization right now because I have a sense of obligation to the people in it. 1 2 3 4 5 6 7

6. I owe a great deal to my organization. 1 2 3 4 5 6 7

ระดับความทุ่มเท

คำสั่ง

ข้อความข้างล่างเป็นชุดของประโยคที่แทนความรู้สึกที่บุคคลอาจจะมีเกี่ยวกับองค์กรหรือบริษัทที่เขาทำงานอยู่
เมื่อคำนึงถึงความรู้สึกของท่านเองเกี่ยวกับองค์กรที่ท่านกำลังทำงานอยู่
กรุณาแสดงถึงระดับความรู้สึกของท่านถึงการเห็นด้วยหรือไม่เห็นด้วยกับแต่ละประโยคหรือแต่ละข้อความโดย
การเขียนวงกลมรอบตัวเลขตั้งแต่ ๑ ถึง ๗ ตามระดับข้างล่างนี้:

๑. ไม่เห็นด้วยอย่างยิ่ง

๒. ไม่เห็นด้วย

๓. ไม่เห็นด้วยเล็กน้อย

๔. ตัดสินใจไม่ได้

๕. เห็นด้วยเล็กน้อย

๖. เห็นด้วย

๗. เห็นด้วยเป็นอย่างยิ่ง

ฉบับปรับปรุง (Meyer, Allen, & Smith 1993)
ระดับความรู้สึกผูกพันด้านบวกให้กับองค์กร

๑. ฉันจะมีความสุขมากที่จะใช้ชีวิตการทำงานกับองค์กรนี้ตลอดชีวิตการทำงานของ-ฉัน 1 2 3 4 5 6 7

๒. ฉันรู้สึกจริงๆว่าปัญหาขององค์กรนี้คือปัญหาของฉันเอง   1 2 3 4 5 6 7

๓. ฉันไม่รู้สึกถึงความรู้สึกถึงความเป็นส่วนหนึ่งต่อองค์กร ของฉัน (R)   1 2 3 4 5 6 7

๔. ฉันไม่รู้สึก "ผูกพันทางจิตใจ"กับองค์กรนี้ (R) 1 2 3 4 5 6 7

๕. ฉันไม่รู้สึกว่าเป็น "ครอบครัวเดียวกัน"ในองค์กรของฉัน (R) 1 2 3 4 5 6 7

๖. องค์กรนี้มีความหมายส่วนตัวมากมายกับฉัน 1 2 3 4 5 6 7

ระดับความผูกพันต่อองค์กรต่อ

๑. ขณะนี้ การอยู่กับองค์กรของฉันต่อไปเป็นเรื่องของความจำเป็นมากเท่าๆกับความปรารถนา
1 2 3 4 5 6 7

๒. มันจะเป็นการยากมากสำหรับฉันที่จะออกจากองค์กร ของฉันในขณะนี้ แม้ว่าฉัน จะต้องการทำเช่นนั้นก็ตาม
1 2 3 4 5 6 7

๓. ชีวิตของฉันมากมายจะยืดข้องไปหมดถ้าฉันตัดสินใจ ว่าฉันต้องการจะออกจาก องค์กรของฉัน ในตอนนี้
1 2 3 4 5 6 7

๔. ฉันคิดว่าฉันมีข้อเลือกน้อยเกินไปที่จะพิจารณาถึงการ ออกจากองค์กรนี้ 1 2 3 4 5 6 7

๕. ถ้าฉันไม่ได้ผูกพันส่วนตัวของฉันมากมายให้กับองค์กรนี้ ฉันอาจจะพิจารณาถึงการทำงานที่อื่น 1 2 3 4 5 6 7

๖. หนึ่งในความสาหัสสองสามข้อของผลของการออกจากองค์กรนี้ก็คือความหายากของตัวเลือกอื่น 1 2 3 4 5 6 7

ระดับความผูกพันปกติ

๑. ฉันไม่รู้สึก มีความผูกพันใดๆที่จะยังคงทำงาน ให้กับนายข้างปัจจุบัน (R) 1 2 3 4 5 6 7

๒. แม้ว่ามันจะเป็นผลดีกับฉัน ฉันไม่รู้สึกว่ามันเป็น สิ่งที่ถูกต้องที่จะออกจากองค์กร ของฉันใน ขณะนี้ 1 2 3 4 5 6 7

๓. ฉันจะรู้สึกผิดถ้าฉันออกจากองค์กร ของฉัน ในขณะนี้ 1 2 3 4 5 6 7

๔. องค์กรนี้สมควร ได้รับความจงรักภักดีของฉัน 1 2 3 4 5 6 7

๕. ฉันจะไม่ออกจากองค์กรของฉันใน ขณะนี้เพระฉันรู้สึกเป็นหน้าที่ผูกพันกับคนในนั้น 1 2 3 4 5 6 7

๖. ฉันเป็นหนี้มากมายต่อองค์กรของฉัน 1 2 3 4 5 6 7

Appendix C – Interview Prompts

1) Prompt to explore self-leadership from two angles:

How would you describe your leadership style and how would your staff and colleagues describe you? Please give some example to support your point.

2) Prompt to explore how subordinates' behaviour can influence leadership behaviour:

How would you adapt your leadership behaviour to suit your colleagues or your subordinates? Can you explain using examples of your past experiences?

3) Prompt to explore the influence of subordinates' work commitment based on leadership behaviour

What methods have you used to gain commitment from your team? Please give your reasons for using this method.

4) Prompts used to explore the influence of organizational culture (the mining industry) on leadership behaviour:

Can you describe some difficulties you have encountered when your job has required you to cooperate across other departments including lower departments? What kind of leadership approach have you used?

How would you describe the difference between cooperating with office employees and mining employees? What kind of leadership approach have you used? Please give your reasons.

5) These prompts explore the influence of national culture on leadership behaviour.

What difficulties have you experienced when cooperating with expatriates who are your boss/colleague/subordinate?
Is your leadership approach different when you need to cooperate with an expatriate? Please give your reasons.

