THE INFLUENCE OF WICS MODEL, COURAGE AND SELF-EFFICACY ON EFFECTIVE LEADERSHIP: A MILITARY PERSPECTIVE

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2020

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DISSERTATION SUBMITTED IN PARTIAL FULFILMENT OF THE REQUIREMENTS FOR THE DEGREE OF DOCTOR OF MANAGEMENT

GRADUATE SCHOOL OF BUSINESS
FACULTY OF BUSINESS AND ACCOUNTANCY
UNIVERSITY OF MALAYA
KUALA LUMPUR

2020

UNIVERSITY OF MALAYA

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Matric No: CXA160007

Name of Degree: Doctor of Management

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The Influence of WICS Model, Courage and Self-Efficacy on Effective Leadership: A Military Perspective

Field of Study: Military Leadership

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THE INFLUENCE OF WICS MODEL, COURAGE AND SELF-EFFICACY ON EFFECTIVE LEADERSHIP: A MILITARY PERSPECTIVE

ABSTRACT

Effective leadership is complex; however, its application is always critical especially for military organisations. In grasping effective leadership, the Malaysian Army always emphasises continuous leadership training towards its leaders. The Army doctrines guide training in the Malaysian Army, a manual specifically formulated to suit the service requirement. Correspond to leadership scholars and researchers, the Army believed effective leaders possess a set of virtues that differentiate them from non-leaders and these virtues could be developed. The leadership training in the Army begins as early as when an officer report for basic officer cadet training and the training continues progressively as officers climb-up their career ladder. Positive virtues are developed accordingly. Nevertheless, few empirical studies had been conducted on the kind of virtues that really associates with effective military leadership. Hence, this research is examining virtues from effective leadership model and the one specified in the Army doctrines. Consequently, a WICS (an acronym for Wisdom, Intelligence, and Creativity Synthesised) were found in the literatures, while Courage and Self-efficacy were found from the Army in-house context. An extensive research instrument was adopted to rationalise measuring processes. Hence, the virtues were empirically tested on the Army senior-level officers who have undergone the highest leadership training scheme recognised as the Malaysian Armed Forces Defence College Course (MAFDC). Concurrently, senior officers who graduated from the course will be awarded with a Master degree and assume strategic level leadership appointment in the Malaysian Armed Forces. There were 201 of them available for this research and 91 responded to the survey. The research deploys SmartPLS version 3.0 to analyse all data. The result of this research suggested that wisdom and self-efficacy are virtues that have a significant relationship with effective military leadership while emotional intelligence, creativity and courage were not. Nevertheless, emotional intelligence, creativity and courage were mediated by self-efficacy in further describing effective military leadership. The findings of this study have managed to provide a new useful paradigm for the Malaysian Army in multiple directions. Firstly, the human resource department may use the results as a consideration in their periodically reviewed leaders' development planning. The second direction involves the Army training institutions that may consider the development of those virtues in their training program. Indeed, further brainstorming sessions would translate the virtues into appropriate training scheme. As the third direction, the study provided a fresh platform for more empirical studies to be conducted especially in the same field but different in paradigm and perspective. Fourthly, the effort has played its part as a contributor to the body of knowledge. One must remember that this research was conducted in Malaysian Army senior-level leaders setting and the result may differ if used in another context. The study opens up future research opportunities and these were explained in the final chapter of the research

Keywords: Effective military leadership, wisdom, emotional intelligence, creativity

PENGARUH MODEL WICS, KEBERANIAN DAN KEBERKESANAN KENDIRI DALAM KEPIMPINAN BERKESAN: SUATU PERSPEKTIF KETENTERAAN

ABSTRAK

Kepimpinan berkesan adalah konsep yang rumit, namun aplikasinya sentiasa kritikal untuk organisasi ketenteraan. Dalam mewujudkan kepimpinan berkesan, Tentera Darat Malaysia sentiasa menekankan aspek latihan yang berterusan ke atas pemimpinnya. Latihan dalam Tentera Darat Malaysia dipandu oleh doktrin Tentera Darat, satu manual yang dirumus untuk memenuhi keperluan perkhidmatan. Sejajar dengan pendapat penyelidik kepemimpinan, Tentera Darat percaya para pemimpin yang efektif memiliki satu set *virtues* yang membezakannya daripada bukan pemimpin dan kualiti ini boleh dipupuk dan dikembangkan. Latihan kepimpinan dalam Tentera Darat bermula seawal seseorang pegawai melapor untuk menjalani latihan pegawai kadet dan berterusan sejajar dengan perkembangan karier mereka. Kualiti positif kepimpinan sentiasa dikembangkan dengan sewajarnya. Walau bagaimanapun, kajian empirikal ke atas kualiti ini amatlah kurang. Justeru kajian ini meneliti kualiti ini dari model kepimpinan berkesan dan dari apa yang telah dinyatakan dalam doktrin Tentera Darat. Hasilnya, model WICS (akronim untuk Sintesis Kebijaksanaan, Kecerdasan, dan Kreativiti) diperolehi dari sorotan literatur, manakala Keberanian dan Keberkesanan Kendiri ditemui dalam konteks dan sumber dalaman Tentera Darat. Instrumen penyelidikan yang terperinci telah diadaptasi untuk merasionalkan proses pengukuran. Oleh itu, kualiti-kualiti ini diuji secara empirik ke atas pegawai kanan Tentera Darat yang telah menjalani latihan kepimpinan tertinggi yang diiktiraf sebagai Kursus Pertahanan Angkatan Tentera Malaysia (MAFDC). Para pegawai kanan yang lulus dari kursus ini memperolehi ijazah Sarjana dan memegang jawatan kepimpinan peringkat strategik dalam Angkatan Tentera Malaysia. Seramai 201 pegawai memenuhi kriteria sebagai responden namun 91 respon terhadap penyelidikan ini. Penyelidikan ini menggunakan SmartPLS versi 3.0 untuk menganalisis semua data. Hasil kajian mencadangkan kebijaksanaan dan keberkesanan diri adalah kualiti yang mempunyai hubungan signifikan dengan kepimpinan berkesan ketenteraan manakala tidak pada kualiti-kualiti kecerdasan emosi, kreativiti dan keberanian. Walau bagaimanapun, keberkesanan kendiri menjadi perantara bagi kecerdasan emosi, kreativiti dan keberanian dalam menerangkan kepimpinan berkesan ketenteraan. Penemuan ini telah berjaya memberikan paradigma baru yang berguna kepada Tentera Darat Malaysia dalam pelbagai arah. Pertama, cawangan sumber manusia boleh menggunakan penemuan ini sebagai pertimbangan dalam menilai semula perancangan pembangunan kepemimpinan yang sentiasa dilakukan secara berterusan. Kedua, institusi latihan boleh mempertimbangkan perkembangan kualiti-kualiti ini dalam program latihan mereka. Sudah tentu, sesi sumbang saran selanjutnya akan membolehkan kualiti-kualiti ini disesuaikan dalam skim latihan. Ketiganya, kajian ini menyediakan platform baru untuk kajian empirikal berterusan dalam paradigma dan perspektif yang berbeza. Keempat, usaha ini telah memainkan peranannya sebagai penyumbang kepada bidang ilmu. Namun, perlu diingatkan bahawa penyelidikan ini dijalankan di peringkat pemimpin kanan Tentera Darat Malaysia dan keputusan mungkin berbeza jika digunakan dalam konteks lain. Kajian ini membuka peluang penyelidikan masa depan dan ini dijelaskan dalam bab akhir penyelidikan ini.

