

**THE DEVELOPMENT OF AUTHENTIC LEADERSHIP MEASURE
AND ITS VALIDATION ON FOLLOWER'S WELLBEING AND
INNOVATIVE WORK BEHAVIOUR IN THE THAI CONTEXT**


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**A Dissertation Submitted in Partial
Fulfillment of the Requirements for the Degree of
Doctor of Philosophy (Human Resource and Organization Development)
School of Human Resource Development
National Institute of Development Administration
2016**


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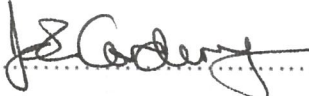
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August 2016

ABSTRACT

Title of Dissertation	The Development of Authentic Leadership Measure and Its Validation on Follower's Wellbeing and Innovative Work Behaviour in The Thai Context
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Degree	Doctor of Philosophy (Human Resource and Organization Development)
Year	2016

This study attempted to develop and validate a measure of authentic leadership in the Thai context and to examine its nomological network with follower wellbeing and innovative work behavior. The definition of Thai authentic leadership was found to be consistent with the authentic leadership definition and the four constructs of Walumbwa et al., (2008) authentic leadership theory. Moreover, the effect of being collectivist in Thailand suggested an additional dimension of authentic leadership, namely "Relationship harmony". In order to develop a new scale, the research was designed to have two separate studies; Scale development study and Scale validation study. In the first study, 65 potential items were generated to assess the dimensions and item validity. The total of 15 items was deducted during the content validity assessment. To identify items to be retained for the authentic leadership scale, an instrument administration was conducted through a pilot study with 172 Royal Thai Armed Forced officers. Participants completed 50-item of the pilot Thai authentic leadership scale. Results from item analysis and exploratory factor analysis (EFA) suggested having 21 items with five dimensional constructs. A confirmatory factor analysis (CFA) was further tested to confirm the constructs with 400 Royal Thai Navy officers from Head Quarters. Results suggested deleting 2 items due to factor loadings weight was lower than the criteria ($\lambda \leq 0.40$). Thus, the finalised version of Thai

authentic leadership scale consisted of 19 items with five dimensional constructs. A validation study was conducted to test validation and reliability of the newly developed 19-authentic scale and test a nomological network with follower wellbeing and innovative work behavior with 644 Royal Thai Navy officers working in the other three operational branches – Royal Thai Fleet; Naval Dockyard Department; and Naval Studies and Research. Participants completed a survey consisting of four instruments: a 19-item authentic leadership measure; a 30-item transformational leadership measure; a 30-item well-being; and 10-item innovative work behaviour. Data analysis in this study included bivariate correlation, CFA, path analysis, SEM, and bootstrapping. Results revealed that the five-dimensional model was significantly fit to the observed data. Validation and reliability of the 19-item authentic leadership was also statistically supported. Moreover, results indicated a positive correlation between authentic leadership and transformational leadership although these two measures were able to statistically determine a significant difference. In addition, positive influential relationship between authentic leadership and follower wellbeing, and innovative work behaviour were found. A mediation effect of wellbeing was also found in the relationship between authentic leadership and follower innovative work behaviour. Further discussion of the implications of the findings, limitations, and recommendations for future practices and research were discussed.

ACKNOWLEDGEMENTS

I would like to say ‘thank you’ from my heart to my wonderful and kind advisor, Associate Professor Bung-on Sorod, who accepted me to work with her throughout the dissertation process. She is not only a research advisor, but a good-hearted teacher who gives love and support to her students. Next, I’d like to give special appreciation to Associate Professor Wichai Utsahajit, who inspired me with the concept of ‘authenticity’ and always generated positive learning environment for the students. Also, I’d like to express my deep appreciation to Professor John Cordery, who agreed to be part of the committees although he lives in Australia and has a very tight schedule. His guidance and suggestions for my dissertation were valuable which enabled me to learn and know more.

I would like to thank my mother and father, and family who were always supportive and understanding. They were my biggest encouragement. Additionally, I would like to thank my husband for his patience and supports. Thank you for being with me when I was down. Special thanks go to my late lovely dog, Peter, who was always next to me and helped me feel better when I got depressed. Another appreciations went to my friends who always said ‘keep going’ to me, I could not describe in words how much I appreciated your kindness, assistance, and support, especially my wonderful PhD team mates who comforted me during my hardship.

I would like to thank my supportive supervisors and colleagues who believes in me and appreciates my decisions in going for a doctoral degree. Special appreciations went to the five experts who did not have a second thought to help me with the content validity assessment. Importantly, I am indebted to the Royal Thai Navy for giving me a permission to collect data for using in this study.

Finally, I’d like to thank all SHRD staff who provided well-support and assistance to me, and everyone at NIDA that spent their time and effort to make my journey reached the goal beautifully.

Iratrachar Amornpipat

August 2016

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ABBREVIATIONS

Abbreviations

Equivalence

AGFI	Adjusted Goodness-of-Fit Index
ALI	Authentic Leadership Inventory
ALQ	Authentic Leadership Questionnaire
AMOS	Analysis of Moment Structures
ANOVA	Analysis of Variance
AVE	Average Variance Extracted
CFA	Confirmative Factor Analysis
CFI	Comparative Fit Index
CMIN/df	Minimum Discrepancy
CR	Composite Reliability
DMH	Department of Mental Health
ECQ	Ethical Climate Questionnaire
EFA	Exploratory Factor Analysis
ESRC	Economic and Social Research Council
GFI	Goodness-of-Fit Index
GLOBE	Global Leadership and Organizational Behavior Effectiveness
HR	Human Resource
IFI	Incremental Fit Index
KMO	Kaiser–Meyer–Olkin
LAI	Leader Authenticity Inventory
LAS	Leader Authenticity Scale
LDL	Leadership Development Level
LPI	Leadership Practices Inventory
MLQ	Multifactor Leadership Questionnaire
NFI	Normed Fit Index

OCSC	Office of Civil Service Commission
PANAS	Positive and Negative Schedule
PNFI	Parsimony Normed Fit Index
RMR	Root-Mean-Square Residual
RMSEA	Root-Mean-Square Error of Approximation
SEM	Structural Equation Modelling
SPC	Standardised Path Coefficient
SWLS	Satisfaction with Life Scale
THI	Thai Happiness Indicator
TLI	Tucker–Lewis Index
US	United States
WeD	Wellbeing in Developing Countries
WHO	World Health Organization

CHAPTER 1

INTRODUCTION

In times of a turbulent global economy, authentic leadership becomes of great importance because the continuity of organisations as social systems is being challenged by global changes and increases in unethical practices in various countries around the world (Avolio & Walumbwa, 2006). Such changes and challenges create a need for positive organisational leadership (Cooper, Scandura, & Schriesheim, 2005). The concept of authenticity is becoming a focus of consideration in relation to the responsible behaviour of organisational leaders in the post-Enron era (Novicevic, Harvey, Ronald, & Brown-Radford, 2006) because authentic leaders are considered to represent the new brand of leadership style that has the ability to motivate employees to achieve superior performance that can build an enduring organisation and shareholder values, as well as encourage strong values and integrity in the workplace (Avolio & Walumbwa, 2006; George, 2003).

Authentic leadership is considered to have the potential to create fundamental differences in organisations by helping employees to find meaning in their work through increasing their self-awareness in relation to taking any action within the organisation, and by promoting transparent relationships and decision-making processes (Avolio & Walumbwa, 2006). Such leadership may build trust, commitment, and perceptions of ethicality among followers (Avolio, Gardner, Walumbwa, Luthans, & May, 2004). Hence, human resource (HR) agents play a key role in training and developing current and potential leaders to become authentic in order to create positive work environments and conduct business in an ethical behaviour (Lagan, 2007).

However, having an insightful understanding of the concept of authentic leadership especially the context of usage is a requirement for an organisation which aims to design an effective leadership development programmes or interventions.

It is essential to start designing such programme by examining authentic leadership constructs through extensive review on existing theories and studies on authentic leadership as a preliminary step to gain an understanding of the concept. However, a great deal of existing research is limited to qualitative studies because there is lack of a reliable and valid instrument for measuring authentic leadership (Lagan, 2007). Importantly, most studies related to authentic leadership have been conducted in particular contexts (i.e., the United States [US], China and Kenya) (see Walumbwa, Avolio, Gardner, Wernsing, & Peterson, 2008). Therefore, the effect of cultural influence should be considered when considering such studies. An examination of authentic leadership in the Thai context must then begin with defining the concept of Thai authentic leadership which subsequently being used to develop a measurement scale of authentic leadership in a particular context of usage.

1.1 Statement of Research Problem

Authentic leadership can make differences in organisations by helping employees to find meaning in their work by promoting employee self-awareness, as well as transparent relationships and decision-making processes (Avolio et al., 2004). The concept of authentic leadership was originally created from a Western perspective, and some research has suggested that culture may construct different personality traits and lead to culturally specific behaviours (Klenke, 2005). Hence, in a specific cultural context, such as the Thai context, the contextual influence of the Thai culture has an impact on the constructs of authentic leadership. The differences between Thai authentic leadership and existing theory on authentic leadership might be occurred.

1.2 Purpose of the Study

There are two main purposes of this research. First, this research aims to develop a valid and reliable measure of authentic leadership in the Thai context. In addition, the research seeks to investigate the relationships between authentic

leadership and follower wellbeing and follower innovative work behaviour to examine the construct's nomological network.

1.3 Research Questions

The present study has three research questions that guide the research:

- 1) What are the constructs underlying of authentic leadership in the Thai context?
- 2) To what extent is the developed authentic-leadership measure developed by this study reliable and valid in a sample, and relevant to the measure of transformational leadership?
- 3) What are the relationships between authentic leadership, follower wellbeing, and follower innovative work behaviour?

1.4 Significance of the Study

From a theoretical perspective, the findings of this study will broaden the concept of authentic-leadership theory by providing a novel contextual investigation. In addition, the instrument developed by this research will expand the predictive networks of authentic leadership on follower outcomes. The developed instrument may also be used to investigate future relationships between authentic-leadership behaviour and follower outcomes. Further, in practice, the Thai authentic-leadership model could be used to develop HR interventions and activities that can shed light on the influence of leaders' unethical behaviours. In addition, the measure for Thai authentic leadership could be adopted as a tool to assess current leaders and potential leaders for selection, promotion, and evaluation proposes in Thailand.

This study begins with a review of the current and relevant literatures on authentic leadership, Thai cultural influences on leadership behaviours, well-being, innovative work behaviour, and their relationships. The objective of the literature review is to describe theoretical backgrounds in order to develop Thai authentic leadership constructs. The rationale for hypotheses for the authentic leadership and

followers' outcomes are also discussed. Chapter 3 discusses about methods of this study which divides into two studies: Scale development and Scale validation. This chapter explains population and sample, instruments, and research process used in both studies. Chapter 4 presents empirical evidence related to each of the hypotheses. Finally, Chapter 5 integrates the results from both studies to provide a discussion and conclusion which include the limitations and recommendations for practice and future research.

CHAPTER 2

LITERATURE REVIEW

This chapter consists of review of literatures on authenticity, authentic leadership and its measurement instruments. Effects of Thai cultural behaviours on the authentic leadership concept and relationships between authentic leaders and followers' wellbeing and innovative work behaviour are also discussed.

2.1 Authenticity

A philosophical meaning of authenticity was first advocated by Greek stoics as a moral response to the perceived decline in civic and religious values (Baumeister, 1987). The term 'authenticity' has been articulated in relation to individual virtues and ethical choices, and the psychological meanings of authenticity have traditionally referred to individual traits, states and identities (Novicevic et al., 2006). A construct of authenticity is captured in the timeless admonition to 'be true to oneself', andisreflected in many philosophical discussions about what constitutes authenticity (Harter, 2002; Harter, Schmidt, & Hayes, 2002). Drawing from the literature on positive psychology, authenticity can be defined as 'owning one's personal experiences, 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).

Social psychologists have refined and clarified the authenticity concept through theoretical development and empirical research (e.g., Kernis, 2003, Ryan & Deci, 2001, 2003). Kernis (2003) defines authenticity as 'the unobstructed operation of one's true, or core, self in one's daily enterprise' (p. 1). Moreover, Kernis and Goldman (2006) conclude that the review of historical literature of authenticity reflects four central themes: 'authentic functioning of people's 1) self-understanding,

2) openness to objectively recognising their ontological realities e.g., evaluating their desirable and undesirable self-aspects), 3) actions, and 4) orientation towards interpersonal relationships' (p.284). Such perspective of Kernis (2003) is based on an empirical grounded perspective on authenticity which is part of the nature of optimal self-esteem- theory. These themes are consistent with Gardner, Coglisier, Davis, & Dickens's (2011) concept of authenticity as including four key components: '1) self-awareness (i.e., knowledge and trust in one's thoughts, feelings, motives and values); 2) unbiased processing of self-relevant information (i.e., objectivity about and acceptance of one's positive and negative attributes); 3) authentic action (i.e., acting based on one's true preference, values, and needs rather than merely acting to please others, secure rewards, or avoid punishments); and 4) authentic relations (i.e., achieving and valuing truthfulness and openness in one's close relationships)'(p. 1121). The multicomponent concept of authenticity has provided the theoretical foundation for several theories of authentic leadership (Gardner, Avolio, Luthans, May, & Walumbwa, 2005; Ilies, Morgeson & Nahrgang, 2005; Spitzzuller & Ilies, 2010; Walumbwa et al., 2008) as described in the following section.

2.2 Authentic Leadership and Authentic Leaders Defined

Gardener et al., (2011) state that the concept of authentic leadership stems from social psychological research on the construct of authenticity and has been defined differently over the years through theory development so there are various definitions of authentic leadership. First, the concept of authentic leadership was advanced from the philosophical conceptions in the 1960s, it reflected a notion that authenticity of organisations are manifested through its leadership (Novirevic et al., 2006). This was further illustrated by Rome and Rome (1967) which provide a description of authentic leadership in a hierarchical organisation (see Table 2.1).

The first attempt to define and operationalise the construct of leadership authenticity formally were Henderson and Hoy (1983), as indicated in Table 2.1. These researchers consider leadership authenticity as being derived from the perception from subordinates; therefore, suggesting that authentic leaders possess the following three qualities: 1) an ability to accept actions, outcomes and mistakes in

relation to personal and organisational responsibility; 2) being non-manipulating of subordinates; and 3) being salient of the self over role requirements. From this perspective, the concept of authentic leadership did not receive any attention until in 1990s, when leadership scholar in the sociological and educational fields had a re-emerged interest in authentic leadership (Chan, Hannah, & Gardner, 2005). Bhindi and Duignan (1997) state that authentic leadership comprised of four components: authenticity; intentionality; spirituality; and sensibility. Begley (2001) offers an alternate broader scope of the authentic leadership concept, yet is limited to the educational context. Begley views authentic leadership as being constructed from knowledge, values and skills. This particular definition of authentic leadership is equatlise with effective and ethical leadership. Begley (2001) also states that ‘authentic leadership implies a genuine kind of leadership—a hopeful, open-ended, visionary and creative response to circumstances’ (p. 354). Moreover, his later definition in 2004 recognises the importance of self-knowledge, a quality central to most conceptions of authenticity (e.g., Kernis & Goldman, 2006) and authentic leadership (e.g., Gardner et al., 2005; George, 2003; Ladkin & Taylor, 2010; Luthans & Avolio, 2003; Sparrowe, 2005).

George (2003) has make authentic leadership becomes popular by making the concept as a general practice. It is because George (2003) provides primarily descriptive definitions for both authentic leadership and authentic leaders, and also contributed significantly to the occurrence of the concept for practitioners (Gardner et al., 2011). For George (2003), there are five dimensions of authentic leadership: 1) pursuing purpose with passion; 2) practicing solid values; 3) leading with heart; 4) establishing enduring relationships; 5) demonstrating self-discipline. Several of these found to be aligned with authenticity component by Kernis (2003). For example, establishing enduring relationships is consistent with ‘authentic relations’ and practicing solid values coincide with ‘authentic action’ (Gardner et al., 2011). Similarly, the authentic leadership concept and its development by Luthans and Avolio (2003) have been popular as their work has been contributory on scholarly interest (Gardner et al., 2011). Luthans and Avolio (2003) suggest the theoretical underpinnings of the authentic-leadership model including positive organisational behaviour (Luthans, 2002a), transformational/full-range leadership (Avolio, 1999),

and ethical perspective taking (Kegan, 1982). Their definition of authentic leadership shown in Table 2.1 states that authentic leaders are those with positive psychological capacities including confident, optimistic, hopeful, resilient, transparent, and ethically future oriented, the particular capacities subsequently become the construct of psychological capital foundation (Luthans, Avolio, Avey, & Norman, 2007). Avolio, Luthans and Walumbwa (2004) refine the existing definition of authentic leaders (see Table 2.1), defining authentic leaders as those who process self-knowledge and a personal point of view that reflects clarity about their convictions. However, Cooper et al. (2005) argue that the refined definition is not distinct from definitions of psychological capital and transformational leadership. Therefore, concerns about discriminant validity are noted in the literature.

Ilies, Morgeson, and Nahrgang (2005) independently developed a concept of authentic leadership (see Table 2.1) that draws from Kernis's (2003) authenticity framework. Further, Sharmir and Eilam (2005) propose a life-story approach to the development of authentic leaders. Their definition (see Table 2.1) centres on leaders' self-concept and the relationships between leaders' self-concepts and behaviours; these relationships can be used to differentiate level of authentic leadership from none-authentic or less authentic leadership. They also note that their concept of authentic leaders does not involve anything about values of the leader, whereas other definitions contain moral considerations.

George and Sims (2007) develop an authentic leaders and authentic leadership concept by conducting interviews with 125 diverse leaders from a range of organisations. George and Sims (2007)'s definition of authentic leaders demonstrates that authentic leaders are leaders with ethically grounded behaviours. Such leaders act accordingly to their values because they are true to themselves, and genuinely develop relationships with others. For George and Sims (2005), authentic leadership consist of five dimensions which are purpose, practice of solid values, heart, relationships, and self-discipline.

One of the strongest theoretical frameworks for authentic leadership is Walumbwa et al.'s (2008) authentic-leadership model. As Walumbwa et al.'s (2008) definition of authentic leadership presented in Table 2.1 indicates, these researchers propose four primary components of authentic leadership: 1) self-

awareness; 2) relational transparency; 3) internalised moral perspective; and 4) balanced processing. Taking the concerns of the previous research into consideration, a number of researchers on authentic leadership have agreed that Walumbwa et al.'s (2008) concept of authentic leadership overlaps with Kernis and Goldman's (2006) dimensions of authenticity (Gardner et al., 2011). The four-dimension model of Walumbwa et al.'s (2008) authentic leadership has subsequently been operationalised and validated through the measurement instrument of the Authentic Leadership Questionnaire (ALQ).

Likewise, Whitehead (2009) introduces a definition of authentic leadership that comprises three components: 1) self-awareness, other awareness, and developmental orientation; 2) the creation of high levels of trust built on a firm ethical and moral framework; and 3) commitment to organisational success based on social values (see Table 2.1)

Table 2.1 Definitions of Authentic Leaders and Authentic Leadership

Source	Definition
Rome and Rome (1967, p. 185)	'A hierarchical organization, in short, like an individual person, is "authentic" to the extent that, throughout its leadership, it accepts finitude, uncertainty, and contingency; realizes its capacity for responsibility and choice; acknowledges guilt and errors; fulfills its creative managerial potential for flexible planning, growth, and charter or policy formation; and responsibly participates in the wider community.'
Henderson and Hoy (1983, pp. 67–68)	'Leadership authenticity is therefore defined as the extent to which subordinates perceive their leader to demonstrate the acceptance of organizational and personal responsibility for actions, outcomes, and mistakes; to be non-manipulating of subordinates; and to exhibit salience of self over role. Leadership inauthenticity is defined as the extent to which subordinates perceive their leader to be "passing the buck" and blaming others and circumstances for errors and outcomes; to be manipulative of

Table 2.1 (Continued)

Source	Definition
Bhindi and Duignan (1997, p. 119)	subordinates; and to be demonstrating a salience of role over self.’ ‘In this article the authors argue for authentic leadership based on: authenticity, which entails the discovery of the authentic self through meaningful relationships within organizational structures and processes that support core, significant values; intentionality, which implies visionary leadership that takes its energy and direction from the good intentions of current organizational members who put their intellects, hearts and souls into shaping a vision for the future; a renewed commitment to spirituality, which calls for the rediscovery of the spirit within each person and celebration of the shared meaning, with purpose of relationship; a sensibility to the feelings, aspirations and needs of others, with special reference to the multicultural settings in which many leaders operate in the light of the increasing globalizing trends in life and work.’
Begley (2001, p. 353)	‘Authentic leadership may be thought of as a metaphor for professionally effective, ethically sound, and consciously reflective practices in educational administration. This is leadership that is knowledge based, values informed, and skillfully executed.’
George (2003, p. 12)	‘Authentic leaders use their natural abilities, but they also recognize their shortcomings, and work hard to overcome them. They lead with purpose, meaning, and values. They build enduring relationships with people. Others follow them because they know where they stand. They are consistent and self-disciplined. When their principles are tested, they refuse to compromise. Authentic leaders are dedicated to developing

Table 2.1 (Continued)

Source	Definition
Luthans and Avolio (2003, p. 243)	themselves because they know that becoming a leader takes a lifetime of personal growth.’
Avolio, Luthans et al. (2004, p. 4)	These authors define authentic leadership in organizations as ‘a process that draws from both positive psychological capacities and a highly developed organizational context, which results in both greater self-awareness and self-regulated positive behaviors on the part of leaders and associates, fostering positive self-development. The authentic leader is confident, hopeful, optimistic, resilient, transparent, moral/ethical future-oriented, and gives priority to developing associates into leaders themselves. The authentic leader does not try to coerce or even rationally persuade associates, but rather the leader’s authentic values, beliefs, and behaviors serve to model the development of associates’.
Begley (2004, p. 5)	Authentic leaders are ‘those individuals who know who they are, what they think and behave and are perceived by others as being aware of their own and others’ values/moral perspective, knowledge, and strengths; aware of the context in which they operate; and who are confident, hopeful, resilient, and of high moral character’.
Ilies et al. (2005, p. 374)	‘Authentic leadership is a function of self-knowledge, sensitivity to the orientations of others, and a technical sophistication that leads to a synergy of leadership action.’
	‘Authentic leaders are deeply aware of their values and beliefs, they are self-confident, genuine, reliable and trustworthy, and they focus on building followers’ strengths, broadening their thinking and creating a positive and engaging organizational context.’

Table 2.1 (Continued)

Source	Definition
Shamir and Eilam (2005, p. 399)	The definition of authentic leaders of these researchers ‘implies that authentic leaders can be distinguished from less authentic or inauthentic leaders by four self-related characteristics: 1) the degree of person role merger i.e. the salience of the leadership role in their self-concept, 2) the level of self-concept clarity and the extent to which this clarity centers around strongly held values and convictions, 3) the extent to which their goals are self-concordant, and 4) the degree to which their behavior is consistent with their self-concept’.
Walumbwa et al. (2008, p. 94)	‘[W]e define authentic leadership as a pattern of leader behavior that draws upon and promotes both positive psychological capacities and a positive ethical climate, to foster greater self-awareness, an internalized moral perspective, balanced processing of information, and relational transparency on the part of leaders working with followers, fostering positive self-development.’
Whitehead (2009, p. 850)	‘In this article, a definition of an authentic leader is adopted as one who: (1) is self-aware, humble, always seeking improvement, aware of those being led and looks out for the welfare of others; (2) fosters high degrees of trust by building an ethical and moral framework; and (3) is committed to organizational success within the construct of social values.’

Source: Gardner et al., 2011, p. 1122.

The definitions presented in Table 2.1 have been used as theoretical frameworks for a great deal of research. Table 2.2 presents a summary of the citations identified as a theoretical foundation for the publication.

Table 2.2 Foundational Citations

Citation	Number of Times Identified as Foundation
Gardner, Avolio, Luthans et al. (2005)	44
Luthans and Avolio (2003)	43
Avolio and Gardner (2005)	33
Avolio, Gardner et al. (2004)	32
Bass and Steidlmeier (1999)	23
George (2003)	19
May et al. (2003)	19
Ilies et al. (2005)	17
Harter (2002)	15
Shamir and Eilam (2005)	13
Kernis (2003)	11
Avolio, Luthans et al.(2004)	10
Burns (1978)	9
Erickson (1995)	9
Luthans (2002a; 2002b)	9
Walumbwa et al. (2008)	9
Avolio and Luthans (2006)	8
Deci and Ryan (1995)	6
Avolio (2005)	5
Bass (1985)	5
Markus and Wurf (1987)	5
87 Additional Articles	<5

Source: Gardner et al., 2011, p. 1128.

Ladkin and Taylor (2010) point that the existing definitions of authentic leadership are not yet unified, but three common themes underpinning the use of the term are usually found. First, authentic leadership is seemingly informed by ‘true

self'. Second, self-awareness is mostly perceived as a crucial component of authentic leadership. Third, researchers connect authentic leadership with morality and charismatic socialisation.

2.3 Authentic-Leadership Measures

Henderson and Hoy (1983) were the first to operationalise authentic leadership (Gardner et al., 2011) by developing the Leader Authenticity Inventory (LAI) with 32 items. This tool is used for measuring the three components of authentic leadership they propose. However, their scale has been criticised in relation to its construct validity and generalise ability because it was developed from a limited group of professions (i.e., teachers and principals from primary schools). After the re-interest in authentic leadership following Luthans and Avolio's (2003) study, authentic leadership constructs of LAI have been alternately operationalised by many researchers (see Table 2.3). Prior to the availability of Walumbwa et al. (2008)'s ALQ, researchers faced a dilemma when, attempting to operationalise authentic leadership. For example, Jensen and Luthans (2006a, 20016b) summed scores of selected items from the Multifactor Leadership Questionnaire (MLQ) (Form 5X) (Bass & Avolio, 1995), ENTRESALE (Entrepreneurial Orientation)(Knight, 1997), and the Ethical Climate Questionnaire (ECQ) (Victor & Cullen, 1988). Wong and Cummings (2009b) used seven items from the Leadership Practices Inventory (LPI) (Kouzes & Posner, 2003) to operationalise seven posited dimensions of authentic leadership, an approach that is troubling due to the limitations of single-item scales. The problem is that adopting items from existing scales as substitutes means that the items measured remain distinct from authentic leadership.

The ALQ is the most often used measure compared to available existing measures (Gardner et al., 2011). Later, Authentic Leadership Inventory (ALI), the instrument developed and validated by Neider and Schrieshein (2011), has gained popularity because the ALI was publicly published for researchers or at no cost. The development of the standardised and validated measures the ALQ and ALI are discussed in the following section. Table 2.3 presents a summary of the construct

labels, conceptual definitions, and the operationalised dimensions and developed measurements.

Table 2.3 Summary of Conceptual Definitions and Measures of Authentic Leadership Used in Published Research

Study and Construct Label	Reported Conceptual Definition of Authentic Leadership	Operationalised Dimensionality and Measure Used
Henderson and Hoy (1983, pp. 67–68); authentic leadership	‘The extent to which subordinates perceive their leader to demonstrate the acceptance of organizational and personal responsibility for actions, outcomes, and mistakes; to be non-manipulating of subordinates; and to exhibit salience of self over role. Leadership inauthenticity is defined as the extent to which subordinates perceive their leader to be “passing the buck” and blaming others and circumstances for errors and outcomes; to be manipulative of subordinates; and to be demonstrating a salience of role over self’ Henderson and Hoy (1983, pp. 67–68).	LAS; developed for this study; 32 items
Hoy and Henderson (1983); authentic leadership	‘The extent to which subordinates described their leader as accepting responsibility for actions, as being non-manipulating, and as demonstrating a salience of self over role. In contrast, the inauthentic leader was viewed as one who “passes the buck,” blames others and circumstances for his/her errors, manipulates and uses subordinates, and is engulfed in the bureaucratic role requirements of the position’ (p. 124; cited in Henderson & Hoy, 1983).	LAS (Henderson & Hoy, 1983); 32 items

Table 2.3 (Continued)

Study and Construct Label	Reported Conceptual Definition of Authentic Leadership	Operationalised Dimensionality and Measure Used
Eigel and Kuhnert (2005); LDL	‘As leaders move from lower to higher LDLs, there is a transition in the knowing self realm (intrapersonal) from an externally defined understanding of self to an internally defined understanding of self, in the knowing others realm (interpersonal) from self-focus to other-focus, and in the knowing our world realm (cognitive) from simplicity to complexity ... The highest LDLs exhibit ... a more authentic way to lead’ (Eigel & Kuhnert, 2005, p. 361).	LDL semi-structured interview (no citation provided); interview coded into 20 scores (five distinctions for each of the four LDLs)
Jensen and Luthans (2006a); authentic leadership	‘A process that draws from both positive psychological capacities and a highly developed organizational context, which results in both greater self-awareness and self-regulated positive behaviour on the part of leaders and employees, fostering positive self-development. The authentic leader is confident, hopeful, optimistic, resilient, transparent, moral/ethical, future-oriented, and gives priority to developing employees to be leaders’ (p. 647; cited in Luthans & Avolio, 2003, p. 243).	Authentic leadership (Jensen & Luthans, 2006b); summed scores from the following three measures: 30 items from the MLQ (Form 5X) (Bass & Avolio, 1993); eight items from the ENTRESCALE(Entrepreneurial Orientation)(Knight, 1997); and seven items from the caring and

Table 2.3 (Continued)

Study and Construct Label	Reported Conceptual Definition of Authentic Leadership	Operationalised Dimensionality And Measure Used
Jensen and Luthans (2006b); authentic entrepreneurial leadership	<p>‘An authentic leader is one who is not only true to him/herself, but behaves in such a way that followers are also able to gain self-awareness and psychological strength’ (Jensen & Luthans, 2006b,p. 256; cited inLuthans & Avolio, 2003).</p> <p>‘An authentic leader knows him/herself, and acts in accordance with those beliefs, creating a future oriented ethical, follower-building climate’ (Jensen & Luthans, 2006b,p. 263; Avolio, Gardner et al., 2004;Avolio, Luthans et al., 2004; Luthans & Avolio, 2003).</p>	<p>reverse-scored items of the ECQ (Victor & Cullen,1988)</p> <p>Authentic leadership (Jensen & Luthans, 2006b); summed scores from the following three measures: 30 items from the MLQ (Form 5X) (Bass & Avolio, 1993); eight items from the ENTRESALE (Entrepreneurial Orientation (Knight, 1997); and seven items from the caring and reverse-scored items of the ECQ (Victor & Cullen, 1988)</p>

Table 2.3 (Continued)

Study and Construct Label	Reported Conceptual Definition of Authentic Leadership	Operationalised Dimensionality and Measure Used
Brown and Gardner (2007); authentic leadership	‘A process that draws from both positive psychological capabilities and a highly developed organizational context, which results in both greater self-awareness and self-regulated positive behaviours on the part of both leaders and associates, fostering positive self-development’(Brown & Gardner, p. 56, cited in Luthans & Avolio, p. 243).	Examined the positive role-modelling component of the authentic-leadership process (Gardner, Avolio, Luthans et al., 2005), including leader integrity, through structured and open-ended questions.
Tate (2008); authentic leadership	This research describes authentic leadership as ‘a form of leadership concerned with developing positive leader–follower relationships (May et al., 2003), high moral standards, and integrity (Avolio,Gardner et al., 2004)’ (Tate, 2008, p. 18). The authentic-leadership measure is based on George’s (2003) five dimensions of authentic leadership: demonstrating self-discipline, leading with heart, establishing enduring relationships, practicing solid values, and passion for purpose.	Authentic-leadership measure (developed for this study) uses 17 items based on George’s (2003) conceptual dimensions of authentic leadership. Three subscales: self-discipline and ethical standards (nine items), establishing positive relationships (four items), and passion for

Table 2.3 (Continued)

Study and Construct Label	Reported Conceptual Definition of Authentic Leadership	Operationalised Dimensionality and Measure Used
Walumbwa et al. (2008); authentic leadership	‘[A] pattern of leader behavior that draws upon and promotes both positive psychological capacities and a positive ethical climate, to foster greater self-awareness, an internalized moral perspective, balanced processing of information, and relational transparency on the part of leaders working with followers, fostering positive self-development’ (Walumbwa et al., 2008, p. 94).	purpose (four items). 17 items are summed to form a composite authentic-leadership score. The ALQ was developed for this study) using 16 items and four subscales: self-awareness (four items), relational transparency (five items), internalised moral perspective (four items), and balanced processing (three items). Four dimensions form a higher order authentic-leadership factor.

Table 2.3 (Continued)

Study and Construct Label	Reported Conceptual Definition of Authentic Leadership	Operationalised Dimensionality and Measure Used
Clapp-Smith et al. (2009); authentic leadership	‘A process by which leaders are deeply aware of how they think and behave, of the context in which they operate, and are perceived by others as being aware of their own and others’ values/moral perspectives, knowledge, and strengths’ (Clapp-Smith et al., 2009, p. 229; cited in Avolio, Gardner et al., 2004; Avolio, Luthans et al., 2004).	This ALQ used in Clapp-Smith et al. (2009) was developed by Walumbwa et al. (2008). It uses 16 items and four subscales: self-awareness (12 items), unbiased processing (10 items), behaviour (11 items), and relational orientation (12 items). These are summed to form a composite authenticity score.
Toor and Ofori (2009); authentic leadership	‘[A] pattern of leader behavior that draws upon and promotes both positive psychological capacities and a positive ethical climate, to foster greater self-awareness, an internalized moral perspective, balanced processing of information, and relational transparency on the part of leaders working with followers, fostering positive self-development’ (Toor & Ofori, 2009, p. 301, cited in Walumbwa et al., 2008, p. 94).	Toor and Ofori (2009) use the 45-item Authenticity Inventory or AI:3 created by Kernis and Goldman (2005, 2006), which uses four subscales: self-awareness (12 items), unbiased processing (10 items), behaviour (11 items), and relational

Table 2.3 (Continued)

Study and Construct Label	Reported Conceptual Definition of Authentic Leadership	Operationalised Dimensionality and Measure Used
Wong and Cummings (2009a, 2009b); authentic leadership	Authentic leadership is ‘a process that draws from both positive psychological capacities and a highly developed organizational context, which results in both greater self-awareness and self-regulated positive behaviors on the part of leaders and associates, fostering positive self-development’ (p. 7, cited in Avolio & Gardner, 2005, p. 321).	orientation (12 items). These are summed to form a composite authenticity score. This study uses single items reflecting seven leadership behaviours (self-awareness, relational transparency, balanced processing, ethical behaviour, trustworthiness, supportiveness, and empowering) selected from the LPI created by Kouzes and Posner (2003). The items are used as single indicators for the latent leadership concepts in a SEM analysis.