Appendix D – Analysed Data

Position	Gender	Nationality	Age	Work Area	Supervision	EXP	EDU	Transformational					Transactional		Passive behaviour		Leadership outcome			Oganizational commitment		
								IA	IB	IM	IS	IC	CR	MBEA	MBEP	LF	EE	EFF	SAT	AC	CC	NC
Leader	Male	Thai	31-40	Office	Yes	6-9 years	Master degree	10	14	12	13	11	11	11	3	4	8	14	6	39	16	23
Leader	Male	Thai	26-30	Office	No	6-9 years	Bachelor degree	9	12	15	14	12	12	12	3	4	10	12	6	42	20	26
Leader	Male	Thai	31-40	Office	Yes	Less than	Bachelor degree	10	13	13	14	11	13	13	6	6	9	13	5	35	29	33
Leader	Female	Thai	41-49	Office	Yes	1-5 years	Bachelor degree	14	10	13	16	13	13	16	2	0	12	16	6	39	30	36
Leader	Male	Thai	41-49	Office	Yes	6-9 years	TAFE	5	12	13	12	16	10	16	3	7	9	14	6	39	28	31
Leader	Female	Thai	41-49	Office	Yes	1-5 years	Bachelor degree	3	12	10	10	11	10	10	4	0	7	10	4	38	26	29
Leader	Female	Thai	50+	Office	Yes	6-9 years	Bachelor degree	8	8	8	8	12	9	8	1	4	6	10	4	38	33	36
Leader	Female	Thai	31-40	Office	Yes	6-9 years	Master degree	5	8	8	9	6	11	12	8	7	6	8	4	42	18	42
Leader	Male	Thai	41-49	Office	Yes	1-5 years	Bachelor degree	10	9	8	9	12	9	10	5	3	7	10	5	38	33	34
Leader	Male	Thai	50+	Mine	Yes	10-19 years	TAFE	16	14	13	13	14	15	14	1	0	11	15	7	36	40	35
Follower	Female	Thai	18-25	Office	No	Less than	Bachelor degree	9	11	11	10	8	10	8	7	11	5	8	4	29	29	28
Follower	Female	Thai	18-25	Office	No	1-5 years	Bachelor degree	8	12	11	6	11	10	9	1	6	9	12	6	35	35	32
Follower	Female	Thai	26-30	Office	No	Less than	Bachelor degree	11	16	15	15	15	14	16	0	0	11	15	8	32	26	29
Follower	Female	Thai	26-30	Office	Yes	6-9 years	Bachelor degree	7	11	10	9	9	10	8	6	4	8	8	5	40	23	36
Follower	Female	Thai	31-40	Office	No	6-9 years	Bachelor degree	7	15	14	15	11	14	16	0	2	12	15	8	42	24	41
Follower	Female	Thai	26-30	Office	No	1-5 years	Bachelor degree	6	9	9	12	8	11	9	3	4	8	10	6	34	37	25
Follower	Male	Thai	26-30	Office	No	6-9 years	Bachelor degree	6	12	10	11	11	11	10	2	0	8	11	6	38	25	33
Follower	Female	Thai	26-30	Office	No	1-5 years	Bachelor degree	7	10	9	13	12	12	10	5	5	10	10	6	38	26	28
Follower	Female	Thai	18-25	Office	No	Less than	Bachelor degree	7	12	10	9	9	10	12	6	6	7	10	6	30	24	31
Follower	Female	Thai	31-40	Office	No	1-5 years	Bachelor degree	10	14	14	16	9	13	16	0	0	12	14	8	40	12	35
Follower	Female	Thai	26-30	Office	No	1-5 years	Bachelor degree	8	14	14	13	10	14	16	1	2	10	15	7	37	27	33
Follower	Male	Thai	26-30	Office	No	1-5 years	TAFE	10	10	12	11	7	9	7	4	5	8	12	5	36	25	36
Follower	Male	Thai	26-30	Office	No	1-5 years	Bachelor degree	8	14	12	12	9	7	11	4	3	8	10	6	38	24	32
Follower	Male	Thai	26-30	Mine	Yes	1-5 years	Bachelor degree	6	10	7	11	7	11	10	4	4	5	9	5	37	28	32
Follower	Female	Thai	41-49	Office	Yes	6-9 years	Bachelor degree	12	11	9	9	9	12	9	5	3	5	11	5	42	18	36
Follower	Male	Thai	41-49	Mine	No	1-5 years	Highschool	11	14	11	12	12	13	12	8	2	11	15	7	37	36	36
Follower	Male	Thai	50+	Mine	Yes	Less than	Highschool	12	12	14	12	12	10	12	4	5	11	13	6	40	18	32
Follower	Male	Thai	31-40	Mine	No	1-5 years	Lower than Highschool	11	12	11	12	10	12	13	7	8	10	14	8	34	25	28
Follower	Male	Thai	26-30	Mine	No	1-5 years	Lower than Highschool	10	9	14	12	9	13	12	6	4	10	15	8	32	26	34
Follower	Male	Thai	41-49	Mine	Yes	6-9 years	TAFE	12	15	15	14	14	14	11	7	4	9	14	7	33	33	35
Follower	Female	Thai	18-25	Mine	No	1-5 years	Bachelor degree	10	10	11	11	11	10	11	5	5	8	13	7	31	24	25
Follower	Female	Thai	26-30	Mine	Yes	1-5 years	Bachelor degree	12	13	9	12	13	13	13	7	4	9	9	8	38	35	32
Follower	Female	Thai	26-30	Mine	No	1-5 years	TAFE	13	11	8	14	15	12	11	7	4	11	13	5	39	30	32
Follower	Female	Thai	18-25	Mine	No	1-5 years	Highschool	9	11	13	14	10	11	15	4	5	9	14	7	40	32	25
Follower	Female	Thai	26-30	Mine	No	6-9 years	Bachelor degree	12	12	8	11	11	10	12	6	10	9	11	6	33	27	25
Follower	Female	Thai	18-25	Mine	No	1-5 years	Highschool	13	15	14	10	11	12	13	9	8	10	13	8	40	23	23
Follower	Male	Thai	26-30	Mine	Yes	1-5 years	Bachelor degree	12	13	12	14	10	10	13	1	3	10	13	6	35	34	28
Follower	Male	Thai	31-40	Mine	Yes	1-5 years	TAFE	11	9	11	9	9	10	9	5	4	6	8	4	42	16	34
Follower	Male	Thai	26-30	Mine	No	1-5 years	Bachelor degree	11	13	14	12	11	12	10	1	3	9	15	8	36	23	26
Follower	Male	Thai	26-30	Office	No	1-5 years	Highschool	9	11	12	8	9	10	11	1	8	9	9	4	31	19	32