Keywords: Kepimpinan berkesan ketenteraan, kebijaksanaan, kecerdasan emosi, kreativiti dan keberanian.

ACKNOWLEDGEMENTS

First and foremost I offer my sincerest gratitude to the Malaysian Armed Forces for giving me the opportunity to pursue my doctoral degree in Doctor of Management Program with University of Malaya (UM) and Army Institute of Senior Officer (INSPEKA). My experience in this program has been very amazing and wonderful. Since my first day, I have been given all the opportunities to realise that self-development is a journey and not a destiny. Hence, this dissertation represents not only my work at the computer, but also the result of many lectures, seminars, sharing of experiences, and knowledge that I have gone through. All these were from dozens of remarkable individuals and personalities that I have met, who have served Malaysia with their respective highest commitment and professionalism.

I wish to thank my supervisor, Dr Mohammad Nazri Mohd Nor, who has supported me throughout my dissertation with his patience and knowledge while allowing me the room to work in my own way. I attribute the level of my degree to his encouragement and effort and without his effort, this dissertation, too, would not have been completed or written. One could not wish for a better or friendlier Supervisor. And during the most challenging times when writing this dissertation, he gave me the moral support and the freedom I needed to move on.

In my daily course schedule, I have been blessed with excellent, knowledgeable and friendly important figures of UM; the academic staff as well as the supporting staff. My special appreciation to the Malaysian Army, who have contributed a lot in their own way, to the completion of my dissertation.

Throughout this course, I have been supported by a friendly and cheerful group of fellow course participants. For most of the time, their presence has put all my stress away. Beyond this program, a very special thanks to my wife Raja Izrin binti Raja Akram Shah, my children ‘Izzat Ruzain, ‘Ilmi Ruzain and ‘Isyah Ruzain. Their moral supports have given me the strength to complete this dissertation.

TABLE OF CONTENTS

LIST OF FIGURES

LIST OF TABLES

LIST OF SYMBOLS AND ABBREVIATIONS

BC	:	Before Christ
C-LEAD	:	Crisis - Leader Efficacy in Assessing and Deciding
CO	:	Commanding Officer
CR	:	Creativity
DIKW	:	Data, Information, Knowledge and Wisdom
DV	:	Dependent Variable
EI	:	Emotional Intelligence
EL	:	Effective Leadership
GDP	:	Gross Domestic Product
HQ	:	Headquarter
IV	:	Independent Variable
JNCO	:	Junior Non-Commissioned Officer
KEMENTAH	:	Kementerian Pertahanan
LMX	:	Leader-Member Exchange
MAF	:	Malaysian Armed Forces
MAFDC	:	Malaysian Armed Forces Defence College
MINDEF	:	Ministry of Defence
MMEA	:	Malaysian Maritime Enforcement Agency
NCO	:	Non-Commissioned Officer
OC	:	Officer Commanding
OCB	:	Organisational Citizenship Behaviour
PLS	:	Partial Least Square
POW	:	Prisoner of War
RMAF	:	Royal Malaysian Air Force
RMN	:	Royal Malaysian Navy
RMP	:	Royal Malaysian Police
RSAF	:	Republic of Singapore Air Force
SD	:	Standard Deviation
SE	:	Self-efficacy
SEM	:	Structured Equation Modelling
SNCO	:	Senior Non-Commissioned Officer
UKM	:	Universiti Kebangsaan Malaysia
UM	:	University of Malaya
UPNM	:	Universiti Pertahanan Nasional Malaysia
UTM	:	Universiti Teknologi Malaysia
VAF	:	Variance Accounted For
VIF	:	Variance Inflation Factors
VUCA	:	Volatility, Uncertainty, Complexity and Ambiguity
WICS	:	Wisdom, Intelligence, Creativity Synthesised

LIST OF APPENDICES

CHAPTER 1: INTRODUCTION

1.1 Introduction

This chapter provides an initial overview of the entire research study. It explains the central topic of effective leadership as the background and derives the whole prospect into effective military leadership importance. The interrelatedness of the review of recent literature and the focus group approach used in facilitating the research process is briefly explained, especially regarding its being tailored to research conducted in the practical context of the Malaysian Army. This is followed by elucidation of the problem statement of the study, and subsequently, research questions and research objectives are expressed. The research framework and projected hypotheses are then highlighted in the next segment before clarification of the research implications are expounded. An outline of chapter arrangement is later presented prior to the provision of all important operational definitions employed in the research.

1.2 Background

Leadership is acknowledged as a complex concept and is usually defined according to researchers' own perspectives. Nevertheless, in general, most if not all social scientists and practitioners have considered leadership an existing phenomenon that significantly influences the effectiveness of an organisation (Yukl, 2010). Hence, organisations have always committed to investing either to foster or to improve leadership effectiveness. However, the cost for this effort has been continually increasing over the years (Northouse, 2016).

One of the most critical organisations that practically emphasise the importance of leadership is the military. Hamad (2015) stressed that each year, a nation spends a significant portion of its gross domestic product (GDP) on the military, and leadership

development has always garnered a significant share of military investment plans. In Malaysia context, the government has never failed to allocate more than 1% of its GDP for military purposes (Gokmenoglu, Taspinar, & Sadeghieh, 2015; Saudi et al., 2019). Hence, undeniably, many believe that leadership is everything in the military (Wong, Bliese, & McGurk, 2003).