Table 2.3 (Continued)

Study and Construct Label	Reported Conceptual Definition of Authentic Leadership	Operationalised Dimensionality and Measure Used
Giallonardo et al. (2010); authentic leadership	‘A process that draws from both psychological capacities and a highly developed organizational context, which results in both greater self-awareness and self regulated positive behaviours on the part of leaders and associates, fostering positive self-development’ (Giallonardo et al., 2010, p. 993, cited in Luthans & Avolio, 2003, p. 243).	Giallonardo et al. (2010) use the ALQ’s 16 items (Walumbwa et al., 2008). The items are summed to form a composite authentic-leadership score.
Spitzmuller and Ilies (2010); authentic leadership	‘Goldman and Kernis (2002) described relational authenticity as “involving valuing and achieving openness and truthfulness in one’s close relationships ...and the development of mutual intimacy and trust” (p. 19). Based on this definition, Ilies et al. (2005) propose that leaders with a relational authenticity will strive for open and truthful relationships with their followers and such orientation will have a number of positive outcomes’ (Spitzmuller & Ilies, 2010, p. 307).	Authentic leadership is measured with 45 items from the Authenticity Inventory(Goldman & Kernis, 2001). Four subscales are used: self-awareness (12 items), unbiased processing (10 items), authentic behaviour (11 items), and authentic relational orientation (12 items).These are summed to form a composite authenticity score

Table 2.3 (Continued)

Study and Construct Label	Reported Conceptual Definition of Authentic Leadership	Operationalised Dimensionality and Measure Used
Walumbwa et al. (2010); authentic leadership	‘Authentic leaders display four types of behaviors. These include balanced processing, internalized moral perspective, relational transparency, and self-awareness’(Walumbwa et al., 2010, p. 902,cited in Gardner, Avolio, Luthans et al., 2005; Gardner et al., 2005a, 2005b; Ilies et al., 2005; Walumbwa et al., 2008).	Walumbwa et al. (2008) use their ALQ, which has 16 items with four subscales: self-awareness (four items), relational transparency (five items), internalised moral perspective (four items), and balanced processing (three items). The 16 items are summed to form a composite authentic-leadership score.
Wong et al. (2010); authentic leadership	Authentic leadership ‘focuses on the positive role modelling of honesty, integrity and high ethical standards in the development of leader–follower relationships’(Wong et al., 2010, p. 890).	Wong et al. (2010) use the ALQ (Walumbwa et al., 2008), which has 16 items and four subscales: self-awareness (four items), relational transparency (five items), internalised moral perspective (four items), and balanced processing

Table 2.3 (Continued)

Study and Construct Label	Reported Conceptual Definition of Authentic Leadership	Operationalised Dimensionality and Measure Used
Neider and Schriesheim (2011); authentic leadership	‘Using the Walumbwa et al. four dimension definitions as guides’ (p.1148). Thus, there are four dimensions of authentic leadership: self-awareness; relational transparency; balanced processing; and internalised moral perspective.	(three items). The 16 items summed to form a composite authentic-leadership score. The ALI (developed for this study) is used; it consists of four dimensions with 14 items: self-awareness (three items); relational transparency (three items); balanced processing (four items); and internalised moral perspective (four items).
Sangmookda (2011); authentic leadership	Authentic leaders are leaders who ‘are aware of their strengths and weaknesses, and act accordingly to their self-moral standard’ (Sangmookda, 2011, p.85).	The authentic-leadership measurement is developed for this study in the Thai context. The measure consists of five dimensions with 21 items: self-awareness (five items); relational transparency (five

Table 2.3 (Continued)

Study and Construct Label	Reported Conceptual Definition of Authentic Leadership	Operationalised Dimensionality and Measure Used
		items); balanced processing (four items); internalised moral perspective (four items); and learning from future (three items).

Source: Gardner et al., 2011, pp. 1135-1136.

2.3.1 ALQ.

The ALQ, developed by Walumbwa et al. (2008), is one of the most frequently chosen for use in recent authentic-leadership studies (Giallonardo et al., 2010; Walumbwa et al., 2010). The ALQ reflects the theoretical definitions and dimensions of authentic leadership by Avolio and Gardner (2005) and Gardner et al. (2005). The ALQ is a 16-item questionnaire, which uses a five-point Likert scale that ranges from 0 (not at all) to 4 (frequently, if not always) by asking the participants to rate their supervisors. The higher order multidimensional authentic-leadership construct consists of the four factors described in the sections below.

Self-awareness refers to demonstrating an understanding of how one derives and makes meaning of the world and how that meaning-making process affects the way people view themselves over time. Self-awareness also refers to demonstrating an understanding of one's strengths and weaknesses, and the multifaceted nature of the self, which includes gaining insight into the self through exposure to others, and being cognisant of one's effect on other people. Relational transparency refers to presenting one's authentic self (as opposed to fabricated or distorted self) to others. Such behaviour promotes trust through disclosures that involve openly sharing information and expressions of one's true thoughts and feelings, while trying to minimise displays of inappropriate emotions (Walumbwa et al., 2008, p. 95). Balanced processing refers to a leader demonstrating that they objectively analyse all relevant data before coming to a decision. Such leaders also solicit views that challenge their own deeply held positions. Internalised moral perspective refers to an internalised and integrated form of self-regulation. The type of self-regulation is guided by internal moral standards and values versus group, organisational, and societal pressures, and it results in expressed decision making and behaviour that is consistent with these internalised values (Walumbwa et al., 2008, p. 95).

After Walumbwa et al. (2008) operationalised the four construct definitions, they began item development. Deductive and inductive approaches were used in order

to generating new items. Their items came from extensive review of authentic-leadership literature, and discussion with a group of researcher in the leadership field research which included of university faculty members and graduate students. Walumbwa et al. (2008) asked doctoral students to describe who and how an authentic leader was. The responses were then content analysed and no new dimensions needed to be added to the initial four constructs.

Further, Walumbwa et al. (2008) generated a pool of items, and 22 items were theoretically derived as they were the best items capturing the proposed content areas. The university faculty members and doctoral students were asked to randomly assign each ordered item to one of the four categories, conducted a content-validity assessment. As a result, six items were dropped; leaving a final pool of 16 items: self-awareness (four items); relational transparency (five items); balanced processing (three items); and internalised moral perspective (four items).

To further support the reliability and validity of the ALQ, internal-consistency reliability (Cronbach's alpha) and confirmatory factor analysis (CFA) were performed in two independent samples from the US and China. The first study was conducted in the US, with the sample consisting of 224 full-time employees from a large high-tech manufacturer based in the northeaster part of the country, who rated their immediate supervisor on authentic-leadership behaviours. The second study was conducted in China, with as ample of 212 full-time employees from a large state-owned company in Beijing.

During the validation study, Walumbwa et al. (2008) analysed the one-factor model, where all individual items were fit to the overall authentic-leadership construct. In the second-order factor model, the items were loaded onto their individual factors, and the four authentic-leadership dimension's factors were loaded onto the second-order authentic-leadership factor. For clarity, Table 2.4 presents the comparison of priori ALQ factor structure between one-factor, first-order, and second-order models from the two samples. The results show that the second-order factor model is the best-fitting model because this model allows for variation among first-order factors by accounting for corrected errors that are very common in first-order CFA (Walumbwa et al., 2008). Later studies have supported the second-order construct model (Roof, 2014).

Table 2.4 Comparison of A Priori ALQ Factor Structure between One-factor, First-order, and Second-Order Models from the Two Samples

Structure	χ^2	df	$\Delta\chi^2$	CFI	RMSEA
US sample (n = 224)					
One-factor model (all 16 items)	356.78	102		0.91	0.11
First-order factor model	272.65	96	84.13**	0.94	0.09
Second-order factor model	234.70	98	122.08**	0.97	0.05
Chinese sample(n = 212)					
One-factor model (all 16 items)	249.79	102		0.91	0.09
First-order factor model	208.71	96	41.08**	0.93	0.08
Second-order factor model	176.03	98	73.76**	0.95	0.06

Source: Walumba, et al., 2008, p. 99.

Note: ** $p < .01$ (two-tailed).

The internal-consistency alphas for each sub dimension was at the acceptable level: self- awareness: 0.92; relational transparency: 0.87; internalised moral perspective: 0.76; and balanced processing: 0.81. The reliability of the ALQ was evaluated during instrument development, and repeated by a large number of follow-on studies with consistently acceptable results. These studies yield alpha values greater than 0.70, indicating respectable reliability, and many measured alpha values were greater than 0.80, which indicates very good reliability (Deville's, 2012) (see Table 2.5). Additionally, the good Cronbach's alpha values presented in Table 2.7 were from a variety of study populations, cultures and languages. These results provide consistent and broad support for the reliability characteristics of the ALQ (Roof, 2014).

Table 2.5 Reliability Coefficients (Cronbach's Alpha) Values from Studies Employing the ALQ

Study	Cronbach's alpha values					
	Country of participants	Self-awareness	Relational transparency	Internalised moral perspective	Balanced processing	ALQ
Walumbwa et al. (2008)	US/China	0.92	0.87	0.76	0.81	NA
Darvish and Rezaei (2011)	Iran	0.85	0.87	0.82	0.80	NA
Peus et al. (2012)	German	0.86	0.81	0.85	0.78	0.94
Qian et al. (2012)	China	0.89	0.89	0.86	0.84	0.96
Wang and Bird (2011)	US	0.92	0.87	0.76	0.81	NA
Wong and Laschinger (2012)	Canada	0.93	0.88	0.89	0.86	0.97

Note: NA = not reported.

In addition, to demonstrate a confirmation of the construct, nomological validity is required (Walumbwa et al., 2008). This type of validity is important because it demonstrates a relationship between a developed measure and other expected theoretical constructs (Hair et al., 2010). Many studies have consistently supported the theoretical relationships between authentic leadership and a variety of expected positive outcomes using the ALQ. The positive outcomes include followers' trust and engagement (Hassan & Ahmed, 2011); job satisfaction with supervisor (Peus et al., 2012; Walumbwa et al., 2008); employee voice behaviours (Hsiung, 2012);

organisational commitment (Darvish & Rezaei, 2011; Leroy, Palanski & Simons, 2012; Walumbwa et al., 2008); job performance (Leroy et al., 2012; Peus et al., 2012; Walumbwa et al., 2008; Wong & Laschinger, 2013); job satisfaction (Darvish & Rezaei, 2011; Walumbwa et al., 2008); and safety climate (Nielsen et al., 2013). Although further nomological-validity testing is required, existing research supports the predictive validity of the ALQ (Roof, 2014).

2.3.2 ALI.

This measure was developed and validated by Neider and Schriesheim (2011). The main purpose was to develop an alternative measure to compensate for the limitations of the ALQ, for example, copyright issues and the construct validity and CFA issues.

Neider and Schriesheim (2011) adopted Walumbwa et al.'s (2008) theoretical framework and the four dimensions (self-awareness, relational transparency, balanced processing, and internalised moral perspective) of authentic leadership to develop further items for measuring authentic leadership. They wrote four items for each dimension, two of which were paraphrased from the two sample items provided by Walumbwa et al. (2008, Appendix, p. 121). Neider and Schriesheim (2011) generated a set of 16 items for the ALI. These pools of items were then subjected to content-validity and statistical analysis. The scale was tested with a sample of 40 undergraduates and 32 executive Master of Business Administration students who were taking classes in leadership at a medium-sized southern university in the US, but had not yet studied authentic or transformational leadership. The participants were administered a form containing the 16 ALI items with the definitions of the four authentic-leadership behaviours presented on a cover page. They were then asked to rate the items on the extent to which they believed that the items measured each of the four authentic-leadership constructs. The rating scale employed was as follows: 0 = none; 1 = hardly any; 2 = some; 3 = much; 4 = very much; and 5 = almost completely or completely. Later, Neider and Schriesheim (2011) used one-way analysis of variance (ANOVA) and planned directional *t*-tests to determine to which dimension each item should be assigned. The results from the ANOVAs and *t*-tests supported the

assignment of all 16 items. Thus, the theoretical content validity of the new ALI scale was supported.

Given the positive result of the content-validity analysis reported in Neider and Schrieshein's (2011) first study, the new ALI scale was later tested for internal-consistency reliability (Cronbach's alpha) and empirical factor structure. Neider and Schrieshein (2011) tested the items with a sample of 499 undergraduate students, who taking two management courses—one was an introductory general-survey course, and an introduction to organisational behaviour. The participants were asked to give their perceptions of two presidential candidates (McCain and Obama in 2008) in relation to leadership styles. The results from both datasets (i.e., those on McCain and Obama) demonstrated that the ALI had acceptable internal-consistency reliabilities that were above 0.70 (Nunnally & Bernstein, 1994) (see Table 2.6). In addition, the ALI scale was found to have an internal-consistency reliability of $\alpha = 0.93$. The CFA tests for the McCain and Obama datasets suggested deleting two items; thus, the final version of the ALI consisted of 14 items: self-awareness (three items); relational transparency (three items); balanced processing (four items); and internalised moral perspective (four items) (Neider & Schrieshein, 2011).

Table 2.6 Obama and McCain Cronbach's Alpha Values for the ALI Scale Development

Dataset	Cronbach's alpha values			
	Self-awareness	Relational transparency	Internalised moral perspective	Balanced processing
McCain	0.74	0.81	0.83	0.85
Obama	0.79	0.80	0.85	0.85

Source: Neider & Schrieshein, 2011, p. 1159.

Neider and Schrieshein (2011) further tested the latest version of ALI's discriminant and nomological validity. This study collected data from 228

participants. The criteria for participants' election were to gather were a mixture of people of different genders, ages, and ethnic backgrounds that worked full-time in a mid-level position in different organisations. The obtained reliabilities for the ALI were as follows: self-awareness = 0.70; relational transparency = 0.77; balanced processing = 0.74; and internalised moral perspective = 0.82. The results of the CFA tests (see in Table 2.7) support the superiority of the four-factor model and the second-order factor model over the one-factor model, as indicated by the chi-square difference test ($\Delta\chi^2 = 121.06$, $df = 6$, and $\Delta\chi^2 = 120.47$, $df = 4$, respectively, both $p < 0.01$), and the differences in the other fit indicators. However, there is no significant chi-square difference in fit indicators between the four-factor model and the second-order factor model. Therefore, the rule of parsimony suggests that the second-order factor model should be considered the better portrayal of the data (Neider & Schriesheim, 2011).

To conduct a nomological examination, Neider and Schriesheim (2011) chose three dependent variables that were expected to have a nomological network with authentic leadership. The three dependent variables were general job satisfaction, satisfaction with supervision, and organisational commitment. The results appeared reasonable and supported the concurrent validity of the ALI.

Table 2.7 Confirmatory-analysis Results for ALI Measurement Model

Structure	χ^2	df	$\Delta\chi^2$	CFI	RMSEA
ALI scale (14 items, n = 228)					
One-factor model	276.03	77		0.85	0.11
Second-order factor model	155.56	73	120.47**	0.94	0.07
Four-factor model	154.97	71	121.06**	0.94	0.07

Note: ** $p < .01$ (two-tailed).

2.4 Cultural Contingency

Klenke (2005) states that leadership is shaped by context, meaning that contextual factors set the boundaries of leader and follower interaction, which determine leaders and followers' actions, behaviours, attitudes, emotions and spiritual choice. This statement emphasises the importance of cultural contexts underlined in leadership theories. Most of the definitions or concepts of authentic leadership have been developed and validated in the US and other Western countries. The explanation of authentic-leadership behaviours derived from studies conducted in such contexts may not be relevant in other cultures (Zhang, Everett, Elkin, & Cone, 2012). Recently, there have been efforts to conduct cross-cultural studies related to authentic leadership, using various samples from different cultural backgrounds, particularly in the Asian context. Zhang et al.'s (2012) study conducted in the Chinese context contributed to developing authentic-leadership theory from the sociological and philosophical perspectives. These researchers used a case-study methodology, and found that the Chinese perspective of authentic leaders focus on being authentic to 'the self', which is similar to the Western literature. However, in the Chinese context, greater emphasis is placed greater on being authentic in the daily practice context. For Chinese leaders, self-authenticity is achieved through the process of achieving their authentic identity in a relationship. Khilji, Keilson, Shakir, and Shrestha (2015) investigate how authentic leadership is manifested in the South Asian context. The researchers collected data by interviewing 14 leaders from India, Nepal, Pakistan, and Sri Lanka. The results reveal that the concept of authentic leadership from the South Asian perspective is somewhat different to the Western perspective. The researchers found that authentic leadership is indeed culturally relevant, and emerges through multidimensional constructs that are categorised into five components: 1) self-concept; 2) follower development; 3) organisational outcomes; 4) culture; and 5) contextual knowledge. These studies demonstrate a difference between different cultures in constructs relevant to authentic leadership. The concept of culture has come to the forefront to address issues of human diversity in psychological process and performance (Saetang, 2004).

The core of culture is formed by values (Hofstede, 2001). Culture has been defined in many different ways. One well-known definition of culture defined by Hofstede (2001) is ‘the collective programming of the mind that distinguishes the members of one group or category of people from another’ (p. 9). Hofstede’s (2001) study about the influence of cultural values on organisational dynamics reveals that culture plays an important role in the concept of leadership. Hofstede (1984, 2001) categorises culture into five dimensions: power distance; individualism versus collectivism; uncertainty avoidance; masculinity versus femininity; and indulgence versus restraint. Thailand is considered to have a high level of power distance, collectivism, uncertainty avoidance, femininity, and short-term orientation (Hofstede, 2001). Such cultural dimensions influence behaviours of leaders. For example, in a society that has high-level of power distance, the role of leaders is perceived to be that of a controller rather than a colleague, and this is referred to as the superior–inferior construct, which dominates Thai society (Rohitratana, 1998; Thanasankit & Corbitt, 2000). If a society has a high level of the characteristics of uncertainty and short-term orientation, leaders usually focus on short-term rather than long-term strategic planning. They seek security to avoid future uncertainty by implementing strict rules, laws, policies, and regulations (Bagchi et al., 2004; Erumban & Jong, 2006; Laosethakul & Boulton, 2007).

2.4.1 Influence of Thai Culture on Authentic Leadership in Thai Context

The initial authentic-leadership theoretical framework basis for the present study is taken from Walumbwa et al.’s (2008) framework for the ALQ. Walumbwa et al. (2008) define authentic leadership as ‘a pattern of leader behaviour that draws upon and promotes both positive psychological capacities and a positive ethical climate, to foster greater self-awareness, an internalised moral perspective, balanced processing of information, and relational transparency on the part of leaders working with followers, fostering positive self-development’ (p. 94). The four constructs of authentic leadership include self-awareness, balanced processing, relational transparency, and internalised moral perspective. This concept of authentic leadership constitutes one of the strongest theoretical frameworks (Gardner et al., 2011). The Walumbwa et al.’s (2008) authentic-leadership concept also operationalise four

constructs of authentic leadership and developed the measure (ALQ), which has been adopted in many studies across cultures.

However, the concept of authentic leadership in the Thai context may be fundamentally different from Walumbwa et al.'s (2008) concept of authentic leadership. Therefore, transferring this theoretical framework directly into the specific context of the Thai study may not be appropriate. The following section provides the review of literature relating to the influence of culture on the concept of authentic leadership in Thailand.

2.4.2 Constructs of Authentic Leadership in Thai Context

Yukongdi (2010) reveals that one important preference for leadership style in Thai employees is being cognisant of others' feelings. Thai employees were found to believe that leaders should understand their followers by being considerate. Nevertheless, the concept of consideration must be understood within the unique Thai cultural context (Komin, 1990a), which considers 'consideration' to demonstrate characteristics such as being benevolent and paternalistic, which are consistent with Thailand's high level of power distance and family-oriented culture (Gupta, Surie, Javidam, & Chhokar, 2002). Additionally, the Global Leadership and Organizational Behaviour Effectiveness (GLOBE) study found charismatic, team-oriented, and participative leadership are the top three most effective models of leadership in Thailand (Gupta et al., 2002). These models of leadership refer to leaders who have high level of integrity and are deemed to be effective. Such leaders also delegate responsibilities in way that matches others' strengths and weaknesses with appropriate tasks. Such behaviours in Thai leaders are consistent with Walumbwa et al.'s (2008) self-awareness authentic-leadership construct.

Further, as Thailand is a collectivism country (Hofstede, 2001); it favours 'in-groups' at the expense of 'out groups' (Davis & Ruhe, 2003). Leaders are therefore expected to be open to negotiations and ideas from many corners, and to be capable diplomats, ensuring they do not exclude any group members (Gupta et al., 2002). Leaders also allow for input from others before coming to a decision because ethical attitudes in collectivistic culture depending on whether in-groups are affected by the

decision. These behaviours are seemingly consistent with the balanced processing construct in Walumbwa et al.'s (2008) concept of authentic leadership.

In addition, the concept of being a clean and transparent leader may be new in the context of Thai leadership because this dimension has been neglected in Thai leadership literature. For example, in Yukongdi (2010), the findings relating to preferred leadership styles for Thai employees involve only supportive characteristics such as being consultative, participative, and paternalistic, and being ethical was not included. In addition, in Selvarahet al. (2013), it was found that excellent leadership in Thai organisations is usually mediated by culture-based constructs of environmental harmony; respect and defence of authority, yet the dimension of ethics were not found. Moreover, Virakul and McLean (2012) examined leadership development and leadership-development programmes in three Thai organisations. They found that only one company stated that business ethics and employee code of conduct were valued as effective competencies of leaders. The other two companies focused on the characteristics of innovation and high performance.

Since 1997, Thailand has attempted to promote transparency and accountability as tools for gaining the stability and effectiveness of organisations (Pongsudhirak, 2008). The Thai Office of Civil Service Commission (OCSC), as a central agency of public HR management in Thailand, aims to enhance integrity and good governance in the public and private sectors. The OCSC stresses the necessity of establishing coordination and sharing of related information with individuals and groups involved within organisations (OCSC knowledge, 2014). With pressure from the media and public-sector agencies such as OCSC, being transparent is a new key competence in Thailand's concept of leadership qualities (OCSC knowledge, 2014).

Thai employees are likely to devote themselves to work for a leader who they like and respect. The key characteristics are the leader's personality and appropriate actions based on kindness and non-aggressiveness (Selvarajah et al., 2013). Such findings are similar to those of Komin (1990b), who found that straightforward, ambitious, and aggressive personalities, such as those found in Western cultures, are not acceptable and are unlikely to be successful in Thai organisations. Overall, the combination of being transparent, open, and aware of inappropriate expressions is

consistent with the relational-transparency construct in Walumbwa et al.'s (2008) concept of authentic leadership.

Walumbwa's (2008) authentic-leadership construct of internalised moral perspective focuses on an internal moral standard of leaders influencing their ethical actions. Ethical attitudes are likely to be culturally and organisationally bound (Cottrill, 2011). It involves people's cognitive, affective, and behavioural predispositions to respond to issues and activities involving social standards for what are morally proper and virtuous. Franke and Nedler (2008) suggest that national culture, organisational culture, personal religious beliefs, and economic pressures usually influence moral perspectives. Komin's (1995) notes that religio-psysical orientation is one of the major values held by Thai people. In Thailand's hierarchical society, social orders depend on merit (Boon) and virtue (Kwam-dee), which reflects Buddhist beliefs (Hank, 1962). Buddhism is the common religion of Thailand, and has a great influence on Thai values, particularly on moral perspectives (Thakur & Walsh, 2013). Buddhism emphasises that all dissatisfaction stems from the human tendency for desire and aversion. It advocates a middle path that eschews extremes of conduct, and promotes the use of reason instead of the performance of religious rites (Gupta et al., 2002). Moreover, karma (cause and effect where intent and actions of an individual influence the future of the individual) is also a value that is strongly held among Thai people, as it relates to by Hindu and Buddhist worldviews (Kamoche, 2000; Pathmanand, 2001). Buddhist religious beliefs and values contribute to the ethical belief of Thai people that they are accountable for their actions (Gupta et al., 2002). Thus, Thai leaders are expected hold high moral standards and behave ethically based on their religious beliefs to gain the respect and trust of their followers (Hank, 1962).

The concept of authentic leadership is relatively new in the leadership literature in Thailand. Sangmookda (2011) conducted a study to determine the concept of authentic leadership and develop an authentic-leadership measurement scale in the context of basic education of institutional administrators in Thailand. Sangmookda (2011) defines authentic leaders as 'those who are aware of their strengths and weaknesses, and act according to their self-moral standard' (p. 85). Given that such leaders are visionary and transparent, their followers have trust and

respect in them. There are five dimensions of Sangmookda's (2011) authentic-leadership conception: 1) self-awareness; 2) internalised moral perspective; 3) relational transparency; 4) balanced processing; and 5) learning from the future. The fitted structural model provided the chi-square value = 171.07, $df = 159$, goodness-of-fit index (GFI) = 0.94, adjusted goodness-of-fit index (AGFI) = 0.91 with loading factor values: learning from the future (0.78); relational transparency = (0.69); self-awareness (0.68); balanced processing (0.62); and internalised moral perspective (0.58). The internal-consistency reliability of each construct is reported to be in the range of 0.89–0.90, and for the overall measure is 0.90.

Although the items represented in Sangmookda's (2011) authentic-leadership measure originated in Thailand, the scale might not be applicable to different organisational contexts in Thailand because the scale is developed in the basic educational context. In addition, one of Sangmookda's authentic-leadership constructs, learning from the future, indicates the characteristic of being a visionary leader, which is not consistent with other studies, which note that Thai leaders generally have short-term orientation (Bangchi et al., 2004; Erumban & Jong, 2006; Hofstede, 2001; Laoethankul & Boulton, 2007).

Many studies on Thai values and culture have demonstrated a common shared behavioural traits of Thai people: that of promoting 'harmonious relationships' (see Boonsathorn, 2007; Fieg & Mortlock, 1989; Hank, 1962; Gupta et al., 2002; Komin, 1990a, 1990b, 1995; Ledgewood & Un, 2003; Selvarajah et al., 2013; Taylor, 1996; Yokongdi, 2010). This particular behavioural trait highlights the concept of having respectful relationships, and derives from the ego-orientation concept of face-saving (Komin, 1995). This concept enforces behaviours between employers and employees (Deephungton, 1992; Hank, 1962; Selvarajah et al., 2013). This is supported by Fieg and Mortlock (1989) and Boonsathorn (2007), who demonstrate that those Thai people value smooth interpersonal relationships, which conforms to the Thai view that conflict is a negative phenomenon. The value placed on avoiding conflict may be because Thailand has a collectivistic culture, which results in lack of assertiveness and the avoidance of confrontation (Boonsathorn, 2007; Gupta et al., 2002; Quek, Khudson-Martin, Rue, & Alabiso, 2010). The literature suggests that strongly valuing harmonious relationships and a positive and

ethical atmosphere for a broad range of stakeholders highlights an essential Thai concept leadership excellence. Promoting positive psychological capacities and ethical an atmosphere among in-group members of Thai leadership behaviour is congruent with the concept of authentic leaders' behaviour characterised by Walumbwa et al. (2008). Therefore, promoting harmonious-relationship behaviour could be considered another aspect of authentic leadership in the specific Thai context.

The Thai context demonstrates the effects of culture on authentic leadership. Thai leaders represent behaviours that are consistent with the four constructs of Walumbwa et al.'s (2008) concept of authentic leadership. Moreover, the behaviour of Thai leaders is also found to be consistent with the definition of authentic leadership, but is not included in Walumbwa et al.'s (2008) authentic-leadership construct. Thus, the present research formulates the following hypothesis:

Hypothesis 1: Authentic leadership in the Thai context consists of five distinct constructs: self-awareness, balanced processing, relational transparency, internalised moral perspective, and relational harmony.

2.5 Scale Validation

After developing a definition and a measure for the present study, it is necessary to validate further the developed scale of authentic leadership into a nomological network of related constructs (Cooper et al., 2005; Lagan, 2007). Some theoretical concepts have suggested that authentic leadership may positively affect employee attitudes and behaviours, for example, job satisfaction, work engagement, organisational citizenship behaviour, and work performance (Avolio et al., 2004; Gardner et al., 2005; George, 2003; Ilies et al., 2005). This effect occurs as authentic leaders provide support for followers' self-determination in a fair and caring manner (Dirks & Ferrin, 2002; Jensen & Luthans, 2006a, 2006b; Ilies et al., 2005).

From the existing proposed concept of authentic leadership, researchers empirically confirm that authentic leadership is positively correlated to identification with the supervisor (Walumbwa et al., 2010); trust in the leadership (Clapp-Smith et al., 2009; Wong & Cummings, 2009a, 2009b; Wong, Laschinger & Cummings, 2010);

personal identification (Wong et al., 2010); organisational commitment (Jensen & Luthans, 2006a; Walumbwa et al., 2008); follower work engagement (Giallonardo et al., 2010; Walumbwa et al., 2010); follower job performance (Walumbwa et al., 2008; Wong & Cummings, 2009a); follower job satisfaction (Giallonardo et al., 2010; Jensen & Luthans, 2006a; Walumbwa et al., 2008); follower eudemonic wellbeing (Kernis, 2003; Ryan & Deci, 2001; Sheldon et al., 2004); follower creativity (Rego, Sousa, Marques, & Cunha, 2012; Müceldili, Turan, & Erdil, 2013); and follower innovative behaviour (Müceldili et al., 2013; Černe, Jaklič & Škerlavaj, 2013; Yuan & Woodman, 2010).

The empirical positive outcomes of authentic leadership on followers as presented above have demonstrated many commonalities with other types of leadership, particularly transformational leadership (Lagan, 2007). However, the direct correlation between authentic leadership and follower wellbeing makes authentic leadership different from transformational leadership because authentic leadership lies on a positive health paradigm, subsequently follower wellbeing becomes a fundamental outcome, and this specific outcome has rarely been studied in transformational leadership literatures (Deci & Ryan, 2000; Kernis & Goldman, 2005). In contrast, the majority of research that concentrates on the influence of leadership on innovative work behaviour has been in the context of transformational leadership. Transformational leaders stimulate creativity and promote innovative behaviour among their followers by questioning assumptions and constructing new approaches in solving problems without criticising followers if mistakes occur (Bass, 1997; Kahai, Sosik, & Avolio, 2003). This concept is different from authentic leadership, which focuses on positive achievements, and promoting trust among followers, as a result, unconventional ideas are generated through achieving a feeling of higher emotional safety among followers (Avolio et al., 2004). Moreover, empirical research on authentic leadership and follower innovative behaviour is not found in the literature in the Thai context. For these reasons, the relationship between authentic leadership and the two variables of, wellbeing and innovative behaviour will be examined in the present study.

2.6 Wellbeing Approaches

Wellbeing is a complex construct that concerns optimal experience and functioning. A great deal of research on wellbeing has been derived from two general perspectives: the hedonic approach and the eudemonic approach (Ryan & Deci, 2001).

2.6.1 Hedonic Approach

Freud (1952) refers to hedonism as the basic motivational principle of approaching pleasure and avoiding pain. The term 'subjective wellbeing' is often used interchangeably with the terms 'happiness' and 'life satisfaction' (Eddington & Shuman, 2005). Diener and Biswas-Diener (2008) define wellbeing as people's evaluation of their own lives. Such evaluations can refer to cognitive judgements such as those relating to life satisfaction and emotional responses to events such as feeling positive emotions. Subjective wellbeing is thus an umbrella term that refers to several separable components: life satisfaction and satisfaction with life domains such as marriage, work, income, housing and leisure; feeling positive affect (e.g., pleasant emotions and moods) most of the time; experiencing infrequent feelings of negative affect (e.g., depression, stress, and anger); and judging one's life to be fulfilling and meaningful.

In reviewing the subjective-wellbeing constructs, the literature suggests that there are two distinctive components: cognitive and affective. These two components require individuals to use their own personal culture, criteria and standards to assess (Diener, Oishi, & Lucas, 2003). Affective wellbeing is based on hedonistic theories of happiness (Oishi, Diener, Lucas, & Suh, 1999), and is defined as the balance of enjoyment and displeasure in the individual's life, while the cognitive component is assessed by people through judgements relating to their life satisfaction.

The subject perspective of wellbeing is typically an external pursuit, which is frequently equated with happiness and is formally interpreted as a person having more positive affect, less negative affect, and greater life satisfaction (Richard & Diener, 2009).

2.6.2 Eudemonic Approach

This perspective of wellbeing reflects the concept of Aristotelian eudaimonia, which refers to Aristotle's view of human happiness that assesses the goodness of life based on 'living in a manner that actively expresses excellence of character of virtue' (Haybron, 2000, p. 210). Eudaimoniacan also be conceptualised in the context of realising one's true potential across one's lifespan (Keyes, Shmotkin, & Ryff, 2002; Ryff & Keyes, 1995; Ryff & Singer, 1998). The eudaimonic approach is thus defined in terms of the degree to which a person is fully functioning (Deci & Ryan, 2008; Ryan & Deci, 2001), and focuses on psychological wellbeing, which is considered a reflection on individual engagement with, and full participation in, the challenges and opportunities of life (Higgs & Dulewicz, 2014; Keyes et al., 2002).

Ryff (1989) developed a six-dimensional theory: self-acceptance—the individual's sense of self-acceptance as a central feature of mental health, as well as a characteristic of self-actualisation, optimal functioning, and maturity; positive relationships with others—the ability to love as having strong feelings of empathy and affection for all human beings, and as being capable of greater love, deeper friendship, and more complete identification with others; autonomy—self-determination, independence, and the regulation of behaviour from within; environmental mastery—the individual's ability to choose or create environments suitable to their psychic conditions is defined as characteristic of mental health; purpose in life—beliefs that give one the feeling that there is purpose in and meaning to life; personal growth—a continuous development of one's potential to grow and expand as a person. Keyes et al. (2002) state that this theory analyses psychological wellbeing from a eudaimonic perspective and combines the psychological-functioning theories, which refer to Maslow's conception of self-actualisation, Rogers' conception of the fully functioning person, Jung's individuation formation and All port's depiction of maturity.

2.6.3 Wellbeing Definitions and Constructs

As the definitions of wellbeing are inherently culturally rooted (Christopher, 1999), and reflect a wide range of relevant views in various fields of study (e.g.,

economic, psychology, political science, and social science) (Gough & McGregor, 2007), the critical issues of definitions of wellbeing and factors related to the nature of well-being and its promotion in each culture subsequently arise (Deci & Ryan, 2008). Linley and Joseph (2004) suggests that the two approaches of wellbeing (hedonic and eudaimonic) complement each other and form an optimal functioning aspect of wellbeing. Thus, the two approaches are fundamental inbounding definitions of wellbeing.

Sen (1995) proposes a concept of human capabilities, that is, the capability approach. This concept emphasises that wellbeing departs from the narrow utilitarian approach that has come to dominate modern economic theory. The capability approach contains three principal concepts: functioning's—the valuable activities and states that become a person's wellbeing such as a healthy body, being safe, being educated and having a good job; capabilities—a set of vectors of functioning's that reflect the person's freedom to lead one type of life or another, that is, to be able to choose from possible livings (Sen, 1995); and agency—the ability to pursue goals that one has reason to value.

Gough, McGregor, and Camfield (2006) conduct a study on wellbeing in developing countries (Wed), they define wellbeing as a positive state of being with others in society, where needs are met, where one can act effectively and meaningfully pursue one's goals, and where one is able to experience happiness and feel satisfied with one's life. McGregor (2007) notes that concept of wellbeing in developing countries are distinctive to other definitions of wellbeing because it combines elements of subjective and objective notions of wellbeing, while recognising the role of social construction in each importantly wellbeing is profoundly political in this definition.

Joseph, Sen, and Fitoussi (2009) define wellbeing as referring to multidimensional functions that include physical and psychological aspects. The key dimensions relating to wellbeing are material living standards; health; education; personal activities, including work; political voice and governance; social connections and relationships; environment (present and future conditions); and security of an economic and physical nature.

Recently, the Gallup research conducted by Rath and Harter (2010) focusing on leadership, workplace management and wellbeing practices considers wellbeing as the ‘combination of our love for what we do each day, the quality of our relationships, the security of our finances, the vibrancy of our physical health, and the pride we take in our contribution to our communities’ (p. 4). Rath and Harter (2010) reveal the five universal essential interconnected elements of wellbeing: career wellbeing, social wellbeing, financial wellbeing, physical wellbeing, and community wellbeing.