Position	Gender	Nationality	Age	Work Area	supervision	EXP	EDU	Transformational					Transactional		Passive behaviour		Leadership outcome			Oganizational commitment		
								IA	IB	IM	IS	IC	CR	MBEA	MBEP	LF	EE	EFF	SAT	AC	CC	NC
Leader	Male	None-Tha	50+	Mine	Yes	6-9 years	Bachelor degree	8	10	13	13	13	12	9	1	1	8	13	7	40	20	38
Leader	Female	None-Tha	41-49	Office	No	Less than	Doctor degree	13	10	11	14	12	11	6	5	5	11	15	6	35	7	35
Leader	Male	None-Tha	41-49	Mine	Yes	Less than	Bachelor degree	11	11	13	13	13	13	9	4	4	6	11	5	29	20	22
Leader	Male	Thai	50+	Office	Yes	1-5 years	Master degree	11	12	13	11	11	12	13	6	3	9	12	6	36	30	37
Leader	Male	Thai	31-40	Mine	Yes	6-9 years	Lower than Highscho	7	5	6	4	7	7	4	4	4	4	5	2	25	39	36
Leader	Male	Thai	31-40	Mine	Yes	6-9 years	Lower than Highscho	5	9	5	5	5	5	8	4	5	4	7	2	24	38	35
Leader	Male	Thai	50+	Mine	Yes	6-9 years	Lower than Highscho	8	5	8	6	6	4	5	4	4	3	5	2	24	42	35
Leader	Male	Thai	50+	Mine	Yes	10-19 year	Lower than Highscho	9	6	5	5	4	10	5	5	4	3	4	3	23	38	36
Leader	Male	Thai	31-40	Mine	Yes	6-9 years	Lower than Highscho	5	4	6	4	6	3	6	6	4	2	7	2	24	42	34
Leader	Male	Thai	41-49	Mine	Yes	10-19 year	Master degree	7	5	6	6	6	1	5	3	3	3	4	2	23	36	32
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Leader	Male	Thai	31-40	Mine	No	6-9 years	Highschool	7	7	4	6	6	6	6	6	5	4	7	3	24	42	36
Leader	Male	Thai	31-40	Mine	Yes	6-9 years	Highschool	3	3	4	1	4	8	4	7	5	3	8	1	24	36	32
Leader	Male	Thai	26-30	Mine	No	1-5 years	Highschool	2	5	6	5	5	3	3	7	1	6	1	2	24	38	32
Leader	Male	Thai	26-30	Mine	Yes	6-9 years	TAFE	6	5	4	6	7	5	5	2	5	3	4	3	24	36	34
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Leader	Male	Thai	31-40	Mine	Yes	6-9 years	Lower than Highscho	4	4	5	4	4	4	4	5	4	4	6	2	24	40	29
Leader	Male	Thai	41-49	Mine	Yes	6-9 years	Lower than Highscho	7	5	4	4	5	5	3	5	5	3	5	2	22	37	35
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Leader	Male	Thai	41-49	Mine	Yes	6-9 years	Lower than Highscho	5	5	4	4	7	4	5	7	5	3	4	2	24	41	34
Leader	Male	Thai	41-49	Mine	Yes	6-9 years	Lower than Highscho	4	4	4	5	4	5	5	4	6	5	7	2	24	41	36
Leader	Female	Thai	41-49	Office	No	1-5 years	Master degree	9	8	7	9	9	9	6	2	3	8	8	5	26	16	33
Leader	Female	Thai	41-49	Mine	No	1-5 years	Highschool	4	4	2	6	3	5	2	5	6	6	4	2	24	35	32
Leader	Male	Thai	31-40	Mine	No	6-9 years	Bachelor degree	5	5	5	3	3	5	2	7	4	3	4	3	23	36	33
Leader	Male	Thai	41-49	Office	No	1-5 years	Bachelor degree	4	5	4	6	6	5	3	5	5	5	2	1	25	31	31
Leader	Male	Thai	41-49	Mine	Yes	10-19 year	TAFE	6	6	4	7	5	4	2	6	5	6	7	2	26	36	32
Leader	Male	Thai	41-49	Mine	Yes	10-19 year	TAFE	2	3	5	3	4	3	3	2	5	3	4	2	25	36	34
Leader	Female	Thai	41-49	Mine	Yes	10-19 year	TAFE	4	4	5	4	4	2	4	3	4	5	5	3	23	39	34
Follower	Male	Thai	26-30	Mine	Yes	1-5 years	Lower than Highscho	6	5	7	7	6	5	6	6	5	4	6	3	24	14	17
Follower	Male	Thai	31-40	Mine	Yes	10-19 year	Master degree	11	11	8	10	9	9	10	9	8	7	9	5	23	26	26
Follower	Female	Thai	31-40	Mine	Yes	1-5 years	Master degree	9	10	9	11	9	9	11	10	9	8	9	5	23	26	28
Follower	Male	Thai	18-25	Mine	No	6-9 years	Lower than Highscho	11	10	14	11	11	12	11	5	0	7	10	6	19	24	22
Follower	Male	Thai	41-49	Mine	Yes	10-19 year	Lower than Highscho	9	8	6	7	12	9	5	3	2	8	9	5	24	26	25
Follower	Male	Thai	41-49	Mine	Yes	6-9 years	TAFE	5	6	8	7	5	5	7	2	5	4	6	2	34	29	30
Follower	Male	Thai	41-49	Mine	Yes	1-5 years	Master degree	7	8	8	8	6	6	8	5	4	3	4	3	35	29	24
Follower	Male	Thai	41-49	Mine	Yes	6-9 years	TAFE	9	7	7	6	6	8	6	3	2	6	7	4	22	26	23
Follower	Female	Thai	41-49	Mine	No	6-9 years	Highschool	5	3	4	3	2	2	3	4	4	5	6	3	25	41	36
Follower	Female	Thai	41-49	Mine	No	6-9 years	Highschool	2	4	3	6	2	2	5	5	6	5	6	3	26	37	33
Follower	Female	Thai	41-49	Mine	No	6-9 years	Highschool	5	6	4	7	6	3	4	6	6	4	5	2	25	30	38
Follower	Female	Thai	41-49	Mine	Yes	6-9 years	Highschool	5	5	3	5	8	5	5	6	5	4	8	3	25	39	36
Follower	Female	Thai	41-49	Mine	No	1-5 years	Highschool	5	6	5	0	6	4	5	5	5	2	7	0	27	34	29
Follower	Male	Thai	41-49	Mine	Yes	6-9 years	TAFE	5	5	6	8	5	6	8	4	3	6	5	4	33	29	29
Follower	Male	Thai	31-40	Mine	No	6-9 years	Highschool	10	10	9	9	12	11	11	10	9	7	13	6	27	39	36
Follower	Male	Thai	31-40	Mine	Yes	6-9 years	Lower than Highscho	5	6	4	3	7	6	7	4	5	3	7	3	23	42	36
Follower	Male	Thai	31-40	Mine	Yes	6-9 years	Highschool	3	4	4	5	9	9	4	7	4	2	4	1	24	42	34
Follower	Male	Thai	31-40	Mine	Yes	6-9 years	Highschool	5	4	6	5	7	7	4	7	4	2	7	1	24	42	34
Follower	Male	Thai	26-30	Mine	Yes	1-5 years	Highschool	4	5	4	7	6	9	6	7	7	3	5	3	24	42	35
Follower	Male	Thai	26-30	Mine	Yes	1-5 years	Highschool	4	6	6	5	4	6	5	5	5	3	5	2	22	39	36
Follower	Male	Thai	31-40	Mine	Yes	10-19 year	Bachelor degree	6	6	7	7	8	9	6	8	7	4	6	2	24	41	36
Follower	Male	Thai	41-49	Mine	Yes	10-19 year	Lower than Highscho	8	7	7	8	8	6	7	11	10	5	5	3	24	40	35
Follower	Male	Thai	31-40	Mine	Yes	6-9 years	Lower than Highscho	8	9	9	6	9	11	8	11	8	5	8	3	26	38	34
Follower	Male	Thai	50+	Mine	Yes	10-19 year	Lower than Highscho	9	8	6	7	9	8	9	8	6	5	7	3	23	40	34
Follower	Male	Thai	41-49	Mine	Yes	10-19 year	Lower than Highscho	7	8	9	9	7	10	8	7	8	6	8	4	25	39	35
Follower	Male	Thai	31-40	Mine	Yes	10-19 year	Lower than Highscho	6	10	8	9	8	8	9	9	8	6	9	4	24	39	35
Follower	Male	Thai	41-49	Mine	Yes	6-9 years	Lower than Highscho	7	7	6	10	9	6	7	8	8	6	7	3	24	41	35
Follower	Male	Thai	31-40	Mine	Yes	10-19 year	TAFE	10	8	9	8	9	11	9	11	10	4	7	6	25	38	33
Follower	Male	Thai	41-49	Mine	Yes	10-19 year	Lower than Highscho	6	5	7	8	7	8	8	9	8	6	8	3	23	40	35
Follower	Male	Thai	41-49	Mine	Yes	10-19 year	Lower than Highscho	8	6	8	6	8	8	7	6	6	5	9	4	25	35	32
Follower	Male	Thai	41-49	Mine	Yes	10-19 year	Highschool	11	7	8	9	9	7	8	8	9	10	8	4	25	36	29
Follower	Male	Thai	41-49	Mine	Yes	10-19 year	Lower than Highscho	7	7	4	6	6	5	6	8	8	6	4	3	26	24	30
Follower	Male	Thai	41-49	Mine	Yes	10-19 year	Highschool	5	4	5	5	4	7	5	6	5	3	9	3	27	21	25
Follower	Male	Thai	31-40	Mine	Yes	6-9 years	Lower than Highscho	13	14	14	13	8	9	11	6	3	9	10	6	35	36	42