It is believed that the long history of leadership as a subject originated from military leaders (Laurence, 2011; Taylor, Rosenbach, & Rosenbach, 2009). Furthermore, the related literature has articulated recognition of military leadership as a source of reference in leadership studies. This has been mainly due to the eminence of military leaders and their leadership in leading and accomplishing crucial missions in the most adverse, highly uncertain and dangerous situations corresponding to wars, battles, military campaigns and other similar crises (Hannah, Campbell, & Matthews, 2010; Kaiser, Hogan, & Craig, 2008). Due to the historic, tragic outcomes and impacts that leadership may inflict, effective leadership has always been regarded as a critical consideration in the military.

Effective leadership in a general context is complex to synthesise, so it is in the military. Previous studies explained effective leadership as positive performance of organisation that led by its leaders (Drucker, 2012), and leader's accomplishment of organisation's desired result (Goleman, 2000). Several literatures affiliate effective leadership to leader's positive personal attributes (Aalateeg, 2017); on how leaders functioning (Cherulnik, Donley, & Miller, 2001) and leaders competency (Oyinlade, 2006). Hence, leadership effectiveness is always connected to leadership attributes that achieve positive and desired outcomes of an organisation. The definition of leadership varies and is contingent upon situation and context, and so does the achievement of leaders in organisations. Several analysis on military cases below could be used to provide

explanation on effective leadership in military setting based on organisational performance.

Regan (2000) examined and provided real war evidence that ineffective military leadership results in disastrous outcomes not only for their own forces but also causes catastrophic outcomes for non-combatants. Jörg (2012) consistently pointed out that blunders made by military leaders often have much more serious consequences than actions taken by civilian leaders. While incompetent doctors, dentists, accountants, lawyers, teachers and engineers might cause the deaths of hundreds of people, a decision by an ineffective military 'General' might kill tens of thousands of people.

By virtue of all the consequences, leadership qualities displayed by military leaders have been much admired throughout history. Leaders such as Gaius Julius Caesar (100–44 BCE), Carl Philipp Gottfried von Clausewitz (1780–1831), Napoleon I (1769–1821), Saladin (1138–1193) and Muhammad (570–632), to name only a few, are held in high regard and listed among the world's most influential leaders of all time (McKenna, 2011; Roberts, 2015).

Recent review of the literature on general military leadership studies suggests that military leadership is grounded on four critical factors: (1) leader attributes, (2) adverse situations and environments, (3) leadership development, and (4) policy and guiding principles (Nazri & Rudi, 2019). Leaders' attributes are realised in the form of their qualities, traits and behaviours believed to stimulate effectiveness in their leading roles and functions. All these attributes are regularly reviewed and have become crucial purposes for leader development programs in the military. Furthermore, these attributes are especially critical in dealing with adverse situations and environments where military

leaders are expected or demanded to operate effectively and efficiently. In tandem to that, military leaders are required to progressively undergo various training schemes throughout their careers. Leadership skills and abilities are developed through systematic training, and all these effective leadership efforts are bound with military policy, standards and guiding principles.

Additionally, the review revealed several pertinent findings. Firstly, most participants or respondents in the reviewed military leadership studies were middle and lower-level leaders rather than those of the upper, or strategic level, leadership group. The situation became apparent when the review explained that most military leadership studies were focusing on commissioned officers, officer trainees and Senior Non-Commissioned Officers (SNCO) as respondents. Only one article addressed higher-ranking military officers of Colonel and above (Nazri & Rudi, 2019).

Furthermore, it was found that most studies on military leadership were conducted in Western settings (United States of America and some European countries) (Nazri & Rudi, 2019). Taking these circumstances as a point of departure, this research is projected to reveal essential realities regarding effective military leadership within the Malaysian Army context.

1.2.1 Malaysian Army Leadership Perspective

While none of the commanders, generals or leaders from the Malaysian Army are listed as the world's greatest or most influential figures, their contributions to the well-being of the nation since its formation are undeniable. The leadership of Lt Adnan Saidi, who persistently led his platoon in defending Opium Hill, the last line of Singapore defence during the Second World War, has always been dearly remembered by

Malaysians. Indeed, his exemplary leadership has served as a case study in local and overseas military institutions (Hack & Blackburn, 2004; KEMENTAH, 2012; Liza, 1999).

Correspondingly, Malaysian military leaders have also displayed significant effective leadership performance in the war against the communist terrorists in the post Second World War era (Kumar, 2015). This remarkable achievement positioned Malaysia as the only democratic nation that won a face-to-face war against communism in world history (Shuib, 2013). This kind of success, among others, substantiated the distinctive effectiveness of leadership among leaders. Hence, many previous research studies associated leaders' abilities to solve complex problems with intelligence and creativity (Holtkamp, 2014; Judge, Colbert, & Ilies, 2004; Ng, Ang, & Chan, 2008; Schmidt & Hunter, 1998; Singh, Tiwary, Jha, & Mishra, 2016).

Regarding another local example, the instincts displayed by Lt Jen Datuk Seri Zaini Mohd Said in bringing down the leader of *Al-Maunah* group at gunpoint are an inspiration for the Malaysian Army. The swift decision-making of the Army General eventually led to the downfall of the group, ending its struggle to overthrow the legitimate government. This kind of threat is considered non-traditional in the current geopolitical environment (Fauzi & Hamid, 2007; Karim, 2011). Precisely timed, heroic and decisive actions are extra-ordinary, and Bangari (2014) associates this kind of intuition with 'wisdom'. Accordingly, the General regarded his successful act as the manifestation of training that he received throughout his military career.

The cases mentioned above are only slices of many success stories of effective leadership demonstrated within the Malaysian Army context in relation to different

geostrategic and geopolitical challenges. Effective leadership has consistently been emphasised as a critical element in most military operational doctrines across the world. Moreover, effective leadership has always been reflected upon as the main component of combat capability that enhances warfighting functions in most military doctrines (Gerras, 2010; Headquarters, 2015). As a point of reference, military doctrine is written fundamental principles that act as guidance in performing military operations and duties (Attrill, 2015; Malaysian Army HQ, 2010).

Similarly, the Malaysian Army has always stressed the crucial role of effective leadership in most of its training doctrines. Additionally, it is always critical to prepare military leaders in line with current and future dynamic geostrategic and geopolitical challenges and threats (Ellen, Criswell, & Puryear, 2016; Jörg, 2012). Thus, corresponding with the Malaysian Army context, development of leaders to perform effectively under such circumstances has always been a principal standpoint.