In Thailand, the concept of wellbeing is aligned with the Eighth and Ninth National Economic and Social Development Plans (Supaporn, 2009). The 9th National Economic and Social Development Plan of Thailand (2002 – 2006) focuses on human-centred development; it defines wellbeing as the state of being mentally and physically healthy, which includes a combination of life satisfaction with family, adequate financial income, and having positive and ethical environments. It also involves individual functioning’s and capabilities that lead to human flourishing and the fulfilment of one’s true nature. There are seven dimensions consisting under this framework: 1) mental and physical health; 2) knowledge; 3) financial income; 4) working life; 5) family life; 6) living environment; and 7) good governance (Office of the National Economic and Social Development Board, 2002)

Phongvarin, Tuicomepee and Kotrajaras (2011) state that the hedonic and eudaimonic wellbeing approaches are drawn from the Western perspective, which is founded on individual independence and autonomy (Uchida & Kitayama, 2009), but that the concept of wellbeing in the Eastern context, including in Thailand, emphasises interdependence (Markus & Kitayama, 1991); social harmony (Ingersoll-Dayton, Neal, & Hammer, 2001; Uchida & Kitayama, 2009); and acceptance and enjoyment (Ingersoll-Dayton et al., 2001). Interestingly, the constructs of wellbeing from the Western and Eastern perspectives have demonstrated commonalities in certain aspects: working life, financial income, physical and psychological health, social relationships, and living environment.

2.6.4 Well-Being Measures

In the available research, existing wellbeing measures are usually assessed either referring to subjective wellbeing or psychological wellbeing (Deci & Ryan,

2000). Tungtongchai (2011) notes that generally, there are several popular subjective-wellbeing measures used to measure wellbeing such as self-anchoring by Cantril (1965), the sixty-second happiness measure by Fordyce (1977), the Satisfaction with Life Scale (SWLS) by Diener et al. (1985), and the Positive and Negative Schedule (PANAS) by Watson, Clark and Tellegen (1988). For psychological wellbeing studies, the most common measurement used is the Ryff (1989, 1995) Psychological Wellbeing Scale. Although others have developed similar scales (e.g. Kristensen et al., 2002; Hess et al., 2005), Ryff's Psychological Wellbeing Scale has been validated in many cultural contexts, which makes it easier for researchers to compare the results with previous findings (Toor & Ofori, 2009).

In Thailand, the Department of Mental Health (DMH) has made several attempts to develop wellbeing instruments that reflect Thai wellbeing perspectives. Several instruments that have been developed have been officially approved by DMH, and are available, for example, The Mental Health Indicators, World Health Organization (WHO) Quality of Life—BREF (Thai) Assessment, the General Health Questionnaire, the Norm Profile for the Thai Mental Health Questionnaire, the Thai Happiness Indicator (THI). Recently, the THI has been commonly used in Thai studies (Tungtongchai, 2011). However, there are some arguments that the available wellbeing instruments mentioned here do not include the concepts of both social wellbeing and psychological wellbeing, and appropriately use for contextually specific research (e.g., in the workplace research) (Jariyapanya, 2013; Phongvarin et al., 2011). Thus, most organisational researchers in Thailand either modify the DMH's instruments (e.g., Chasoongnuen & Kuhiranyarat, 2011; Yiengprugsawan, Somboonsook, Seubasman, & Sleight, 2012), or develop their own measurement based on wellbeing theoretical frameworks to assess suitably wellbeing in their context of study (e.g. Tungtongchai, 2011; Jariyapanya, 2013).

In the context of Thai organisational research, Jariyapanya (2013) operationalised and developed a measure of employee wellbeing based on Rath and Harter's (2010) well-being concept, to study the wellbeing of bank officers in Thailand. The measurement consists of 24 items, rated using a five-point Likert scale. The internal-consistency alphas for each dimension are: career wellbeing: 0.59; social wellbeing: 0.89; financial wellbeing: 0.52; physical wellbeing: 0.81; and community

wellbeing: 0.80. The overall reliability is 0.96. Jariyapanya's (2013) redefined definition of wellbeing related to the positive employees' perception of wellbeing within their organisation, which includes reference to tangible objects and working environments that are relevant physically and psychologically. The constructs of employee wellbeing are presented in Table 2.8, which also provides comparison with Rath and Harter's (2010) original concept of wellbeing.

Table 2.8 Comparison of Rath and Harter's (2010) Construct of Wellbeing, and Jariyapanya's (2013) Construct of Employee Wellbeing

Dimension	Rath and Harter (2010)	Jariyapanya (2013)
Career wellbeing	Career wellbeing refers to people who make meaning, and love what they do for a living. These people are likely to be happier and to prosper in life overall. Ways to stimulate career wellbeing include identifying someone with a shared mission who will encourage career growth and spend time with the person, and allocating time to spend with favourite people or teams in the workplace.	Career wellbeing refers to an individuals' sense of job security and advancement, as well as to a workplace environment that includes organisational vision, career development and management plans, effective organisational structures, and employee recognition.

Social wellbeing	Social wellbeing refers to the presence of other people in one's life. People with high levels of social wellbeing have several close relationships that help them achieve, enjoy life, and be healthy, which significantly leads to a better	Social wellbeing refers to a perception of receiving love, support, trust, and comfort through a process of socialisation that occurs through interaction with colleagues and leaders. Those with a high level of
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Table 2.8 (Continued)

Dimension	Rath and Harter (2010)	Jariyapanya (2013)
	Quality of life. To improve social wellbeing, it is suggested to spend more time socialising with family, friends, and colleagues.	social wellbeing in the workplace have a close and supportive relationship with others.
Financial wellbeing	Financial wellbeing refers not only to how much money individuals possess to spend on themselves, but also to how they contribute positively to life in general by spending money on others, enhancing others' wellbeing. This construct emphasises the relationship between money and wellbeing.	Financial wellbeing refers to the individual's sense of security in relation to their own financial situation. This construct also includes financial management for personal expenditures and savings. This sense of security is derived from adequate compensation and benefits, financial incentives, salary progression, and savings programmes provided by

Physical wellbeing	Physical wellbeing refers to the daily lifestyle of the individuals in relation to consuming healthy food and beverages, having sufficient sleeping hours, and engaging in exercise regularly. Having a	the individual's organisation. Physical wellbeing refers to an individual's perception of being healthy through organisational health-promotion activities and programmes that increase the quality of the
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Table 2.8 (Continued)

Dimension	Rath and Harter (2010)	Jariyapanya (2013)
	high level of physical wellbeing has a significant positive impact on mood and overall life satisfaction by making the individual happier and decreasing the stressors in life.	employees' work life.
Community wellbeing	Community wellbeing refers to feeling safe and pleasant in the community in which the individual lives. Factors affecting community wellbeing are a personal sense of security and safety, pleasant scenery, natural beauty, parks and facilities, opportunities for social interaction, and a climate that accepts diversity.	Community wellbeing refers to the individual's sense of occupational health and safety in their workplace. This construct involves having an environment free from injury and hazard, well-equipped facilities and equipment to perform tasks, as well as a pleasant

and positive working environment that is created by the physical design of the workplace and the positive emotions associated with the workplace.

Based on the review of the literature presented in Table 2.8, the present study defines the term ‘employee wellbeing’ as the state of employees being comfortable, healthy, and happy at their employing organisation; this state is derived from the integration of physical wellbeing and psychological wellbeing, which are affected by organisational practices, relationships with others, and a positive and ethical workplace climate.

To accomplish the purpose of the present study, the five dimensions of Rath and Harter’s concept of wellbeing (2010) are selected as the framework for measuring follower wellbeing. Rath and Harter’s (2010) concept is chosen because their study provides a wide range of wellbeing dimensions that cover the hedonic and eudaimonic approaches (Carr, 2004), a consistent interpretation of wellbeing when compared to literature in the Thai context, and developed in the workplace perspective (Jariyapanya, 2013).

2.6.5 Authentic Leadership and Follower Wellbeing

This section explores the relationship between authentic leadership and wellbeing. As mentioned above that one of the principal aspects of authentic leadership sets it different from other forms of leadership is its focus on morality of leader (Lagan, 2007).

First, the self-awareness dimension of authentic leadership enables leaders to develop a truthful relationship with followers (Goldman & Kernin, 2002) because the leader’s self-awareness foster followers’ organisational-derived self-concept by building followers’ strengths and self-esteem (Avolio & Gardner, 2005; Gardner et

al., 2005; Goldman & Kernis, 2002). Additionally, recent empirical studies have found that the self-awareness component of authentic leadership is positively associated with creating a supportive environment for newcomers because leaders are cognisant of the possibility of workplace bullying, and are able to prevent this from occurring (Giallonardo et al., 2010; Laschinger, Wong, & Grau, 2012). The influence of authentic leadership is therefore likely to contribute to employee wellbeing.

In addition, Macik-Frey et al. (2009) report that authentic leadership is a means to wellbeing. They provide evidence that demonstrating authentic leadership manners are effective and efficient which help move human functioning optimally. Authentic leaders foster follower wellbeing through the development of high-quality relationships (Hofmann, Morgeson, & Gerras, 2003). Such relationships are based on the social-exchange theory (Hofman & Morgeson, 1999; Liden, Wayne, & Stillwell, 1993; Setton, Bennett, & Liden, 1996). Authentic leaders are probable to develop positive social exchanges, which in turn have a positive effect on followers' wellbeing through creating positive emotions (Ilies et al., 2005). The positive emotions can predict positive human attitudes and behaviours such as coping with adversity, stress, self-realisation, and encouraging flourishing (Fredrickson, 2000, 2001, 2003; Fredrickson & Joiner, 2002; Fredrickson & Lavenson, 1998). In turn, the positive emotions of followers that they experience at work lead to better psychological and physical health (Salovey, Rothman, Detweiler, & Steward, 2000).

Further, leaders who display unbiased processing and transparency of related information are more accurate when interpreting and assessing the skills and capabilities of their followers (Csikszentmihalyi, 2003). Authentic leaders stimulate their followers' ongoing learning and development through interpersonal interactions and constructive feedback by having a true understanding of followers' potential, being honest, and sharing information with followers (Ilies et al., 2005; Popper & Lipshitz, 2000). Authentic leaders develop a sense of self-determination in followers, as they provide opportunities for skills development and autonomy, which is an important sign of wellbeing (Ryan & Deci, 2000, 2001; Ryff & Keyes, 1995).

Research suggests that followers respond by engaging in behaviours that are consistent with the behaviours and values of their leaders (Hofmann et al., 2003). Due to the internal moral-perspective component of the authentic-leadership construct,

authentic leaders serve as an ethical and positive behavioural model for their followers. Through leading by example and maintaining an open and honest relationship with followers, the core ethical values of the leaders are demonstrated to followers (Lagan, 2007). These demonstrations increase followers' perceptions of leader ethicality and an ethical workplace climate. Therefore, authentic leaders are expected to create a climate of good governance within organisations.

Authentic leaders are likely to have an association with creating follower wellbeing by developing a high-quality relationship through creating truthful relationships and positive emotions. They also provide continued growth and development to support the self-determination of followers. Ultimately, authentic leaders build a high degree of ethics in the workplace. Therefore, it is logical to formulate the following hypothesis for the present study:

Hypothesis 2: Authentic leadership is positively related to follower wellbeing.

2.7 Innovative Work Behaviour Defined

Innovations can be regarded as new products or processes that are applicable to and useful for a certain individual, group or organisation (Messmann, 2012). Innovations can be different based on the people involved, the time required for their development, and the range of people affected by the innovation (West & Farr, 1989). Innovation theorists often describe the innovation-development process as being composed of two main phases: idea initiation and idea implementation (Axtell et al., 2000; Zaltman et al., 1973). A number of studies in work contexts have investigated employee innovative work behaviour, and have defined innovative work behaviour as the sum of all work activities conducted by individuals during an innovation process (Messmann, 2012). Consistently with the two-stage model of the innovation-development process mentioned above, psychological models of creativity are the conceptually base for the construct of innovative work behaviour (Amabile, 1988; King & Anderson, 2002; West, 2002; Woodman, Sawyer, & Griffi, 1993).

Creativity is defined as a new production and useful ideas covering products, services, processes and procedures (Amabile, 1988; Oldham & Cummings, 1996). Creativity occurs in the first stage of the innovation process, where problems or

performance gaps are recognised and ideas are generated in response to a perceived need for innovation (De Jong & Den Hartog, 2007; King & Anderson, 2002; Miron, Erez, & Naveh, 2004; West, 2002). The ideas generated in the first stage of the innovation process are then carried on to the implementation stage, in which problems are solved and desired performance is achieved (Amabile, 1988; King & Anderson, 2002; Oldham & Cummings, 1996; West, 2002). Innovative work behaviour integrates a set of tasks and activities that require for innovation development (Kanter, 2000), and such activities can be physical or cognitive, and can be performed solitarily or in a social setting (Messmann, 2012; Messmann & Mulder, 2012). Further, innovative work behaviour consists of all work activities requiring from employees to achieve the innovation tasks. These work activities may be either from physical or cognitive, and can also be performed solely or in a social environment.

Overall, innovative work behaviour is commonly perceived as a multidimensional construct that captures the innovation-development behaviour of employees, including generation, promotion and realisation of new ideas within one's work context with the objective of benefitting the group and/or organisational performance (e.g., De Jong & Dan Hartog, 2007, 2008, 2010; Kanter, 1988; Messmann & Mulder, 2011; Scott & Bruce, 1994; West & Farr, 1989; Zhou & George, 2001).

2.7.1 Innovative Work-Behaviour Constructs

From the literature on creative and innovative work behaviour (Amabile, 1988; De Jong, 2007; Dorenbosh, Van Engen, & Verhagen, 2005; Jassen, 2005; Kanter, 1988; Kleysen & Street, 2001; Scott & Bruce, 1994; West & Farr, 1990), four pre-requisite innovation tasks can be derived from innovative work behaviour studies. The four pre-requisite tasks including opportunity exploration, idea generation, idea promotion, and idea realisation. More specifically, De Jong and Den Hartog (2008) distinguish innovative work behaviour into a set of behaviours, and label them as opportunity exploration, idea generation, championing, and application (De Jong & Den Hartog, 2010; Janssen, 2000; Scott & Bruce; 1994). These behaviours are discussed in the sections below.

2.7.1.1 Opportunity Exploration

Opportunity exploration refers to recognition and problem comprehension of individuals. This subsequently creates an opportunity to improve and change current processes and products in one's work context (Farr & Ford, 1990; Kanter, 1988). Individuals with this behaviour demonstrate by being attentive to their working environment and keeping up with latest developments and changes of their organisational, other organisations, and new insights in their field of work (Basadur, 2004).

2.7.1.2 Idea Generation

Idea generation refers to generating ideas, solutions, and concepts that are new, applicable, and potentially useful for approaching the identified opportunities for ideas, which are designed for the purpose of improving current work processes and products (Amabile, 1988; Farr & Ford, 1990; Kantar, 1998). Idea generation involves activities such as publicly addressing substantial work-related problems, critically examining predominant beliefs, and discussing changes required to solve these problems.

2.7.1.3 Championing

Championing refers to promoting the generated ideas for the purpose of finding support for the ideas, convincing the social surroundings of the envisioned innovation, and building an alliance of allies to adopt responsibility for the idea and necessary information, resources, and support (King & Anderson, 2002). Championing involves captivating the support of colleagues and supervisors to realise generated ideas, pushing such ideas beyond organisational roadblocks, and bringing the ideas to life across the boundaries of one's work context (Kleysen & Street, 2001; Shane, 1994).

2.7.1.4 Application

Application refers to the idea realisation that individuals perform to implement supported ideas through a practical proposition (de Jong & Dan Hartog, 2008). Application involves creating of the intellectual or physical innovation prototype. It also covers examining and improving such innovation adequacy, and planning strategic integration of the created innovation into current practice or process of an organisation (Kanter, 1988; Van De Ven, 1986; West & Farr, 1990).

Application can also be referred as making innovations regular part of the work process (Kleysen & Street, 2001).

Recently, Messan (2012) proposed 'reflection' as a new dimension of innovative work behaviour, stating that it 'encompasses assessing the progress of innovation development, evaluating activities and outcomes based on criteria for success, examining one's personal advancement during innovation development, and improving action strategies for future situations' (p. 56). The reasons are that innovative work behaviour is dynamic and context bound. It is dynamic because the complex relationships between employees' past, present, and future of their work activities and outcomes that may affect the process of innovation development. The employees' professional development also makes the innovative work behaviour dynamic. It is context bound because contextual factors influence activities and outcomes at work differently (Zhou & Shalley, 2003). Some activities may be meaningful only to the work related to a specific context in which they these activities create and generate expected outcomes (Messan, 2012). Messan (2012) also adds that the professional performance of employees can be improved by reflecting on work activities,

2.7.2 Innovative Work-Behaviour Measures

Most of the existing measures of innovative work behaviour that are available focus on the generation the new ideas (creativity) rather than on the implementation phase (de Jong & Den Hartog, 2008). Scott and Bruce (1994) first developed a six-item scale ($\alpha = 0.89$), to assess innovative behaviour that involves idea generation, coalition building and idea realisation, yet they did notspate these dimensions. In later work, Janssen (2000) attempted to develop a multidimensional measure using self-rating and other types of ratings of employees' innovative work behaviour, which was referred to using three dimensions: idea generation, idea promotion, and idea implementation. The consistency reliability for self-report was 0.95, and for supervisor report was .96. Kleysen and Street (2001) developed a 14-item scale ($\alpha = 0.97$) with five dimensions of work behaviour: opportunity exploration, idea generation, formative investigation, championing, and application. De Jong and Den Hartog (2008) note that this scale's validity has not been ascertained through establishing a

nomological network for previous instruments. De Jong and Den Hartog (2008) developed a 10-item innovative work-behaviour measure with four dimensions: opportunity exploration, idea generation, championing, and application, and reported the overall reliability as good for all measures ($\alpha > 0.07$; mean correlation > 0.40 ; IRCs > 0.30). Each dimension also presents a good Cronbach's value: opportunity exploration = 0.90; idea generation = 0.90; championing = 0.93; and application = 0.93.

As noted, Messan (2012) proposes reflection as a new construct of innovative work behaviour. Messan developed a scale consisting of five dimensions: opportunity exploration, idea generation, idea promotion, idea realisation, and reflection. The findings suggest dropping the dimension of idea realisation because of its small number of items and the high interdependence between the dimensions of idea generation and idea promotion. The Cronbach's values reported by Messan (2012) are as follows: all measures = 0.83; opportunity exploration = 0.72; idea generation = 0.82; and idea promotion = 0.88).

In Thailand, the concept of innovative work behaviour is defined consistently with the definition noted above because the fundamental theories for innovative work behaviour come from Western literature (Sutthawart & Pasunon, 2015). Most Thai literature describes innovative behaviour as the integration of behavioural processes of creation and the application of ideas, which entails a set of behaviours including idea generation, idea promotion, and idea implementation to improve tasks that benefit the organisation (e.g., Boonyam, Chuawanlee, Supparerkchaisakuk, & Anurit, 2011; Lhaochalard; 2004; Proyanont, 2011; Sivapitak, 2011).

Measures of innovative work behaviour in Thailand are either modifications of the existing scales—for example, Proyanont (2011) and Lhaochalard (2004) adopted Kleysen and Street's (2001) scale, and Boonyam et al. (2011) adopted Janssen's (2000) scale—or are new scales that are developed based on existing concepts—for example, Sutthawart and Pasunon (2015) adopted Kanter's (1988) scale, and Sivapitak (2011) adopted de Jong & den Hartog's (2010) scale; Krause's (2004) scale, and Parker, Williams, and Turner's (2006) scale.

In the present study, innovative work behaviour is defined as the integration of a set of an individual's behaviours that include the initiation of new and useful ideas

and a dedication to improving new products, work processes and routines in the individual's employing organisation, with the aim of creating personal benefit, as well as benefit for organisational performance (de Jong & den Hartog, 2008; Kanter, 1988; West & Farr, 1990). Further, de Jong and den Hartog's (2008) concept of innovative work behaviour and their developed measure are predominantly used as a framework for assessing follower innovative work behaviour with the purpose of exploring an association with authentic leadership.

2.7.3 Authentic Leadership and Follower Innovative Work Behaviour

The majority of extant research on factors influencing innovative work behaviour has been concerned with the effects of different leadership styles and the quality of relationships between leaders and followers. Studies reveal that followers engage in more innovative activities when their leaders increase positive emotions by creating positive and supportive interactions (e.g., De Jong & Den Hartog, 2007; Jassen, 2005; Starke, 2012). Authentic leadership is one of the leadership forms that have been founded on positive psychology and the ethical and moral movement (Avolio & Gardner, 2005). These constructs are conceptually relevant to creativity and innovative work behaviour (Bierly III, Kolodinsky & Charette, 2009; Valentine, Godkin, Feischman, & Kidwell, 2011).

Authentic leaders are usually described as leading by example (Avolio et al., 2004). Through the process of positive modelling, authentic leaders are able to affect their followers in a manner that leads the followers to identify personally with the leaders' beliefs and values. Such demonstration results in increasing followers' level of creativity and innovation (Ilies et al., 2005). In addition, the self-awareness process helps authentic leaders to learn about, and accept their fundamental values, feelings, identity, and motives or goals (Avolio & Gardner, 2005). Knowing and accepting themselves makes such leaders be more independent, which is projected onto the followers, and improves followers' creative behaviour (Patterson, 1999). This process is unique to authentic leadership when compared to other leadership styles (Gardner et al., 2005). In line with being self-aware of their actions towards others, authentic leaders have a deep understanding and concern about their followers' strengths and weaknesses, for which they demonstrate empathy and consideration. Authentic

leaders construct interpersonal support among their followers, which has been found to enhance followers' creativity and innovation (Amabile et al., 2004; Oldham & Cummings, 1996). This outcome may be because followers react positively to positive thinking and feel supported their leaders, which builds their self-confidence and belief in their own ideas and ability to innovate (Carmeli, Gelbard, & Reiter-Palmon, 2013; Černe et al., 2013; Seibert, Kraimer, & Crant, 2001).

Previous research has demonstrated that supportive leadership can facilitate follower innovative work behaviour by providing constructive feedback and creating the psychological conditions for such work behaviour (Atwater & Carmeli, 2009; Carmeli et al., 2010; George & Zhou, 2001). In particular, the psychological conditions are key in motivating followers to become involved in the creative process and exhibit innovative work behaviour (Carmeli et al., 2010; Reiter-Palmon & Ilies, 2004; Rego et al., 2014). Authentic leaders create positive psychological conditions through generating psychological capital (e.g., self-efficacy, optimism, hope, and resilience) (Avolio et al., 2004; Avolio & Gardner, 2005; Rego et al., 2014), and by promoting positive interpersonal relationship with the followers (Gardner et al., 2011; Ilies et al., 2005; Walumbwa et al., 2008). This positive relationship is considered quality relationship that creates positive consequences (Haller & Hadler, 2006; Stephens, Heaphy & Dutton, 2012) such as enhancing followers' flexibility and creative thinking (Avolio et al., 2004) and motivating followers to explore new ideas (Müceldili et al., 2013; Tierney et al., 1999; Yuan & Woodman, 2010). Thus, authentic leadership is likely to induce followers' perceptions of leader support and positivity, which is conducive to follower innovative work behaviour.

Further, the perception of psychological safety refers to individuals believing that the team or organisational context provides a safe environment for interpersonal risk taking (Edmondson, 1999). Elsbach and Hargadon (2006) suggest that individuals are motivated to engage in innovative behaviour at work if they do not fear image threats. Authentic leaders promote followers' perceptions of psychological safety by being transparent, guided by internal moral standards, and able to analyse objectively relevant information before making a decision; they then gain followers' trust, respect, and identification (Avolio et al., 2004; Gardner et al., 2005; Ilies et al., 2005; Walumbwa et al., 2008). Consequently, authentic leaders develop a strong

relationship with their followers (Fraleley & Shaver, 1998), which creates a sense of greater psychological safety among the followers. Hence, the followers are motivated to propose unconventional ideas, and introduce conflicting opinions without fear (Avolio et al., 2004; Edmonson, 1999; Walumbwa et al., 2008).

In conclusion, authentic leadership is likely to enhance follower innovative work behaviour through building confidence in followers, and creating a supportive environment and positive psychological conditions for idea generation and implementation. This relationship between authentic leadership and follower innovative work behaviour suggests the following hypothesis for the present research:

Hypothesis 3: Authentic leadership is positively related to follower innovative work behaviour.

2.8 Wellbeing and Innovative Work Behaviour

Studies suggest that upcoming generations of employees will seek greater meaning and personal development from their work, and perceive their work as a 'calling' that must be enjoyable, fulfilling, and socially useful (Avolio & Sosik, 1999; Wrzesniewski, McCauley, Rozin, & Schwartz, 1997). Thus, HR professionals have begun to consider employee wellbeing to be in the best interests of employers, particularly those that spend substantial resources in hiring employees and trying to generate products, profits, and maintain loyal customers (Anderson, Serxner & Gold, 2001; Fulmer, Gerhar, & Scott, 2003; Harter, Schmidt, & Keyes, 2002). This emphasis on employee wellbeing has been created because employee wellbeing represents the physical, mental, and emotional features of employee health, which act synergistically to affect employees in a complex manner (DeJoy & Wilson, 2003). Ensuring employee wellbeing could be a source of organisational advantage through creating factors such as increases in competitive advantage, performance, productivity, hiring selectivity, and customer satisfaction, and decreases in absenteeism, turnover, accident rates, and healthcare costs (Brown, 2000; DeJoy & Wilson, 2003; Grawitch, Gottschalk & Munz, 2006; Huselid, 1995). Further, employee wellbeing may play a central role in employee innovation, upon which companies increasingly rely (Blom, Melin, & Pyöriä, 2001, as cited in Huhtala & Parzefall, 2007) for their continuous improvement. However, innovation literature has

paid surprisingly little attention to employee wellbeing and its relationship to innovation (Huhtala & Parzefall, 2007).

The reinforcing link between employee wellbeing and innovative behaviour serves to strengthen the positive effect of organisational practices. First, it helps organisations understand how innovative employees can and should be supported in the workplace given that innovation requires psychological nurturing (Deery, 2002; Florida, 2002; Guest, 2002). Second, it helps to explain how the characteristics of the work environment affect employees' intention to exercise their creative skills and abilities for the benefit of the organisation (Huhtala & Parzefall, 2007).

In addition, the positive aspects of employee wellbeing appear relevant to the promotion and support of innovation in the organisation through helping employees counterbalance the negative effect of demands on wellbeing and the costs associated with engaging in activities that are beneficial for the organisation (Organ, 1988). As one of five wellbeing dimensions proposed by Rath and Harter (2010), career wellbeing is naturally a factor that affects employees' innovative work behaviour either indirectly or directly. Career wellbeing could include a number of factors that have been labelled job-related resources such as autonomy, challenge, time, materials and social relationships (Anderson, De Dreu & Nijstad, 2004; Shalley & Gilson, 2004). Schaufeli and Bakker (2004) suggest that every job has certain resources; these could come from physical, psychological, social, and organisational aspects that enable employees to accomplish their work and influence them to feel motivated and fulfilled when they work. These positive aspects are considered a stimulative process for personal growth and deep-rooted satisfaction that subsequently leads to employee innovation (Huhtala & Parzefall, 2007).

The positive effect of healthy physical and psychological wellbeing at work has the potential to promote employee innovation, which means that it is predictive that employees' productivity and performance relate to emotional wellbeing (Harter et al., 2002). Ellis and Ashbrook (1989) explain that depressive individuals demonstrate poorer memory compared to neutral-mood individuals. Moreover, depression may limit cognition, particularly complex cognition in most work environments. Conversely, cognitive potential and creative thinking may be stimulated as well as

untie information-processing strategies through the effect of positive emotions (Fiedler, 1991; Fredrickson, 1998; Isen, 1987; Schwarz & Bless, 1991; Ziv, 1976).

Empirical research reveals that supervisors rate employees who report greater positive emotional symptoms as having a higher performance than those with more negative emotional symptoms (Wright & Bonnett, 1997; Wright & Cropanzano, 2000; Wright & Staw, 1999). Avolio et al. (2004) suggest that authentic leadership is considered an intervention variable in the workplace because it can improve followers' positive outcomes such as work engagement, job satisfaction, and organisational commitment through creating positive emotions, identification, trust, and optimism. Similarly, Yammarino, Dionne, Schriesheim and Dansereau (2008) reviewed and analysed 27 published studies to examine the influence of authentic leadership on followers' performance in positive organisational behaviours at all levels (i.e., individual, group and organisational). At an individual level, they found that authentic leadership has a positive effect on performance of followers via positive organisational behaviours. Authentic leaders were found to play a role in generating positive psychological processes in the workplace by stimulating followers' confidence, self-efficacy, hope and optimism.

Therefore, it appears that authentic leaders create a working environment that provides employees with the ability to improve their physical wellbeing, human relationships, self-determination, and career advancement, which appear to reinforce creativity and innovation among employees through communication (Harter et al., 2002; Rath & Harter, 2010). Employee creativity and innovation can become an organisational intellectual resource.

This discussion demonstrates that if employees experience an appropriate level of wellbeing at work, they tend to exert additional effort into utilising their knowledge and skills in fulfilling their work, and report a positive mood, which creates helping behaviours and creative ideas that help the organisation to achieve its goals (George & Brief, 1992; Eisenberger, Jones, Stinglhamber, Shanock & Randall, 2005). Employees who are suffering from lack of positive resources at work are likely to be detached from their work and struggle to complete their tasks (Bakker, Demerouti, & Schaufeli, 2003). Negative pressure on employees to excel creates stress and burnout, resulting negatively in an unwillingness to innovate and invest effort in creativity

(Amabile, Hadley, & Kramer, 2002). As noted, a key outcome of authentic leadership is wellbeing in the workplace (Gardner et al., 2005; Walumbwa et al., 2005), which has an indirect effect on employee innovation. The review of the literature suggests a positive relationship between wellbeing and innovative work behaviour among employees, and a mediation effect of wellbeing on the relationship between authentic leadership and innovative work behaviour of followers. Therefore, this research develops the following hypotheses:

Hypothesis 4(a): Follower wellbeing is positively related to follower innovative work behaviour.

Hypothesis 4(b): The influential relationship between authentic leadership and innovative work behaviour is mediated by wellbeing.

2.9 Research Framework

Figure 2.1 presents the hypothesised relationships between authentic leadership, and follower outcomes in this study.

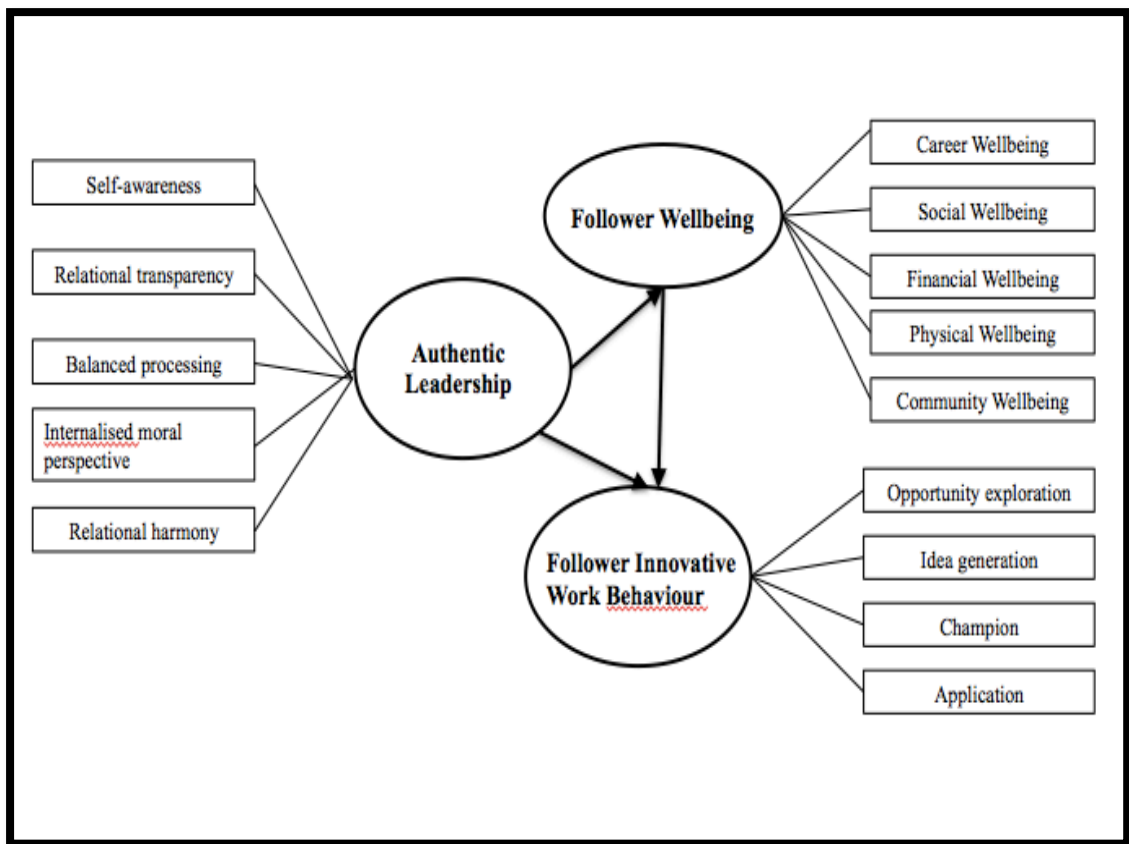


Figure 2.1 Conceptual Framework of Present Study

CHAPTER 3

METHODS

The purposes of this study is to develop and validate a measure of authentic leadership in the Thai context and seek for its relationship with follower wellbeing and innovative work behaviour. The stages of the research in this study are research design, unit of analysis, operationalizing variables, data collection, instrumentation, and data analysis.

3.1 Population and Sample

The population of this present research was Thai military officers. The primary reason was because it provides greater opportunities for researchers to explore the relationship between leaders and followers as military leaders easily encourage positivity and decrease negativity in followers and when comparing to a traditional work context (Hannah, Uhl-Bien, Avolio, & Cavarretta, 2009; Yammarino, Mumford, Connelly, & Dionne, 2010). Followers thus tend to look for guidance from their leaders in how to behave and feel as jobs in the military context involves high stress and requires high discipline (Bartone, 2006).

3.1.1 Pilot Study.

The study population for the pilot study was officers working in the Office of the Comptroller General at the Royal Thai Armed Forces Headquarters who had worked there for at least six months and were ranked sublieutenant or higher. The sample included 172 officers, comprising 86 females and males (50% each). Seventy-one of the participants (41.3%) were between 31 and 40 years of age, 100 participants (58.1%) held

a Bachelor degree. Years of working experience were distributed almost equally among the three lower categories (73.3% had 16 or fewer years of working experience).

3.1.2 Scale Development and Scale Validation

The population for the study was officers in the Royal Thai Navy currently working at the major four operational branches: the Royal Thai Navy Headquarters; the Royal Thai Fleet; the Naval Dockyard Department; and the Naval Studies and Research. The number of active Royal Thai Navy personnel is 71,000 serving officers.

The sample for this research was 1,044 navy officers; the total sample was divided into two groups for separate analysis: the scale-development study and the scale-validation study. The scale-development study used a sample of 400 officers from the Royal Thai Navy Headquarters only; the scale-validation study used sample of 644 officers from the Royal Thai Navy. The division of the 644 participants from the scale-validation study was as follows: Royal Thai Fleet (36.7%), Naval Studies and Research (33.07%), and Naval Dockyard Department (30.23%).

3.2 Data Collection

To achieve the objectives of this present research the data were collected from two military organisations: Royal Armed Forces and Royal Thai Navy.

3.2.1 Pilot Study.

The data for the pilot study were collected via 300 questionnaires given to the researcher's coordinator. The participants received a developed 50-item authentic-leadership questionnaire, along with a statement that completion of the questionnaire would constitute agreement of informed consent, and an accompanying letter containing an introduction to the survey, and instructions for survey completion. The prospective participants were requested to return a completed questionnaire within two weeks in a sealed envelope to the researcher's coordinator. Subsequently, all questionnaires were delivered to the researcher by post. Those who participated in the

pilot study were given a complimentary gift card to the value of 50 baht. One hundred and seventy-two of the 300 questionnaires were returned (57.33% response rate).