Position	Gender	Nationality	Age	Work Area	supervision	EXP	EDU	Transformational					Transactional		Passive behaviour		Leadership outcome			Oganizational commitment		
								IA	IB	IM	IS	IC	CR	MBEA	MBEP	LF	EE	EFF	SAT	AC	CC	NC
Leader	Male	Thai	26-30	Office	No	1-5 years	Bachelor degree	7	7	8	5	6	5	6	2	2	7	9	5	25	26	29
Leader	Male	Thai	41-49	Office	Yes	more than	Master degree	8	10	11	12	9	11	13	1	0	7	8	5	39	30	27
Leader	Male	Thai	31-40	Mine	Yes	6-9 years	Bachelor degree	8	7	8	5	4	6	11	2	3	7	11	6	39	36	36
Leader	Male	Thai	50+	Mine	Yes	more than	Bachelor degree	7	7	5	10	5	6	12	3	3	4	7	4	37	31	25
Leader	Male	Thai	50+	Mine	Yes	1-5 years	Master degree	10	12	15	12	13	11	15	1	1	12	15	8	36	20	36
Leader	Female	Thai	26-30	Mine	Yes	1-5 years	Bachelor degree	15	11	14	15	11	12	14	0	0	10	14	7	35	25	32
Leader	Female	Thai	50+	Office	Yes	more than	Master degree	12	13	12	13	12	10	13	3	2	9	12	6	36	24	36
Leader	Male	Thai	50+	Mine	Yes	more than	Master degree	2	10	11	11	8	7	12	1	2	8	13	7	21	33	32
Leader	Male	Thai	41-49	Office	Yes	more than	Bachelor degree	7	10	8	12	12	11	12	0	2	7	8	4	37	30	26
Leader	Male	Thai	50+	Mine	Yes	more than	Master degree	8	13	13	13	13	11	10	3	4	8	12	5	35	33	30
Leader	Male	Thai	50+	Mine	Yes	more than	Bachelor degree	8	9	11	11	9	9	11	3	0	6	8	4	38	25	30
Leader	Male	Thai	50+	Mine	Yes	more than	Master degree	11	12	13	12	11	12	15	4	10	10	15	6	41	28	30
Leader	Male	Thai	50+	Office	Yes	more than	Bachelor degree	9	12	9	11	8	6	12	0	2	6	10	6	36	35	32
Leader	Male	Thai	50+	Mine	Yes	more than	Bachelor degree	8	10	11	12	8	10	12	6	2	9	10	5	33	31	33
Leader	Male	Thai	50+	Mine	Yes	more than	Master degree	11	14	13	11	13	10	13	6	4	9	12	7	41	33	36
Follower	Male	Thai	50+	Mine	No	more than	Lower than Highschc	8	8	7	7	6	4	7	5	6	5	6	5	31	28	27
Follower	Male	Thai	26-30	Mine	Yes	1-5 years	Bachelor degree	9	10	6	9	9	7	10	10	9	6	10	6	24	28	26
Follower	Female	Thai	41-49	Mine	No	more than	Highschool	7	9	6	6	5	6	6	13	5	4	7	3	41	35	42
Follower	Male	Thai	50+	Mine	Yes	more than	Bachelor degree	10	13	14	11	10	12	16	2	3	10	14	7	30	13	24
Follower	Female	Thai	50+	Office	No	more than	Bachelor degree	8	9	9	5	4	7	7	6	4	2	4	0	33	34	36
Follower	Male	Thai	41-49	Mine	Yes	more than	TAFE	12	13	14	9	10	10	11	3	6	11	15	7	39	13	35
Follower	Male	Thai	41-49	Mine	No	more than	Bachelor degree	5	4	4	2	3	4	4	2	5	1	4	1	29	24	30
Follower	Male	Thai	50+	Mine	No	more than	TAFE	3	2	2	3	3	3	3	4	3	1	4	2	28	21	24
Follower	Male	Thai	50+	Office	Yes	more than	Master degree	3	4	4	6	7	4	4	7	7	3	5	2	31	32	27
Follower	Male	Thai	50+	Mine	Yes	1-5 years	Master degree	12	13	12	13	12	12	13	1	0	9	12	6	34	16	37
Follower	Male	Thai	50+	Mine	Yes	more than	Bachelor degree	4	6	4	3	3	4	6	3	5	4	6	3	29	33	31
Follower	Male	Thai	26-30	Mine	Yes	1-5 years	Bachelor degree	7	10	11	9	10	8	9	10	8	9	8	3	24	26	20
Follower	Male	Thai	50+	Mine	Yes	more than	TAFE	14	12	12	13	10	15	13	3	2	12	15	8	42	35	41
Follower	Male	Thai	26-30	Office	Yes	Less than	Bachelor degree	9	9	9	9	9	11	11	6	3	8	11	6	29	33	33
Follower	Male	Thai	41-49	Mine	Yes	10-19 year	Bachelor degree	11	15	16	14	11	12	15	2	1	10	15	7	33	33	41
Follower	Male	Thai	41-49	Mine	Yes	more than	Bachelor degree	14	12	13	13	10	15	13	3	2	12	15	8	42	35	41
Follower	Male	Thai	50+	Mine	Yes	more than	TAFE	7	8	7	7	8	6	6	4	7	6	7	4	29	24	35
Follower	Female	Thai	18-25	Office	Yes	1-5 years	Bachelor degree	13	15	12	16	12	13	16	5	0	8	13	7	34	31	35
Follower	Male	Thai	50+	Office	Yes	more than	Bachelor degree	7	7	6	6	3	3	9	2	2	6	4	2	25	27	27
Follower	Female	Thai	26-30	Office	No	Less than	Master degree	11	13	11	12	12	12	11	1	2	9	12	6	40	22	42
Follower	Male	Thai	50+	Mine	No	more than	Highschool	4	4	5	3	1	2	3	1	2	1	4	2	27	31	28
Follower	Female	Thai	31-40	Mine	No	more than	Bachelor degree	8	8	8	8	8	8	8	8	8	6	8	4	25	24	24
Follower	Male	Thai	50+	Mine	No	more than	Lower than Highschc	11	11	12	11	9	10	12	7	9	9	12	2	26	42	36
Follower	Male	Thai	41-49	Mine	No	10-19 year	Highschool	8	11	0	12	14	10	6	5	4	6	12	3	42	42	36
Follower	Male	Thai	50+	Mine	No	more than	Lower than Highschc	4	6	6	7	2	8	2	4	8	8	12	7	42	34	41
Follower	Male	Thai	50+	Office	Yes	more than	Bachelor degree	10	11	14	12	11	12	12	2	0	7	14	7	41	37	30
Follower	Male	Thai	41-49	Mine	Yes	more than	Bachelor degree	8	7	8	8	9	7	5	10	7	6	11	6	42	42	42
Follower	Male	Thai	41-49	Mine	Yes	more than	Bachelor degree	13	10	13	12	8	12	9	0	0	9	12	8	33	26	32
Follower	Male	Thai	50+	Mine	Yes	more than	Bachelor degree	8	9	14	11	4	10	5	1	0	7	10	6	41	29	41
Follower	Male	Thai	50+	Mine	Yes	more than	Bachelor degree	9	10	9	8	7	8	10	8	10	6	8	4	26	24	10
Follower	Male	Thai	41-49	Mine	Yes	more than	Master degree	12	11	12	13	11	13	13	4	3	9	12	6	36	30	36
Follower	Male	Thai	50+	Office	Yes	more than	Bachelor degree	12	16	11	10	8	15	13	7	4	10	13	5	41	37	35