1.2.2 Leadership Development in the Malaysian Army

Conceptually, leaders in the Malaysian Army are developed based on two critical strategies: "(1) Leaders must be appropriately developed before assuming leadership position, and (2) Leaders must be competent and confident in their ability to lead at the level that he is posted" (Malaysian Army HQ, 2003, p. 1). The explanation of the first principle is that leaders in the Army are developed progressively in parallel with their career progression, as well as their roles. The second highlights other crucial characteristics and attributes of a leader. In many previous studies, self-confidence has been found to be similar or closely associated with self-efficacy (McCormick, Tanguma, & Lopez-Forment, 2002), and self-efficacy is considered one of the most critical factors

explaining leadership competency (Hughes, Galbraith, & White, 2011). Both are very much correlated to each other (Rodgers, Markland, Selzler, Murray, & Wilson, 2014).

Malaysian Army officers are required to attend several career courses throughout their service to attain or develop, maintain and improve their leadership effectiveness (Malaysian Army HQ, 2003). The training and courses are institutionalised by specialised training institutions administrated either at the Army or Malaysian Armed Forces (MAF) level. The career training program timeline provided as a guideline for career progression in the Malaysian Army is stipulated in the doctrine and is summarised in Table 1.1.

Table 1.1: Army officer professional training and education timeline

Years in Service	Rank	Career Course (Institution)	Course Length	Attendees (Army Officers)	Institution
1–2	Lt M/Lt (2nd Lt/ Lt)	Platoon Leader Tactic Course (Army Combat Training Centre – PULADA)	18 weeks	All Officers	Army
		Young Officer Course (Various Corps Institution)	12–36 weeks	Specialised Corps	Army
5	Kapt (Capt)	Company Commander Tactic Course or equivalent (Various Corps Institution)	12–52 weeks	All Officers	Army
7	Kapt/Mej (Capt/ Maj)	G3 Course (Officers' School, Army Academy)	12 weeks	All Officers	Army
10	Kapt/Mej (Capt/ Maj)	G2 Course (Officers' School, Army Academy)	12 weeks	All Officers	Army
12–18	Mej (Maj)	Staff and Command Course (MAFSC) – PG Dip	51 weeks	Approx. 90 Officers/Year	MAF
15–20	Lt Kol (Lt Col)	Defence College Course (MAFDC) – Master	52 weeks	Approx. 35 Officers/Year	MAF

Source: KOD T 3145 – Pengurusan Kerjaya Pegawai TD, 2000

Based from Table 1.1, officers in the Malaysian Army have to go through a series of leadership training in the form of military career courses as early as the first or second year or their service. The training is then systematically developed as officers climb-up their career ladder from tactical (at 2Lt up to Capt rank), operational (at Capt up to Maj rank) and strategic level (at Maj to Lt Col rank). The training institutions are also organised accordingly as Army training institution is concentrating on the development at tactical and operational level while MAF institution is focusing on the officers' development at strategic level.

The guideline only covers career courses which officers must undergo to be eligible for their next career progression or promotion to a higher rank. In the actual setting, the officers also attend several functional courses to enrich their skills and knowledge especially involving short courses related to specific technical skill enhancing program (HQ, 2000). Concerning this feature, Ulmer (2005) argues that army officers spend twice as much time in lectures or attending courses compared to their civilian counterparts. Furthermore, based on the guidelines, it can be observed that the Army leaders are being developed regarding various geostrategic and geopolitical situations and levels of service requirements.

At the beginning of their service, officers are trained to lead troops at the tactical level. These operational settings are focused on at the middle level of their service and strategic level at the top or highest positions. Correspondingly, each Army officers spend 20 years as minimum service personnel, and the Army holds the belief that leaders are made and not born. Hence, leadership development is part and parcel of the Army organisation (LaMoe & Strickler, 2012). Furthermore, the development process is not only limited to formal education and training but involves the informal, as well, which includes living according to military life, culture and beliefs.

The highest formal institution for the development of Malaysian Army leaders is the Malaysian Armed Forces Defence College (MAFDC). This institution was established on 1st April 1980. Since 2002, the institution has taken the initiative to collaborate on their military program with the Malaysia National University (UKM). The unique program was designed in line with national defence and strategic security requirements. Upon

successful completion of the one-year course and training, graduates are conferred with the Master of Social Science in Defence Studies degree, besides the College Diploma.

This college has produced more than 1,200 local and international military and civilian graduates. Graduates from the Malaysian Army comprise the highest number at more than 50% (629 graduates), and approximately RM30 million has been invested for this purpose (Malaysian Armed Forces Defence College, 2016). The course is conducted on a yearly basis, and the number of candidates and costs of the program have continued to grow over time.

1.3 Problem Statement

Many leadership scholars believe that military leaders must be highly trained to lead effectively regardless of situation and environment. This kind of training develops military leaders who have extraordinary ability to lead (Bangari, 2014; Hamad, 2015). Correspondingly, the leadership development scheme and systematic training program in the military organisations have become exemplary to many non-military organisations (Kirchner & Akdere, 2017). One fundamental argument arises on whether the extraordinary abilities of effective leadership mentioned above are well-developed in the Malaysian Army after leaders have completed the necessary training up to the highest level. Hence, while previous studies on effective leadership explored multiple domains, paradigms and variables, this study is sought to utilise Sternberg's WICS model.

Sternberg (2003) theorises that three essential virtues, wisdom, intelligence and creativity synthesised (WICS), proficiently explain effective leadership. Sternberg, Jarvin, and Grigorenko (2011) articulate all the three virtues as intellectual giftedness that could be developed in leaders through a systematic and continuous training approach.

While Sternberg's (2003) notions are postulated in relation to general leadership settings and employed mostly in business and academic institutions, Bădilă (2017) suggested that these three virtues are pertinent to military contexts, especially at the strategic leadership level. In this feature, WICS model is a model that provides indicators of effective leadership in a holistic perspective of a leader corresponding to what he/she has gone through in his/her life. Series of training and courses in the military may have developed all these virtues although it may not be part of formal training assessment in his/her career.

Wisdom, intelligence and creativity, articulated as virtues by Sternberg (2003), are not generally new in leadership studies. In fact, many previous studies have acknowledged the critical role of the three virtues in predicting effective leadership; however, the virtues were conceptualised in a fragmented manner, thus very few have been operationalised in a synthesised way as proposed.

For the reference, Greaves et al. (2014) argue that effective leadership behaviour is positively predicted by wisdom, which in turn, encourages the well-being of subordinates and the organisation. Intelligence, on the other hand, is another human virtue that has always been associated with effective leadership. For the last ten years, emotional intelligence (EI) has emerged as the factor being most studied in the United States of America's military leadership context (Sewell, 2009). Hence, EI is found to be one of the virtues that is associated with effective leadership.