3.2.2 Scale Development and Scale Validation.

This study did not limit the selection of research participants because any officers working within the Royal Thai Navy could participate in the survey if they had been employed in the Royal Thai Navy for at least six months. Given that there are four major operational branches of the Royal Thai Navy (i.e., Royal Thai Navy Headquarters; the Royal Thai Fleet; the Naval Dockyard Department; and the Naval Studies and Research), 500 questionnaires were given to four research coordinators from each branch to give to prospective participants who worked within each branch. In total, 2,000 questionnaires were sent. The participants were sent questionnaires along with a consent form and instruction letters. Four instruments were included in the questionnaire package: 1) personal information; 2) 19-item scale of authentic leadership; 3) 30-item scale of transformational leadership; 4) 30-item scale of wellbeing in the workplace; 5) 10-item scale of innovative work behaviour. Participants were asked to complete the questionnaire and return it in a sealed envelope to the researcher's coordinator. There were 1,044 questionnaires returned, providing a 52.2% response rate.

3.3 Operationalised Variable Definitions

There are three variables in this study: 1) authentic leadership, 2) follower wellbeing, and 3) follower innovative work behaviour. They are operationalised as described in the sections below.

3.3.1 Authentic Leadership

Authentic leadership refers to a pattern of leadership behaviours intended to create a positive psychological and ethical climate; these behaviours reflect greater self-awareness, relational transparency, balanced processing of relevant information, an internalised moral perspective and relational harmony on the leader's part of working with followers in the Thai context. The five dimensions of Thai authentic

leadership are self-awareness, balanced processing, relational transparency, internalised moral perspective and relational harmony as described in the sections below.

3.3.1.1 Self-Awareness

Self-awareness is a quality of leaders who demonstrate positive modelling by understanding and accepting values, feelings, identity and goals within themselves. They are cognisant of other's feelings, values, and strengths and weaknesses because they are driven by benevolence intentions.

3.3.1.2 Balanced Processing

Balanced processing reflects leaders' authenticity through their ability to analyse objectively relevant information through a balanced equitable social process without bias before making decisions. Leaders who display this dimension of authentic leadership allow the objective input of others even if such input challenges their own perspective.

3.3.1.3 Relational Transparency

Relational transparency is a quality of leaders who share information and communicate openly with others while revealing true thoughts through non-aggressive emotional expression in an appropriate manner. They also demonstrate a genuine positive interest in others through which the trust, respect, and identification of others emerges.

3.3.1.4 Internalised moral perspective

Internalised moral perspective refers to leaders who are self-regulated and display moral integrity through their values and actions. This dimension of authentic leadership includes being self-disciplined and not allowing external influences to sway authenticity, which may lead to negative future consequences (i.e., bad karma).

3.3.1.5 Relational Harmony.

Relational harmony refers to a quality displayed by leaders who demonstrate respectful behaviours to others as human beings. Leaders who display this dimension of authentic leadership build positive psychological conditions and ethical work climates through promoting harmonious relationships among their multiple in-groups.

3.3.2 Follower Wellbeing

Follower wellbeing is defined as the state of followers being comfortable, healthy, and happy at their employing organisation. These states are resultant from the combination of physical wellbeing and psychological wellbeing generated by organisational practices, and positive relationships with people at workplace, as well as a positive and ethical workplace environment. The five dimensions of follower wellbeing (career wellbeing, social wellbeing, financial wellbeing, physical wellbeing, community wellbeing) are described in the sections below.

3.3.2.1 Career Wellbeing

Career wellbeing refers to a follower's sense of job security and advancement, which occur due to organisational vision, career development and management plans, as well as effective organisational structures, and employee recognition.

3.3.2.2 Social Wellbeing

Social wellbeing refers to a perception of receiving respect psychological support, trust, and comfort through a process of socialisation by interaction with colleagues and leaders, which results in having positive emotions at work.

3.3.2.3 Financial Wellbeing

Financial wellbeing refers to follower's sense of security in relation to their financial situation. This dimension of follower wellbeing includes the aspect of financial management for personal expenditures and savings. This financial sense of security is derived from the follower receiving adequate financial compensation and benefits, as well as financial incentives, salary progression, and savings programmes provided by the organisation.

3.3.2.4 Physical Wellbeing.

Physical wellbeing refers to a follower's perception of being physically healthy as a consequence of organisational health-promotion activities and programmes that increase the employees' quality of work life.

3.3.2.5 Community Wellbeing

Community wellbeing refers to a follower's sense of occupational health and safety in their workplace. This dimension of follower wellbeing involves having

an environment free from injury and hazard, well-equipped facilities and equipment for performing tasks, as well as a pleasant and positive working environment that is consequence of the physical design of the workplace and positive ethical working climate.

3.3.3 Follower Innovative Work Behaviour

Follower innovative work behaviour is defined as the integration of a set of follower behaviours that consists of initiation of useful and new ideas and applying such ideas to improve new products, work routines and process in the organisation with objectives to create personal benefit and increase organisational performance. There are four dimensions of follower innovative work behaviour (i.e., opportunity exploration, idea generation, championing, application), which are discussed in the sections below.

3.3.3.1 Opportunity Exploration

Opportunity exploration refers to followers' behaviour in searching ways to improve current work activities including both products and services, and work processes by being alert to work environment, and being up to date with recent events and developments in other organisations and new intuitions in their professional field.

3.3.3.2 Idea Generation

Idea generation refers to followers' exploitation of opportunities by generating ideas, solutions, and concepts for the purpose of improving current tasks, products, services, and work processes.

3.3.3.3 Championing

Championing refers to followers' attempts to promote generated ideas through organisational boundaries for the purpose of finding support and coalition building. This dimension of follower innovative work behaviour involves the follower bringing new ideas to life by providing necessary information and resources to involved persons such as colleagues, leaders, and key personnel.

3.3.3.4 Application

Application refers to efforts of followers on implementing the new generated ideas in their organization. This dimension involves actions of follower in creating intellectual or physical prototypes of the innovation, improving and

examining the generated innovation, and planning strategically to integrate the generated innovation into current work practices in the organization.

3.4 Instruments

To achieve the research purposes, this study developed a new instrument, which was the Thai authentic-leadership measure for use in the scale-development study, and used pre-existing measures: transformational leadership, wellbeing, and innovative work behaviour through validation studies.

3.4.1 Thai Authentic-Leadership Measure

The 19-item of the developed authentic leadership from the scale-development study in this research which consists of five subscales: self-awareness ($\alpha = 0.76$), balanced processing ($\alpha = 0.83$), relational transparency ($\alpha = 0.83$), internalised moral perspective ($\alpha = 0.90$), and relational harmony ($\alpha = 0.80$). The total Cronbach's alpha was 0.94. The items are measured on five-point Likert scale. The instrument was developed for the scale-development study of the present study. (The results of analysis represented in Chapter 4.)

3.4.2 Transformational Leadership Measure

The Thai transformational leadership measure developed by Watthanarat's (2013), which is based on Bass's (1999) transformational-leadership theory. This is a five-point Likert scale encompassing four constructs: idealised influence ($\alpha = 0.93$); inspirational motivation ($\alpha = 0.91$); individualised consideration ($\alpha = 0.88$); and intellectual stimulation ($\alpha = 0.91$). The total items are 30 ($\alpha = 0.97$). In the present study, this instrument tested a relationship between the developed authentic-leadership scales in the pilot study.

3.4.3 Follower-Wellbeing Measure

The follower-wellbeing measure developed by Jariyapanya (2013) was chosen for use in the present study. This is a measure written in Thai that is based on Rath and Harter's (2010) concept of wellbeing. The constructs of follower wellbeing

encompass five dimensions: career wellbeing ($\alpha = 0.83$); social wellbeing ($\alpha = 0.83$); financial wellbeing ($\alpha = 0.84$); physical wellbeing ($\alpha = 0.78$); and community wellbeing ($\alpha = 0.86$). The total items are 24 ($\alpha = 0.94$) and are measured on five-point Likertscale.

3.4.4 Follower-Innovative-Work-Behaviour Measure

The measure of follower innovative work behaviour developed by de Jong and Hartog (2008) was chosen by the present study to examine follower innovative work behaviour. There are 10 items ($\alpha = 0.93$) measured on five-point Likert scale, consisting of four dimensions: opportunity exploration ($\alpha = 0.75$); idea generation ($\alpha = 0.85$); championing ($\alpha = 0.80$), and application ($\alpha = 0.88$). The scale was initially developed in English; therefore, Brisling et al.'s (1973) back-translation procedure was employed by the present study to ensure the accuracy of the translation from the original English to the Thai version of each item.

3.5 Unit of Analysis

The initial concept of authentic leadership is multidimensional, which can pose serious measurement challenges if the unit of analysis of each study is not clearly stated (Cooper et al., 2005). Given that the objective of this research is to study followers' perceptions of authentic leadership in their work context, the unit of analysis is at the individual level (Sorod, 1995).

3.6 Research Process and Data Analysis

This research had two studies: scale-development study and scale-validation study. The processes and analysis techniques used were explained below.

3.6.1 Scale Development.

The objectives of this study were to select a set of authentic-leadership items based on examinations of content validation, item discrimination, item-total

correlations, factor analysis, and scale reliability before the validation study, and then to confirm the developed scale through CFA to confirm the authentic-leadership scale as valid and reliable. The process involved conducting a pilot study, and testing and confirming hypothesised factor structures using CFA with the sample of study.

3.6.1.1 Pilot Study

This process included item generation, content-validity examination, item analysis, and dimension determination using exploratory factor analysis (EFA). There were 172 participants in the pilot study.

3.6.1.2 Item Generation

The definitions of Thai authentic leadership and each dimension were prepared in the Thai language. The items used in the pilot study were generated using input from three sources. First, input was gained from doctoral students who were recruited to assist in this study. These were students of HR and organisational development, who had undertaken a leadership class at a postgraduate university. Each student was presented with the definition of Thai authentic leadership and the detail of its five hypothesised dimensions. Second, a translation was created of the authentic-leadership items from Neider and Schriesheim's (2011) ALI. However, Neider and Schriesheim's (2011) scale has only four dimensions (self-awareness, balanced processing, relational transparency, and individualised moral perspective) to which the researcher and advisor added dimensions. Having produced a preliminary set of 65 authentic-leadership items, the rating employed a five-point Likert scale with the following range: 5 = strongly agree; 4 = agree; 3 = neutral; 2 = disagree; 1 = strongly disagree. The 65 items were initially reviewed by an expert in test construction to clarify whether each item reflected its hypothesised measured dimensions before undertaking the process of content-validity assessment. Finally, the instrument was sent to the five experts to review and score each item (from -1, 0, and 1). Any item that rated below 0 was deleted. The experts agreed that 15 of the items should be removed because they were redundant and ambiguous. Thus, 50 items remained on the instrument.

After the item-generation procedure, the Thai authentic-leadership scale consisted of 50 items: 10 items for the dimension of self-awareness (ranging from SA1 to SA10); 11 items for the dimension of balanced processing (ranging from BA1

to BA11); nine items for the dimension of relational transparency (ranging from RE1 to RE9); nine items fourth dimension of individualised moral perspective (ranging from IN1 to IN9); and 11 items for the dimension of harmony relation (ranging from HA1 to HA11). These items were used in administering the instrument.

3.6.1.3 Item Analysis

First, item discrimination was tested by using independent *t*-tests to determine the difference of the mean values between high and low groups. Items to be included for further analysis must have empirical item discrimination results indicating a $p \leq 0.05$ and *t*-ratio > 2.00 because items with these values do not have power of discrimination (Bhanthumnavin, 2008). Further, item-total correlation was performed to verify whether any item in the developed scale was inconsistent with the averaged set of items. A coefficient value (*r*) less than 0.3 or above 0.8 indicates that the corresponding items do not correlate well or correlate too well (Everitt, 2002; Field, 2005). Therefore, any item providing empirical evidence of an item-total correlation value greater than 0.8 or less than 0.3, were removed. As a result, five items (BA6, IN6, IN9, HA7 and HA9) were deleted. Therefore, 45 items were retained for further analysis.

3.6.1.4 EFA

The aim of the first factor analysis was to examine the loading patterns of authentic-leadership items. The factor analysis was conducted to reduce the number of authentic-leadership items on the Thai authentic-leadership scale developed by the present study. The factor structures of the remaining 45 items were performed by examining an EFA utilising a forced five-factor solution. A principal component was selected for extraction analysis because it seeks a linear combination of variables and assumes that the total variance of the variables can be accounted for by means of its components (Rietveld & Van Haut, 1993). Equamax rotation was chosen because the number of variables loads highly on one factor and the number of factors needed to explain a variable is minimised (Thompson, 2004). This type of rotation is a combination of the varimax and quartimax methods, and simplifies the factors and variables. After the first round of EFA, any items demonstrating a factor-loading value greater than 0.50 on its hypothesised dimension were retained for further analysis, using 0.50 as a cutting criterion because the sample size is not very big

(fewer than 300 subjects) (Field, 2005; Thompson, 2004). In this stage, cross-loadings were not considered. This analysis resulted in eight items being removed, leaving 33 items.

The second iteration of the factor analysis included 33 items retained from the first iteration. The second iteration examined the factor loadings and cross-loadings for the remaining items. In this process, any items that had factor-loading values greater than 0.5 and factor cross-loadings greater than 0.5 were excluded from the Thai authentic-leadership scale. This process resulted in a further 12 items being removed, leaving 21 items for CFA analysis.

3.6.1.5 Structural Confirmation

CFA was conducted to test how well the actual data conformed to the five-dimensional model and to confirm the five hypothesised factor structures that were derived from the theoretical foundation and the EFA analyses (De Vellis, 2003, 2012). The sample used in the analysis for scale development was 400 officers of the Royal Thai Navy. Evaluation of goodness-of-fit was conducted. The model-fit summary of the five-factor model (21 items) is as follows: CMIN/df. = 3.44; root-mean-square residual (RMR) = 0.06; root-mean-square error of approximation (RMSEA) = 0.078; comparative fit index (CFI) = 0.91; Tucker–Lewis index (TLI) = 0.89; GFI = 0.87; AGFI = 0.83; normed fit index (NFI) = 0.87; incremental fit index (IFI) = 0.90; and parsimony normed fit index (PNFI) = 0.75. However, the TLI, GFI, AGFI, and NFI values were below the criteria stated in the GFI (< 0.90). Moreover, items RE6 and HA6 indicated factor-loading values of less than 0.40 (0.27 and 0.32 respectively). Consequently, these two items were excluded.

Subsequently, CFA testing of the hypothesised five-dimensional model with 19 items revealed was re-run. The results revealed the model was a good fit to the observed data. In addition, all Cronbach's alpha values for each dimension and the entire scale exceeded 0.70 (these results are presented in Chapter 4). As a result, the final version of the Thai authentic-leadership scale developed for the present study included 19 items.

3.6.2 Scale Validation.

The purpose of the scale-validation study was to confirm the validity and reliability identified in the scale-development study and examined the relationship between authentic leadership and the hypothesised follower outcomes by using structural equation modelling (SEM). The participants in this study were 644 officers from the Royal Thai Navy.

3.6.2.1 Validity and Reliability of Thai Authentic-Leadership Scale

CFA for the 19-item authentic-leadership scale was run. The validity of the Thai authentic-leadership scale was assessed through factor loadings (greater than 0.50); and average variance extracted (AVE), which should not be below 0.5. However, it is acceptable AVE at 0.40 if the composite reliability (CR) is greater than 0.60 (Fornell & Larcker, 1981). Moreover, the reliability of the scale was assessed using Cronbach's alpha ($\alpha \geq 0.70$; Nunnally, 1978) and CR with a requirement to achieve a value of not less than 0.60.

3.6.2.2 Relationship with Transformational Leadership

The purpose of this analysis was to examine convergent validity by showing a positive correlation between the Thai authentic-leadership scale and a related leadership scale. The transformational-leadership scale was chosen because authentic and transformational leadership have a conceptual overlap (Walumbwa et al., 2008). Thus, bivariate correlation was performed to test the relationship between the 19-item Thai authentic-leadership scale developed for this study and the 30-item Thai transformational-leadership scale. Additionally, discriminant validity was performed following Venkatraman (1989), who notes that discriminant validity can be supported if a significant chi-square value of an unconstrained-correlation model is lower than the significant chi-square value of a constrained-correlation model. This analysis was performed a model comparison using AMOS.

3.6.2.3 Test of Nomological Network

This test was performed to examine the relationship between authentic leadership and follower outcomes, which were wellbeing in the workplace and innovative work behaviour. The tests of the influential relationships between the variables were performed by conducting bivariate-correlation analysis and path analysis.

3.6.2.4 SEM

The structural relationships among the three variables were tested to examine measurement errors and the direct and indirect structural relationships among the variables (Kim, 2014). This process included assessing measurement-model fit, structural relationships, and mediation effect as explained in the sections below.

Measurement-model fit: An assessment of unidimensionality, validity, and reliability for measured models is required before employing SEM (Schumaker & Lomax, 2004). This was determined by employing CFA.

Structural relationships: SEM was conducted using Analysis of Moment Structures (AMOS) software. This analysis began by drawing a hypothesised model as depicted in Figure 3.1. In the figure, authentic leadership (AL), wellbeing (WB), and innovative work behaviour (IW) are in an ellipse-shaped object that represents the latent variables. Indicators of latent variables are represented in the rectangles. The relationships between latent variables and indicators are represented by a one-way arrow (\rightarrow). A line with one-way arrow represents the influential relationships among the latent variables. A line with one-way arrow between two latent variables indicates the influence of one variable on the other: $AL \rightarrow WB$; $AL \rightarrow IW$; and $WB \rightarrow IW$. The effect size of the paths was determined by standardised path coefficient (SPC), which measured the effect of one variable on the other variables. The significance of SPC was determined by a t -value when it was greater than 1.96 (Kline, 2011).

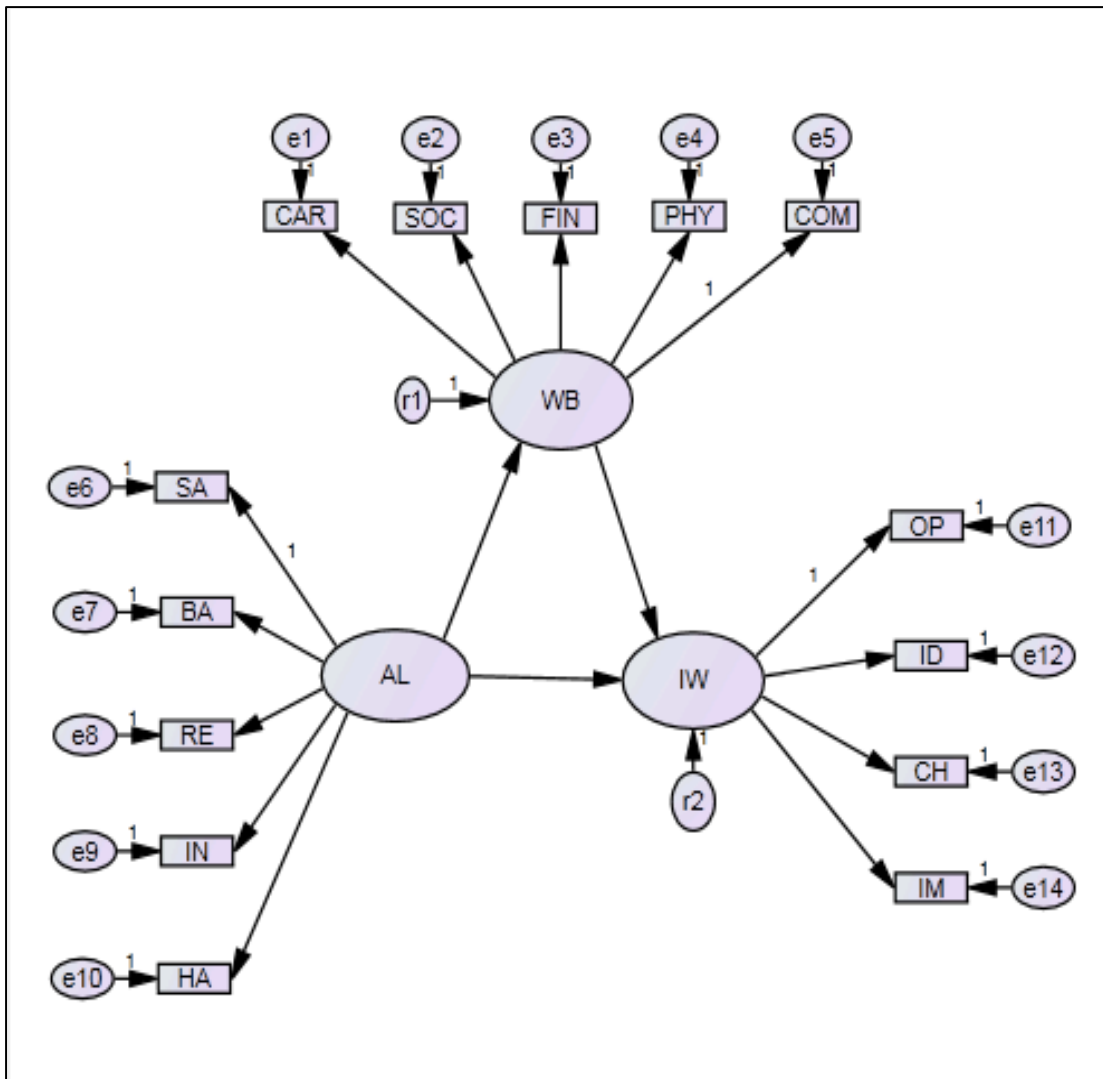


Figure 3.1 Hypothesis Model

3.6.2.5 Mediation Effect

Before proceeding with the test of the mediating effect of wellbeing through the relationship between authentic leadership and innovative work behaviour, three points of mediation occurrence (suggested by Kenny, Kashy, & Bluger, 1998) were considered. First, the independent variable was significantly correlated with the mediator. Second, the independent variable had a significant correlation with the dependent variable. Third, the relationship between the independent variable and the dependent variable were non-significant when the mediator was entered into the model.

SEM standardised direct and indirect effects and bootstrapping were employed to explain the influential relationships between authentic leadership and innovative work behaviour via the mediating factor of wellbeing. The criteria to confirm that there was a mediation effect when the z-value was significant and greater than 1.96 ($z = 6.40, p < 0.01$), and the bootstrapped confidence intervals confirmed the result when zero did not fall into 95% CIs (Cheung & Lau, 2008).

3.7 Goodness of Fit Indices

The criteria used to determine the good fit of the testing model in this study when performing CFA and SEM included chi-square/minimum discrepancy (CMN/df.); RMR; RMSEA; CFI; TLI; GFI; AGFI; NFI; IFI; and the PNFI. Moreover, factor-loading values were considered. A factor-loading value of any item of less than 0.4 was considered unacceptable (Deng, 2010). Table 3.1 provides information on the fit indices and fit criteria used in the study.

Table 3.1 Goodness of Fit Indices

Fit Indices	Fit Criteria	References
CMN	The smaller the better	West, Taylor and Wu (2012)
CMN/df	< 5.00	Bollen (1989)
RMR	< 0.08	Hu and Bentler (1999)
RMSEA	< 0.08	Browne and Cudeck (1992)
CFI	≥ 0.9	Bentler (1990)
TLI	≥ 0.9	Bentler and Bonett (1980)
GFI	≥ 0.9	Hair, Black, Babin, Anderson and Tathan (2006)
AGFI	≥ 0.9	Tanaka and Huba (1985)
NFI	≥ 0.9	Bollen (1989)
IFI	≥ 0.9	Henry and Stone (1994)
PNFI	> 0.6	Schumaker and Lomax (2004)
Loading Value	≥ 0.40	Deng (2010)

CHAPTER 4

RESULTS

This chapter presents empirical results from data analysis based on the two studies: scale-development study and scale-validation study.

4.1 Scale Development

The aim of the scale-development study was to confirm the hypothesised constructs. During the literature review process explained in Chapter 2, Thai authentic leadership constructs were hypothesised to have five distinct dimensions including: self-awareness; balanced processing; relational transparency; individualised moral perspective; and relational harmony. There are two sub-studies within the stage including pilot study and structural confirmation using CFA.

4.1.1 Pilot Study

The 65 items of Thai authentic leadership generated from the three inputs: 10 PhD students; Translated Neider and Schriesheim's (2010) ALI; and the researcher and advisor as explained in Chapter 3 were assessed a content validity by the five experts, which resulted in a 15 items reduction. The retaining 50 items were forwarded to further analyse in the pilot study.

4.1.1.1 Sample

There were 172 participants in the pilot study. These participants were officers who had been employed at the Office of the Comptroller General at the Royal Thai Armed Forces Headquarters for more than six months. Table 4.1 presents the demographic analysis of these participants.

Table 4.1 Demographic Characteristics of Participants of Pilot Study

Variable	Number	(%)
Gender		
Female	86	50.0
Male	86	50.0
Age		
< 20	1	0.6
20–30	67	39.0
31–40	71	41.3
41–50	22	12.8
51 or older	11	6.40
Educational level		
High school	19	11.0
High vocational	12	7.0
Bachelor degree	100	58.1
Master degree	40	23.3
Doctorate	1	0.60
Years of employment		
< 5	49	28.5
5–10	38	22.1
11–15	39	22.7
16–20	13	7.6
20–25	19	11.0
26 or more	14	8.1
Total	172	100

4.1.1.2 Item Analysis

Item discrimination was tested using independent t-tests. For an item to be retained for further analysis, item discrimination needed to have a $p \leq 0.05$ and a t -ratio > 2.00 . (Bhanthumnavin, 2008). Further, correlated item-total correlation was performed to verify whether any item in the developed scale was inconsistent with the averaged set of items. Any item providing empirical evidence of an item-total correlation value greater than 0.8 and less than 0.3 was removed. As a result, five items (BA6, IN6, IN9, HA7 and HA9) were deleted. Therefore, 45 items were forwarded for further analysis. Table 4.2 presents the t -ratio for item discrimination and the item-deletion correlation coefficients.

Table 4.2 t -ratio for Item Discrimination and Item-Deletion Correlation Coefficients of Generated 50-Item Thai Authentic-Leadership Scale

Dimensions	Items	t	p	r	Selection
Self-Awareness (10 items)	SA1	8.481	.000	0.73	√
	SA2	8.468	.000	0.68	√
	SA3	8.020	.000	0.68	√
	SA4	7.788	.000	0.57	√
	SA5	9.135	.000	0.74	√
	SA6	5.545	.000	0.48	√
	SA7	6.698	.000	0.49	√
	SA8	5.084	.000	0.38	√
	SA9	8.631	.000	0.59	√
	SA10	4.188	.000	0.34	√
Balanced Processing (11 items)	BA1	9.992	.000	0.71	√
	BA2	9.685	.000	0.72	√
	BA3	5.853	.000	0.52	√
	BA4	7.509	.000	0.63	√

Table 4.2 (Continued)

Dimensions	Items	t	p	r	Selection
	BA5	5.546	.000	0.35	√
	BA6	-5.072	.000	-0.48	X
	BA7	9.910	.000	0.72	√
	BA8	7.508	.000	0.59	√
	BA9	9.787	.000	0.74	√
	BA10	6.717	.000	0.53	√
	BA11	5.842	.000	0.53	√
	RE1	8.216	.000	0.69	√
	RE2	7.766	.000	0.69	√
	RE3	7.665	.000	0.65	√
	RE4	8.459	.000	0.63	√
Relational Transparency (9 items)	RE5	9.393	.000	0.78	√
	RE6	4.621	.000	0.42	√
	RE7	10.615	.000	0.75	√
	RE8	6.724	.000	0.69	√
	RE9	10.288	.000	0.76	√
	IN1	9.619	.000	.777	√
	IN2	8.012	.000	.636	√
	IN3	10.552	.000	.784	√
Individualised Moral Perspective (9 items)	IN4	9.163	.000	.746	√
	IN5	8.563	.000	.685	√
	IN6	11.795	.000	.861	X
	IN7	6.964	.000	.548	√
	IN8	7.327	.000	.588	√

Table 4.2 (Continued)

Dimensions	Items	t	p	r	Selection
	IN9	-.890	.375	-.046	X
	HA1	7.502	.000	.733	√
	HA2	11.769	.000	.763	√
	HA3	7.763	.000	.657	√
	HA4	8.372	.000	.696	√
Relational Harmony (11 items)	HA5	7.964	.000	.698	√
	HA6	5.544	.000	.484	√
	HA7	-.094	.925	.017	X
	HA8	9.588	.000	.678	√
	HA9	1.868	.063	.143	X
	HA10	7.339	.000	.636	√
	HA11	8.500	.000	.680	√

4.1.1.3 EFA

The aim of the EFA was to examine the loading patterns of authentic-leadership items. The remaining 45 items were performed by examining an EFA utilising a forced five-factor solution. Principal component analysis and Equamax rotation were chosen as the tests because the number of variables loaded highly on one factor, and the number of factors needed to explain one variable are minimised (Thompson, 2004). However, the Kaiser–Meyer–Olkin (KMO) measure must be considered if its value is greater than 0.5, which means the sample size is adequate. Table 4.3 demonstrates the $KMO = 0.93$, which is a satisfactory value that means factor analysis can be performed.

After the first round of EFA, any items that demonstrated a factor-loading value greater than 0.50 on its hypothesised dimension were retained for further analysis. In this stage, cross-loadings were not considered as demonstrated in Table 4.4. As a result of this analysis, 33 items were retained in the instrument.

Table 4.3 KMO and Bartlett's Test for 172 Sample in Pilot Test

KMO of Sampling Adequacy	0.93	
	Approx. chi-square	6153.007
Bartlett's test of sphericity	df	990
	Sig.	.000

Table 4.4 Pilot Study Rotated Component Matrix for the 33-Items of Thai Authentic-Leadership Scale

Item	Dimension				
	Self-Awareness	Balanced Processing	Relational Transparency	Individualised Moral Perspective	Relational Harmony
SA2	0.352	0.109	0.449	0.258	0.402
SA4	0.613	-0.024	0.186	0.388	0.255
SA5	0.398	0.153	0.502	0.374	0.267
SA6	0.643	0.199	0.185	0.08	0.202
SA8	0.764	0.052	0.083	-0.069	0.227
SA10	0.700	0.162	-0.012	0.281	-0.209
BA4	0.251	0.688	0.254	0.225	0.104
BA5	0.454	0.414	0.037	-0.008	0.042
BA7	0.18	0.318	0.667	0.226	0.215
BA8	0.187	0.625	0.152	0.037	0.454
BA9	0.286	0.404	0.453	0.419	0.155
BA10	0.083	0.627	0.136	0.313	0.105

Table 4.4 (Continued)

Item	Dimension				
	Self-Awareness	Balanced Processing	Relational Transparency	Individualised Moral Perspective	Relational Harmony
BA11	0.065	0.661	0.304	0.244	-0.073
RE1	0.126	0.291	0.605	0.348	0.163
RE3	0.37	0.064	0.305	0.531	0.225
RE4	0.048	0.434	0.581	0.149	0.197
RE5	0.175	0.41	0.575	0.36	0.258
RE6	0.316	-0.141	0.576	-0.095	0.36
RE7	0.212	0.213	0.698	0.216	0.349
RE8	0.149	0.371	0.456	0.46	0.09
RE9	0.186	0.205	0.374	0.533	0.371
IN1	0.147	0.175	0.512	0.589	0.242
IN2	0.156	0.375	0.113	0.692	0.121
IN3	0.171	0.267	0.274	0.722	0.303
IN4	0.261	0.329	0.108	0.635	0.371
IN5	0.253	0.527	0.039	0.440	0.322
IN8	0.257	0.695	0.146	0.174	0.157
HA3	0.154	-0.027	0.273	0.370	0.704
HA4	0.044	0.075	0.321	0.513	0.558
HA5	0.181	0.082	0.224	0.334	0.742
HA6	0.128	0.224	0.056	-0.032	0.768
HA8	0.14	0.174	0.426	0.32	0.467
HA11	0.218	0.61	0.267	0.143	0.394

The second iteration of the factor analysis included 33 items retained from the first iteration. The eigenvalue was also considered in this stage. De Vellis (2003) states that an 'eigenvalue represents the amount of information captured by a factor' (p.61), and any factor with an eigenvalue less than 1.0 should be removed from the scale (Kaiser, 1960). Table 4.5 presents the cumulative percentage of the five components of Thai authentic leadership scale. Component 1 was the four-item subscale of individualised moral perspective (IN), illustrating eigenvalue = 9.029, which explained 42.97% of the variance in authentic leadership. Component 2 was the four-item subscale of balanced processing (BA), indicating eigenvalue = 1.793, which added 8.537% to the total variance explanation. Component 3 was the four-item subscale of relational harmony (HA), indicating eigenvalue = 1.543, which added 7.35% to the total variance explanation. Component 4 was the five-item subscale of relational transparency (RE), illustrating eigenvalue = 1.148, which added 5.47% to the total variance explanation. Component 5 was the four-item subscale of self-awareness (SA), indicating eigenvalue = 1.072, which added 5.10% to the total variance explanation. Overall, the total explanation of variance of the five components of the 21-item Thai authentic-leadership scale was 69.45%

This process was engaged to examine the factor loadings and cross-loadings of the remaining items. For this examination, any items that had factor-loading values greater than 0.5 and high factor cross-loadings above 0.5 were excluded from the Thai authentic-leadership scale, which resulted in 21 items remaining for the subsequent CFA analysis. Table 4.6 presents the factor loading of the 21-item Thai authentic-leadership scale.

Table 4.5 Total Variance Explained of Five-dimensional Thai Authentic-Leadership Scale (Pilot Study)

Component	Initial Eigenvalues			Rotation Sums of Squared Loadings		
	Total	Variance	Cumulative	Total	Variance	Cumulative
		(%)	(%)		(%)	(%)
1	9.029	42.996	42.996	3.344	15.923	15.923
2	1.793	8.537	51.533	2.999	14.281	30.205
3	1.543	7.346	58.880	2.890	13.760	43.965
4	1.148	5.465	64.344	2.879	13.712	57.676
5	1.072	5.103	69.447	2.472	11.770	69.447

Table 4.6 Pilot Study Rotated Component Matrix for 21 Items of Thai Authentic-Leadership Scale (Pilot Study)

Item	Dimensions				
	Self-Awareness	Balanced Processing	Relational Transparency	Individualised Moral Perspective	Relational Harmony
SA4	0.654	0.01	0.157	0.379	0.224
SA6	0.634	0.13	0.281	0.112	0.131
SA8	0.760	0.04	0.117	-0.07	0.258
SA10	0.739	0.235	-0.042	0.184	-0.155
BA4	0.239	0.659	0.248	0.232	0.122
BA8	0.243	0.589	0.212	0.032	0.395
BA10	0.099	0.750	0.018	0.215	0.194
BA11	0.063	0.785	0.167	0.203	-0.006
RE1	0.113	0.363	0.538	0.389	0.131

Table 4.6 (Continued)

Dimensions					
Item	Self- Awareness	Balanced Processing	Relational Transparency	Individualised Moral Perspective	Relational Harmony
RE4	0.054	0.411	0.671	0.224	0.075
RE5	0.166	0.444	0.52	0.398	0.245
RE6	0.27	-0.193	0.736	-0.02	0.292
RE7	0.194	0.253	0.714	0.247	0.316
IN1	0.147	0.205	0.492	0.645	0.214
IN2	0.207	0.32	0.141	0.742	0.044
IN3	0.185	0.262	0.244	0.753	0.268
IN4	0.28	0.289	0.141	0.669	0.339
HA3	0.129	0.01	0.222	0.386	0.73
HA4	0.039	0.074	0.336	0.085	0.528
HA5	0.168	0.13	0.207	0.333	0.764
HA6	0.108	0.214	0.136	-0.058	0.79

4.1.2 Structural Confirmation

CFA testing was conducted to examine how well the data conformed to the five-dimensional model and to confirm the five hypothesised factor structure that was derived from the theoretical foundation and previous EFA analyses (DeVellis, 2003).