Follower	Male	Thai	50+	Office	Yes	more than	Bachelor degree	3	6	2	5	5	3	6	5	1	4	3	3	41	24	33
Follower	Male	Thai	18-25	Mine	No	Less than	Bachelor degree	13	15	12	12	11	13	13	3	4	9	13	8	36	29	27
Follower	Male	Thai	41-49	Mine	Yes	10-19 year	Bachelor degree	8	8	9	8	6	6	11	5	5	5	7	4	39	25	28
Follower	Male	Thai	50+	Mine	Yes	more than	TAFE	12	10	14	11	15	9	15	4	0	10	15	6	42	29	36
Follower	Male	Thai	41-49	Office	Yes	more than	Bachelor degree	7	7	7	8	8	8	7	2	0	6	8	4	40	36	42
Follower	Female	Thai	41-49	Mine	Yes	more than	Master degree	5	8	6	5	6	5	5	2	2	5	5	4	36	39	33
Follower	Male	Thai	31-40	Office	Yes	10-19 year	Bachelor degree	6	4	5	4	5	5	5	6	6	4	4	2	24	32	25
Follower	Male	Thai	26-30	Office	Yes	1-5 years	Bachelor degree	10	8	9	8	8	8	7	4	2	6	8	5	32	33	35
Follower	Female	Thai	41-49	Mine	No	more than	Bachelor degree	6	9	7	8	8	7	9	4	6	5	8	6	40	28	38
Follower	Male	Thai	41-49	Mine	Yes	more than	Master degree	11	13	13	12	11	12	15	3	1	9	13	6	35	35	36
Follower	Male	Thai	41-49	Mine	No	more than	Bachelor degree	12	12	12	15	13	12	10	0	1	9	10	5	36	31	33
Follower	Male	Thai	50+	Mine	Yes	more than	TAFE	10	11	13	11	10	10	14	8	9	9	12	5	33	15	27
Follower	Male	Thai	50+	Office	Yes	more than	TAFE	11	14	11	13	12	13	11	6	4	9	12	6	41	37	35
Follower	Female	Thai	31-40	Mine	Yes	6-9 years	Bachelor degree	8	12	10	12	7	11	7	8	6	8	9	6	27	26	30
Follower	Female	Thai	41-49	Office	Yes	more than	Master degree	9	14	11	13	9	13	9	4	2	9	10	6	32	27	36
Follower	Male	Thai	41-49	Mine	Yes	10-19 year	Master degree	9	11	10	12	8	12	13	4	8	9	12	5	34	32	36
Follower	Male	Thai	41-49	Office	Yes	more than	TAFE	10	9	9	11	10	9	5	4	4	2	5	2	42	24	35
Follower	Male	Thai	41-49	Mine	Yes	more than	Master degree	9	11	9	9	7	11	10	7	4	5	7	3	42	18	35
Follower	Male	Thai	50+	Mine	No	more than	Master degree	16	16	16	16	16	13	14	1	4	12	13	8	33	30	36
Follower	Male	Thai	26-30	Mine	Yes	1-5 years	Bachelor degree	11	11	9	12	9	11	9	4	0	8	9	5	38	30	30
Follower	Male	Thai	50+	Office	Yes	more than	Bachelor degree	12	13	11	7	12	8	13	4	2	9	11	7	30	26	36
Follower	Male	Thai	41-49	Office	No	more than	Bachelor degree	15	14	14	12	15	14	14	2	1	11	12	8	38	30	31
Follower	Male	Thai	26-30	Office	No	1-5 years	Bachelor degree	14	14	11	15	11	10	14	5	5	10	14	7	29	25	28
Follower	Male	Thai	50+	Office	No	more than	Bachelor degree	14	14	14	15	12	6	16	4	3	8	13	5	35	21	32
Follower	Male	Thai	26-30	Mine	Yes	1-5 years	Bachelor degree	9	12	16	16	13	9	11	1	0	8	13	8	36	20	25
Follower	Male	Thai	18-25	Mine	Yes	1-5 years	Bachelor degree	6	15	15	14	7	10	14	3	0	5	14	2	40	26	30
Follower	Male	Thai	41-49	Mine	Yes	more than	Bachelor degree	12	12	12	15	13	12	10	0	1	9	10	5	34	15	35
Follower	Male	Thai	50+	Office	Yes	more than	Bachelor degree	14	13	13	13	8	11	13	0	0	9	14	7	37	10	33
Follower	Female	Thai	41-49	Office	No	more than	Bachelor degree	9	12	16	16	13	9	11	1	0	8	13	8	37	10	33
Follower	Male	Thai	41-49	Mine	Yes	more than	Bachelor degree	14	13	13	13	8	11	13	0	0	9	14	7	37	10	32
Follower	Male	Thai	41-49	Office	Yes	more than	Bachelor degree	9	11	9	7	7	7	11	3	3	7	9	6	29	23	32
Follower	Female	Thai	50+	Mine	Yes	more than	Bachelor degree	4	4	3	7	4	5	0	6	6	3	3	1	34	36	35
Follower	Male	Thai	50+	Office	Yes	more than	Bachelor degree	8	12	8	8	5	10	10	0	1	7	8	4	41	36	35
Follower	Male	Thai	31-40	Mine	No	1-5 years	Highschool	10	9	8	10	7	7	9	9	6	6	8	4	34	22	27
Follower	Male	Thai	41-49	Mine	Yes	more than	TAFE	6	8	6	8	6	8	8	9	9	6	7	3	31	20	28
Follower	Male	Thai	41-49	Office	Yes	10-19 year	Bachelor degree	10	11	11	12	9	10	12	4	3	9	12	6	41	31	29
Follower	Female	Thai	50+	Office	Yes	10-19 year	Master degree	10	6	11	5	7	10	2	12	13	3	9	4	40	41	41
Follower	Male	Thai	26-30	Mine	No	1-5 years	Bachelor degree	12	13	12	13	8	12	14	3	5	11	13	8	40	34	37
Follower	Male	Thai	31-40	Mine	No	10-19 year	Bachelor degree	14	13	14	16	13	16	13	2	2	12	15	7	40	30	41
Follower	Male	Thai	50+	Mine	Yes	more than	Highschool	10	11	9	10	10	10	10	9	10	6	8	4	21	23	24
Follower	Male	Thai	50+	Mine	Yes	more than	Highschool	7	10	9	9	9	7	11	5	5	6	9	4	39	24	33
Follower	Male	Thai	41-49	Mine	Yes	more than	Bachelor degree	10	14	13	11	11	11	13	7	5	7	11	6	37	32	36
Follower	Male	Thai	41-49	Mine	Yes	10-19 year	Bachelor degree	9	9	10	10	6	10	14	5	3	8	10	6	39	40	22
Follower	Male	Thai	41-49	Mine	No	more than	Master degree	9	10	11	8	8	12	9	3	2	11	12	7	39	18	30
Follower	Male	Thai	50+	Office	Yes	more than	Master degree	8	11	11	10	9	9	7	7	10	8	10	4	30	28	28
Follower	Male	Thai	50+	Mine	No	more than	TAFE	5	3	4	6	0	7	7	4	5	2	4	2	36	33	36
Follower	Male	Thai	50+	Mine	Yes	more than	TAFE	6	8	6	7	6	5	6	2	2	4	6	2	32	29	36
Follower	Male	Thai	50+	Mine	Yes	more than	Bachelor degree	9	11	11	9	9	9	13	5	2	9	11	6	40	31	35
Follower	Male	Thai	50+	Office	Yes	more than	TAFE	12	13	11	10	8	9	11	11	9	8	9	4	42	34	37