In postulating creativity within a military context, Vego (2013) articulated that commanders at all levels require a high degree of imagination and creative intellect to catch the enemy by surprise and stop enemy commanders' initiatives to react. In retrospect, creativity has always been crucial for most organizations to stay competitive

and survive in uncertain and unpredictable environments (Mumford, Hunter, Eubanks, Bedell, & Murphy, 2007), and effective leadership plays a critical part in inspiring followers' creativity (Guo, Dilley, & Gonzales, 2016).

Hence, while the three virtues were suggested as applicable within the military perspective, this research endeavoured to expand the paradigm within the Malaysian Army context. A focus group approach was employed, where five influential top Malaysian Army leaders were interviewed to verify the crucial roles of the WICS model and to identify other equally critical virtues or psychological constructs consistently commented on by the top leaders. The result revealed that 'courage' is another highly crucial and consistent virtue mentioned in the context, aside from the WICS model.

Hence, despite all the effort and investment to develop effective leadership within the Malaysian Army, previous reviews conducted have indicated that empirical studies to explain it especially at higher level Army rank structure are found to be far lacking particularly in Malaysian setting (Nazri & Rudi, 2019). Considering this condition, this study aspired to begin the endeavour by examining the virtues in WICS (wisdom, intelligence and creativity synthesised) and courage in relation to effective military leadership. Correspondingly, this study also sought to clarify the mediating role of 'self-efficacy' that has been critically emphasised in-house by the Malaysian Army doctrine.

1.4 Research Questions

This study is directed at determining the relationships that exist between effective leadership and wisdom, intelligence, creativity (WICS) and courage. Integrally, this study is also devised to determine what mediating role self-efficacy plays among all the four

virtues. These problems from the bases of nine specifically related research questions, which are structured as follows:

a. What is the relationship between wisdom, emotional intelligence and creativity (WICS) towards effective military leadership?
b. What is the relationship between courage and effective military leadership?
c. What is the relationship between self-efficacy and effective military leadership?
d. Does self-efficacy mediate the relationship between wisdom, intelligence, creativity (WICS) and courage towards effective military leadership?

1.5 Research Objectives

Consistent with the above research questions, the research objectives are to determine the relationships existing between effective leadership and wisdom, intelligence, creativity (WICS) and courage. Congruently, this study sought to ascertain the mediating role of self-efficacy. Hence, the research has been designed to achieve the following specific research objectives:

a. To determine the relationship of wisdom, emotional intelligence and creativity (WICS) towards effective military leadership.
b. To determine the relationship of courage towards effective military leadership.
c. To determine the relationship of self-efficacy towards effective military leadership.

d. To investigate the intervening role of self-efficacy between wisdom, intelligence, creativity and courage towards effective military leadership.

1.6 Purpose and Significance of the Research

The Malaysian Army has always emphasised the development of leaders in its doctrine. As such, this study sought to further explain the current situation regarding effective military leadership within the organisation. Hence, the findings of this study will serve to more clearly define the current paradigm of effective military leadership, and at least four major entities would benefit from this study, as detailed in the following subsections.

1.6.1 Career Planners

The empirical findings of this study provide a new or fresh contribution in relation to the evaluation scheme used in selecting leaders for career advancement or selection of leaders for specific critical missions and assignments by Army policymakers. Correspondingly, it will open a new dimension for the evaluation of Army leaders in actualising effective military leadership readiness from the human resource management and human development perspective.

1.6.2 Army Training Institutions

This study provides direction on which attributes or virtues are highly correlated with effective leadership. Hence, training could be focused on the development of those attributes or virtues. The instrument developed in this study may provide insight into which criteria should be emphasised in designing officers' or leaders' development training. Besides, the development of effective military leadership may rely on this study as a basis to review related doctrines and current training.

1.6.3 Academic Institutions

This study is also valuable for the academic field, especially in military settings which are found to be scarce. It will serve as a steppingstone for other military leadership researchers to further develop and expand the research paradigm across various perspectives and contexts. It is also expected that this study will close the gap between theories or models and reality, of which much is still left to be revealed.

1.7 Organisation of Chapters

This study is arranged into five main chapters. The first chapter presents the contextual part of the study which includes the problem statement, research questions and research objectives. The study established nine specific research questions and corresponding research objectives. The purpose and significance of the research are also discussed in this chapter, and subsequently, all variables employed are appropriately defined.

The second chapter provides a thorough review of related literature and conceptualises effective leadership as a general concept before contextualising it in the scope of effective military leadership. All the operational variables associated with military leaders' critical virtues (wisdom, emotional intelligence, creativity (in WICS model), courage and self-efficacy) are also reviewed and described in detailed before an illustration of the conceptual framework determined for this research is presented.

Subsequently, Chapter 3 outlines the research methodology. Discussion of the research methods starts with the employment of the focus group method at the initial stage of the research, which involved several essential procedures. Following this, the research design, instruments and sample size are successively explained along with ethical

considerations. The procedures conducted for the pilot test process is explained including all the associated reliability and validity outcomes.

The fourth chapter discusses the data collection procedures and analyses. The processes include the administrative part of data collection and subsequent statistical data analyses. Two critical analytic approaches are utilised: descriptive and inferential statistics. The data analysis is mainly using SmartPLS version 3.0, and the rule and conventional statistical technique is appropriately employed. The results and are then presented and interpreted, accordingly.

The research is concluded in Chapter 5. The final chapter discusses the findings concerning the research questions. Limitations and implications of the study are also highlighted before recommendations for future research are proposed. The chapter ends with a conclusion section.

1.8 Operational Definitions

It is critical for any concept in research to be operationalized in order to ensure that the exact method, scales and rules are used to correctly measure the variables (Zikmund, Babin, Carr, & Griffin, 2010). Babbie (2010), on the other hand, positioned operational definition as the first step of operationalising a concept in research to specify the precise operations in measuring the variables. Kumar (2011) argued that operational definitions are working definitions only used primarily for a particular study. This research utilised WICS model as the critical synthesised model to explain effective military leadership, however courage and self-efficacy were found to be other crucial variables in Malaysian Army setting. Another pertinent factor that guided this study regarding to the WICS model is the acceptance of various explanation of wisdom, intelligence and creativity

virtues according to context and setting of leadership research. Furthermore, along the studies of WICS model, several other scholars on the area of wisdom, intelligence and creativity were being referred and their empirical studies were used to explain each virtue (Sternberg, 2008; Sternberg, Jarvin, & Grigorenko, 2011b; R. J. Sternberg, 2007).

Hence, for this research, virtures of WICS, courage, self-efficacy and effective military leadership are defined based from the context of this study which is military setting. The list of operational definitions used are as follows.