4.1.2.1 Sample

The participants in the study stage of scale development were 400 officers in the Royal Thai Navy Headquarters. The sample consisted of 230 males

(57.5%) and 170 females (42.5%). The largest age group of participants was between 41 and 50 years old (31.8%). Table 4.7 presents the demographic characteristics of the sample for the CFA study.

Table 4.7 Demographic Characteristics of Participants for CFA Study

Variable	Number	(%)
Gender		
Female	170	42.5
Male	230	57.5
Age		
< 20	1	0.3
20–30	91	22.8
31–40	107	26.8
41–50	127	31.8
>51	74	18.5
Educational level		
High school	134	33.5
High vocational	56	14.0
Bachelor	173	43.3
Master	34	8.5
Doctorate	3	0.8
Years of employment		
< 5	63	15.8
5–10	52	13.0
11–15	51	12.8
16–20	56	14.0
20–25	62	15.5
>26	116	29.0
Total	400	100.0

The internal consistency of the pilot 21-item Thai authentic-leadership scale was first tested. The Cronbach's alpha = 0.93. Cronbach's alpha for each subscale ranged between 0.70 and 0.86.

4.1.2.2 CFA for 21-Item Thai Authentic-Leadership Scale

The five-dimensional model yielded a significant chi-square value ($\chi^2(179) = 615.99, p < 0.05$). Arguably, the chi-square value may not demonstrate a good fit because it is sensitive to sample size; particularly large samples ($N > 200$) are likely to produce a significant chi-square value (Bentler & Bonett, 1980; McIntosh, 2007). Further, the evaluation of goodness-of-fit was conducted, as presented in Table 4.8. It can be seen that the TLI, GFI, AGFI, and NFI values were below the criteria stated in the GFI (< 0.90). Moreover, items RE6 and HA6 had factor-loading values less than 0.40 (0.27 and 0.32 respectively), as presented in Table 4.9. Consequently, the two items were removed from the scale.

Table 4.8 Results of CFA for 21-Item Thai Authentic-Leadership Scale

CMN/df	RMR	RMSEA	CFI	TLI	GFI	AGFI	NFI	IFI	PNFI
3.44	0.06	0.08	0.91	0.89	0.87	0.83	0.87	0.90	0.75

Table 4.9 Factor Loadings of CFA for 21-Item Thai Authentic-Leadership Scale

	Self- Awareness	Balanced Processing	Relational Transparency	Individualised Moral Perspective	Relational Harmony				
SA4	0.74	BA4	0.76	RE1	0.77	IN1	0.81	HA3	0.77
SA6	0.72	BA8	0.73	RE4	0.72	IN2	0.84	HA4	0.77
SA8	0.42	BA10	0.78	RE5	0.70	IN3	0.78	HA5	0.74
SA10	0.72	BA11	0.57	RE6	0.27	IN4	0.82	HA6	0.32
				RE7	0.66				

A CFA testing of the hypothesised five-dimensional model with 19 items revealed was re-run. The results revealed the following: chi-square value ($\chi^2(142) = 304.67, p < 0.05$); CMIN/df. = 2.15; RMR = 0.02; RMSEA = 0.05; CFI = 0.96; TLI = 0.96; GFI = 0.93; AGFI = 0.90; NFI = 0.93; IFI = 0.96; PNFI = 0.77. The item factor loadings of the 19-item, five-dimensional model were between 0.41 and 0.84 at the significant level of $p < 0.01$. Overall, the empirical results indicated the model was a good fit to the observed data. In addition, the CR of the constructs, AVE, and Cronbach's alpha were further analysed to check validity and reliability. The results presented in Table 4.10 demonstrate that all constructs indicated CR values greater than 0.80, which exceeds the suggested criteria of 0.60 (Fornell & Larcker, 1981). For AVE analysis, the results demonstrated that only four of the dimensions (i.e., balanced processing, relational transparency, individualised moral perspective, and relational harmony) were greater than 0.50; self-awareness had AVE = 0.45. Although AVE should be higher than 0.50, it is acceptable at 0.40 if the CR is higher than 0.60 because the convergent validity of the construct remains adequate (Fornell & Larcker, 1981). Therefore, it is reasonable to accept the self-awareness construct. In addition, all Cronbach's alpha values exceeded 0.70 as presented in Table 4.11.

Next, correlations among sub dimensions of Thai authentic leadership and demographic variables were analysed. Results show in Table 4.12 that all of sub-dimensions of Thai authentic leadership had a positive relationship with the aggregate authentic leadership, ranging from 0.81 to 0.89. Correlations among five sub dimensions ranged from 0.64 to 0.80. The strongest relationship was between balanced processing and relational transparency, while the weakest relationship was between self-awareness and relational harmony.

Table 4.10 Results of CFA for 19-Item Thai Authentic-Leadership Scale

CMN/df	RMR	RMSEA	CFI	TLI	GFI	AGFI	NFI	IFI	PNFI
2.15	0.02	0.05	0.96	0.96	0.93	0.90	0.93	0.96	0.77

Table 4.11 Factor Loadings of CFAfor19-Item Authentic-Leadership Scale

	Self-Awareness	Balanced Processing	Relational Transparency	Individualised Moral Perspective	Relational Harmony				
SA4	0.74	BA4	0.76	RE1	0.77	IN1	0.81	HA3	0.77
SA6	0.72	BA8	0.73	RE4	0.72	IN2	0.84	HA4	0.77
SA8	0.42	BA10	0.78	RE5	0.7	IN3	0.78	HA5	0.74
SA10	0.72	BA11	0.57	RE7	0.66	IN4	0.82		

Table 4.12 Correlations among Five Sub Dimensions of Thai Authentic Leadership and Demographic Variables (Scale-Development Study)

	Mean	SD	SA	BA	RE	IN	HA	AL
SA	3.85	0.60	1					
BA	4.02	0.52	.66**	1				
RE	3.98	0.57	.66**	.801**	1			
IN	4.10	0.57	.65**	.737**	.774**	1		
HA	4.03	0.61	.64**	.711**	.773**	.755**	1	
AL	3.99	0.50	.822**	.882**	.809**	.890**	.889**	1

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

SA = Self-Awareness

BA = Balanced Processing

RE = Relational Transparency

IN = Individualised Moral Perspective

HA = Relational Harmony

AL = Authentic Leadership

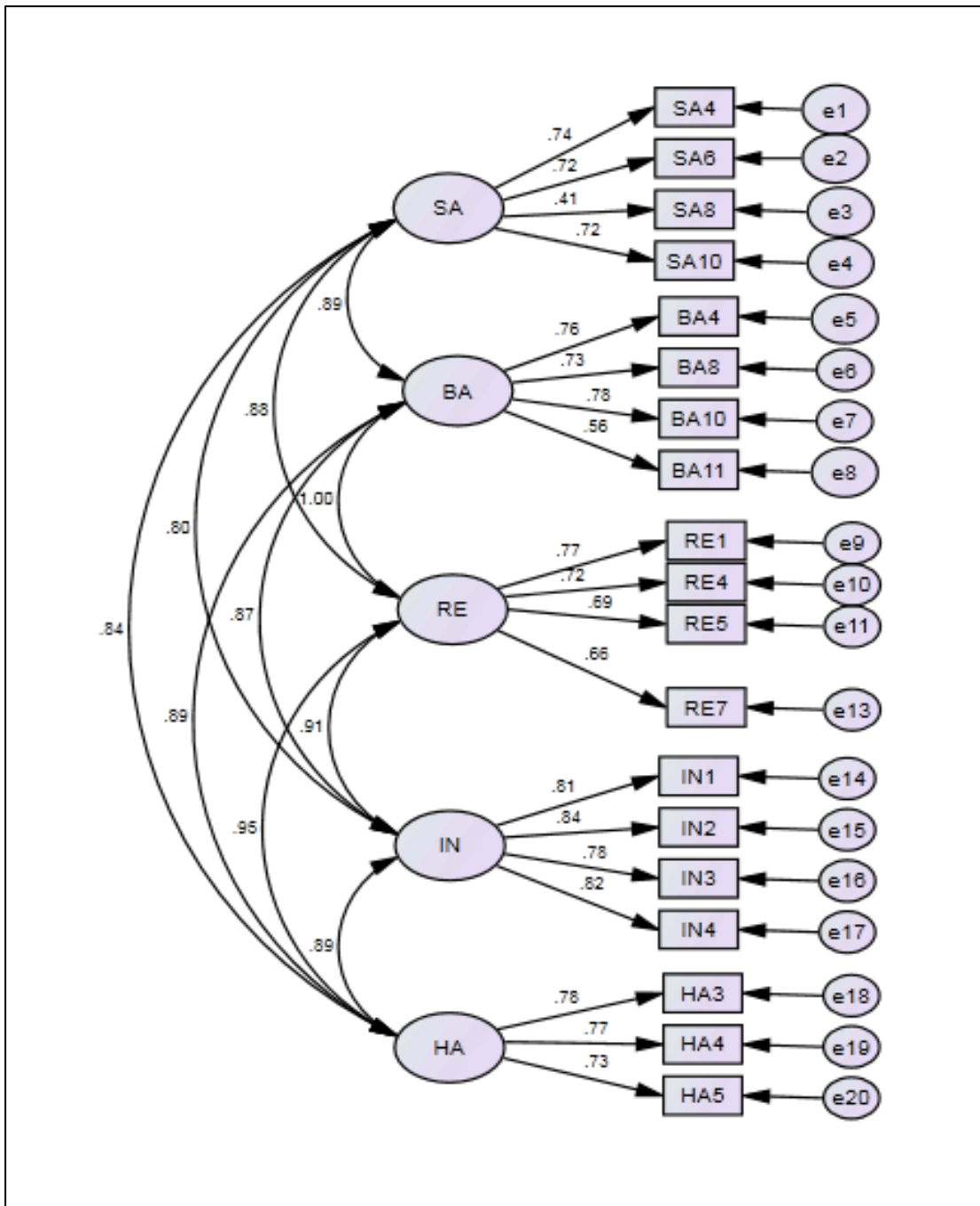


Figure 4.1 Results of CFA for 19-Item Thai Authentic-Leadership Scale (Scale-Development Study)

Table 4.13 Summary of Results of Finalised 19-Item Thai Authentic-Leadership Scale

Dimension	Items (N)	CR	AVE	Factor Loading	Cronbach's Alpha
Self-awareness	4	0.81	0.45	0.41–0.74	0.70
Balanced processing	4	0.8	0.51	0.57–0.78	0.80
Relational transparent	4	0.8	0.51	0.66–0.77	0.80
Individualised moral perspective	4	0.89	0.66	0.78–0.84	0.89
Relational harmony	3	0.81	0.58	0.74–0.77	0.80
Total items = 19 ($\alpha = 0.94$)					

The results from the scale-development study of the Thai authentic-leadership scales shown in Table 4.13 revealed that the Thai authentic-leadership scale consists of five dimensions (as hypothesised), which are measured by 19 items that provide a reliable assessment of these five dimensions. The scale-development study provided initial support for Hypothesis 1. Table 4.14 presents the final version of the 19-item Thai authentic-leadership scale.

Table 4.14 Finalised Version of 19-Item Thai Authentic-Leadership Scale

Dimension	Items	
Self-awareness (four items)	SA4	My supervisor is benevolently conscious of his/her own manners when treating his/her subordinates.
	SA6	My supervisor understands his/her subordinates' abilities and limitations.
	SA8	My supervisor is not aware of his/her impact on subordinates when making decisions. (Reversed score)

Table 4.14 (Continued)

Dimension	Items	
	SA10	My supervisor does not try to understand his/her own shortcomings and limitations.(Reversed score)
Balanced processing (four items)	BA4	My supervisor stimulates others to share opinions and ideas.
	BA8	My supervisor accurately analyses relevant information before making a decision.
	BA10	My supervisor has no bias when receiving information before reaching a conclusion.
	BA11	My supervisor encourages others to provide ideas, point of views and feedback being challenged to his/her own.
Relational transparency (five items)	RE1	My supervisor is reliable and can be trusted by his/her subordinates.
	RE4	My supervisor shares information openly with his/her subordinates.
	RE5	My supervisor has a transparent working process.
	RE7	My supervisor displays his/her true self appropriately with others.
Individualised moral perspective (four items)	IN1	My supervisor's expressions and actions are aligned with the ethical values of the organisation.
	IN2	My supervisor is a role model for being self-regulated.
	IN3	My supervisor is honest and reliable when making an important decision.
	IN4	My supervisor behaves accordingly to his/her core values when facing ethical dilemmas at workplace.
Relational harmony (four items)	HA3	My supervisor helps and supports his/her subordinates equally.
	HA4	My supervisor is friendly and polite to everyone.

Table 4.14 (Continued)

Dimension	Items
HA5	My supervisor cultivates harmony and unity among individuals, groups, and organisations.
Total =19 items	

4.2 Scale Validation

This section explains the examination of validity and reliability test for the newly developed scale of 19-item Thai authentic leadership. These include analysis of construct validity, internal consistency, nomological network, and followed by the structural relationships between three variables.

4.2.1 Sample

There were 644 participants in the scale-validation study. These participants were officers from three operational branches of the Royal Thai Navy—Royal Thai Fleet (36.7%), Naval Studies and Research (33.07%), and Naval Dockyard Department (30.23%)—who had worked in their position for more than six months. These participants were separated from the participants in the scale-development study.

The majority of the participants were male ($n = 482$) 74.8%. The average age range was between 20 and 30 years (33.5%), followed by 41–50 years of age (26.44%), and 31–40 years of age (24.8%). Most of the participants had a Bachelor degree (39.6%), and 33.1% had achieved a high-vocational educational level. The two highest percentages for range of employment years were 5–10 years (25.3%) and 26–60 years (23.6%). The participants were almost evenly distributed among the three branches of the Royal Thai Navy: Royal Thai Fleet (36.7%), Naval Studies and Research (33.07%), and Naval Dockyard Department (30.23%). Table 4.15 presents the demographic characteristics of the participants in the validation study.

Table 4.15 Demographic Characteristics of Participants for Scale-Validation Study

Variable	Number	(%)
Gender		
Female	162	25.2
Male	482	74.8
Age		
< 20	4	.6
20–30	216	33.5
31–40	160	24.8
41–50	170	26.4
51 or more	94	14.6
Educational level		
High school	135	21.0
High vocational	213	33.1
Bachelor degree	255	39.6
Master degree	32	5.0
Doctorate	9	1.4
Years of employment		
Less than 5	99	15.4
5–10	163	25.3
11–15	77	12.0
16–20	72	11.2
20–25	81	12.6
26 or more	152	23.6
Operational branches		
Naval Dockyard Department	195	30.23
Royal Thai Fleet	236	36.70

Table 4.15 (Continued)

Variable	Number	(%)
Naval Studies and Research	213	33.07
Total	644	100

The instruments used in the validation and testing of the nomological network were described in Chapter 3. The scale-validation study assessed the internal consistency of each scale and subscale by performing Cronbach's alpha. The results of the reliability of the Thai authentic-leadership scale are presented in Table 4.16.

Table 4.16 Summary of Cronbach's Alpha of Instruments Used in Scale-Validation Study

Scale	α for entire measure		α for sub-dimensions	
Authentic leadership	19 items	0.94	Self-awareness	0.76
			Balanced processing	0.83
			Relational transparency	0.83
			Individualised moral perspective	0.90
			Relational harmony	0.82
Transformational leadership	30 items	0.97	Idealised influence	0.93
			Inspirational motivation	0.91
			Intellectual stimulation	0.91
			Individualised consideration	0.88
Wellbeing	30 items	0.94	Career wellbeing	0.83
			Social wellbeing	0.83
			Financial wellbeing	0.84

Table 4.16 (Continued)

Scale	α for entire measure		α for sub-dimensions	
Innovative work behaviour	10 items	0.93	Physical wellbeing	0.78
			Community wellbeing	0.86
			Opportunity explorer	0.75
			Ideas generation	0.85
			Championing	0.80
			Application	0.88

4.2.2 Validity and Reliability of Thai Authentic-Leadership Scale

In an attempt to confirm the validity and reliability identified in the scale-development study, CFA was run.

The results of the model fit of CFA for the 19-item Thai authentic-leadership scale are presented in Table 4.17, and indicate an adequate model fit. The factor loadings were greater than 0.50. In addition, the validity of the Thai authentic-leadership scale was assessed through factor loadings ($\lambda \geq 0.50$) and AVE (AVE ≥ 0.50 , but it is acceptable at 0.40 if CR is ≥ 0.60) (Fornell & Larcker, 1981). Moreover, the reliability of the scale was assessed through Cronbach's alpha and CR (CR ≥ 0.50). The results presented in Table 4.18 demonstrate that the range of factor loadings was between 0.51 and 0.88, at the significant level of $p < 0.01$. The AVEs for the constructs were between 0.43 and 0.68. The results presented in Table 4.15 indicate that all dimensions of the Thai authentic-leadership scale had Cronbach's alpha values greater than 0.70. The composite reliabilities of constructs ranged from 0.75 to 0.90.

Table 4.17 Results of CFA for 19-Item Thai Authentic-Leadership Scale

CMN/df	RMR	RMSEA	CFI	TLI	GFI	AGFI	NFI	IFI	PNFI
3.92	0.02	0.06	0.94	0.93	0.91	0.90	0.92	0.94	0.77

Table 4.18 Cronbach's Alpha, AVE, CR, and Factor Loadings of 19-Item Thai Authentic-Leadership Scale

Dimensions and Items	α	AVE	CR	Loadings	SE	t-value
Self-awareness	0.76	0.43	0.75			
SA4				0.65		
SA6				0.72	0.060	14.80**
SA8				0.51	0.088	4.11**
SA10				0.73	0.068	16.52**
Balanced processing	0.83	0.55	0.82			
BA4				0.77		
BA8				0.77	0.05	19.90**
BA10				0.79	0.049	20.52**
BA11				0.63	0.047	15.94**
Relational transparency	0.83	0.56	0.83			
RE1				0.77		
RE4				0.72	0.051	18.84**
RE5				0.75	0.048	19.92**
RE7				0.74	0.051	18.84**
Individualised moral perspective	0.90	0.68	0.90			
IN1				0.81		
IN2				0.81	0.045	23.22**

Table 4.18 (Continued)

Dimensions and Items	α	AVE	CR	Loadings	SE	<i>t</i>-value
IN3				0.88	0.042	25.85**
IN4				0.82	0.041	23.44**
Relational harmony	0.80	0.61	0.83			
HA3				0.83		
HA4				0.75	0.035	20.41**
HA5				0.77	0.039	21.17**
Total 19 items = 0.94, **$p < 0.000$						

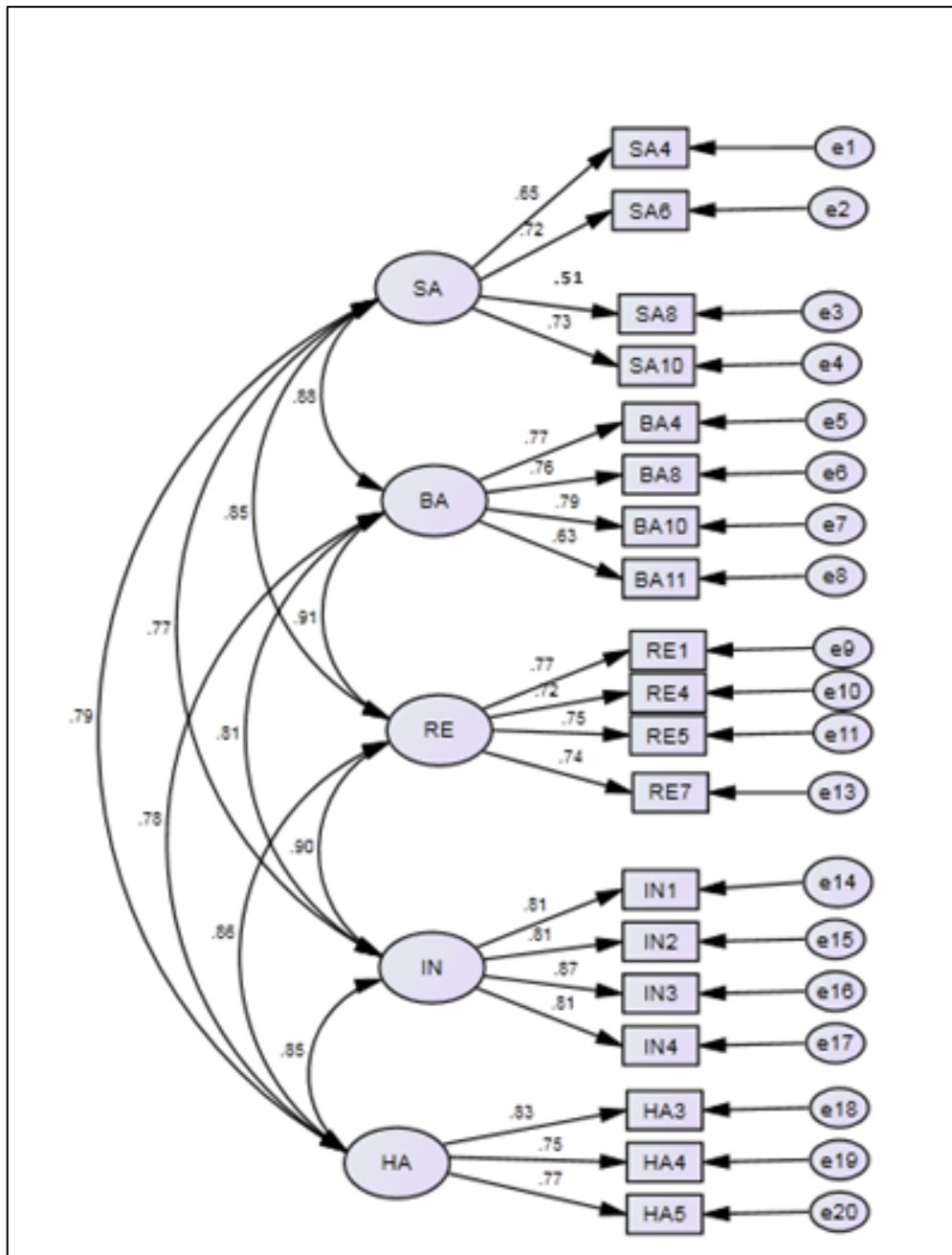


Figure 4.2 Results of CFA for 19-Item Thai Authentic-Leadership Scale (Scale-Validation Study)

4.2.3 Relationship with Transformational Leadership

Further analysis involved an examination of discriminant validity and convergent validity to demonstrate a positive correlation between authentic leadership and transformational leadership. This examination of correlation was performed because two forms of leadership are considered to have some conceptual overlap (Walumbwa et al., 2008).

4.2.3.1 Discriminant Validity

The chi-square between two models (unconstrained-correlation model and constrained-correlation model) was conducted using CFA. In the first model (unconstrained correlation), authentic leadership and transformational leadership were freely estimated, while the second model (constrained correlation) was set to 1.00. The results are presented in Table 4.19, and demonstrate that the constrained-correlation model provided a poorer chi-square value than the unconstrained-correlation model (unconstrained correlation $\chi^2(26) = 201.47$; constrained correlation $\chi^2(27) = 370.13$; $\Delta\chi^2 = 186.66$; $p < 0.01$). Thus, the results of the analysis provide support for discriminant validity.

Table 4.19 Results of Model Comparison between Unconstrained-Correlation and Constrained-Correlation Models

Model	Chi-square	df	RMSEA	GFI
Unconstrained correlation	201.47	26	0.199	0.769
Constrained correlation	370.13	27	0.27	0.70

4.2.3.2 Convergent Validity

To demonstrate a positive relationship between the two forms of leadership (authentic and transformational), bivariate-correlation testing was performed to test the relationship between the 19-item Thai authentic-leadership scale and the 30-item Thai transformational-leadership scale. Correlations between the dimensions of both scales were also examined. The results are presented in Table 4.20. Overall, both aggregate measures illustrated strong positive correlations ($r = 0.79$). All dimensions were also positively correlated ($0.37 \leq r \leq 0.76$). Balanced

processing and idealised influence were found to have the highest correlation ($r = 0.76$), whereas the weakest correlation between the dimensions was between self-awareness and idealised influence.

Overall, the validity and reliability results of the tests on the Thai authentic-leadership scale developed by this study provide substantial evidence of convergent validity among the dimensions, as well as reliability. Authentic leadership was also found to have a positive correlation with transformational leadership, but was significantly distinguished from transformational leadership, which indicates additional convergent and discriminant validity. Therefore, Hypothesis 1 'authentic leadership in the Thai context consists of five distinct constructs: self-awareness, balanced processing, relational transparency, internalised moral perspective, and relational harmony 'is confirmed.

Table 4.20 Correlation between Thai Authentic-leadership Scale and Thai Transformational-Leadership Scale

Dimensions	Mean	SD	SA	BA	RE	IN	HA	ID	IS	IT	IC	AL	TF
SA	3.67	0.61	1										
BA	3.77	0.64	.415**	1									
RE	3.73	0.74	.477**	.601**	1								
IN	3.92	0.71	.489**	.606**	.702**	1							
HA	3.58	0.69	.406**	.457**	.632**	.630**	1						
ID	3.81	0.69	.365**	.775**	.642**	.606**	.426**	1					
IS	4.29	0.78	.453**	.738**	.668**	.665**	.526**	.877**	1				
IT	4.37	0.78	.462**	.586**	.740**	.604**	.530**	.724**	.765**	1			
IC	3.66	0.65	.559**	.511**	.638**	.509**	.425**	.685**	.751**	.846**	1		
AL	3.74	0.50	.676**	.773**	.877**	.863**	.785**	.713**	.769**	.742**	.665**	1	
TF	4.03	0.66	.499**	.725**	.735**	.657**	.523**	.912**	.938**	.906**	.889**	.794**	1

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

SA = Self-Awareness

HA = Relational Harmony

IC = Idealised Consideration

BA = Balanced Processing

ID = Individualised Influence

AL = Authentic Leadership

RE = Relational Transparency

IS = Inspirational Motivation

TF = Transformational Leadership

IN = Individualised Moral Perspective

IT = Intellectual Stimulation

4.2.4 Test of Nomological Network

This test was performed to examine the relationship between authentic leadership and follower outcomes, which were wellbeing in the workplace and innovative work behaviour.

4.2.4.1 Correlations of Thai Authentic Leadership Scale

The bivariate correlations among the five sub dimensions and aggregate Thai were tested as presented in Table 4.21. This testing illustrates that all of the five sub dimensions have a positive relationship with each other ($0.59 \leq r \leq 0.78$), and with the aggregate authentic leadership ($0.78 \leq r \leq 0.89$). The strongest relationship among sub dimensions was between relational transparency and individualised moral perspective and the weakest relationship was between self-awareness and relational harmony.

Table 4.21 Correlations among Five Sub Dimensions of Thai Authentic Leadership and Demographic Variables (Scale Validation Study)

	Mean	SD	SA	BA	RE	IN	HA	AL
SA	3.67	0.57	1					
BA	3.86	0.65	.621**	1				
RE	3.82	0.65	.614**	.753**	1			
IN	4.00	0.65	.599**	.702**	.776**	1		
HA	3.91	0.69	.585**	.637**	.717**	.737**	1	
AL	3.85	0.55	.783**	.864**	.89**	.88**	.861**	1

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

SA = Self-Awareness

BA = Balanced Processing

RE = Relational Transparency

IN = Individualised Moral Perspective

HA = Relational Harmony

AL = Authentic Leadership

4.2.4.2 Relationship between Authentic Leadership, Follower Wellbeing, and Follower Innovative Work Behaviour

The results presented in Table 4.22 illustrate that authentic leadership has a positive relationship with follower wellbeing ($r = 0.66$; $p < 0.01$). In addition, all five dimensions of authentic leadership are identified as having a positive association with aggregate wellbeing; of all the dimensions of authentic leadership, relational harmony indicates the highest correlation with aggregate wellbeing ($r = 0.62$; $p < 0.01$). In addition, relational harmony and social wellbeing present the strongest relationship among both subscales ($r = 0.66$; $p < 0.01$). A positive moderate relationship between authentic leadership and follower innovative work behaviour is indicated ($r = 0.35$; $p < 0.01$), as presented in Table 4.23. Relational harmony had the highest correlation with aggregate innovative work behaviour when compared to other authentic-leadership dimensions ($r = 0.38$; $p < 0.01$). Likewise, all dimensions of both Thai authentic leadership and innovative work behaviour variables presented a positive relationship at a significant level $p < 0.01$, with a range from 0.16 to 0.35.

4.2.4.3 Relationship between Wellbeing and Innovative Work Behaviour

A positive relationship between wellbeing and innovative work behaviour was found ($r = 0.443$; $p < 0.01$). Each component of wellbeing also demonstrated a positive correlation with aggregate innovative work behaviour ($0.35 \leq r \leq 0.40$; $p < 0.01$); the strongest relationship here was with social wellbeing ($r = 0.401$; $p < 0.01$). It is significant that all the components of follower wellbeing and follower innovative work behaviour were positively correlated ($0.27 \leq r \leq 0.36$; $p < 0.01$); the strongest relationship was between social wellbeing and championing ($r = 0.363$; $p < 0.01$). Table 4.24 presents the correlation between follower wellbeing and follower innovative work behaviour.

Table 4.22 Correlation between Authentic Leadership and Follower Wellbeing

	Mean	SD	SA	BA	RE	IN	HA	CAR	SOC	FIN	PHY	COM	AL	WB
SA	3.67	0.57	1											
BA	3.86	0.65	.621**	1										
RE	3.82	0.65	.614**	.753**	1									
IN	4.00	0.65	.599**	.702**	.776**	1								
HA	3.91	0.69	.585**	.637**	.717**	.737**	1							
CAR	3.92	0.51	.410**	.451**	.452**	.490**	.493**	1						
SOC	3.94	0.52	.494**	.593**	.590**	.611**	.655**	.691**	1					
FIN	3.69	0.58	.405**	.483**	.503**	.511**	.506**	.631**	.671**	1				
PHY	3.71	0.57	.351**	.366**	.374**	.369**	.431**	.579**	.553**	.629**	1			
COM	3.71	0.63	.411**	.453**	.461**	.480**	.509**	.564**	.601**	.677**	.642**	1		
AL	3.85	0.55	.783**	.864**	.900**	.890**	.861**	.535**	.687**	.562**	.440**	.539**	1	
WB	3.79	0.47	.493**	.558**	.567**	.585**	.617**	.817**	.831**	.865**	.818**	.846**	.657**	1

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

SA = Self-Awareness

BA = Balanced Processing

RE = Relational Transparency

IN = Individualised Moral Perspective

HA = Relational Harmony

CAR = Career Wellbeing

SOC = Social Wellbeing

FIN = Financial Wellbeing

PHY = Physical Wellbeing

COM = Community Wellbeing

AL = Authentic Leadership

WB = Wellbeing

Table 4.23 Correlation between Authentic Leadership and Follower Innovative Work Behaviour

	Mean	SD	SA	BA	RE	IN	HA	OP	ID	CH	AP	AL	IW
SA	3.67	0.57	1										
BA	3.86	0.65	.621**	1									
RE	3.82	0.65	.614**	.753**	1								
IN	4.00	0.65	.599**	.702**	.776**	1							
HA	3.91	0.69	.585**	.637**	.717**	.737**	1						
OP	3.60	0.75	.194**	.220**	.209**	.313**	.323**	1					
ID	3.55	0.76	.158**	.211**	.201**	.252**	.302**	.673**	1				
CH	3.32	0.86	.215**	.290**	.297**	.293**	.347**	.530**	.721**	1			
AP	3.50	0.81	.191**	.214**	.275**	.299**	.332**	.528**	.670**	.764**	1		
AL	3.85	0.55	.783**	.864**	.900**	.890**	.861**	.295**	.264**	.338**	.307**	1	
IW	3.49	0.68	.222**	.274**	.288**	.337**	.380**	.786**	.889**	.887**	.868**	.352**	1

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

SA = Self-Awareness

HA = Relational Harmony

AP = Application

BA = Balanced Processing

OP = Opportunity Explorer

AL = Authentic Leadership

RE = Relational Transparency

ID = Idea Generation

IW = Innovative Work Behaviour

IN = Individualised Moral Perspective

CH = Championing

Table 4.24 Correlation between Follower Wellbeing and Follower Innovative Work Behaviour

	Mean	SD	CAR	SOC	FIN	PHY	COM	OP	ID	CH	AP	WB	IW
CAR	3.92	0.51	1										
SOC	3.94	0.52	.691**	1									
FIN	3.69	0.58	.631**	.671**	1								
PHY	3.71	0.57	.579**	.553**	.629**	1							
COM	3.71	0.63	.564**	.601**	.677**	.642**	1						
OP	3.60	0.75	.302**	.343**	.313**	.292**	.331**	1					
ID	3.55	0.76	.274**	.327**	.292**	.282**	.311**	.673**	1				
CH	3.32	0.86	.307**	.363**	.333**	.293**	.331**	.530**	.721**	1			
AP	3.50	0.81	.322**	.352**	.335**	.329**	.322**	.528**	.670**	.764**	1		
WB	3.79	0.47	.817**	.831**	.865**	.818**	.846**	.378**	.356**	.389**	.396**	1	
IW	3.49	0.68	.351**	.404**	.371**	.349**	.377**	.786**	.889**	.887**	.868**	.443**	1

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

CAR = Career Wellbeing

COM = Community Wellbeing

AP = Application

SOC = Social Wellbeing

OP = Opportunity Explorer

WB = Wellbeing

FIN = Financial Wellbeing

ID = Idea Generation

IW = Innovative Work Behaviour

PHY = Physical Wellbeing

CH = Championing

4.2.4.4 Assessment of Measurement-Model Fit

The latent variables in this model consisted of authentic leadership, follower wellbeing, and follower innovative work behaviour. Overall CFA for the entire hypothesised model was conducted to determine how well the proposed model fit the sample data. As presented in Table 4.25, the results were as follows: chi-square value ($\chi^2(74) = 364.09, p < 0.05$); CMIN/df. = 4.92; RMR = 0.02; RMSEA = 0.07; CFI = 0.95; TLI = 0.94; GFI = 0.92; AGFI = 0.89; NFI = 0.94; IFI = 0.96; and PNFI = 0.77. Although the value of the AGFI was lower than the recommended criteria of goodness, the value (> 0.80) has been considered satisfactory by various researchers (e.g., Anderson & Gerbing, 1984; Cole, 1987; Marsh, Balla & McDonald, 1988; West, Taylor & Wu, 2012). Loading factors were above 0.50 as presented in Table 4.26. The composite reliabilities of the latent variables ranged from 0.88 to 0.94 ($p < 0.01$). The AVEs for the latent variables were greater than 0.50. Generally, the measurement model was adequate to the data, and presented acceptable item-to-factor scale validity. Table 4.26 presents the summary of the validity of the measurement model.

Table 4.25 Results of CFA for Measurement Model

CMN/df	RMR	RMSEA	CFI	TLI	GFI	AGFI	NFI	IFI	PNFI
4.92	0.02	0.07	0.95	0.94	0.92	0.89	0.94	0.95	0.77

Table 4.26 Summary of Measurement Model

Variable	CR	AVE	Dimension	Factor Loading
Authentic leadership	0.94	0.68	Self-awareness	0.71
			Balanced processing	0.82
			Relational transparency	0.88
			Individualised moral perspective	0.87
			Relational harmony	0.83

Table 4.26 (Continued)

Variable	CR	AVE	Dimension	Factor Loading
Wellbeing	0.89	0.62	Career wellbeing	0.78
			Social wellbeing	0.83
			Financial wellbeing	0.83
			Physical wellbeing	0.73
			Community wellbeing	0.78
Innovative work behaviour	0.88	0.65	Opportunity explorer	0.68
			Idea generation	0.84
			Championing	0.87
			Application	0.84

4.2.4.5 Structural Relationships

SEM was conducted on AMOS to examine measurement errors and the direct and indirect effects of the structural relationships among the three variables: authentic leadership, follower wellbeing, and follower innovative work behaviour. The results presented in Table 4.27 reveal that the hypothesised model was statistically supported: chi-square value ($\chi^2(73) = 289.24, p < 0.05$); CMIN/df. = 3.96; RMR = 0.02; RMSEA = 0.07; CFI = 0.96; TLI = 0.96; GFI = 0.94; AGFI = 0.91; NFI = 0.95; IFI = 0.96; and PNFI = 0.77.