Position	Gender	Nationality	Age	Work Area	Supervision	EXP	EDU	Transformational					Transactional		Passive behaviour		Leadership outcome			Organizational commitment		
								IA	IB	IM	IS	IC	CR	MBEA	MBEP	LF	EE	EFF	SAT	AC	CC	NC
Leader	Male	None-Tha	26-30	Mine	Yes	Less than	TAFE	12	12	14	11	14	12	14	0	0	8	13	6	29	10	30
Leader	Male	None-Tha	50+	Office	Yes	1-5 years	TAFE	15	10	13	14	15	16	7	0	1	9	14	8	37	7	36
Leader	Male	Thai	31-40	Office	Yes	1-5 years	Bachelor degree	11	12	11	12	11	13	14	5	0	9	11	6	39	34	31
Leader	Male	None Tha	50+	Office	Yes	1-5 years	Highschool	12	13	12	13	14	11	10	0	0	9	13	6	31	20	23
Leader	Male	None-Tha	50+	Mine	Yes	Less than	Lower than Highschc	9	8	9	10	11	12	9	1	1	7	12	5	34	11	31
Leader	Male	Thai	50+	Mine	Yes	1-5 years	TAFE	11	12	12	12	10	12	10	1	0	7	12	7	24	13	22
Leader	Female	Thai	31-40	Office	Yes	10-19 year	Master degree	7	15	13	12	11	13	15	6	4	9	14	6	36	23	33
Leader	Male	Thai	31-40	Office	Yes	10-19 year	Bachelor degree	8	9	10	14	10	11	9	7	5	8	11	5	34	22	41
Leader	Male	Thai	50+	Mine	Yes	1-5 years	Master degree	8	11	12	10	5	9	9	5	3	8	10	6	39	23	42
Leader	Female	Thai	50+	Office	Yes	10-19 year	Master degree	10	9	11	9	7	10	7	1	0	8	9	5	42	26	41
Leader	Male	Thai	26-30	Office	Yes	1-5 years	Bachelor degree	15	15	15	15	14	13	15	5	8	11	13	7	30	17	32
Leader	Male	Thai	31-40	Office	Yes	6-9 years	Bachelor degree	12	14	12	9	11	12	13	8	3	9	12	6	28	32	36
Leader	Male	Thai	41-49	Office	Yes	6-9 years	Lower than Highschc	7	9	10	11	14	10	13	3	0	10	14	8	36	19	47
Leader	Male	Thai	41-49	Mine	Yes	10-19 year	Lower than Highschc	15	14	12	15	16	14	12	1	0	10	14	8	36	19	47
Leader	Male	Thai	31-40	Office	Yes	10-19 year	Highschool	13	12	12	14	10	16	9	7	1	11	14	7	42	34	40
Leader	Male	Thai	26-30	Mine	Yes	1-5 years	Bachelor degree	13	15	15	15	12	14	13	2	4	11	15	7	38	24	33
Leader	Male	Thai	26-30	Office	No	Less than	Bachelor degree	10	10	9	8	10	9	9	2	2	6	8	6	32	37	37
Leader	Female	Thai	26-30	Mine	Yes	1-5 years	Bachelor degree	8	9	8	10	9	10	9	4	6	6	7	4	25	28	26
Leader	Female	Thai	31-40	Office	Yes	1-5 years	Bachelor degree	8	8	8	5	8	9	7	1	2	5	8	3	38	31	36
Leader	Male	Thai	41-49	Mine	Yes	1-5 years	Lower than Highschc	8	8	10	10	10	10	7	2	4	8	9	4	36	32	33
Leader	Male	Thai	41-49	Mine	Yes	10-19 year	Lower than Highschc	7	10	8	9	9	6	8	1	1	4	11	5	38	34	34
Leader	Male	Thai	31-40	Office	Yes	6-9 years	Highschool	9	11	11	11	9	12	7	3	1	9	12	6	35	31	32
Leader	Female	Thai	31-40	Office	Yes	1-5 years	Bachelor degree	10	11	13	9	11	12	9	5	3	10	11	6	32	26	34
Leader	Male	Thai	41-49	Office	Yes	Less than	TAFE	11	13	12	12	12	13	14	2	1	9	12	7	42	42	42
Leader	Female	Thai	26-30	Office	Yes	1-5 years	Bachelor degree	6	11	9	8	11	8	10	4	4	7	12	5	37	27	35
Leader	Female	Thai	26-30	Office	Yes	1-5 years	Bachelor degree	6	11	9	8	11	8	10	4	4	7	12	5	37	27	35
Leader	Male	Thai	31-40	Mine	Yes	6-9 years	Lower than Highschc	7	8	10	7	8	8	8	4	2	6	8	4	33	10	27
Leader	Female	Thai	26-30	Office	Yes	Less than	Bachelor degree	8	9	10	9	10	10	11	6	4	7	9	6	33	31	30
Leader	Male	Thai	26-30	Mine	Yes	1-5 years	Bachelor degree	10	9	10	10	11	11	13	6	2	10	13	5	38	29	35
Leader	Female	Thai	26-30	Office	Yes	6-9 years	Bachelor degree	13	10	15	13	12	15	15	0	1	9	14	8	38	25	33
Follower	Male	Thai	31-40	Office	Yes	1-5 years	Bachelor degree	12	14	13	9	8	11	14	1	0	8	12	6	40	29	38
Follower	Female	Thai	41-49	Office	Yes	1-5 years	Bachelor degree	5	10	12	11	5	8	9	3	3	9	12	6	41	24	34
Follower	Male	Thai	31-40	Office	No	1-5 years	Bachelor degree	13	12	16	10	11	12	13	2	3	7	9	5	36	31	27
Follower	Male	Thai	26-30	Office	No	6-9 years	Bachelor degree	7	10	13	15	11	14	5	2	1	7	11	7	39	31	28
Follower	Female	Thai	31-40	Office	Yes	6-9 years	Bachelor degree	10	7	7	10	6	8	8	5	7	9	11	6	36	30	30
Follower	Female	Thai	31-40	Office	No	Less than	Bachelor degree	10	7	9	8	6	10	7	4	7	9	11	6	32	30	30
Follower	Male	Thai	26-30	Office	No	1-5 years	Bachelor degree	7	13	12	15	9	13	11	2	4	12	16	8	30	30	34
Follower	Female	Thai	31-40	Office	Yes	6-9 years	Master degree	4	8	7	8	6	8	8	6	3	6	8	4	36	21	29
Follower	Male	Thai	41-49	Mine	No	6-9 years	Lower than Highschc	10	5	5	8	8	9	9	9	8	6	7	3	27	26	26
Follower	Male	Thai	18-25	Mine	No	Less than	Highschool	10	7	5	8	8	9	9	10	8	6	7	3	27	28	32
Follower	Male	Thai	26-30	Office	No	1-5 years	Lower than Highschc	10	5	5	8	7	11	9	9	8	6	7	3	24	28	31
Follower	Male	Thai	18-25	Mine	No	Less than	Lower than Highschc	10	5	5	8	8	9	9	9	8	6	7	3	24	28	30
Follower	Male	Thai	26-30	Mine	No	1-5 years	Lower than Highschc	10	5	5	8	8	9	9	9	8	6	7	3	27	28	31
Follower	Male	Thai	31-40	Mine	No	6-9 years	Lower than Highschc	6	4	6	9	6	8	9	6	5	5	11	3	32	32	25
Follower	Male	Thai	41-49	Mine	No	6-9 years	Lower than Highschc	5	7	8	7	5	8	3	1	1	6	9	6	36	36	28
Follower	Male	Thai	18-25	Mine	No	1-5 years	Highschool	7	4	5	8	6	10	9	5	8	5	11	3	28	32	24
Follower	Male	Thai	26-30	Office	No	1-5 years	TAFF	5	10	11	6	6	8	11	5	4	7	8	5	31	31	25
Follower	Female	Thai	26-30	Mine	No	1-5 years	Highschool	7	10	9	8	7	9	10	9	8	9	8	4	24	33	31
Follower	Male	Thai	26-30	Mine	No	1-5 years	Lower than Highschc	10	6	12	13	8	10	6	9	10	6	10	3	25	32	29
Follower	Female	Thai	41-49	Mine	No	1-5 years	Highschool	6	9	6	10	7	9	8	9	8	8	10	5	26	32	25
Follower	Male	Thai	50+	Mine	No	10-19 year	Lower than Highschc	9	9	7	11	10	8	9	9	8	7	9	5	25	38	31
Follower	Male	Thai	26-30	Mine	No	1-5 years	Lower than Highschc	8	8	9	10	11	11	9	9	8	7	6	5	23	31	30
Follower	Male	Thai	50+	Mine	No	10-19 year	Lower than Highschc	10	10	10	8	10	7	8	9	10	6	11	3	27	28	28
Follower	Male	Thai	31-40	Mine	No	6-9 years	Lower than Highschc	9	11	8	10	10	10	11	8	9	11	8	4	25	35	31
Follower	Male	Thai	26-30	Mine	No	6-9 years	Lower than Highschc	7	7	8	10	11	11	11	9	7	5	12	4	26	33	31
Follower	Male	Thai	41-49	Mine	No	6-9 years	Lower than Highschc	11	5	7	7	10	9	10	6	11	6	11	3	30	31	24
Follower	Male	Thai	41-49	Mine	Yes	10-19 year	Highschool	9	7	8	9	7	10	6	8	5	8	10	5	27	28	24
Follower	Male	Thai	31-40	Mine	No	1-5 years	Lower than Highschc	5	7	8	7	5	7	3	0	1	6	9	6	35	36	28
Follower	Male	Thai	31-40	Mine	No	Less than	Lower than Highschc	5	7	8	7	5	7	3	0	1	6	9	6	35	36	28
Follower	Male	Thai	31-40	Mine	No	10-19 year	Lower than Highschc	8	10	9	7	7	7	7	9	8	8	8	6	30	30	26
Follower	Male	Thai	31-40	Office	No	1-5 years	Lower than Highschc	8	4	7	7	6	6	9	8	6	5	6	4	34	32	25
Follower	Female	Thai	31-40	Mine	No	1-5 years	Highschool	11	4	5	9	8	9	8	7	9	5	10	4	31	33	28
Follower	Female	Thai	31-40	Office	No	1-5 years	Bachelor degree	7	7	6	7	7	6	4	3	6	4	7	3	33	24	29
Follower	Male	Thai	31-40	Mine	Yes	6-9 years	Highschool	12	9	13	8	11	11	11	4	4	10	12	5	28	24	24
Follower	Male	Thai	31-40	Mine	Yes	6-9 years	Highschool	12	11	10	12	11	8	12	9	12	11	16	7	31	42	40
Follower	Male	Thai	41-49	Mine	Yes	6-9 years	Lower than Highschc	13	12	13	14	11	15	14	3	2	8	15	7	24	27	37
Follower	Male	Thai	41-49	Mine	No	6-9 years	Lower than Highschc	12	11	11	9	11	12	11	5	4	9	12	6	26	27	23
Follower	Female	Thai	41-49	Office	No	1-5 years	Bachelor degree	11	9	9	7	9	9	9	2	2	6	8	6	28	36	34
Follower	Female	Thai	26-30	Office	Yes	Less than	Bachelor degree	11	11	12	10	7	7	8	9	6	7	11	6	30	24	26
Follower	Female	Thai	41-49	Office	No	1-5 years	Highschool	6	5	7	4	6	5	7	5	3	5	6	4	34	27	27
Follower	Female	Thai	41-49	Mine	No	1-5 years	Bachelor degree	4	3	5	5	5	4	6	5	4	3	3	1	29	35	22
Follower	Male	Thai	41-49	Mine	No	6-9 years	Lower than Highschc	8	7	8	9	9	12	11	10	9	8	8	5	25	29	29
Follower	Male	Thai	41-49	Mine	No	10-19 year	Highschool	5	11	10	8	10	6	8	10	10	7	8	5	25	33	29
Follower	Male	Thai	26-30	Mine	No	6-9 years	Highschool	10	9	9	11	10	8	8	12	10	9	7	4	23	35	32
Follower	Male	Thai	50+	Mine	No	10-19 year	Lower than Highschc	11	9	12	10	9	10	9	8	10	8	7	5	28	32	27
Follower	Male	Thai	41-49	Mine	No	1-5 years	Lower than Highschc	9	12	9	9	10	8	10	10	5	9	7	3	25	28	29
Follower	Male	Thai	41-49	Mine	No	10-19 year	Highschool	8	10	8	9	11	10	11	9	11	7	8	4	27	28	31
Follower	Male	Thai	41-49	Mine	Yes	1-5 years	Highschool	6	6	5	3	5	2	5	1	3	7	7	4	33	38	35
Follower	Male	Thai	31-40	Mine	No	Less than	Lower than Highschc	5	7	6	6	7	5	5	4	4	5	6	3	41	35	26
Follower	Male	Thai	41-49	Mine	No	Less than	Lower than Highschc	5	6	7	7	7	4	5	2	2	3	6	3	40	28	29
Follower	Male	Thai	26-30	Mine	Yes	1-5 years	Lower than Highschc	12	10	11	13	11	12	11	9	6	10	10	7	24	30	28
Follower	Male	Thai	31-40	Mine	Yes	1-5 years	Highschool	8	8	10	11	5	6	6	1	3	7	8	2	29	28	30
Follower	Male	Thai	31-40	Office	Yes	1-5 years	Lower than Highschc	5	5	7	7	7	4	5	2	2	3	6	3	40	28	29
Follower	Male	Thai	31-40	Mine	Yes	1-5 years	Lower than Highschc	7	9	10	9	5	9	4	9	4	6	4	7	29	15	22
Follower	Male	Thai	41-49	Mine	No	Less than	Lower than Highschc	9	8	10	8	9	6	7	3	2	8	12	6	39	28	36
Follower	Male	Thai	31-40	Office	No	1-5 years	Lower than Highschc	9	8	12	7	7	6	6	2	4	7	10	5	37	29	24