Wisdom: Wisdom is associated with being wise (Küpers, 2016) which includes being stable and balanced in behaviour, competent, sensitive to their own and the surroundings (Sternberg, 2003). Wisdom is about having expert knowledge, excellent judgement and proficient advice-giving skill (Baltes & Staudinger, 2000). Nayak (2016) described wisdom as the ability to choose between right and wrong and better or worst. Gugerell & Riffert (2011) on their review of wisdom definitions, explained wisdom as a combination of cognitive, ethical, and reflective component. According to Ardelt (2004), wisdom is a multidimension concept which includes cognitive, reflective and affective component. Cognitive allows individual to understand life in a deeper meaning through reflective thinking while affective component guides a person to positive feelings, positive thinking and behaviors towards others. Hence for this research, wisdom is conceptualised as the integration of cognitive, reflective and affective components, dimensions or behaviours (Bangen, Ardelt, & Jeste, 2015).

Emotional Intelligence: Emotional Intelligence is leader's ability to manage oneself and its relationship effectively (Goleman, 2000). Edelman & van Knippenberg (2018) explained emotional intelligence as the ability of leaders to manage followers or

subordinates feelings to achieve objectives. Hence, this study conceptualised emotional intelligence as a group of interconnected skills relating to "the ability to perceive accurately, appraise, and express emotion; the ability to access and/or generate feelings when they facilitate thought; the ability to understand emotion and emotional knowledge; and the ability to regulate emotions to promote emotional and intellectual growth" (Mayer & Salovey, 1997 in Wong & Law, 2002).

Creativity: Creativity is an individual's ability to grow ideas into fresh or new and valuable techniques, processes, products and services (Harding, 2010). It is also explained as providing new solution to a problem (J. Zhou & Shalley, 2003). Creativity is also affiliated with leaders' ability to formulate and solve complex problems (Sternberg, 2007). Hence, this research referred creative as the ability of leaders to solve problems creatively. It denotes creative problem solving, a core creative processes associated with the generation phase that includes identification and construction, information search and acquisition, and ideation, as well as the implementation phase, which includes idea evaluation, idea selection, and implementation planning (Reiter-Palmon & Illies, 2004 in Abraham Carmeli, Roy Gelbard 2013).

Courage: Courage is defined as a intermediate virtue between fear and bravery (Rijamampianina, 2018). Rate, Clarke, Lindsay, & Sternberg (2007) defined courage as an individual's capacity to overcome fear in facing harmful situations. Hence, for this research, courage is defined as persistence or perseverance despite having fear. It takes courage to engage and persist in a terrifying activity. By definition, fear is necessary for someone to display courage (Howard & Alipour, 2014; Norton & Weiss, 2009).

Self-Efficacy: Self-efficacy is an individual's capability and capacity to accomplish assignment that influences his/ her life (Flammer, 2001). High level of self-efficacy will drive a person to set high standard of performance and determine to achieve it (Wood & Bandura, 1989). In associating self-efficacy with leaders, Hannah, Avolio, Luthans, & Harms (2008) defined leaders efficacy as; "Leaders' (followers') beliefs in their perceived capabilities to organize the positive psychological capabilities, motivation, means, collective resources, and courses of action required to attain effective, sustainable performance across their various leadership roles, demands, and contexts" (p. 2). Self-efficacy in leader is explained as a set of beliefs specific to a particular task that is critical for the prediction of performance in a given situation (Paglis, 2010). Hence, for this research, self -efficacy is defined as a leader personal judgement on "how well one can execute courses of action required to deal with prospective situations" (Bandura, 1982, p. 122) and is related to actual performance in a variety of crisis contexts (Hannah, Avolio, Luthans, & Harms, 2008; Saks, 1995; Stajkovic & Luthans, 1998).

Effective Leadership: Leader's competencies to motivate others, to provide support for subordinates, to listen well, to have knowledge of his/her organisation, to have vision, to have excellent interpersonal skills, to be able to resolve conflicts, to have knowledge of law, to be able to establish directions for others, as well as to align people toward common directions (Conger, 1992; Kotter, 1990 in Oyinlade, 2006; Spencer & Spencer, 1993).

1.9 Summary

An effective leadership has always been crucial in every organisation especially the military. This is because the military leaders are demanded to perform effectively in the

most adverse situation that in most occasions dealing with dangerous and fatal incidents. Hence, the development of leaders within Malaysian Army context is always a major standpoint. Enormous effort and huge cost had been invested to develop the leaders, yet the approach to conduct study of the outcome is still considered erratic. Therefore, this study is to provide the starting point empirically with the main intention to improve the leader development program for the MAF in general and Malaysian Army in particular.

CHAPTER 2: LITERATURE REVIEW

2.1 Introduction

This chapter discusses the related literature reviewed for the research. Effective leadership was found to be a complex concept; therefore, multiple paradigms, theories and directions were encountered in the literature. Nevertheless, ranges of previous studies articulated effective leadership as a concept connected with positive impacts on followers and organisational performance. At the same time, the review of literature on effective leadership in the military context revealed several crucial points that distinguish the concepts of effective leadership as general practices and effective leadership in the military context. The analysis identified adverse situations, guiding policy, leadership development, and leaders' traits and attributes as four significant factors unique to recent effective military leadership practises. The review advanced the research by analysing predictors that are strongly coherent to all the factors and established an important model with immense potential to explain and predict effective leadership in the military context. All the predictors were reviewed and analysed appropriately and subsequently provided a basis for establishing the conceptual framework of the research.

2.2 Effective Military Leadership

It is acknowledged that effective leadership is one of the most crucial components in any organisation. Nevertheless, the approaches and practises are unique and contingent upon challenges faced by each organisation. Hence, this review is focusing on effective military leadership by firstly, exploring the approaches and practises of general leadership, before focusing on the effort to military organisation.

2.2.1 General Review

Studies on leadership have always been challenging, and it is even more challenging to explain effective leadership. This is due to the complexity of the leadership concept

and the problems involved in covering multi-spectral, multi-faceted and multi-dimensional phenomena (Yukl, 2010). Correspondingly, the concepts of leader and leadership as now customarily understood were believed to have existed as early as the sixth century BC. Although the terms word leader and leadership did not exist at the time, texts amounting to leadership manuals and other ancient texts for leaders' guidance by Confucius, Lao Tzu and Sun Tzu are known to be the earliest leadership studies (Allio, 2012). It is thus evidenced that leader and leadership were acknowledged to be crucial concepts in the ancient social structure (Bass, 1990a).