Table 4.27 Model-Fit Indices for Hypothesised Model

CMN/df	RMR	RMSEA	CFI	TLI	GFI	AGFI	NFI	IFI	PNFI
3.96	0.02	0.07	0.96	0.96	0.94	0.91	0.95	0.96	0.77

In addition, the influential effects of variables were explored through SPC as shown in Figure 4.3, which represents the standardised regression coefficient. SPC is statistically significant when the *t*-value is greater than 1.96 at a significance

level of 0.05 (Kline, 2011). The results presented in Table 4.28 demonstrate a positive statistically significant influential effects from the two relationships—the influence of authentic leadership on follower wellbeing (SPC = 0.74, $t = 14.97$; $p < 0.000$), and the influence of wellbeing on innovative work behaviour (SPC = 0.43, $t = 6.139$; $p < 0.000$). These two outcomes support Hypothesis 3 ‘Authentic leadership is positively related to follower innovative work behaviour’, and Hypothesis 4a ‘Follower wellbeing is positively related to employee innovative work behaviour’. However, the influential relationship between authentic leadership and innovative work behaviour was not found to be statistically significant (SPC = 0.06, $t = 1.00$; $p = 0.31$).

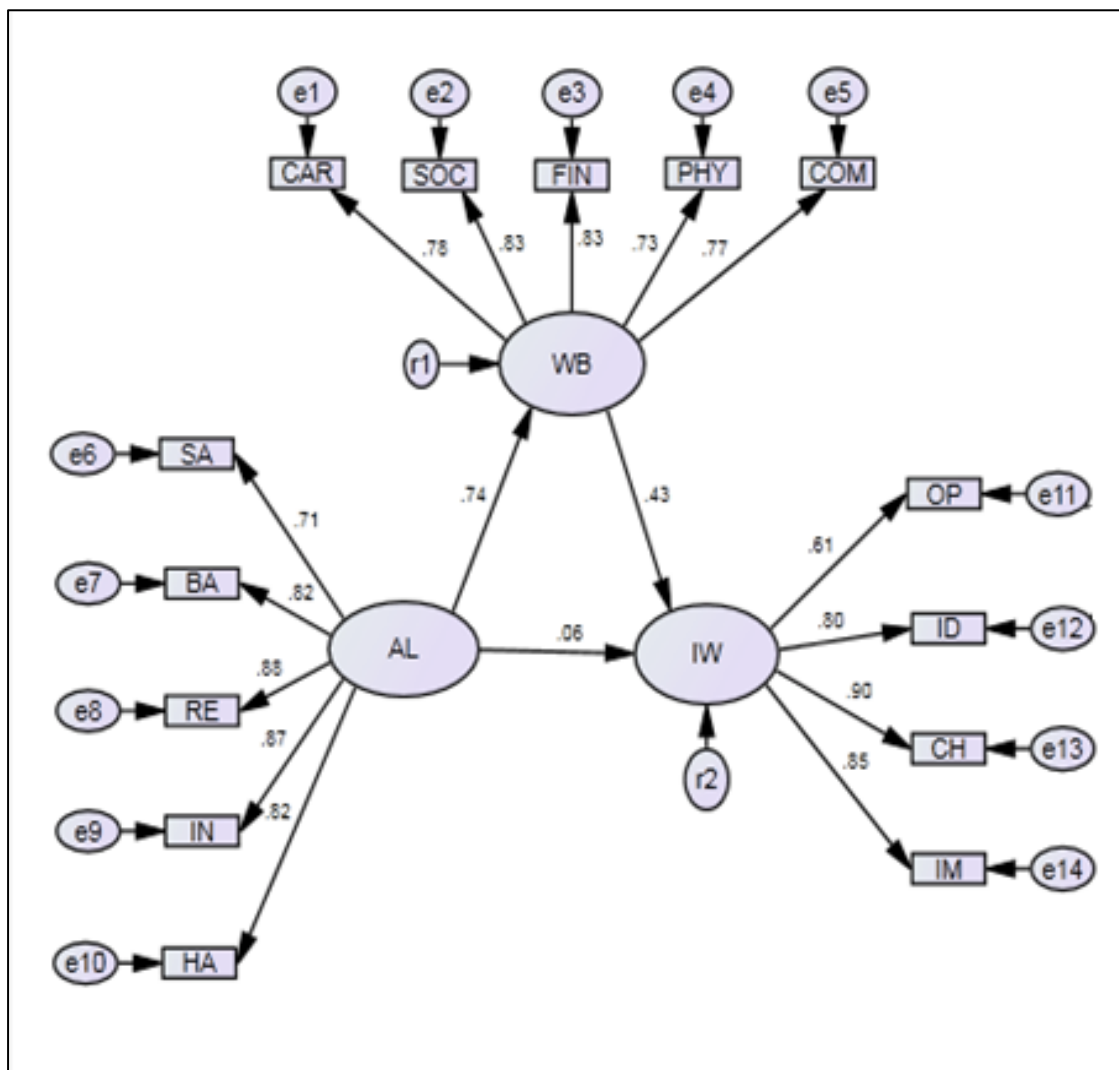


Figure 4.3 SEM Analysis among the Three Variables

Table 4.28 Standardised Regression Weights of the Hypothesis Model

			Estimate	SE	<i>t</i>-value	<i>p</i>-value
AL	→	WB	0.738	0.06	14.971	0.00
AL	→	IW	0.064	0.073	1.002	0.31
WB	→	IW	0.431	0.066	6.139	0.00

4.2.4.6 Mediation Effect

Three points of mediation occurrence (as suggested by Kenny, Kashy, & Bluger, 1998) were considered. First, authentic leadership (independent variable) was significantly correlated with wellbeing (mediator) ($r = 0.57$; $p < 0.01$). Second, authentic leadership (independent variable) demonstrated a significant correlation with innovative work behaviour (dependent variable) ($r = 0.36$; $p < 0.01$). Finally, the relationship between authentic leadership (independent variable) and innovative work behaviour (dependent variable) was non-significant when wellbeing (mediator) was entered into the model ($t = 1.002$; $p = 0.31$). Previous results of the study provided initial support for the hypothesis that wellbeing was a mediator of the structural relationship.

Subsequently, the path line between wellbeing and innovative work behaviour demonstrated in the hypothesised model was removed to investigate an influential effect of authentic leadership on the two variables. The results presented in Table 4.29 indicate the significant influential effects of authentic leadership on follower wellbeing (SPC = 0.75, $t = 15.06$; $p < 0.000$) and follower innovative work behaviour (SPC = 0.41, $t = 8.65$; $p < 0.000$) because the t -value is greater than 1.96 at a significance level of 0.00. This suggests that wellbeing is a full mediator of the relationship between authentic leadership and innovative work behaviour because the influential relationship between authentic leadership and innovative work behaviour was not significant when wellbeing was also measure in the relationship.

Table 4.29 Standardised Regression Weights

			Estimate	SE	t-value	p-value
AL	→	WB	0.75	0.06	15.06	0.00
AL	→	IW	0.41	0.06	8.65	0.00

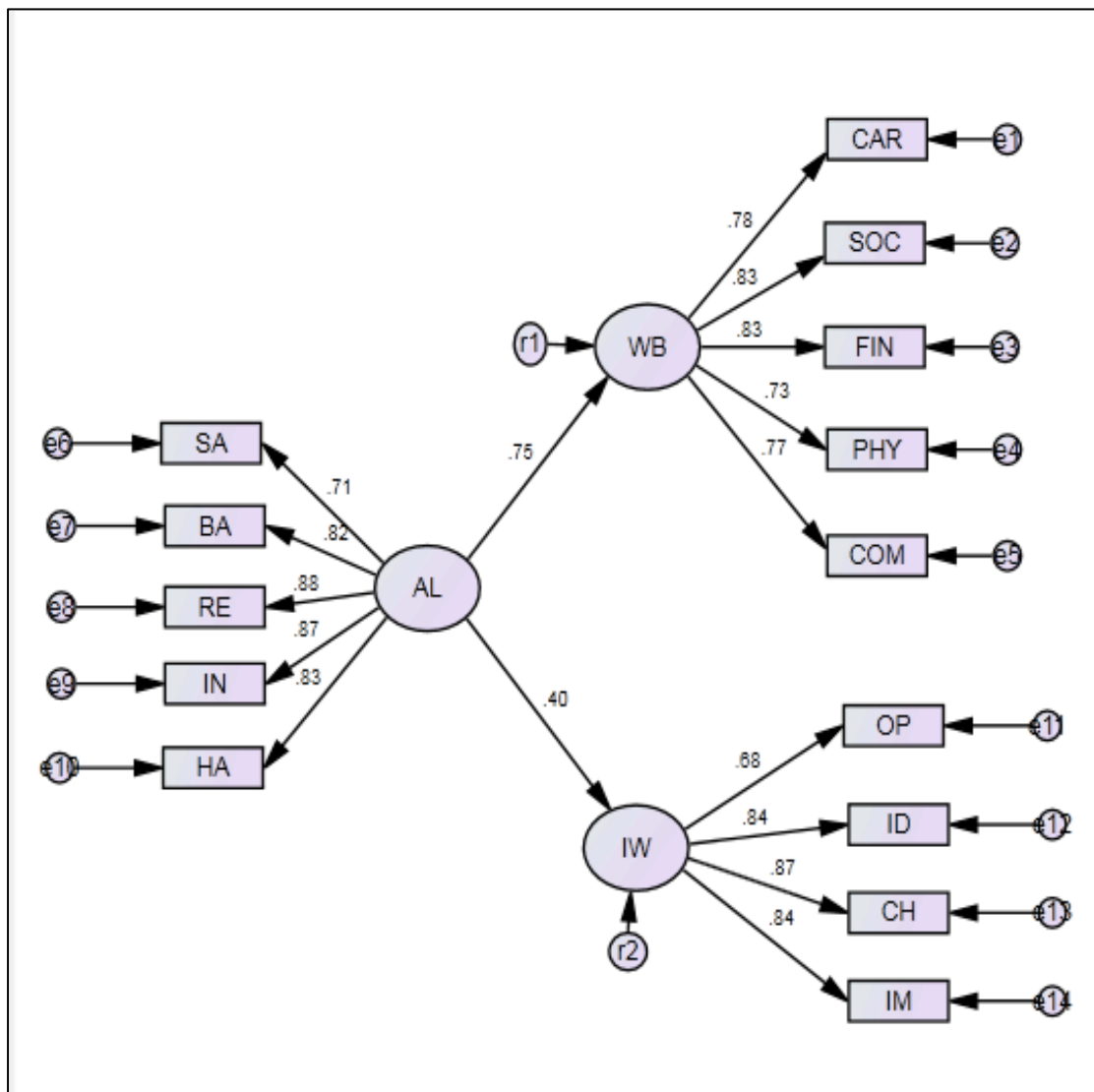


Figure 4.4 SPCs of Authentic Leadership on Follower Wellbeing and Follower Innovative Work Behaviour

SEM standardised direct and indirect effects were examined to explain the influential relationship of authentic leadership and follower innovative work behaviour via follower wellbeing. As presented in Table 4.30, authentic leadership had a total effect of 0.382 on follower innovative work behaviour, of which only 0.064 (16.75%) was directly transmitted. Further, bootstrapping was performed to determine an indirect effect of follower wellbeing. A number of 1,000 bootstrap samples were used as suggested by Cheung and Lau (2008). In addition, percentile confidence and bias-connected confidence intervals at 95%, and Type I error were determined. Table 4.31 demonstrates that the indirect effect was 0.32, and the z-value was significant and greater than 1.96 ($z = 6.40, p < 0.01$). In addition, the bootstrapped confidence intervals confirmed the result because zero did not fall into 95% CIs (Cheung & Lau 2008). Overall, the statistical results indicate that follower wellbeing is a significant full mediator in the relationship between authentic leadership and follower innovative work behaviour. Thus Hypothesis 4b ‘The influential relationship between authentic leadership and innovative work behaviour is mediated by wellbeing’ is confirmed.

Table 4.30 Decomposition of Effects

Path	Standardised coefficient		
	Direct Effect	Indirect Effect	Total Effect
AL→IW	0.06	0.32	0.38

Table 4.31 Mediation of the Effect of Authentic Leadership on Follower Innovative Work Behaviour through Follower Wellbeing

	Point of estimate	Product of coefficients		Bootstrapping			
		SE	Z	Percentile 95% CI		BC 95% CI	
				Lower	Upper	Lower	Upper
Wellbeing	0.32	0.05	6.40	0.22	0.42	0.22	0.42

This chapter has provided the statistical evidence to support the hypotheses developed by this study:

Hypothesis 1: Authentic leadership in the Thai context consists of five distinct constructs: self-awareness, balanced processing, relational transparency, internalised moral perspective, and relational harmony.

Hypothesis 2: Authentic leadership is positively related to follower wellbeing.

Hypothesis 3: Authentic leadership is positively related to follower innovative work behaviour.

Hypothesis 4(a): Follower wellbeing is positively related to follower innovative work behaviour.

Hypothesis 4(b): The influential relationship between authentic leadership and innovative work behaviour is mediated by wellbeing.

Hypothesis 1 was tested through the scale-development and scale-validation studies. Authentic leadership in the Thai context was proposed to have five dimensions. The items were generated and developed through the pilot study and CFA testing. The finalised version of the Thai authentic-leadership scale developed for this study includes 19 items that measure the five following dimensions of authentic leadership: self-awareness (four items); balanced processing (four items); relational transparency (four items); and relational harmony (three items). The validation study confirmed that the 19-item Thai authentic-leadership scale provides adequate validity and reliability as supported by the results of CFA.

Hypotheses 2, 3, and 4 were examined during the testing of nomological network. Authentic leadership was found to have a positive influence on follower wellbeing and follower innovative work behaviour. A positive relationship between follower wellbeing and follower innovative work behaviour was also found. The results were confirmed by performing bivariate correlation and SEM (standardised effects). Additionally, H 5 was conducted to test the mediation effect of follower wellbeing on the relationship between authentic leadership and follower innovative work behaviour. The result was supported by using SEM standardised effects and bootstrapping. Table 4.32 provides a summary of the hypotheses test results.

Table 4.32 (Continued)

Hypothesis	Method of analysis	Results	Comment
	Discriminant validity		Supported
	Chi-square comparison	Unconstrained correlation $\chi^2(26) = 201.47$; constrained correlation $\chi^2(27) = 370.13$; $\Delta\chi^2 = 186.66$; $p < 0.01$	
Hypothesis 2: Test influential relationship between authentic leadership and follower wellbeing	Correlation	$r = 0.66$; $p < 0.01$	Supported
	Regression (AL → WB)	SPC = 0.75, $t = 15.06$; $p < 0.000$	Supported
Hypothesis 3 Test influential relationship between authentic leadership and follower innovative work behaviour	Correlation	$r = 0.36$; $p < 0.01$	Supported
	Regression (AL → IW)	SPC = 0.41, $t = 8.65$; $p < 0.000$	Supported

Table 4.32 (Continued)

Hypothesis	Method of analysis	Results	Comment
Hypothesis 4(a)			Supported
Test influential relationship between follower wellbeing and follower innovative work behaviour	Correlation	$r = 0.44; p < 0.01$	
Hypothesis 4(b)			
Test mediation effect of follower wellbeing on relationship between authentic leadership and follower innovative work behaviour	Mediation model		
	Bootstrapping	$z = 6.40 \geq 1.96; p < 0.01$	Supported
	Indirect effect	Indirect effect is 0.32 (95% CI: 0.22–0.42)	Supported

CHAPTER 5

SUMMARY, DISCUSSION AND RECOMMENDATIONS

This chapter provides a summary of the research, and presents a conclusion and discussion, as well as recommendations for future research and practice.

5.1 Summary

This section summarises the purpose of the present study, and the research methods and findings.

5.1.1 Purpose

The main purpose of this research was to develop a valid and reliable measure of authentic leadership in the Thai context. In addition, the research sought to investigate the relationships between the authentic leadership and follower wellbeing and innovative work behaviour to examine the nomological network of the construct of authentic leadership.

5.1.2 Research Questions

Three research questions underpinned the research.

1) What are the behaviours underlying the constructs of authentic leadership in the Thai context?

2) To what extent is the developed authentic-leadership measure developed by this study reliable and valid in a sample, and relevant to the measure of transformational leadership?

3) What are the relationships between authentic leadership, follower wellbeing, and follower innovative work behaviour?

5.1.3 Research Methods

To accomplish the purposes of the research, this research first reviewed the literature on authentic leadership, examining theoretical concepts, developed measures, and empirical research using authentic-leadership measures in various contexts. Studies and literature on Thai leadership and cultural behaviours were also reviewed. Additionally, relationships between the relevant variables were studied. Based on the literature findings, a research model was developed. The hypotheses in the research were as follows:

Hypothesis 1: Authentic leadership in the Thai context consists of five distinct constructs: self-awareness, balanced processing, relational transparency, internalised moral perspective, and relational harmony.

Hypothesis 2: Authentic leadership is positively related to follower wellbeing.

Hypothesis 3: Authentic leadership is positively related to follower innovative work behaviour.

Hypothesis 4(a): Follower wellbeing is positively related to follower innovative work behaviour.

Hypothesis 4(b): The influential relationship between authentic leadership and innovative work behaviour is mediated by wellbeing.

The methods employed in this research included two studies: scale development and scale validation. In the scale-development phase, item generation, and scale administration and analysis were conducted. Items in this study were generated from three input resources: 1) doctoral students from an HR and organisational development school; 2) translated authentic-leadership items from Neider and Schriesheim's (2010) ALI; 3) ideas from the researcher and research advisor. In this phase, 65 items were generated. The 65 items were sent to five experts in scale development and validation, and leadership to conduct a content-validity assessment, resulting in removing 15 items. These remaining 50 items were used in the pilot testing of the instrument. The instrument was tested with the pilot sample of 172 officers working at Office of the Comptroller General at the Royal Thai Armed Forces Headquarters, who had at least six months of experience in the organisation. Item analysis was performed to determine item validity, loading weights, and structural patterns. The data-analysis techniques employed were *t*-test item

discrimination, item-total correlation, and EFA. The results of the testing led to 21 items being retained, which represented five dimensions of authentic leadership. Subsequently, CFA was conducted to test the five dimensions derived from the pilot study. The 21-item authentic-leadership scale was tested with 400 navy officers from the Royal Thai Navy Headquarters operational branch. The results suggested deleting two items, which this model presented an acceptable model fit to data. The final version of the authentic-leadership scale developed for this research had 19 items representing five dimensions of authentic leadership: self-awareness (four items); balanced processing (four items); relational transparency (four items); individualised moral perspective (four items); and relational harmony (three items).

The scale-validation study tested the validity and reliability of the newly developed 19-item authentic-leadership scale and tested a nomological network with follower outcomes, which were follower wellbeing and follower innovative work behaviour. The data were derived from 644 navy officers working in three operational branches of the Royal Thai Navy: the Royal Thai Fleet, the Naval Dockyard Department, and the Naval Studies and Research. The data were analysed by conducting bivariate correlation, CFA, SEM, and bootstrapping processes. The results provided evidence to confirm all hypotheses proposed by the research.

5.1.4 Findings

This section presents the answers to the research questions.

Research Question 1: What are the behaviours underlying the constructs of authentic leadership in the Thai context?

Culture and religion affect the construct of authentic leadership in the Thai context. Thai leaders present behaviour that is consistent with the four constructs of Walumbwa et al.'s (2008) authentic-leadership theory, and the behaviour of Thai leaders is also consistent with the definition authentic leadership of Walumbwa et al.'s (2008). However, promoting harmonious relationships was found to be an additional dimension of Thai authentic leadership. Therefore, the constructs underlying the Thai authentic-leadership measure included self-awareness, balanced processing, relational transparency, individualised moral perspective, and relational harmony. The construct validity of the measurement model was assessed by EFA,

which determined a five-dimensional structural model. The CFA was run through both scale-development and scale-validation studies to confirm the five-dimensional structural model. The results demonstrated that the model was an acceptable fit to the data and had an acceptable item-to-factor scale validity in the Thai context. IN addition, the convergent validity of the construct was assessed by factor loadings ($0.41 \leq \lambda \leq 0.84$), CR ($0.80 \leq CR \leq 0.89$), and AVE ($0.45 \leq AVE \leq 0.84$). The findings significantly supported that Thai authentic leadership consisted of five constructs.

Research question 2: To what extent is the developed authentic-leadership measure reliable and valid in a sample, and relevant to the measure of transformational leadership?

To answer this question, the validity and reliability of the finalised 19-item Thai authentic-leadership scale was tested through the scale-validation study. CFA was performed to confirm its convergent validity. The five-dimensional model reported a good fit to the data, with observed and acceptable item-to-factor scale validity (RMSEA = 0.06; RMR = 0.02; CFI = 0.94; GFI = 0.92). Results from assessing the factor loadings ($0.51 \leq \lambda \leq 0.88$); CR ($0.7 \leq CR \leq 0.90$); AVE ($0.75 \leq AVE \leq 0.90$), and internal-consistency reliability (19 items; $\alpha = 0.94$ and each construct; $0.76 \leq \alpha \leq 0.90$) confirmed the validity and reliability of the scale. Subsequently, the convergent validity of the scale was assessed by testing a relationship with transformational leadership, which is considered to have overlap with the concept of authentic leadership (Walumbwa et al., 2008). The discriminant validity between the developed authentic-leadership scale and the transformational-leadership measures were tested by examining chi-square differences ($\Delta\chi^2 = 186.66$; $p < 0.01$). The results demonstrated that authentic leadership was significantly distinguishable from transformational leadership but that the two forms of leadership have positive correlation.

Research question 3: What are the relationships between authentic leadership, follower wellbeing, and follower innovative work behaviour?

Answering this question was approached by performing bivariate correlation and SEM. Authentic leadership was found to have a positive relationship with follower wellbeing ($r = 0.66$; $p < 0.01$) and follower innovative work behaviour ($r = 0.36$; $p < 0.01$). In addition, authentic leadership was found to have predictive effects

on follower wellbeing (SPC = 0.75, $t = 15.06$; $p < 0.000$) and follower innovative work behaviour (SPC = 0.41, $t = 8.65$; $p < 0.000$). The strongest correlation of the five constructs of authentic leadership with both follower outcomes was that of relational harmony. In addition, the mediation effect of follower wellbeing on the relationship between authentic leadership and follower innovative work behaviour was explored by examining SEM standardised direct and indirect effects and performing bootstrapping. The results confirmed that authentic leadership has an indirect effect on follower innovative work behaviour via follower wellbeing ($z = 6.40 \geq 1.96$; $p < 0.01$).

5.2 Discussion

The lack of reliable and valid measures is a significant and recurring challenge in leadership research (Neider & Schriesheim, 2011). A sound measure is crucial because it helps researchers develop a generalised understanding about leadership processes through an accurate assessment. The focus in the current research was authentic leadership, and the problem of a lack of an accurate measure has also been identified in the literature on authentic leadership (Lagan, 2007). Although various studies have developed measures of authentic leadership (e.g., Lagan 2007; Neider & Schriesheim, 2011; Walumbwa et al. 2008), these measures have been developed within particular contexts, that is, in the Western context. Research has identified that culture may construct different personality traits and lead to culturally specific behaviours (Saetang, 2004). Although Walumbwa et al.'s (2008) authentic-leadership theory is widely used (Gardner et al., 2011), the behaviours represented by the ALQ developed by Walumbwa et al. (2008) may not be universal and relevant to measuring authentic leadership in the Thai context because behaviour can be culturally specific (e.g., Hofstede, 2001; Yukongdi, 2010).

Behaviours underlying the constructs of authentic leadership in the Thai context are reflected power distance and collectivist cultural thoughts, as well as religious beliefs and specific Thai values. The five constructs developed for the Thai authentic-leadership scale were self-awareness, balanced processing, relational transparency, individualised moral perspective, and relational harmony. These five

constructs were supported by the results of the research, which found that the five-dimensional model of Thai authentic leadership provided a good fit to the data. The items indicated in the first construct (self-awareness) were aligned with existing expectations from Thai followers that their leaders should be benevolent and kind (Gupta et al., 2002; Selvarajah et al., 2013) when treating employees because leaders are believed to have higher merit and virtue (Hanker, 1962). As part of a collectivist society, Thai authentic leaders tend to be open and share information to favour their employees and gain their trust (Davis & Ruhe, 2003; Hofstede, 2001). They also need to be accurate when analysing information and consult all sources before reaching a conclusion (Gupta et al., 2002), while being able to demonstrate a transparent working process to their employees (Pongsudhirak, 2008). Such behaviours are reflected in the authentic-leadership constructs of balanced processing and relational transparency. In relation to the construct of individualised moral perspective, Thai authentic leaders have been found to be afraid to take unethical actions because of their fear of negative future consequences, an attitude consistent with the concept of karma, which is prominent in Buddhism and emphasises cause and effect (Kamoche, 2000; Pathmanand, 2001). Finally, the relational harmony construct reflected the non-aggressive behaviour of Thai people and the value of promoting harmonious relationships. This type of behaviour has been found to be characteristic of excellent Thai leadership (Boonsathorn, 2007; Ledgewood & Un, 2003; Selvarajah et al., 2013; Taylor, 1996; Yokongdi, 2010).

Establishing the construct validity of a newly developed measure can be challenging. Therefore, two subtype validities—convergent validity and discriminant validity—were assessed (Campbell & Fiske, 1959). Given that the concept of transformational leadership is theoretically related to the concept of authentic leadership (Avolio, 1999), transformational-leadership measures are often chosen to determine the convergent and discriminant validity of a newly developed authentic-leadership measure. For example, in a study of the ALQ developed by Walumbwa et al. (2008), they tested the relationship and different chi-square values (see Venkatraman, 1989) between the ALQ and the transformational-leadership measure (MLQ) developed and validated by Avolio and Bass (2004). Walumbwa et al. (2008) found that the measures have a positive correlation while being significantly distinct.

Correspondingly, the present research also examined the relationship and the difference of chi-square values between authentic and transformational leadership models. The results were found to be consistent, although the two measures were developed and tested in the Thai context. This may also confirm the assumption that the concept of transformational leadership underpins the concept of authentic leadership.

The relationship between and influence of authentic leadership on follower outcomes were tested through the nomological-network study. Most existing studies note that there are positive relationships between authentic leadership, follower wellbeing, and follower innovative work behaviour; such contextual studies are generally conducted in a business and educational organisational environment (e.g., Clapp-Smith et al., 2009; Kim, 2014; Wong & Cummings, 2009a, 2009b; Wong, Laschinger & Cummings, 2010). The investigation in the present research used a military context, which has a work nature of that may involve high-stress tasks, life-and-death decisions, and physically intense duties (Yammarino et al., 2010). Such duties and responsibilities may negatively affect the wellbeing of officers and soldiers, and prevent them from being innovative. However, the overall results of this study were consistent with other studies on the effect of authentic leadership on follower wellbeing and follower innovative work behaviour. This could expand the phenomena of the theory across a different context of investigation.

Positive influential relationships were reported in the findings. These relationships may exist because authentic leaders foster a positive relationship with their employees in the workplace (Hofmann et al., 2003). The results also emphasised the specific value of having a good relationship for Thai employees (e.g., Boonsathorn, 2007; Gupta et al., 2002; Quek et al., 2010) because the relational harmony had the strongest correlation with follower wellbeing and innovative work behaviour. This can be explained by the fact that Thai leaders are likely to develop a positive social-exchange working environment, particularly in developing a fair and harmonious working atmosphere, which can result in improving the emotional wellbeing, health, and creativity of their employees. This interpretation aligns with the conceptual relationship proposed by many researchers (e.g., Avolio & Gardner, 2005; Gardner et al., 2005; Goldman & Kernis, 2002). Additionally, the literature suggests

that authentic leaders build a creative, positive, and ethical climate at the workplace in which positive psychological effects of followers such as confidence, hope and optimism are encouraged (Černe et al., 2013; Lagan, 2007; Seibert et al., 2001). Such suggestions are coherent with the finding in this study that given that Thailand is a country that has a high level of power distance and has a bureaucratic working system, Thai employees tend to depend on their supervisor when making decisions related to work and behave according to their supervisor's values and instructions (Hank, 1962). Thus, Thai followers may seek leaders who are able to demonstrate an understanding of the followers' strengths and weaknesses when assigning tasks, and who treat them in a benevolent manner. Displaying such qualities should lead to Thai employees gaining confidence and optimism in relation to their working life, which results in an increase in wellbeing level, and leads to followers making greater effort to create new ideas and innovate in their workplace.

The mediation effect of follower wellbeing on authentic leadership and follower innovative work behaviour was found to be significant in this research. This mediation effect emphasises that leaders may exercise authentic-leadership behaviours as an intervention to improve follower wellbeing to enhance their performance (Avolio et al., 2004). Elevating overall wellbeing in the workplace, can lead employees to be indirectly stimulated to be more enthusiastic to enhance their knowledge and skills in performing work tasks because they are satisfied with their mental and physical health (Ambalie et al., 2002; Eisenberger et al., 2005; Harter et al., 2002; Rath & Harter, 2010). Thus, it can be concluded that followers demonstrate their confidence and optimism through an ability to express and share their own values, which can manifest it through generating new ideas and adopting new challenges in implementing such ideas in the workplace, while exchanging opinions with their authentic leaders without fearing judgement.

5.3 Limitations of Study

There are several limitations of the present research. First, the measure design used a follower perception-based scale to assess authentic leadership. In this research, participants were from the military context, which might mean they tended to answer

questions in a positive direction due to respect for the rank and obedience to orders, as the nature of their workplace may not have a leader-evaluation system.

Second, some of the participants might have had difficulty answering some of items about the supervisor's values due to a lack of sufficient knowledge about their supervisor. Although the participants were required to have worked in their current area for at least six months, the instructions of the questionnaire may not have clarified sufficiently whether this experience was with the current supervisor or simply within the organisation. Some participants reported their confusion when rating 'an immediate supervisor' because their roles were involved with many leaders so they could not decide which leader should be assessed. Future studies should clarify or provide the meaning of immediate supervisor and clearly state the requirements of work experience with a current supervisor. This would ensure the participants could reflect their perceptions more accurately because it would mean they had the required knowledge about their leader.

Third, the possibility of rating problems may have occurred. Some complete questionnaires presented a potential error from a central tendency rating. This could be because the participants encountered difficulty in understanding the questions or avoided reporting negative behaviours of their supervisor.

Fourth, the item-generation process in this study was conducted using a deductive approach in which definitions of authentic leadership and its constructs were provided before creating the items to reflect the theoretical definitions. This may limit the generation of new items beyond the prescribed definitions. A solution to this might include using an inductive approach by conducting a quantitative study to capture and observe patterns of answers in interviewee perceptions of the definition of authentic leadership.

5.4 Recommendations for Practice

A reliable measure of authentic leadership can be used as a starting point for practitioners when designing an authentic-leadership development programme for an organisation. An authentic-leadership assessment report could be used in conjunction with performance for promotion, selection, and evaluation of current and potential

leaders. The concept of Thai authentic leadership may also be applied to develop HR development interventions such as establishing rule-based and value-based programmes to build an ethical workplace.

Leaders may demonstrate authentic-leadership behaviours to build high-quality leader–follower relationships in the workplace. Such leaders should take time to develop a dialogue with their followers about their strengths and weaknesses, as well as the followers ‘values to demonstrate that they genuinely care about their employees. The findings in this research serve as a reminder to organisations that they should not neglect the importance of leaders’ roles in improving employee wellbeing in the workplace because a higher level of follower wellbeing leads to a higher level of innovative work behaviour, which results in increasing organisational performance.

5.5 Recommendations for Future Research

Future research is needed to replicate use of the 19-item Thai authentic-leadership scale in other organisational types to continue examining the construct validity and predictive validity of the component scales in Thailand. The discriminant validity between authentic leadership and other forms of leadership such as ethical leadership and mindful leadership may be examined extensively to explore the ways in which these leadership forms are theoretically different at a conceptual and empirical level. Also, future researchers may look at the difference of mean values of the Thai authentic leadership dimensions based on the ranges of age in this study (Appendix F), the result might provide future researchers to further develop the present Thai authentic leadership scale.

As part of the theory-building process, the influence of authentic leadership on follower outcomes that are different from the two variables used in this study may be empirically investigated to expand the network relationship of the authentic-leadership theory. Outcomes variables may be employees’ attitudes such as occupational self-efficacy and interpersonal trust. This could provide empirical support of potential benefits of authentic leaders through a positive psychological relationship with their followers by stimulating followers’ confidence and personal trust. Moreover, examining relationship between authentic leadership and

performance of employees and organisation is likelihood to capture interests from practitioners and companies to exercise this type of leadership. It might also be interesting to examine organisational culture to determine how it mediates or moderates the effect of authentic leaders on follower outcomes.

Similar research may be conducted in other Asian countries, particularly in countries that share common values and culture with Thailand such as collectivism and a hierarchical context. Cross-cultural leadership research would be beneficial to the field.

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APPENDICES

Appendix A

Authentic Leadership Content Validity Assessment Form

แบบประเมินเครื่องมือวัดภาวะผู้นำแบบแท้จริง (Authentic Leadership) ชุดที่ 1

ประเมินโดย

คำชี้แจง

1. แบบประเมินเครื่องมือวัดชุดนี้เป็นส่วนหนึ่งของงานวิจัยในการศึกษาระดับคุณวุฒิบัณฑิต การพัฒนาทรัพยากรมนุษย์และองค์กร สถาบันบัณฑิตพัฒนบริหารศาสตร์ (หลักสูตรนานาชาติ ภายใต้วชื้อ The Development of authentic leadership measures and its validation to followers' well-being, innovative behaviours, and whistle blowing intention

2. เครื่องมือวัดภาวะผู้นำแบบแท้จริงชุดนี้ ประกอบไปด้วยคำถามตามคำนิยามข้างล่าง ผู้ที่ทำแบบสอบถามคือบุคลากร/เจ้าหน้าที่ โดยประเมินภาวะผู้นำของตัวเอง ซึ่งผู้ตอบแบบสอบถามนั้นจะทำเครื่องหมาย (✓) ในช่องที่ตรงกับความคิดเห็นของผู้ประเมินมากที่สุดเพียงคำตอบเดียวจากมาตรวัด 5 ระดับ ดังนี้

เห็นด้วยอย่างยิ่ง	หมายถึง	ท่านเห็นด้วยกับข้อความนั้นอย่างยิ่ง
เห็นด้วย	หมายถึง	ท่านเห็นด้วยกับข้อความนั้น
ไม่แน่ใจ	หมายถึง	ข้อความนั้นจริงบ้าง ไม่จริงบ้างสำหรับท่าน
ไม่เห็นด้วย	หมายถึง	ท่านไม่เห็นด้วยกับข้อความนั้น
ไม่เห็นด้วยอย่างยิ่ง	หมายถึง	ท่านไม่เห็นด้วยกับข้อความนั้นอย่างยิ่ง

ขอขอบพระคุณในความอนุเคราะห์ของท่านมา ณ โอกาสนี้เป็นอย่างสูง หากท่านมีข้อคำถามใดๆ หรือประสงค์จะส่งแบบประเมินคืนโดยตรงกรุณาติดต่อผู้วิจัยตามที่ติดต่อข้างล่างนี้

ขอแสดงความนับถือ

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Definition/คำนิยาม

It is a pattern of leader behaviours that draws from positive psychological capabilities and ethical climate, which fosters greater self-awareness, relational transparency, balanced processing of relevant information, an internalised moral perspective and relational harmony on the part of leaders working with followers of the context in which they operate. The five dimensions are:

1. Self-Awareness. This reflects leaders who demonstrate positive modeling by understanding and accepting values, feelings, identity and goals of themselves. They are cognizant with other's feelings, values, and strengths and weaknesses as it is driven by benevolence manners (*Metta: เมตตา*).