Position	Gender	Nationality	Age	Work Area	supervision	EXP	EDU	Transformational					Transactional		Passive behaviour		Leadership outcome			Organizational commitment		
								IA	IB	IM	IS	IC	CR	MBEA	MBEP	LF	EE	EFF	SAT	AC	CC	NC
Follower	Female	Thai	26-30	Office	No	1-5 years	Bachelor degree	9	15	10	14	12	12	12	7	6	11	11	6	35	27	29
Follower	Male	Thai	26-30	Mine	No	1-5 years	Bachelor degree	4	4	4	6	4	5	5	4	4	3	4	2	24	12	16
Follower	Male	Thai	26-30	Mine	Yes	6-9 years	Highschool	14	14	15	15	14	12	14	4	0	11	14	7	41	29	37
Follower	Male	Thai	26-30	Mine	No	Less than	Bachelor degree	3	3	4	6	5	2	4	1	3	3	5	3	25	25	30
Follower	Male	Thai	31-40	Mine	Yes	10-19 year	TAFE	6	5	9	7	9	8	8	2	4	7	9	4	36	17	34
Follower	Male	Thai	31-40	Mine	No	6-9 years	Highschool	11	12	14	10	7	12	10	1	1	9	9	5	32	23	25
Follower	Male	Thai	41-49	Mine	No	1-5 years	Lower than Highscho	13	11	13	13	8	13	12	0	3	10	9	6	34	20	34
Follower	Male	Thai	31-40	Mine	No	6-9 years	TAFE	8	9	9	7	9	10	6	0	3	8	10	6	34	18	26
Follower	Male	Thai	31-40	Mine	Yes	10-19 year	Lower than Highscho	8	13	15	14	14	15	6	4	5	10	14	8	36	24	37
Follower	Female	Thai	26-30	Mine	Yes	1-5 years	Bachelor degree	10	14	11	15	12	12	12	5	3	11	13	7	39	28	37
Follower	Male	Thai	26-30	Mine	Yes	6-9 years	Lower than Highscho	11	15	15	12	13	14	13	4	6	10	12	8	31	33	36
Follower	Male	Thai	31-40	Mine	Yes	10-19 year	Lower than Highscho	16	13	15	16	16	16	12	1	0	12	16	8	42	30	42
Follower	Male	Thai	31-40	Mine	No	6-9 years	Lower than Highscho	11	8	8	8	8	10	11	6	9	6	10	4	25	32	31
Follower	Male	Thai	26-30	Mine	No	1-5 years	Highschool	8	9	10	8	10	9	7	10	6	8	8	3	24	36	35
Follower	Female	Thai	41-49	Mine	No	1-5 years	Lower than Highscho	11	9	8	9	10	8	8	9	9	7	9	5	25	35	32
Follower	Female	Thai	26-30	Mine	No	1-5 years	Lower than Highscho	10	8	7	7	9	7	10	9	8	6	12	4	22	36	30
Follower	Male	Thai	26-30	Mine	No	1-5 years	Lower than Highscho	8	10	10	9	9	11	10	10	7	9	10	3	24	35	29
Follower	Male	Thai	31-40	Mine	No	10-19 year	Lower than Highscho	9	9	9	11	8	8	10	9	8	7	9	6	25	35	26
Follower	Male	Thai	41-49	Mine	No	6-9 years	Highschool	9	9	11	9	10	10	8	10	9	6	10	5	31	34	29
Follower	Male	Thai	41-49	Mine	No	6-9 years	Lower than Highscho	10	8	7	9	12	10	9	7	9	6	9	5	24	30	35
Follower	Male	Thai	31-40	Mine	No	1-5 years	Lower than Highscho	11	8	10	9	9	7	8	9	8	8	6	5	24	32	35
Follower	Male	Thai	26-30	Mine	No	1-5 years	Lower than Highscho	9	10	12	11	10	7	9	8	9	4	12	4	23	34	32
Follower	Male	Thai	26-30	Mine	No	6-9 years	Lower than Highscho	9	12	11	9	11	9	7	11	9	7	8	4	29	35	34
Follower	Male	Thai	26-30	Mine	No	6-9 years	Lower than Highscho	11	8	9	10	9	12	9	11	11	8	9	5	26	34	32
Follower	Male	Thai	41-49	Mine	No	10-19 year	Lower than Highscho	9	10	10	10	9	6	8	10	9	6	11	4	24	36	34
Follower	Male	Thai	26-30	Mine	No	1-5 years	Lower than Highscho	9	9	7	7	11	8	10	10	6	7	9	5	23	30	27
Follower	Male	Thai	31-40	Mine	No	1-5 years	Lower than Highscho	10	8	7	8	11	9	8	10	10	5	10	3	23	32	27
Follower	Male	Thai	50+	Mine	No	10-19 year	Lower than Highscho	12	7	9	10	7	10	10	8	9	4	11	4	25	33	30
Follower	Male	Thai	26-30	Mine	No	1-5 years	Lower than Highscho	9	10	9	7	11	8	8	11	7	6	10	4	20	36	28
Follower	Male	Thai	31-40	Office	Yes	1-5 years	Highschool	5	5	7	7	7	4	5	2	2	3	6	3	40	28	29
Follower	Male	Thai	18-25	Office	Yes	1-5 years	Highschool	5	4	7	6	7	5	6	5	4	4	6	3	38	29	26
Follower	Male	Thai	31-40	Mine	No	Less than	Lower than Highscho	5	7	8	7	5	7	3	0	1	6	9	6	35	36	28
Follower	Male	Thai	50+	Mine	No	6-9 years	Lower than Highscho	8	10	11	11	10	5	9	10	9	7	10	6	36	36	28
Follower	Male	Thai	41-49	Mine	No	Less than	Lower than Highscho	10	7	8	9	11	8	7	7	11	10	12	8	35	36	28
Follower	Male	Thai	26-30	Mine	Yes	1-5 years	Lower than Highscho	11	8	10	9	10	6	8	10	9	6	12	4	35	36	28
Follower	Male	Thai	26-30	Mine	No	1-5 years	Lower than Highscho	9	7	8	8	11	6	11	10	7	4	12	4	36	36	28
Follower	Male	Thai	26-30	Mine	No	1-5 years	Lower than Highscho	14	12	12	12	14	11	11	4	4	8	8	3	36	36	28
Follower	Male	Thai	31-40	Mine	No	1-5 years	Lower than Highscho	11	7	11	8	9	8	8	9	8	6	10	5	36	36	28
Follower	Male	Thai	31-40	Mine	No	Less than	Highschool	7	8	7	4	8	6	10	5	4	5	6	4	35	36	28
Follower	Male	Thai	31-40	Mine	No	1-5 years	Lower than Highscho	11	10	7	12	9	7	10	9	5	8	8	5	36	36	28
Follower	Male	Thai	41-49	Mine	No	6-9 years	Lower than Highscho	9	12	7	8	9	11	10	8	9	6	9	6	36	36	28
Follower	Male	Thai	26-30	Mine	No	1-5 years	Lower than Highscho	8	8	8	9	7	10	6	9	6	11	10	4	35	36	28
Follower	Male	Thai	31-40	Mine	No	1-5 years	Highschool	9	6	5	8	7	8	9	9	4	10	12	6	36	36	27
Follower	Female	Thai	26-30	Office	No	1-5 years	Bachelor degree	12	13	15	15	12	12	12	2	3	8	10	5	35	36	28
Follower	Male	Thai	41-49	Mine	Yes	10-19 year	Lower than Highscho	6	6	5	3	5	2	5	1	3	7	7	4	26	36	30
Follower	Male	Thai	26-30	Mine	No	Less than	TAFE	10	8	9	9	10	7	7	4	1	7	5	4	38	34	31
Follower	Male	Thai	31-40	Mine	Yes	6-9 years	Highschool	9	11	9	11	7	11	9	2	1	8	12	6	28	17	22
Follower	Male	Thai	41-49	Mine	No	6-9 years	Lower than Highscho	15	15	14	10	10	14	12	3	0	12	15	7	36	23	32
Follower	Male	Thai	41-49	Mine	Yes	6-9 years	Lower than Highscho	11	14	12	12	13	14	12	0	2	10	14	8	41	24	36