In another review, the word 'leader' and later the expression of 'leadership' can be traced back to the early 1300s and the late 1700s, respectively. Nevertheless, leadership has only become an instrumental research subject from a multi-disciplinary perspective in the 20th century (Stevenson & Field, 1990). Consequently, it is apparent that an excessive of applications, concepts and studies regarding leaders and leadership have accumulated through the years and that the topics are still being examined until the present.

Due to the long historical perspective, it is reasonable that the definition of leadership itself varies and has been refreshed over time. Consequently, there is no single, agreed upon definition of leadership (Bass, 1990a), and correspondingly, leadership has been significantly defined according to multiple theories, settings, traits, behaviours and styles (Amanchukwu, Stanley, & Ololube, 2015). Commonly, extant studies have viewed leadership as a process of a group of people acting in an organised manner, sharing common goals, which the leader has influence upon and is not a process of individual affairs (Northouse, 2016). Preceding to Bass (1990a) and Tannenbaum, Weschelar, and Massarik (1961) (as cited in Silva, 2016), shared similar concepts of 'influence' as a

process and application of 'interpersonal' instead of 'group' concepts in relation to the attainment of organisational goals. Likewise, the definition offered by Katz and Kahn (1978) (as cited in Osborn and Hunt, 2007) also highlighted the importance of the influence factor, while Burns (1978) (as cited in Stevenson and Field, 1990) explained influence and purpose by using three elements: arousing, engaging and satisfying.

Kotter (1988) (as cited in Osborn & Hunt, 2002) brought up a stimulating definition in his assertion that 'non-coercive means' denotes 'willingness' or voluntary action performed by group members. This definition was, however, inconsistent with many research studies that recognised the use of coercive power as a tool for effective leadership. Lunenburg (2012) clarified that the influence factor of a leader is very much associated with power, and coercive power is one among other types including legitimate power, reward power, expert power and referent power. In the earlier research, Fuqua, Payne, and Cangemi (2000) argued that coercive power is one of the bases for effective leadership; nevertheless, these powers are to be used ethically by leaders. Rationally, some studies have suggested that in certain sectors and industries, coercive power used by leaders has a positive relationship with employees' job satisfaction (Faiz, 2013). In a nutshell, elements of coercion and the wise use of force are essential factors for the 'influence' factor to be operative within the appropriate context.

While the definition of leadership is acknowledged as somewhat perplexing and multi-faceted in its context across disciplines, thousands of books and articles on leadership have been published (Stevenson & Field, 1990). Likewise, each year, organisations spend millions of dollars to prepare their current and future leaders for effective leadership (Silva, 2016). Previous studies suggest that attempts to understand effective leadership have grown significantly since the early 20th century (Northouse, 2016). As leadership

has been defined according to their respective stances, scholars and researchers have equally diverged in their explanations of effective leadership. The main argument in explaining effective leadership has always depended on how 'effective' is defined and measured (Mumford & Barrett, 2012).

Many studies in the literature have associated 'effectiveness' with producing or achieving desired or intended results or outcomes. Koestenbaum (1991) claims that effectiveness is measured by accomplishment of organisational results that one is obligated to perform. Rowland and Scott (1968), on the other hand, settled on a definition of effective leadership in relation to principles of measuring the significant outcomes of its application. In his case, this was represented by workgroup performance and satisfaction.

Some scholars are impartially in agreement with Bass's (1990a) position on the notion of outcomes or results in explaining effective leadership. Bogue's (1992) reviews on effective leadership cite several scholars and researchers, as follows: (1) Bernard (1938) remarks, "executives should be appraised by the achievement of recognised objectives;" (2) Drucker (1966, pp. 23–24) in his book *The Effective Executive*, states that the effective executive knows how his or her time is spent, focuses on results, builds on strengths, concentrates on a few goals, and makes effective decisions; (3) Hollander (1978, p. 129) suggested that "effectiveness of the leader should be judged on the relationship between organisational performance and organisational potential;" and (4) Hitt (1988) expresses effective leadership with personal attributes in that someone who is "self-confident, self-motivated and self-directing, is a person of purpose and commitment, is action oriented, is guided by a clear set of values, is willing to 'stand up and be counted,' is decisive, is a person of integrity, and is a continual learner" (pp. 219-230).

On a similar note, Bogue (1992) asserts that leadership effectiveness should be evaluated based on performance indicators. Goleman (2000) similarly emphasised the appropriate outcome or result expected by industries and stakeholders in considering effective leadership. Cherulnik, Donley, and Miller (2001) maintained that effective leadership is "how well a leader functions" in satisfying organisation needs in the form of creating profit, motivating followers, and at the same time, maintaining the organisation's reputation. Silva (2016), in a more simplistic approach, positions effective leadership as achieving or obtaining desired results.

While performance, satisfaction and excellent results were perceived to be determining factors in the assessment, evaluation and appraisal of effective leadership, description of the processes themselves has been far more challenging. Morford (1987) argued that there is no simple formula to explain effective leadership as it is too complex to measure. Correspondingly, Yukl (2010) argued that it was nearly impossible to evaluate leadership effectiveness as the measures are varied and diverse. Consequently, there is no utmost, single or perfect measurement for effective leadership.

2.2.2 Effective Leadership Theory

While measuring and appraising effective leadership is retrained by various factors, over the years, scholars and researchers have contributed significantly to the understanding of effective leadership from the central leadership theories. Many studies on effective leadership are mainly interconnected with traits, behaviours and the contingency theory of leadership (Morford, 1987; Northouse, 2016).

In the early 20th century, particularly around the 1930s, scholars and researchers were trying to understand leaders' qualities that differentiate them from non-leaders. Peculiar

natural qualities and hereditary attributes (Bass, 1990b) of leaders were observed based on their personalities, values, and physical and mental characteristics. These criteria were evaluated, and a person with such qualities was then put into leadership positions (Aalateeg, 2017). This early stage postulating notions is well-known to many leadership scholars and researchers and referred to as the 'great man theory' that eventually became the classical 'trait theory' which primarily posits that leaders are born, not made. The fundamental purpose of this paradigm is to identify people who were born to be leaders (Marturano, 2014).

Most of the literature on trait theory reports using Allport's (cited in Zaccaro, Kemp, & Bader 2004) definition of trait, which described "neuropsychic structure having the capacity to render many stimuli functionality equivalent, and to initiate and guide equivalent (meaningfully consistent) forms of adaptive and expressive behaviour". Zaccaro, Kemp, and Bader (2004) later provided a more simplistic explanation by denoting traits as "stable or consistent patterns of behaviour that are relatively immune to situational contingencies—individuals with certain traits denoting particular behavioural predispositions would react in similar ways across a variety of situations having functionally diverse behavioural requirements" (p 103). Regarding this conception, many early researchers hold the view that regardless of what the situation is, the set of traits of an effective leader would remain.