2. Balanced Processing. It reflects leaders' authenticity through objectively analyzing relevant information through a balanced equitable social process without bias before making decisions. The leaders allow others' objective input though such input may challenge their own perspective.

3. Relational Transparency. It reflects leaders who share information and communicate openly with others while revealing true thoughts with non-aggressive emotional expression and appropriate manner. They also demonstrate genuine positive interest in others in which trust, respect, and identification with them are emerged.

4. Internalised Moral Perspective. This refers to leaders as being self-regulated and being congruent with moral integrity between values and actions. It includes being self-disciplined and not allowing external influences to sway authenticity, which lead to negative future consequences (*Bad-Karma*).

5. Relational Harmony. This means leaders who demonstrate respectful behaviours to others as being humane. They build positive psychological conditions and ethical climates through promoting harmonious relationships among their multiple in-groups.

คำแปลนิยามภาวะผู้นำแบบแท้จริง

ภาวะผู้นำแบบแท้จริง คือภาวะผู้นำที่มีรูปแบบของพฤติกรรมที่เกิดจากความสามารถทางจิตวิทยาเชิงบวก และบรรยากาศจริยธรรม ซึ่งภาวะผู้นำประเภทนี้ส่งเสริมและสนับสนุนให้เกิดการตระหนักรู้ของตนเอง ความโปร่งใสเชิงสัมพันธ์ของข้อมูล การมีกระบวนการวิเคราะห์ข้อมูลที่สมดุล การมีกฎเกณฑ์ศีลธรรมของตนเอง และการปรองดองประสานความสัมพันธ์ระหว่างบุคคล โดยพฤติกรรมดังกล่าวเกิดขึ้นในบริบทการทำงานระหว่างทั้ง 2 กลุ่ม คือ ผู้นำและผู้ตาม

องค์ประกอบที่ 1 นิยามปฏิบัติการ	สิ่งที่ต้องการวัด	ข้อคำถาม ให้นักถึงหัวหน้า/ผู้บังคับบัญชาโดยตรงของท่าน	ความคิดเห็น ผู้เชี่ยวชาญ			ข้อเสนอแนะ
			+1	0	-1	
<p>การตระหนักรู้ของตนเองหมายถึงพฤติกรรมของผู้นำที่แสดงออกถึงการเป็นตัวอย่างที่ดี ซึ่งมีความเข้าใจและยอมรับคุณค่า ค่านิยม ความรู้สึก ความเป็นตัวตน และเป้าหมายของตนเอง รวมทั้งแสดงออกถึงความเข้าใจ เข้าใจ ตระหนักถึง ความรู้สึก ค่านิยม ความเชื่อ จุดแข็ง และจุดอ่อนของผู้ตาม โดยพฤติกรรมเหล่านี้มีพื้นฐานที่เกิดจากความมีเมตตาต่อผู้อื่น</p> <p>Self-Awareness: This reflects leaders who demonstrate positive modeling by understanding and accepting values, feelings, identity and goals of themselves. They are cognizant with other's feelings, values, and strengths and weaknesses as it is driven by benevolence manners (Metta: เมตตา).</p>	1. เป็นแบบอย่างที่ดีซึ่งมีความเข้าใจและยอมรับความเป็นตัวตนของตนเองทั้งข้อดีและข้อบกพร่อง	1. หัวหน้าของท่านบอกเล่าความต้องการหรือเป้าหมายของหัวหน้าได้ชัดเจน				
		2. หัวหน้าของท่านไม่ยอมรับความผิดพลาดหรือบกพร่องของตนเอง				
		3. หัวหน้าของท่านปฏิบัติตนเป็นแบบอย่างที่ดีของลูกน้อง				
	2. มีพฤติกรรมที่แสดงออกถึงความมีเมตตาต่อบุคคลอื่น	4. การปฏิบัติต่อลูกน้องของหัวหน้านั้นเป็นไปด้วยความเมตตา				
		5. หัวหน้าของท่านแสดงท่าทีเห็นอกเห็นใจลูกน้อง				
	3. มีพฤติกรรมแสดงออกให้เห็นถึงความสำคัญของการเป็นปัจเจกของแต่ละบุคคล และยอมรับในความต่างต่างนั้น ๆ	6. หัวหน้าของท่านมีความเข้าใจและยอมรับความแตกต่างของลูกน้องแต่ละคน				
		7. หัวหน้าของท่านมอบหมายงานที่เหมาะสมกับความสามารถของลูกน้องแต่ละคน				
	4. ตระหนักถึงผลกระทบของการตัดสินใจของตนเองต่อผู้อื่น	8. เมื่อต้องตัดสินใจอะไรบางอย่างที่หน่วยงาน หัวหน้าของท่านไม่สนใจถึงผลกระทบที่จะเกิดขึ้นกับลูกน้องแต่ละคน				
		9. หัวหน้าของท่านบอกกล่าวหรือแสดงออกให้ลูกน้องรู้ถึงผลกระทบที่อาจเกิดขึ้นก่อนมีการตัดสินใจในเรื่องต่าง ๆ ในหน่วยงาน				

องค์ประกอบที่ 2 นิยามปฏิบัติการ	สิ่งที่ต้องการวัด	ข้อคำถาม	ความคิดเห็น ผู้เชี่ยวชาญ			ข้อเสนอแนะ	
			+1	0	-1		
<p>2. กระบวนการวิเคราะห์ข้อมูลที่สมดุล หมายถึง พฤติกรรมของผู้นำที่แสดงถึงการยึดถือความถูกต้องบนพื้นฐานความเป็นจริง เป็นหลักในการตัดสินใจ โดยผู้นำจะเปิดกว้างรับข้อมูลจาก หลาย ๆ ฝ่ายที่เกี่ยวข้องโดยปราศจากการความลำเอียงถึงแม้ว่าข้อมูลบางอย่างอาจขัดแย้งกับทัศนคติของผู้นำ โดยข้อมูลดังกล่าวทั้งหมดจะต้องผ่านการวิเคราะห์ เพื่อประกอบกระบวนการพิจารณา ก่อนตัดสินใจของผู้นำ</p> <p>Balanced Processing. It reflects leaders' authenticity through objectively analyzing relevant information through a balanced equitable social process without bias before making decisions. The leaders allow others' objective input though such input may challenge their own perspective</p>	1. การยึดถือความถูกต้องของข้อมูลที่ได้รับโดยปราศจากอคติจากฝ่ายใดฝ่ายหนึ่ง เป็นบรรทัดฐานในการตัดสินใจ หรือหาข้อสรุป	1. หัวหน้าของท่านรับฟังข้อมูลที่ได้รับจากทุกฝ่ายก่อนดำเนินการตัดสินใจ					
		2. หัวหน้าของท่านตั้งใจรับฟังและพิจารณาเหตุผลของผู้กระทำผิด ก่อนจะตัดสินใจลงโทษ 1					
		3. หัวหน้าของท่านมีพฤติกรรมฟังความข้างเดียวในการทำงาน (-)					
	2. การเปิดโอกาสให้ผู้ร่วมงานได้แสดงความคิดเห็นอย่างอิสระ แม้ความคิดเห็นดังกล่าวอาจขัดแย้งกับความเชื่อของตนเอง	4. ในการทำงานนั้น หัวหน้าของท่านกระตุ้นให้เกิดการแลกเปลี่ยนความคิดเห็นอย่างอิสระ					
		5. หัวหน้าของท่านเปิดรับความคิดเห็นจากลูกน้องและผู้ร่วมงานเพื่อประกอบการตัดสินใจ หรือหาข้อสรุป					
		6. หัวหน้าของท่าน <u>ไม่</u> รับฟังข้อคิดเห็นหรือข้อเสนอของลูกน้องที่แตกต่างจากของตน					
	3. มีการวิเคราะห์ข้อมูลที่ได้รับจากฝ่ายต่าง ๆ ที่เกี่ยวข้องเพื่อใช้เป็นข้อมูลประกอบการตัดสินใจ หรือหาข้อสรุป	7. หัวหน้าของท่านมีวิธีการที่ดีในการวิเคราะห์ และพิจารณาข้อเท็จจริงต่าง ๆ					
		8. หัวหน้าของท่านตัดสินใจ หรือ หาข้อสรุปต่าง ๆ ผ่านการวิเคราะห์อย่างถี่ถ้วน					
		9. ข้อสรุปและการตัดสินใจของหัวหน้าของท่านนั้นมีความถูกต้อง? นำเชื่อก็คือเพราะได้ผ่านการพิจารณาอย่างถี่ถ้วน					

องค์ประกอบที่ 3 นิยามปฏิบัติการ	สิ่งที่ต้องการวัด	ข้อคำถาม	ความคิดเห็น ผู้เชี่ยวชาญ			ข้อเสนอแนะ	
			+1	0	-1		
<p>3. ความโปร่งใสเชิงสัมพันธ์ของข้อมูล</p> <p>หมายถึง การแสดงออกของผู้ที่มีการสื่อสารอย่างเปิดเผยและแบ่งปันข้อมูลกับบุคคลที่เกี่ยวข้อง โดยยังคงแสดงความเป็นตัวคน มีการแสดงออกในเชิงอารมณ์และพฤติกรรมต่อหน้าบุคคลอื่นอย่างสุภาพและเหมาะสมซึ่งก่อให้เกิดความเคารพ และความเชื่อใจระหว่างผู้นำและผู้ตาม</p> <p>Relational Transparency</p> <p>It reflects leaders who share information and communicate openly with others while revealing true thoughts with non-aggressive emotional expression and appropriate manner. They also demonstrate genuine positive interest in others in which trust, respect, and identification with them are emerged.</p>	1. แสดงออกถึงความเป็นตัวคนต่อบุคคลอื่นซึ่งทำให้ความสัมพันธ์ระหว่างผู้นำและบุคคลากรมีความความเชื่อใจ	1. หัวหน้าของท่านแสดงความคิดเห็นของตนเองอย่างตรงไปตรงมา					
		2. หัวหน้าของท่านแสดงออกอย่างชัดเจนต่อสิ่งที่ตนเองต้องการ					
		3. ลูกน้องในหน่วยงานให้ความเชื่อถือและไว้วางใจต่อหัวหน้าของท่าน					
		4. เป็นการยากที่จะทำงานให้ถูกใจหัวหน้าของท่าน (-)					
	2. ให้ความสำคัญต่อการสื่อสารที่โปร่งใสผ่านการแบ่งปันข้อมูล	2. ให้ความสำคัญต่อการสื่อสารที่โปร่งใสผ่านการแบ่งปันข้อมูล	5. หัวหน้าของท่าน แบ่งปันเปิดเผยข้อมูลกับคนในหน่วยงาน				
			6. หัวหน้าของท่านแลกเปลี่ยนข้อมูลข่าวสารกับลูกน้องอย่างสม่ำเสมอ				
			7. การทำงานของหัวหน้าของท่านนั้นเป็นไปอย่างโปร่งใส และสามารถตรวจสอบได้				
	3. มีการวางตัวในการแสดงออกอย่างเหมาะสม และสุภาพเมื่อแสดงความคิดเห็นหรือแสดงออกถึงความเป็นตัวคน	3. มีการวางตัวในการแสดงออกอย่างเหมาะสม และสุภาพเมื่อแสดงความคิดเห็นหรือแสดงออกถึงความเป็นตัวคน	8. หัวหน้าของท่านแสดงความโกรธ หรือ ทำทางไม่พอใจอย่างชัดเจนเมื่อมีผู้อื่นขัดแย้ง (-)				
			9. เมื่อเผชิญกับปัญหาหรือเหตุวิกฤต หัวหน้าของท่านสามารถควบคุมอารมณ์และแก้ไขสถานการณ์ได้ดี				
			10. หัวหน้าของท่านสื่อสารกับลูกน้องอย่างสุภาพและเหมาะสม				

องค์ประกอบที่ 4 นियามปฏิบัติกร	สิ่งที่ต้องการวัด	ข้อคำถาม	ความคิดเห็น ผู้เชี่ยวชาญ			ข้อเสนอแนะ	
			+1	0	-1		
<p>4. การมีคุณลักษณะที่ธรรมของตนเอง หมายถึง พฤติกรรมของผู้นำที่แสดงออกมาโดยสะท้อนถึงการยึดถือค่านิยม ความเชื่อในเรื่องของ คุณลักษณะ ความซื่อสัตย์ ศีลธรรมและความถูกต้องเป็นหลัก ซึ่งสอดคล้องกับการแสดงออกของผู้นำ นอกจากนี้ผู้นำยังวางตนในอยู่ในกฎระเบียบวินัยที่ถูกต้อง โดยไม่ยอมจำนนต่อแรงกระทบจากภายนอก ที่อาจทำให้เกิดความไขว้เขวของพฤติกรรมที่ดีงาม ซึ่งอาจส่งผลกระทบต่อทางลบในอนาคตได้</p> <p>Internalised Moral Perspective This refers to leaders as being self-regulated and being congruent with moral integrity between values and actions. It includes being self-disciplined and not allowing external influences to sway authenticity, which lead to negative future consequences (Bad-Karma)</p>	1. มีพฤติกรรมที่แสดงออกตามหลักจริยธรรมที่ดี โดยตั้งอยู่บนพื้นฐานหลักศีลธรรม	1. หัวหน้าของท่านประพฤติตามหลักคุณธรรมจริยธรรมอย่างเคร่งครัด					
		2. คำพูดและการปฏิบัติของหัวหน้าสอดคล้องกับค่านิยมที่ดีงามขององค์กร					
		3. หัวหน้าเป็นตัวอย่างของการมีระเบียบวินัยในตนเองอย่างยิ่ง					
	2. ปฏิบัติงานด้วยความซื่อสัตย์ตามคุณลักษณะที่ถูกต้อง ถึงแม้ว่าจะมีแรงกดดันจากภายนอก	4. หัวหน้าของท่านปฏิบัติงานด้วยความซื่อตรงและซื่อสัตย์					
		5. หัวหน้าของท่านยึดระเบียบคุณลักษณะขององค์กร เป็นแนวทางในการทำงาน					
		6. หัวหน้าของท่านยึดถือหลักจริยธรรมเป็นพื้นฐานในการตัดสินใจ					
	3. มีความเกรงกลัวต่อผลกระทบในทางลบที่อาจเกิดขึ้นในอนาคตตามความเชื่อในกฎแห่งกรรม	7. เมื่อต้องเผชิญหรือได้รับแรงกดดันจากภายนอกหัวหน้าของท่านเลือกปฏิบัติตามแรงนั้นเพื่อหลีกเลี่ยงปัญหา (-)					
		8. แม้มีแรงต่อต้านซึ่งทำให้การทำงานล่าช้า แต่การตัดสินใจของหัวหน้าก็ไม่ไขว้เขวไปในทิศทางที่ขัดต่อคุณลักษณะที่ถูกต้อง					
		9. หัวหน้าของท่านมีความเกรงกลัวต่อผลกระทบในทางลบหากต้องเลือกประพฤติปฏิบัติในทางที่ไม่ถูกต้อง					
		10. หัวหน้าของท่านจะไม่ตัดสินใจตามความต้องการที่ไม่เหมาะสมของผู้บังคับบัญชาที่เหนือขึ้นไปหรือของคนส่วนใหญ่					

องค์กรประกอบที่ 5 นियามปฏิบัติการ	สิ่งที่ต้องการวัด	ข้อคำถาม	ความคิดเห็น ผู้เชี่ยวชาญ			ข้อเสนอแนะ
			+1	0	-1	
5. การปรองดอง ประสานความสัมพันธ์ หมายถึง ผู้นำที่แสดงออกต่อผู้อื่นด้วยความ เคารพ อ่อนน้อม และมีมนุษยธรรม โดย การสร้างภาวะจิตวิทยาเชิงบวก และ บรรยากาศศีลธรรมผ่านการ กระตุ้นการมี ความสัมพันธ์แบบสมานฉันท์ ระหว่าง บุคคล กลุ่ม หน่วยงานและองค์กร Relational Harmony This means leaders who demonstrate respectful behaviours to others as being humane. They build positive psychological conditions and ethical climates through promoting harmonious relationships among their multiple in-groups.	1. มีพฤติกรรมที่แสดงออกถึง ความเคารพ อ่อนน้อม มี มนุษยธรรมต่อผู้อื่น	1. หัวหน้าของท่านให้เกียรติลูกน้องและเพื่อนร่วมงานในทุกระดับขององค์กร				
		2. หัวหน้าของท่านพยายามทำให้เกิดความสามัคคี และสมานฉันท์ระหว่างบุคคล กลุ่ม และหน่วยงาน				
		3. หัวหน้าของท่านมีการแสดงออกที่สุภาพ และเป็นมิตรต่อเพื่อนร่วมงานในทุก ระดับ ทั้งจากภายในและภายนอกองค์กร				
	2. มีการกระตุ้นให้เกิด ปฏิสัมพันธ์ภายในองค์กร เพื่อให้เกิดความสมานฉันท์ ระหว่างบุคคล กลุ่ม และ หน่วยงาน	4. ในการทำงานนั้น หัวหน้าของท่านปลุกฝังเรื่องความปรองดองและสามัคคี ระหว่างบุคคล กลุ่ม และหน่วยงาน				
		5. หัวหน้าของท่าน ไม่ได้ใส่ใจกับการทะเลาะวิวาทหรือปัญหาขัดแย้งระหว่าง ลูกน้อง (-)				
		6. หัวหน้าของท่านกระตุ้นให้ลูกน้องภายใต้บังคับบัญชาแข่งขันกันทำงาน (-)				
		7. หัวหน้าเน้นการทำงานเป็นทีม และความสำเร็จของทีมงานเป็นสำคัญ				
	3. มีการส่งเสริมการสร้าง ภาวะจิตวิทยาเชิงบวกและ บรรยากาศศีลธรรมภายใน องค์กร	8. หัวหน้าของท่านมุ่งมั่นความสำเร็จในงานมาก จนทำให้ลูกน้องแต่ละคนเกิด ความเครียด (-)				
		9. หัวหน้าของท่านเน้นย้ำเรื่องการมีจริยธรรมที่ดีในวัฒนธรรมการทำงาน				
		10. หัวหน้าของท่านมีการยืดหยุ่นในรูปแบบหรือวิธีการทำงาน เพื่อให้ลูกน้อง ทำงานสำเร็จตามเป้าหมาย				
		11. หัวหน้าของท่านพยายามสร้างให้เกิดบรรยากาศที่ดี ในการทำงาน				

Appendix B

Questionnaires for Scale-Development Study

แบบสอบถามเพื่อการวิจัย

คำชี้แจง

1. แบบสอบถามนี้มีวัตถุประสงค์เพื่อสอบถามภาวะผู้นำซึ่งจะนำข้อมูลไปใช้เพื่อพัฒนางานด้านวิชาการและการประยุกต์ใช้ในการพัฒนาทรัพยากรมนุษย์และองค์กรต่อไป
2. การวิจัยนี้เป็นส่วนหนึ่งของการศึกษาในหลักสูตร Doctor of Philosophy in Human Resource and Organisation Development (International Programme) สถาบันบัณฑิตพัฒนบริหารศาสตร์
3. ขอความกรุณาท่านตอบคำถามในแบบสอบถามชุดนี้ทุกข้อตามความเป็นจริงของท่านมากที่สุด คำตอบของท่านที่จะนำมาใช้เพื่อวิเคราะห์และแสดงผลโดยรวมเท่านั้น ไม่แสดงผลเป็นรายบุคคล ดังนั้นจะไม่มีผลกระทบใดๆ ต่อตัวท่านหรือต่อหน่วยงานของท่าน
4. แบบสอบถามชุดนี้มีทั้งหมด 5 ตอน ดังนี้
ตอนที่ 1 แบบสอบถามข้อมูลทั่วไปของผู้ตอบแบบสอบถาม)6 ข้อ(
ตอนที่ 2 แบบสอบถามภาวะผู้นำ(50 ข้อ)

ขอขอบพระคุณในความอนุเคราะห์ที่ตอบแบบสอบถามของท่านมา ณ โอกาสนี้เป็นอย่างสูง โปรดตอบและส่งแบบสอบถามคืนให้ ภายใน 2 สัปดาห์ โดยตรงแก่พันตรีหญิงสุมณฑา ปราการสมุทร หากท่านมีข้อคำถามใดๆ หรือประสงค์จะส่งแบบสอบถามคืนโดยตรงกับผู้วิจัย กรุณาติดต่อผู้วิจัยตามที่ติดต่อข้างล่างนี้

ขอแสดงความนับถือ

ไอรัชชรา อมรพิพัฒน์

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ตอนที่ 1 ข้อมูลทั่วไปของผู้ตอบแบบสอบถาม

คำชี้แจง โปรดทำเครื่องหมาย \surd ลงในช่อง ตรงกับความเป็นจริงของท่านมากที่สุดเพียง

คำตอบเดียว

1. เพศ	<input type="checkbox"/> 1. ชาย	<input type="checkbox"/> 2. หญิง
2. อายุ	<input type="checkbox"/> 1. น้อยกว่า 20 ปี	<input type="checkbox"/> 2. 20 – 30 ปี
	<input type="checkbox"/> 3. 31 – 40 ปี	<input type="checkbox"/> 4. 41 – 50 ปี
	<input type="checkbox"/> 5. มากกว่า 50 ปี	
3. ระดับการศึกษาสูงสุด	<input type="checkbox"/> 1. มัธยมศึกษาตอนปลาย/ ประกาศนียบัตร(ปวช.)	<input type="checkbox"/> 2. อนุปริญญา (ปวส.)
	<input type="checkbox"/> 3. ปริญญาตรี	<input type="checkbox"/> 4. ปริญญาโท
	<input type="checkbox"/> 5. ปริญญาเอก	
5. สถานภาพสมรส	<input type="checkbox"/> 1. โสด	<input type="checkbox"/> 2. สมรส
	<input type="checkbox"/> 3. หย่าร้าง	<input type="checkbox"/> 4. หม้าย
6. อายุการทำงาน	<input type="checkbox"/> 1. น้อยกว่า 5 ปี	<input type="checkbox"/> 2. 5 – 10 ปี
	<input type="checkbox"/> 3. 11 - 15 ปี	<input type="checkbox"/> 4. 16 – 20 ปี
	<input type="checkbox"/> 5. 20 - 25 ปี	<input type="checkbox"/> 6. 26 ปีขึ้นไป

จบแบบสอบถามตอนที่ 1

ตอนที่ 2 แบบสอบถามภาวะผู้นำแบบแท้จริง (Authentic Leadership)

คำชี้แจง โปรดอ่านข้อความแต่ละข้อ และทำเครื่องหมาย ✓ ลงในช่องทางขวามือที่ตรงกับระดับ
ความคิดเห็นหรือความรู้สึกของท่านมากที่สุดเพียงคำตอบเดียว

ข้อ	ข้อความเกี่ยวกับลักษณะการทำงานของหัวหน้าของท่าน	จริง ที่สุด (5)	จริง (4)	ไม่ แน่ใจ (3)	ไม่ จริง (2)	ไม่ จริง ที่สุด (1)
1.	หัวหน้าของท่านบอกเล่าความต้องการหรือเป้าหมายของหัวหน้าได้ชัดเจน					
2.	หัวหน้าของท่าน <u>ไม่</u> ยอมรับความผิดพลาดหรือบกพร่องของตนเอง					
3.	หัวหน้าของท่านปฏิบัติตนเป็นแบบอย่างที่ดีของลูกน้อง					
4.	การปฏิบัติต่อลูกน้องของหัวหน้านั้นเป็นไปด้วยความเมตตา					
5.	หัวหน้าของท่านแสดงท่าทีเห็นอกเห็นใจลูกน้อง					
6.	หัวหน้าของท่านมีความเข้าใจและยอมรับความแตกต่างของลูกน้องแต่ละคน					
7.	หัวหน้าของท่านมอบหมายงานที่เหมาะสมกับความสามารถของลูกน้องแต่ละคน					
8.	เมื่อต้องตัดสินใจอะไรบางอย่างที่หน่วยงาน หัวหน้าของท่าน <u>ไม่</u> สนใจถึงผลกระทบที่จะเกิดขึ้นกับลูกน้องแต่ละคน					
9.	หัวหน้าของท่านบอกกล่าวหรือแสดงออกให้ลูกน้องรู้ถึงผลเสียที่อาจเกิดขึ้นก่อนทำการตัดสินใจในเรื่องต่าง ๆ ในหน่วยงาน					
10.	หัวหน้าของท่านรับฟังข้อมูลที่ได้รับจากทุกฝ่ายก่อนดำเนินการตัดสินใจ					
11.	หัวหน้าของท่านตั้งใจรับฟังและพิจารณาเหตุผลของผู้กระทำผิด ก่อนจะตัดสินใจลงโทษ					

12.	หัวหน้าของท่านมีพฤติกรรมฟังความข้างเดียวในการทำงาน					
13.	ในการทำงานนั้น หัวหน้าของท่านกระตุ้นให้เกิดการแลกเปลี่ยนความคิดเห็นอย่างอิสระ					
14.	หัวหน้าของท่านเปิดรับความคิดเห็นจากลูกน้องและผู้ร่วมงานเพื่อประกอบการตัดสินใจ หรือหาข้อสรุป					
15.	หัวหน้าของท่าน <u>ไม่</u> รับฟังข้อคิดเห็นหรือข้อเสนอของลูกน้องที่แตกต่างจากของตน					
16.	หัวหน้าของท่านมีวิธีการที่ดีในการวิเคราะห์ และพิจารณาข้อเท็จจริงต่าง ๆ					
17.	หัวหน้าของท่านตัดสินใจ หรือ หาข้อสรุปต่าง ๆ โดยผ่านการวิเคราะห์ข้อมูลจากฝ่ายต่าง ๆ อย่างถี่ถ้วน					
18.	ข้อสรุปและการตัดสินใจของหัวหน้าของท่านนั้นมีความถูกต้องน่าเชื่อถือเพราะได้ผ่านการพิจารณาวิเคราะห์อย่างดี					
19.	หัวหน้าของท่านแสดงความคิดเห็นของตนเองอย่างตรงไปตรงมา					
20.	หัวหน้าของท่านแสดงออกอย่างชัดเจนต่อสิ่งที่ตนเองต้องการ					
21.	ลูกน้องในหน่วยงานให้ความเชื่อถือและไว้วางใจต่อหัวหน้าของท่าน					
22.	เป็นการยากที่จะทำงานให้ถูกใจหัวหน้าของท่าน					
23.	หัวหน้าของท่าน แบ่งปันเปิดเผยข้อมูลกับคนในหน่วยงาน					
24.	หัวหน้าของท่านแลกเปลี่ยนข้อมูลข่าวสารกับลูกน้องอย่างสม่ำเสมอ					
25.	การทำงานของหัวหน้าของท่านนั้นเป็นไปอย่างโปร่งใส และสามารถตรวจสอบได้					
26.	หัวหน้าของท่านแสดงความโกรธ หรือ ทำทางไม่พอใจอย่างชัดเจน เมื่อมีผู้อื่นขัดแย้ง					

27.	เมื่อเผชิญกับปัญหาหรือเหตุวิกฤต หัวหน้าของท่านสามารถควบคุมอารมณ์และแก้ไขสถานการณ์ได้ดี					
28.	หัวหน้าของท่านสื่อสารกับลูกน้องอย่างสุภาพและเหมาะสม					
29.	หัวหน้าของท่านประพฤติตนตามหลักคุณธรรมจริยธรรมอย่างเคร่งครัด					
30.	คำพูดและการปฏิบัติของหัวหน้าสอดคล้องกับค่านิยมที่ดิงามขององค์กร					
31.	หัวหน้าเป็นตัวอย่างของการมีระเบียบวินัยในตนเองอย่างยิ่ง					
32.	หัวหน้าของท่านปฏิบัติงานด้วยความซื่อตรงและซื่อสัตย์					
33.	หัวหน้าของท่านยึดระเบียบกฎเกณฑ์ขององค์กร เป็นแนวทางในการทำงาน					
34.	หัวหน้าของท่านยึดถือหลักจริยธรรมเป็นพื้นฐานในการตัดสินใจ					
35.	เมื่อได้รับแรงกดดันให้ต้องปฏิบัติงานขัดต่อกฎระเบียบที่มี หัวหน้าของท่านเลือกที่จะไม่ทำเพราะคำนึงถึงผลเสียที่ตามมา					
36.	หากมีแรงต่อต้าน ขัดขวางการทำงานให้เป็นไปได้ถูกต้องตามกฎระเบียบจากกลุ่มมีอำนาจต่าง ๆ หัวหน้าของท่านยินดีที่จะเปลี่ยนการตัดสินใจ เพื่อหลีกเลี่ยงปัญหาขัดแย้ง					
37.	หัวหน้าของท่านมีความเกรงกลัวต่อผลกระทบในทางลบหากต้องเลือกประพฤติปฏิบัติในทางที่ไม่ถูกต้อง					
38.	หัวหน้าของท่านจะไม่ตัดสินใจตามความต้องการที่ไม่เหมาะสมของผู้บังคับบัญชาที่เหนือขึ้นไป					
39.	หัวหน้าของท่านให้เกียรติลูกน้องและเพื่อนร่วมงานในทุกระดับ					

40.	หัวหน้าของท่านพยายามทำให้เกิดความสามัคคี และ สมานฉันท์ระหว่างบุคคล กลุ่ม และหน่วยงาน					
41.	หัวหน้าให้ความช่วยเหลือกับลูกน้องอย่างเท่าเทียมทุก คน					
42.	หัวหน้าของท่านมีการแสดงออกที่สุภาพ และเป็นมิตร ต่อเพื่อนร่วมงานในทุกระดับ ทั้งจากภายในและ ภายนอกองค์กร					
43.	ในการทำงานนั้น หัวหน้าของท่านปลุกฝังเรื่องความ ปรองดองและสามัคคีระหว่างบุคคล กลุ่ม และ หน่วยงาน					
44.	หัวหน้าของท่าน ไม่ได้ใส่ใจกับการทะเลาะวิวาทหรือ ปัญหาขัดแย้งระหว่างลูกน้อง					
45.	หัวหน้าของท่านกระตุ้นให้ลูกน้องภายใต้บังคับบัญชา แข่งขันกันทำงาน					
46.	หัวหน้าเน้นการทำงานเป็นทีม และความสำเร็จของ ทีมงานเป็นสำคัญ					
47.	หัวหน้าของท่านมุ่งมั่นความสำเร็จในงานมาก จนทำให้ ลูกน้องแต่ละคนเกิดความเครียด					
48.	หัวหน้าของท่านเน้นย้ำเรื่องการมีจริยธรรมที่ดีใน วัฒนธรรมการทำงาน					
49.	หัวหน้าของท่านสร้างขวัญและกำลังใจในการทำงาน ให้แก่ลูกน้องเสมอ					
50.	หัวหน้าของท่านสร้างบรรยากาศที่ดี ในการทำงาน					

จบแบบสอบถามขอขอบพระคุณในความอนุเคราะห์ของท่าน

Appendix C

Finalised Version of 19-Thai Authentic Leadership Measure and Item Codes (in Thai)

ข้อ	ข้อความเกี่ยวกับลักษณะการทำงานของหัวหน้าของท่าน	Item Code
1.	การปฏิบัติต่อลูกน้องของหัวหน้านั้นเป็นไปด้วยความเมตตา	SA4
2.	หัวหน้าของท่านมีความเข้าใจและยอมรับความแตกต่างของลูกน้องแต่ละคน	SA6
3.	เมื่อต้องตัดสินใจอะไรบางอย่างที่หน่วยงาน หัวหน้าของท่าน <u>ไม่</u> สนใจถึงผลกระทบที่จะเกิดขึ้นกับลูกน้องแต่ละคน	SA8
4.	หัวหน้าของท่านสร้างบรรยากาศที่ดี ในการทำงาน	SA10
5.	ในการทำงานนั้น หัวหน้าของท่านกระตุ้นให้เกิดการแลกเปลี่ยนความคิดเห็นอย่างอิสระ	BA4
6.	หัวหน้าของท่านตัดสินใจ หรือ หาข้อสรุปต่าง ๆ โดยผ่านการวิเคราะห์ข้อมูลจากฝ่ายต่าง ๆ อย่างถี่ถ้วน	BA8
7.	หัวหน้าของท่านแสดงความคิดเห็นของตนเองอย่างตรงไปตรงมา	BA10
8.	หัวหน้าของท่านแสดงออกอย่างชัดเจนต่อสิ่งที่ตนเองต้องการ	BA11
9.	ลูกน้องในหน่วยงานให้ความเชื่อถือและไว้วางใจต่อหัวหน้าของท่าน	RE1
10.	หัวหน้าของท่านแลกเปลี่ยนข้อมูลข่าวสารกับลูกน้องอย่างสม่ำเสมอ	RE4
11.	การทำงานของหัวหน้าของท่านนั้นเป็นไปอย่างโปร่งใส และสามารถตรวจสอบได้	RE5
12.	เมื่อเผชิญกับปัญหาหรือเหตุวิกฤต หัวหน้าของท่านสามารถควบคุมอารมณ์และแก้ไขสถานการณ์ได้ดี	RE7
13.	คำพูดและการปฏิบัติของหัวหน้าสอดคล้องกับค่านิยมที่ค้ำจุนขององค์กร	IN1
14.	หัวหน้าเป็นตัวอย่างของการมีระเบียบวินัยในตนเองอย่างยิ่ง	IN2
15.	หัวหน้าของท่านปฏิบัติงานด้วยความซื่อตรงและซื่อสัตย์	IN3
16.	หัวหน้าของท่านยึดระเบียบกฎเกณฑ์ขององค์กร เป็นแนวทางในการทำงาน	IN4
17.	หัวหน้าให้ความช่วยเหลือกับลูกน้องอย่างเท่าเทียมทุกคน	HA3
18.	หัวหน้าของท่านมีการแสดงออกที่สุภาพ และเป็นมิตรต่อเพื่อนร่วมงานในทุกระดับ ทั้งจากภายในและภายนอกองค์กร	HA4
19.	ในการทำงานนั้น หัวหน้าของท่านปลุกฝังเรื่องความปรองดองและสามัคคีระหว่างบุคคล กลุ่ม และหน่วยงาน	HA5

Appendix D

Questionnaires for Scale-validation Study

แบบสอบถามเพื่อการวิจัย

คำชี้แจง

1. แบบสอบถามนี้มีวัตถุประสงค์เพื่อสอบถามภาวะผู้นำของผู้ที่มีสุขในองค์กร พฤติกรรมนวัตกรรมของเจ้าหน้าที่ในหน่วยงานของท่าน เพื่อเป็นข้อมูลในงานวิจัยที่จะช่วยขยายองค์ความรู้ด้านภาวะผู้นำ และการทำงานในประเทศไทย ซึ่งจะก่อประโยชน์ทางด้านวิชาการและการประยุกต์ใช้ในการพัฒนาทรัพยากรมนุษย์และองค์กรต่อไป
2. การวิจัยนี้เป็นส่วนหนึ่งของการศึกษาในระดับดุษฎีบัณฑิต การพัฒนาทรัพยากรมนุษย์และองค์กร
3. ขอความกรุณาท่านตอบคำถามในแบบสอบถามชุดนี้ทุกข้อตามความเป็นจริงของท่านมากที่สุด คำตอบของท่านที่จะนำมาใช้เพื่อวิเคราะห์และแสดงผลโดยรวมเท่านั้น ไม่แสดงผลเป็นรายบุคคล ดังนั้นจะไม่มีผลกระทบใดๆ ต่อตัวท่านหรือต่อหน่วยงานของท่าน
4. แบบสอบถามชุดนี้มีทั้งหมด 5 ตอน ดังนี้