Appendix E – Raw Data

Raw Data – Transformational Leadership

	IA					IB					IM					IS					IC				
	NUMBER					NUMBER					NUMBER					NUMBER					NUMBER				
	10	18	21	25		6	14	23	34		9	13	26	36		2	8	30	32		15	19	29	31	
4	2	3	2	3	10	3	4	3	4	14	3	3	3	3	12	3	4	4	2	13	4	1	3	3	11
5	3	0	4	2	9	2	3	4	3	12	3	4	4	4	15	3	4	4	3	14	4	3	1	4	12
6	3	2	3	2	10	3	3	4	3	13	4	3	2	4	13	4	4	3	3	14	3	1	3	4	11
7	4	4	4	2	14	0	2	4	4	10	4	3	3	3	13	4	4	4	4	16	4	1	4	4	13
8	2	3	0	0	5	0	4	4	4	12	3	4	3	3	13	2	3	4	3	12	4	4	4	4	16
9	0	0	3	0	3	3	3	3	3	12	3	3	2	2	10	2	3	3	2	10	3	3	2	3	11
10	0	3	3	2	8	2	2	3	1	8	2	1	3	2	8	2	1	2	3	8	4	2	3	3	12
11	2	0	1	2	5	1	1	3	3	8	2	2	1	3	8	3	2	2	2	9	1	1	2	2	6
12	3	3	2	2	10	2	2	3	2	9	1	3	1	3	8	2	3	2	2	9	3	3	3	3	12
13	4	4	4	4	16	3	4	4	3	14	4	3	2	4	13	3	3	4	3	13	3	4	3	4	14
14	2	2	3	2	9	4	3	2	2	11	3	3	2	3	11	3	3	2	2	10	2	2	2	2	8
15	2	3	3	0	8	3	3	3	3	12	2	3	3	3	11	3	0	0	3	6	3	3	2	3	11
16	3	4	4	0	11	4	4	4	4	16	4	4	4	3	15	4	3	4	4	15	4	4	3	4	15
17	2	0	3	2	7	2	3	4	2	11	2	2	3	3	10	2	2	2	3	9	2	3	2	2	9
18	3	0	4	0	7	3	4	4	4	15	3	4	3	4	14	4	4	4	3	15	3	1	3	4	11
19	1	1	3	1	6	2	2	3	2	9	2	3	2	2	9	2	3	4	3	12	2	2	1	3	8
20	3	0	3	0	6	3	3	3	3	12	2	2	3	3	10	3	2	3	3	11	3	2	3	3	11
21	3	1	3	0	7	2	3	2	3	10	1	3	2	3	9	3	3	4	3	13	3	3	3	3	12
22	3	1	2	1	7	2	3	4	3	12	1	2	3	4	10	2	2	2	3	9	1	3	2	3	9
23	3	0	4	3	10	2	4	4	4	14	4	4	3	3	14	4	4	4	4	16	4	1	0	4	9
24	4	0	4	0	8	2	4	4	4	14	3	4	4	3	14	4	1	4	4	13	3	1	2	4	10
25	3	2	3	2	10	2	3	2	3	10	4	2	3	3	12	3	3	3	2	11	2	0	3	2	7
26	3	0	3	2	8	3	3	4	4	14	3	4	2	3	12	3	2	3	4	12	4	0	1	4	9
27	2	1	2	1	6	2	3	3	2	10	2	2	1	2	7	2	3	3	3	11	1	1	2	3	7
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Raw Data – Leadership Outcome

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Raw Data – Organizational Commitment Questionnaire

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