ตอนที่ 1 แบบสอบถามข้อมูลทั่วไปของผู้ตอบแบบสอบถาม

ตอนที่ 2 แบบสอบถามภาวะผู้นำ

ตอนที่ 3 แบบสอบถามความอยู่ดีมีสุขในองค์กร

ตอนที่ 4 แบบสอบถามพฤติกรรมนวัตกรรม

ขอขอบพระคุณในความอนุเคราะห์ตอบแบบสอบถามของท่านมา ณ โอกาสนี้เป็นอย่างสูง โปรดตอบและส่งแบบสอบถามคืนให้นาวาโทชิตวัน เษยสกุล เบอร์ติดต่อ 08-891-97167 ภายใน 2 สัปดาห์ หากท่านมีข้อคำถามใดๆ หรือประสงค์จะส่งแบบสอบถามคืนโดยตรงกรุณาติดต่อผู้วิจัยตามที่ติดต่อข้างล่างนี้

ขอแสดงความนับถือ

ไอย์รัชชา อมรพิพัฒน์

โทร: 09-121-33803

Email: iratrachar.a@gmail.com

ตอนที่ 1 ข้อมูลทั่วไปของผู้ตอบแบบสอบถาม

คำชี้แจง โปรดทำเครื่องหมาย \surd ลงในช่อง ตรงกับความเป็นจริงของท่านมากที่สุดเพียง

คำตอบเดียว

1. เพศ	<input type="checkbox"/> 1. ชาย	<input type="checkbox"/> 2. หญิง
2. อายุ	<input type="checkbox"/> 1. น้อยกว่า 20 ปี	<input type="checkbox"/> 2. 20 – 30 ปี
	<input type="checkbox"/> 3. 31 – 40 ปี	<input type="checkbox"/> 4. 41 – 50 ปี
	<input type="checkbox"/> 5. มากกว่า 50 ปี	
3. ระดับชั้นยศปัจจุบัน	<input type="checkbox"/> 1. ประทวน	<input type="checkbox"/> 2. สัญญาบัตร
4. หน่วยงานที่ท่านสังกัด	<input type="checkbox"/> 1. ส่วนบัญชาการ	<input type="checkbox"/> 2. ส่วนกำลังรบ
	<input type="checkbox"/> 3. ส่วนยุทธบริการ	<input type="checkbox"/> 4. ส่วนการศึกษาและวิจัย
5. ระดับการศึกษาสูงสุด	<input type="checkbox"/> 1. มัธยมศึกษาตอนปลาย/ ประกาศนียบัตร(ปวช.)	<input type="checkbox"/> 2. อนุปริญญา (ปวศ.)
	<input type="checkbox"/> 3.ปริญญาตรี	<input type="checkbox"/> 4. ปริญญาโท
	<input type="checkbox"/> 5. ปริญญาเอก	
6. สถานภาพสมรส	<input type="checkbox"/> 1. โสด	<input type="checkbox"/> 2. สมรส
	<input type="checkbox"/> 3. หย่าร้าง	<input type="checkbox"/> 4. หม้าย
7. อายุการทำงาน	<input type="checkbox"/> 1. น้อยกว่า 5 ปี	<input type="checkbox"/> 2. 5 – 10 ปี
	<input type="checkbox"/> 3. 11 - 15 ปี	<input type="checkbox"/> 4. 16 – 20 ปี
	<input type="checkbox"/> 5. 20 - 25 ปี	<input type="checkbox"/> 6. 26 ปีขึ้นไป

จบแบบสอบถามตอนที่ 1

ตอนที่ 2 แบบสอบถามภาวะผู้นำ

คำชี้แจง โปรดอ่านข้อความแต่ละข้อ และทำเครื่องหมาย ✓ ลงในช่องทางขวามือที่ตรงกับระดับ
ความคิดเห็นหรือความรู้สึกรของท่านมากที่สุดเพียงคำตอบเดียว

ข้อ	ข้อความเกี่ยวกับลักษณะการทำงานของหัวหน้าของท่าน	จริง ที่สุด	จริง	ไม่ แน่ใจ	ไม่ จริง	ไม่ จริง ที่สุด
1.	การปฏิบัติต่อลูกน้องของหัวหน้านั้นเป็นไปด้วยความเมตตา					
2.	หัวหน้าของท่านมีความเข้าใจและยอมรับความแตกต่างของลูกน้องแต่ละคน					
3.	เมื่อต้องตัดสินใจอะไรบางอย่างที่หน่วยงาน หัวหน้าของท่าน <u>ไม่</u> สนใจถึงผลกระทบที่จะเกิดขึ้นกับลูกน้องแต่ละคน					
4.	หัวหน้าของท่านสร้างบรรยากาศที่ดี ในการทำงาน					
5.	ในการทำงานนั้น หัวหน้าของท่านกระตุ้นให้เกิดการแลกเปลี่ยนความคิดเห็นอย่างอิสระ					
6.	หัวหน้าของท่านตัดสินใจ หรือ หาข้อสรุปต่าง ๆ โดยผ่านการวิเคราะห์ข้อมูลจากฝ่ายต่าง ๆ อย่างถี่ถ้วน					
7.	หัวหน้าของท่านแสดงความคิดเห็นของตนเองอย่างตรงไปตรงมา					
8.	หัวหน้าของท่านแสดงออกอย่างชัดเจนต่อสิ่งที่ตนเองต้องการ					
9.	ลูกน้องในหน่วยงานให้ความเชื่อถือและไว้วางใจต่อหัวหน้าของท่าน					
10.	หัวหน้าของท่านแลกเปลี่ยนข้อมูลข่าวสารกับลูกน้องอย่างสม่ำเสมอ					
11.	การทำงานของหัวหน้าของท่านนั้นเป็นไปอย่างโปร่งใส และสามารถตรวจสอบได้					
12.	เมื่อเผชิญกับปัญหาหรือเหตุวิกฤต หัวหน้าของท่านสามารถควบคุมอารมณ์และแก้ไขสถานการณ์ได้ดี					

13.	คำพูดและการปฏิบัติของหัวหน้าสอดคล้องกับค่านิยมที่ตั้งงามขององค์กร					
14.	หัวหน้าเป็นตัวอย่างของการมีระเบียบวินัยในตนเองอย่างยิ่ง					
15.	หัวหน้าของท่านปฏิบัติงานด้วยความซื่อตรงและซื่อสัตย์					
16.	หัวหน้าของท่านยึดระเบียบกฎเกณฑ์ขององค์กร เป็นแนวทางในการทำงาน					
17.	หัวหน้าให้ความช่วยเหลือกับลูกน้องอย่างเท่าเทียมทุกคน					
18.	หัวหน้าของท่านมีการแสดงออกที่สุภาพ และเป็นมิตรต่อเพื่อนร่วมงานในทุกระดับ ทั้งจากภายในและภายนอกองค์กร					
19.	ในการทำงานนั้น หัวหน้าของท่านปลุกฝังเรื่องความปรองดองและสามัคคีระหว่างบุคคล กลุ่ม และหน่วยงาน					
20.	หัวหน้าของท่านสามารถสร้างความเชื่อมั่นศรัทธาและเป็นที่ยอมรับของผู้ร่วมงาน					
21.	หัวหน้าของท่านสามารถทำให้ผู้ร่วมงานเกิดความภาคภูมิใจเมื่อได้ร่วมงานกัน					
22.	หัวหน้าของท่านสามารถสร้างความไว้วางใจให้กับผู้ร่วมงานได้					
23.	หัวหน้าของท่านเป็นผู้มีคุณธรรม จริยธรรม มองโลกในแง่ดีและเป็นแบบอย่างที่ดีแก่ผู้ร่วมงาน					
24.	หัวหน้าของท่านสามารถควบคุมอารมณ์ในสถานการณ์ต่าง ๆ ได้					
25.	หัวหน้าของท่านเป็นผู้มีวิสัยทัศน์กว้างไกล มีความเป็นไปได้ในทางปฏิบัติ					
26.	หัวหน้าของท่านสามารถแสดงความมั่นใจในการที่จะเอาชนะอุปสรรคที่เกิดขึ้น					

27.	หัวหน้าของท่านสามารถระบุจุดประสงค์หลักในการทำงานของผู้ร่วมงานได้อย่างชัดเจน					
28.	หัวหน้าของท่านมีความเสียสละประโยชน์ส่วนตนเพื่อประโยชน์ส่วนรวม					
29.	หัวหน้าของท่านสามารถจูงใจให้ผู้ร่วมงานมีเจตคติที่ดีต่อการทำงาน					
30.	หัวหน้าของท่านสามารถกระตุ้นให้ผู้ร่วมงานมีกำลังใจในการทำงาน					
31.	หัวหน้าของท่านสามารถสร้างความคาดหวังในความสำเร็จของงานแก่ผู้ร่วมงาน					
32.	หัวหน้าของท่านมีความตั้งใจในการทำงานอย่างแน่วแน่					
33.	หัวหน้าของท่านมีวิธีการส่งเสริมให้ผู้ร่วมงานมีความสามัคคีกันในการปฏิบัติงาน					
34.	หัวหน้าของท่านสามารถถ่ายทอดความคิดที่สำคัญเกี่ยวกับค่านิยมและความเชื่อ					
35.	หัวหน้าของท่านสามารถปฏิบัติตนให้ผู้ร่วมงานเคารพและศรัทธา					
36.	หัวหน้าของท่านสามารถกระตุ้นให้ผู้ร่วมงานเห็นแนวทางใหม่ ๆ ในการแก้ปัญหา					
37.	หัวหน้าของท่านมีการส่งเสริมและสนับสนุนให้ผู้ร่วมงานแสดงความคิดเห็นในแง่มุมต่าง ๆ อย่างเต็มที่					
38.	หัวหน้าของท่านส่งเสริมให้ผู้เข้าร่วมงานรู้จักวิเคราะห์ปัญหาโดยใช้เหตุผลและข้อมูลหลักฐาน					
39.	หัวหน้าของท่านสนับสนุนวิธีการทำงาน หรือวิธีแก้ปัญหาที่เกิดขึ้นด้วยวิธีการใหม่ ๆ					
40.	หัวหน้าของท่านมอบหมายงานที่ทำทลายความสามารถของผู้ร่วมงาน					

41.	หัวหน้าของท่านสามารถตรวจสอบข้อสันนิษฐานของปัญหาที่สำคัญว่ามีความเหมาะสมหรือไม่					
42.	หัวหน้าของท่านให้อิสระแก่ผู้ร่วมงานในการปฏิบัติงานอย่างเต็มที่					
43.	หัวหน้าของท่านส่งเสริมให้ผู้ร่วมงานปฏิบัติงานด้วยความตั้งใจและพัฒนาจุดด้อยของตนเองอยู่เสมอ					
44.	หัวหน้าของท่านปฏิบัติต่อผู้ร่วมงานโดยคำนึงความแตกต่างระหว่างบุคคล					
45.	หัวหน้าของท่านให้ความสนใจแก่ผู้ร่วมงานอย่างเท่าเทียมกัน โดยปราศจากอคติใด ๆ					
46.	หัวหน้าของท่านมีการนิเทศโดยใช้วิธีการวิเคราะห์ความต้องการและความสามารถของผู้ร่วมงาน					
47.	หัวหน้าของท่านมอบหมายงานตรงกับความสามารถของผู้ร่วมงาน					
48.	หัวหน้าของท่านรับฟังเรื่องราวของผู้ร่วมงานอย่างตั้งใจ					
49.	หัวหน้าของท่านมีการติดตามผลการปฏิบัติงานของผู้ร่วมงานเป็นรายบุคคล					

ตอนที่ 3 แบบสอบถามภาวะอยู่ดีมีสุข

คำชี้แจง โปรดอ่านข้อความแต่ละข้อ และทำเครื่องหมาย ✓ ลงในช่องทางขวามือที่ตรงกับระดับ
ความคิดเห็นหรือความรู้สึกของท่านมากที่สุดเพียงคำตอบเดียว

ข้อ	ข้อความเกี่ยวกับตัวท่านและหน่วยงานที่ท่านทำงานอยู่	จริงที่สุด	จริง	ไม่แน่ใจ	ไม่จริง	ไม่จริงที่สุด
1.	หน่วยงานของท่าน มีวิสัยทัศน์ พันธกิจ ยุทธศาสตร์ นโยบาย แผนงาน โครงสร้างสายบังคับบัญชาที่ชัดเจน					
2.	อาชีพของท่านมีความมั่นคง					
3.	ท่านมองเห็นความก้าวหน้าในตำแหน่งหน้าที่ของท่าน					
4.	หน่วยงานของท่านมีการส่งเสริมให้พนักงานพัฒนาตนเองในการทำงาน เช่น ทุนการศึกษา ต่อ การอบรมเพื่อเพิ่มทักษะ เป็นต้น					
5.	ภาระงานที่ท่านรับผิดชอบมีคุณค่าเป็นที่ยอมรับของสังคม					
6.	ท่านมีความเหมาะสมกับตำแหน่งที่ปฏิบัติงานอยู่					
7.	หน่วยงานของท่านมีการเชิดชูเกียรติการทำงานที่ดีของเจ้าหน้าที่					
8.	ท่านมีทีมงานที่ดีในการทำงาน					
9.	ท่านได้รับความช่วยเหลือและคำแนะนำจากเพื่อนร่วมงานและผู้บังคับบัญชา					
10.	ผู้บังคับบัญชาของท่านให้ความเป็นกันเองกับลูกน้อง					
11.	ท่านได้รับความร่วมมือในการทำงานจากเพื่อนร่วมงาน					

12.	ท่านสามารถทำงานได้หลากหลายหน้าที่จึงสามารถสลับเปลี่ยนการทำงานกับเพื่อนร่วมงานได้ถ้าจำเป็น					
13.	ท่านได้รับข่าวสารของหน่วยงานที่สังกัดอย่างครบถ้วน					
14.	ท่านได้รับค่าตอบแทนที่เหมาะสมกับปริมาณงานของท่าน					
15.	ท่านได้รับสวัสดิการและสิทธิประโยชน์ที่ดีและเหมาะสมแก่ท่าน					
16.	หน่วยงานมีการพิจารณาเพื่อเลื่อนขึ้นเงินเดือนให้ท่านอย่างเหมาะสม					
17.	หน่วยงานมีกิจกรรมเสริมสร้างการออมเงินและการลงทุนที่เหมาะสมแก่พนักงาน					
18.	หน่วยงานช่วยเหลือพนักงานเมื่อเกิดภาวะวิกฤต เช่น อุทกภัย ภัยพิบัติ เป็นต้น					
19.	ท่านสามารถจัดการด้านการเงินของท่านได้อย่างสมดุล					
20.	หน่วยงานที่ท่านสังกัดจัดกิจกรรมต่าง ๆ เพื่อสร้างเสริมสุขภาพกายใจให้กับพนักงาน เช่น การออกกำลังกาย การนั่งสมาธิ เป็นต้น					

ข้อ	ข้อความเกี่ยวกับตัวท่านและหน่วยงานที่ท่านทำงานอยู่	จริงที่สุด	จริง	ไม่แน่ใจ	ไม่จริง	ไม่จริงที่สุด
21.	งานของท่านไม่ได้ทำให้ท่านเกิดความเครียดมากเกินไป					
22.	ท่านสามารถจัดแบ่งเวลาให้กับการทำงานและเวลาอยู่กับครอบครัวได้อย่างเหมาะสม					
23.	ท่านมีเวลาเพื่อออกกำลังกายหรือร่วมกิจกรรมเพื่อสุขภาพเป็นประจำ					
24.	ท่านรู้สึกว่ามีคุณภาพชีวิตที่ดีในการทำงานในหน่วยงานนี้					
25.	หน่วยงานของท่านสนับสนุนเรื่องความปลอดภัยในการทำงานให้กับพนักงาน					
26.	ท่านได้รับการสนับสนุนอุปกรณ์สำนักงานที่เอื้อต่อการทำงานครบถ้วน					
27.	ท่านมีความสะดวกสบายในการเดินทางไปทำงาน					
28.	สถานที่การทำงานของท่านเป็นระเบียบเรียบร้อย เป็นสัดส่วน มีพื้นที่เพียงพอต่อการทำงาน					
29.	มีห้องพักหรือห้องรับรองให้แก่เจ้าหน้าที่ได้ใช้อย่างเหมาะสมในหน่วยงานของท่าน					
30.	หน่วยงานของท่านมีการจัดสภาพแวดล้อมที่ทำให้พนักงานทำงานได้อย่างมีความสุข					

จบแบบสอบถามตอนที่ 3

ตอนที่ 4 แบบสอบถามพฤติกรรมสร้างนวัตกรรม (Innovative Work Behaviour)

คำชี้แจง โปรดอ่านข้อความแต่ละข้อ และทำเครื่องหมาย ✓ ลงในช่องทางขวามือที่ตรงกับระดับความถี่ตามความรู้สึกของท่านมากที่สุดเพียงคำตอบเดียว

ข้อ	ข้อความเกี่ยวกับพฤติกรรมของท่านที่หน่วยงาน	เป็นประจำ	บ่อยครั้ง	บางครั้ง	นานๆครั้ง	ไม่เคย
1.	ท่านมักให้ความสนใจต่อ แนวคิด ปัญหา หรือ ประเด็นต่าง ๆ ที่นอกเหนือจากงานประจำของฉันทัน					
2.	ท่านมักมีข้อสงสัยว่า วิธีการ เทคนิค และ/หรือ เครื่องมือในการทำงานนั้นจะสามารถพัฒนาให้ดีขึ้นได้อย่างไร					
3.	ท่านมักจะค้นหาวิธีการ เทคนิค และ/หรือเครื่องมือใหม่ ๆ ในการทำงาน					
4.	ท่านมักจะคิดริเริ่มสร้างสรรค์วิธีการใหม่ ๆ เพื่อใช้ในการแก้ไขปัญหา					
5.	เมื่อได้รับมอบหมายให้ปฏิบัติภารกิจต่าง ๆ ท่านมักจะคิดหาหนทาง/แนวทางใหม่ ในการทำงานดังกล่าว					
6.	ท่านสามารถทำให้บุคลากรที่สำคัญในหน่วยงานมีความสนใจ/ตื่นตัว/ ต่อความริเริ่มสร้างสรรค์ใหม่ ๆ ที่เกิดขึ้นในหน่วยงาน					
7.	ในการทำงาน ท่านมักคิดหาหนทางให้บุคคลในหน่วยงาน/กลุ่มงานสนับสนุนความคิดสร้างสรรค์ที่เกิดขึ้น					
8.	ในการปฏิบัติงาน ท่านมักเสนอความคิดที่เป็นประโยชน์ต่อการทำงานต่อกลุ่มทำงานอย่างมีระบบ					
9.	ท่านมีส่วนร่วมที่ทำให้ความคิดสร้างสรรค์ต่าง ๆ เกิดขึ้นจริง					
10.	ท่านมีความใส่ใจและทุ่มเทที่จะพัฒนาสิ่งใหม่ๆ ให้เกิดขึ้นในหน่วยงาน					



จบแบบสอบถาม



Appendix E

Back-Translated Measures

Translated Thai Authentic Leadership Measure (19 items)

1. My supervisor is benevolently conscious of his/her own manners when treating his/her subordinates.
2. My supervisor understands his/her subordinates' abilities and limitations.
3. My supervisor is not aware of his/her impact on subordinates when making decisions.
4. My supervisor does not try to understand his/her own shortcomings and limitations.
5. My supervisor stimulates others to share opinions and ideas.
6. My supervisor accurately analyses relevant information before making a decision.
7. My supervisor has no bias when receiving information before reaching a conclusion.
8. My supervisor encourages others to provide ideas, point of views and feedback being challenged to his/her own.
9. My supervisor is reliable and can be trusted by his/her subordinates.
10. My supervisor shares information openly with his/her subordinates.
11. My supervisor has a transparent working process.
12. My supervisor displays his/her true self appropriately with others.
13. My supervisor's expressions and actions are aligned with the ethical values of the organisation.
14. My supervisor is a role model for being self-regulated.
15. My supervisor is honest and reliable when making an important decision.
16. My supervisor behaves accordingly to his/her core values when facing ethical dilemmas at workplace.
17. My supervisor helps and supports his/her subordinates equally.
18. My supervisor is friendly and polite to everyone.
19. My supervisor cultivates harmony and unity among individuals, groups, and organisations.

Translated Wellbeing Measure (30 items)

1. Your organisation has clear vision, missions, strategy, and chains of command.
2. You have a secured job.
3. You see opportunities for career advancement.
4. Your organisation emphasises career development of individuals.
5. Your job is valuable and accepted by people in the society.
6. You are suitable to your current role.
7. Your organisation recognises any individual who performs outstanding.
8. You have a good team work.
9. You receive support from colleagues and supervisor(s).
10. Your supervisor is friendly.
11. Your colleagues are cooperative.
12. You are comfortable with job rotation when necessary.
13. Your organisation keeps you well-informed.
14. You have a reasonable salary compared to your workload.
15. You receive adequate welfare and compensation from your organisation.
16. Your organisation has an effective system for a job promotion.
17. Your organisation encourages individuals to join in financial saving and investment.
18. Your organisation provides help and support employees when facing critical situations such as natural disaster.
19. You are able to manage your monthly salary effectively.
20. Your organisation set up activities to promote good health among employees such as exercise and mediation.
21. Your job does not make you feel stressed.
22. You have enough time for your family.
23. You have time for a regular exercise.
24. You have a good working life with your organisation.
25. Your organisation emphasises occupational safety.
26. You are provided adequate equipment and facilities to perform your job.
27. You have no problem with commuting.
28. Your physical workplace is well-functioned.
29. You are provided a decent employee lounge/break room.
30. Your organisation creates good physical environment in the workplace.

Translated Innovative work behaviour Measure (10 items)

1. I pay attention to issues that are no part of my daily work.
2. I wonder how I can improve things.
3. I search out new working methods, techniques or instruments to improve my jobs.
4. I generate original solutions for problems.
5. I find new approaches to execute tasks.
6. I make important organisational members enthusiastic for innovative ideas.
7. I attempt to convince people to support my innovative idea
8. I systematically introduce innovative ideas into work practices.
9. I contribute to the implementation of new ideas.
10. I put effort in the development of new things.

Appendix F

**Result of ANOVA analysis: The Differences among Means of Age
Ranges (Sample from Scale-Validation Study)**

Oneway

Descriptives

SA

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
below 20	4	4.0625	.59073	.29536	3.1225	5.0025	3.25	4.50
20-30	216	3.7060	.59682	.04061	3.6260	3.7861	2.25	5.00
31-40	160	3.6703	.55327	.04374	3.5839	3.7567	2.50	5.00
41-50	170	3.6588	.57028	.04374	3.5725	3.7452	1.75	5.00
over 50	94	3.6064	.52426	.05407	3.4990	3.7138	2.25	5.00
Total	644	3.6724	.56892	.02242	3.6283	3.7164	1.75	5.00

ANOVA

SA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	1.295	4	.324	1.000	.407
Within Groups	206.823	639	.324		
Total	208.118	643			

Post Hoc Tests**Multiple Comparisons**

Dependent Variable: SA

LSD

(I) age	(J) age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
below 20	20-30	.35648	.28708	.215	-.2073	.9202
	31-40	.39219	.28799	.174	-.1733	.9577
	41-50	.40368	.28779	.161	-.1614	.9688
	over 50	.45612	.29045	.117	-.1142	1.0265
20-30	below 20	-.35648	.28708	.215	-.9202	.2073
	31-40	.03571	.05934	.548	-.0808	.1522
	41-50	.04719	.05833	.419	-.0673	.1617
	over 50	.09964	.07030	.157	-.0384	.2377
31-40	below 20	-.39219	.28799	.174	-.9577	.1733
	20-30	-.03571	.05934	.548	-.1522	.0808
	41-50	.01149	.06266	.855	-.1116	.1345
	over 50	.06393	.07393	.388	-.0813	.2091
41-50	below 20	-.40368	.28779	.161	-.9688	.1614
	20-30	-.04719	.05833	.419	-.1617	.0673
	31-40	-.01149	.06266	.855	-.1345	.1116
	over 50	.05244	.07312	.474	-.0912	.1960
over 50	below 20	-.45612	.29045	.117	-1.0265	.1142
	20-30	-.09964	.07030	.157	-.2377	.0384
	31-40	-.06393	.07393	.388	-.2091	.0813
	41-50	-.05244	.07312	.474	-.1960	.0912

Oneway**Descriptives**

BA

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
below 20	4	4.3750	.59512	.29756	3.4280	5.3220	3.50	4.75
20-30	216	3.9491	.69905	.04756	3.8553	4.0428	1.75	5.00
31-40	160	3.8547	.62538	.04944	3.7570	3.9523	2.00	5.00
41-50	170	3.8309	.65757	.05043	3.7313	3.9304	1.75	5.00
over 50	94	3.6915	.51643	.05327	3.5857	3.7973	1.75	5.00
Total	644	3.8595	.65014	.02562	3.8092	3.9098	1.75	5.00

ANOVA

BA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.592	4	1.398	3.356	.010
Within Groups	266.190	639	.417		
Total	271.782	643			

Post Hoc Tests**Multiple Comparisons**

Dependent Variable: BA

LSD

(I) age	(J) age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
below 20	20-30	.42593	.32569	.191	-.2136	1.0655
	31-40	.52031	.32672	.112	-.1213	1.1619
	41-50	.54412	.32649	.096	-.0970	1.1852
	over 50	.68351*	.32951	.038	.0365	1.3306
20-30	below 20	-.42593	.32569	.191	-1.0655	.2136
	31-40	.09439	.06732	.161	-.0378	.2266
	41-50	.11819	.06617	.075	-.0118	.2481
	over 50	.25758*	.07975	.001	.1010	.4142
31-40	below 20	-.52031	.32672	.112	-1.1619	.1213
	20-30	-.09439	.06732	.161	-.2266	.0378
	41-50	.02381	.07109	.738	-.1158	.1634
	over 50	.16320	.08388	.052	-.0015	.3279
41-50	below 20	-.54412	.32649	.096	-1.1852	.0970
	20-30	-.11819	.06617	.075	-.2481	.0118
	31-40	-.02381	.07109	.738	-.1634	.1158
	over 50	.13939	.08296	.093	-.0235	.3023
over 50	below 20	-.68351*	.32951	.038	-1.3306	-.0365
	20-30	-.25758*	.07975	.001	-.4142	-.1010
	31-40	-.16320	.08388	.052	-.3279	.0015
	41-50	-.13939	.08296	.093	-.3023	.0235

*. The mean difference is significant at the 0.05 level.

Oneway**Descriptives**

RE

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
below 20	4	4.0625	.96555	.48278	2.5261	5.5989	2.75	5.00
20-30	216	3.9225	.64705	.04403	3.8357	4.0092	1.00	5.00
31-40	160	3.8500	.62079	.04908	3.7531	3.9469	1.50	5.00
41-50	170	3.8059	.64229	.04926	3.7086	3.9031	1.25	5.00
over 50	94	3.5771	.66501	.06859	3.4409	3.7133	1.25	4.50
Total	644	3.8241	.65177	.02568	3.7737	3.8746	1.00	5.00

ANOVA

RE

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	8.214	4	2.054	4.953	.001
Within Groups	264.933	639	.415		
Total	273.147	643			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: RE

LSD

(I) age	(J) age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
below 20	20-30	.14005	.32492	.667	-.4980	.7781
	31-40	.21250	.32595	.515	-.4276	.8526
	41-50	.25662	.32571	.431	-.3830	.8962
	over 50	.48537	.32873	.140	-.1601	1.1309
20-30	below 20	-.14005	.32492	.667	-.7781	.4980
	31-40	.07245	.06716	.281	-.0594	.2043
	41-50	.11657	.06602	.078	-.0131	.2462
	over 50	.34533*	.07956	.000	.1891	.5016
31-40	below 20	-.21250	.32595	.515	-.8526	.4276
	20-30	-.07245	.06716	.281	-.2043	.0594
	41-50	.04412	.07092	.534	-.0952	.1834
	over 50	.27287*	.08368	.001	.1086	.4372
41-50	below 20	-.25662	.32571	.431	-.8962	.3830
	20-30	-.11657	.06602	.078	-.2462	.0131
	31-40	-.04412	.07092	.534	-.1834	.0952
	over 50	.22875*	.08276	.006	.0662	.3913
over 50	below 20	-.48537	.32873	.140	-1.1309	.1601
	20-30	-.34533*	.07956	.000	-.5016	-.1891
	31-40	-.27287*	.08368	.001	-.4372	-.1086
	41-50	-.22875*	.08276	.006	-.3913	-.0662

*. The mean difference is significant at the 0.05 level.

Oneway**Descriptives**

IN

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
below 20	4	4.3125	.51539	.25769	3.4924	5.1326	3.75	4.75
20-30	216	4.1285	.64833	.04411	4.0415	4.2154	1.75	5.00
31-40	160	3.9813	.64887	.05130	3.8799	4.0826	2.00	5.00
41-50	170	3.9529	.66561	.05105	3.8522	4.0537	1.50	5.00
over 50	94	3.7846	.56034	.05779	3.6698	3.8993	1.75	5.00
Total	644	3.9965	.64912	.02558	3.9463	4.0467	1.50	5.00

ANOVA

IN

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	8.743	4	2.186	5.327	.000
Within Groups	262.187	639	.410		
Total	270.930	643			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: IN

LSD

(I) age	(J) age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
below 20	20-30	.18403	.32323	.569	-.4507	.8187
	31-40	.33125	.32426	.307	-.3055	.9680
	41-50	.35956	.32402	.268	-.2767	.9958
	over 50	.52793	.32702	.107	-.1142	1.1701
20-30	below 20	-.18403	.32323	.569	-.8187	.4507
	31-40	.14722*	.06681	.028	.0160	.2784
	41-50	.17553*	.06567	.008	.0466	.3045
	over 50	.34390*	.07915	.000	.1885	.4993
31-40	below 20	-.33125	.32426	.307	-.9680	.3055
	20-30	-.14722*	.06681	.028	-.2784	-.0160
	41-50	.02831	.07055	.688	-.1102	.1669
	over 50	.19668*	.08324	.018	.0332	.3601
41-50	below 20	-.35956	.32402	.268	-.9958	.2767
	20-30	-.17553*	.06567	.008	-.3045	-.0466
	31-40	-.02831	.07055	.688	-.1669	.1102
	over 50	.16837*	.08233	.041	.0067	.3300
over 50	below 20	-.52793	.32702	.107	-1.1701	.1142
	20-30	-.34390*	.07915	.000	-.4993	-.1885
	31-40	-.19668*	.08324	.018	-.3601	-.0332
	41-50	-.16837*	.08233	.041	-.3300	-.0067

*. The mean difference is significant at the 0.05 level.

Oneway**Descriptives**

HA

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
below 20	4	4.2500	.73912	.36956	3.0739	5.4261	3.33	5.00
20-30	216	4.0108	.70976	.04829	3.9156	4.1060	1.67	5.00
31-40	160	3.9479	.67349	.05324	3.8428	4.0531	2.00	5.00
41-50	170	3.8627	.68763	.05274	3.7586	3.9669	1.67	5.00
over 50	94	3.6560	.58138	.05996	3.5370	3.7751	1.67	4.67
Total	644	3.9058	.68615	.02704	3.8527	3.9589	1.67	5.00

ANOVA

HA

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	9.319	4	2.330	5.074	.000
Within Groups	293.411	639	.459		
Total	302.729	643			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: HA

LSD

(I) age	(J) age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
below 20	20-30	.23920	.34193	.484	-.4323	.9106
	31-40	.30208	.34302	.379	-.3715	.9757
	41-50	.38725	.34277	.259	-.2858	1.0604
	over 50	.59397	.34594	.086	-.0854	1.2733
20-30	below 20	-.23920	.34193	.484	-.9106	.4323
	31-40	.06289	.07068	.374	-.0759	.2017
	41-50	.14806*	.06948	.033	.0116	.2845
	over 50	.35477*	.08373	.000	.1904	.5192
31-40	below 20	-.30208	.34302	.379	-.9757	.3715
	20-30	-.06289	.07068	.374	-.2017	.0759
	41-50	.08517	.07464	.254	-.0614	.2317
	over 50	.29189*	.08806	.001	.1190	.4648
41-50	below 20	-.38725	.34277	.259	-1.0604	.2858
	20-30	-.14806*	.06948	.033	-.2845	-.0116
	31-40	-.08517	.07464	.254	-.2317	.0614
	over 50	.20672*	.08710	.018	.0357	.3777
over 50	below 20	-.59397	.34594	.086	-1.2733	.0854
	20-30	-.35477*	.08373	.000	-.5192	-.1904
	31-40	-.29189*	.08806	.001	-.4648	-.1190
	41-50	-.20672*	.08710	.018	-.3777	-.0357

*. The mean difference is significant at the 0.05 level.

Oneway**Descriptives**

AL

	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
					Lower Bound	Upper Bound		
below 20	4	4.2125	.59088	.29544	3.2723	5.1527	3.62	4.80
20-30	216	3.9434	.57120	.03887	3.8668	4.0200	1.75	5.00
31-40	160	3.8608	.50790	.04015	3.7815	3.9401	2.40	5.00
41-50	170	3.8223	.56650	.04345	3.7365	3.9080	1.98	4.95
over 50	94	3.6631	.50784	.05238	3.5591	3.7671	2.08	4.83
Total	644	3.8517	.55249	.02177	3.8089	3.8944	1.75	5.00

ANOVA

AL

	Sum of Squares	df	Mean Square	F	Sig.
Between Groups	5.839	4	1.460	4.898	.001
Within Groups	190.433	639	.298		
Total	196.273	643			

Post Hoc Tests

Multiple Comparisons

Dependent Variable: AL

LSD

(I) age	(J) age	Mean Difference (I-J)	Std. Error	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
below 20	20-30	.26914	.27547	.329	-.2718	.8101
	31-40	.35167	.27635	.204	-.1910	.8943
	41-50	.39025	.27615	.158	-.1520	.9325
	over 50	.54938*	.27870	.049	.0021	1.0967
20-30	below 20	-.26914	.27547	.329	-.8101	.2718
	31-40	.08253	.05694	.148	-.0293	.1943
	41-50	.12111*	.05597	.031	.0112	.2310
	over 50	.28024*	.06745	.000	.1478	.4127
31-40	below 20	-.35167	.27635	.204	-.8943	.1910
	20-30	-.08253	.05694	.148	-.1943	.0293
	41-50	.03858	.06013	.521	-.0795	.1567
	over 50	.19771*	.07094	.005	.0584	.3370
41-50	below 20	-.39025	.27615	.158	-.9325	.1520
	20-30	-.12111*	.05597	.031	-.2310	-.0112
	31-40	-.03858	.06013	.521	-.1567	.0795
	over 50	.15913*	.07017	.024	.0213	.2969
over 50	below 20	-.54938*	.27870	.049	-1.0967	-.0021
	20-30	-.28024*	.06745	.000	-.4127	-.1478
	31-40	-.19771*	.07094	.005	-.3370	-.0584
	41-50	-.15913*	.07017	.024	-.2969	-.0213

*. The mean difference is significant at the 0.05 level.

BIOGRAPHY

NAME

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ACADEMIC BACKGROUND

Bachelor's Degree with a major in Geography from Chulalongkorn University, Bangkok, Thailand in 2008 and Master's Degree in Human Resource Management, The University of Western Australia, Australia in 2012.

PRESENT POSITION

Foreign Affair Officer
Civil Aviation Authority of Thailand
Bangkok, Thailand

EXPERIENCES

Faculty Development in Thai Private University: HRD in Higher Education, Proceedings Paper Presented in UFHRD 2014, Scotland

Leadership and Organisational Commitment: The Case of a Thai Private University, Proceedings Paper Presented in AHRD 2014, South Korea

“Whistle Blowing” What are the Tendencies Behind: a Study of Thai Employees, Published in NKRAFA Journal of Humanities and Social Sciences vol.2 (2014)

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