Nevertheless, from the 1940s to the 1960s, the dominance of the 'great man theory', correspondingly known as trait theory, was challenged due to its deficiency in further explaining situational and environmental factors that indicate a leader's state of effectiveness (Horner, 1997). Marturano and Gosling (2008) argued, based on their review, that the evolution of leadership trait theory indicated a huge limitation in

establishing a causal link between leaders' personal traits and effective leadership. These findings are, however, extend the elaboration of much earlier arguments, as in Oyinlade's (2006) reference to Stogdill's (1948) observation that trait theory lacked the prognostic power in connecting leadership traits to performance. Hence, in the 1950s, effective leadership studies based on the trait approach began to fade away and attention was directed to the emerging behavioural approach. The behavioural approach is categorised as such because it is centred on leaders' behaviour and actions (Yukl, 2010). Scholars and researchers associated with this theory believed that leaders' behaviour is apparent and could become a predictor of leadership effectiveness (Aalateeg, 2017). Hence, the approach extended effective leadership studies by analysing leaders' actions in various situations and contexts.

The Ohio State University and Michigan University pioneered the behavioural approach (Halpin, 1956; Horner, 1997). Both institutions have established a crucial dimension of effective leadership studies challenging the notion that 'leaders are born'. Instead, results from the behavioural approach have suggested that effective leadership could be learned and developed. Other critical findings on this approach identified two types of effective leadership behaviour: production-focused and employee-focused. Thus, leaders are categorised in a primarily descriptive manner under one of these types based upon their most frequently displayed behaviour (Horner, 1997).

In contrast, Northouse (2016) argues that leadership effectiveness is described through the dominant or dominating behaviour of leaders rather than providing leaders with a comprehensive prescriptive approach towards performance. Hence, the behavioural approach is found to be a more useful theory of effective leadership that should be able to negotiate any situation. Northouse's contention is consistent with the much earlier

scholar, Fiedler (1978), who argued that leadership performance is essentially driven by situational factors. This concept holds that leadership behaviour is different and contingent across situations, and he adopted and augmented the contingency theory of leadership as an effectiveness framework.

Therefore, in this respect, the theory postulates that effective leaders have the ability to choose the best and most effective leadership behaviours and styles contingent upon environments, situations and conditions. Consistently, Osborn, Hunt, and Jauch (2002) associated the notion of effective leadership with the contexts in which leaders operate.

In more recent research, Geier (2016) suggested that leadership behaviours and styles change when the context changes. Additionally, the research findings imply that organisational and employee performance is expressively altered by their leaders' ability to adapt effective leadership styles and behaviours in ordinary and extreme contexts.

The general review of literature has distinctly identified that effective leadership is a complex notion and relies upon various factors. Congruently, there is no one solution or magic formula for leaders to apply effective leadership according to differences in situations and environments. Nevertheless, it was evident that effective leadership primarily ensures positive and constructive outcomes expressed in various ways, which mainly include performance, results and behaviours, which are very much contingent upon contexts and settings.

2.2.3 Military Context

Resembling leadership contingency theory, Hannah, Uhl-Bien, Avolio, and Cavarretta (2009) conceptualised and asserted that effective leadership is most crucial in turbulent

and hazardous times. Furthermore, the study argued that the military is one of the organisations uniquely designed and structured to encounter extreme and dangerous environments and situations. In correspondence to the uniqueness of the situations encountered, at another moment, they may have to perform other ordinary, safe and peaceful duties, as well (Hannah, Campbell, & Matthews, 2010). Hence, in dealing with such enormous differences in and out of the normal context of their duties, it is rather critical for military organisations to emphasise effective leadership in their professional career development (Jörg, 2012).

Taking into account that the notion of effective leadership is extensively dynamic, multi-faceted and multi-dimensional, this research extended the endeavour of explaining effective leadership from the military context by reviewing recent extant empirical studies. The main aim is to identify factors that influence effective military leadership to facilitate the direction of this research. Due to the extensive amount of work found in the literature on leadership, the review was conducted based on stringent but systematic reviewing procedures to ensure that only empirically effective military leadership literature was comprehensively reviewed and analysed. The content analysis of the literature is attached in Appendix A of this dissertation and further explained in the next paragraph.

2.2.3.1 Contingency Factors

Consistent with typical perceptions and earlier conceptions, recent studies highlighted military leadership as much associated with leading in challenging and adverse environments and situations, which include volatility, uncertainty, complexity and ambiguity (VUCA) (Boe, Säfvenbom, Johansen, & Buch, 2018); dangerous (Krabberød, 2014); stressful (Fisher & Robbins, 2015); hyperphysical (Firing, Karlsdottir, & Laberg,

2009), rapidly changing (Hyllengren, 2017), and double-edge-sword (Alvinius, Johansson, & Larsson, 2017).

Additionally, effective military leadership is also ruled or guided by stringent command and control principles and policy that are uniquely applied to military settings and are standard procedures in military operations. Özlen and Zukic (2013) expressed the principles as military authority and chain of command.

The review of effective military leadership literature revealed several other command and control standards that military leaders must be aware of and abide to. Firstly, military leadership must adhere to the mission given to them. Mission is a precise duty or task assigned to an individual leader, soldier (subordinate/follower), weapon system, team or unit. Correspondingly, the mission is a regulatory task and order or direction to be accomplished by a military leader or commander, thus shaping their his/her leadership effort (Headquarters, 2015; Malaysian Army HQ, 2010b).

Kirchner (2018) argued that military leaders are obliged to guide their units' missions. Additionally, the Army has always emphasised that leaders must have the ability to operate in complex, difficult and stressful missions. Hyllengren et al. (2011) expressed multiple ranges of tasks that military leadership perform, from peacekeeping missions to educating trainees for assault missions. Friedrich et al. (2014) assert that a well-defined mission ensures a successful collectivistic action. Foster et al. (2018) pointed out that military leadership as explained in the US Army Manual Doctrine states that mission success can be achieved through effective leadership processes. It has thus become a crucial practice for respective leaders to conduct mission briefings and give orders to their

subordinates prior to conducting operations and even in regular day to day training (Firing, Karlsdottir, & Laberg, 2009).

Hyllengren (2017) emphasised that full comprehension of the mission statement is essential for military leaders because their decisions must comply with the statement. Correspondingly, Bartone et al. (2013) stressed the importance of adaptability and the exercise of flexibility in leading complex missions, particularly in very uncertain environments. Additionally, Ramthun and Matkin (2014) expressed that a leader's ability plays a crucial role in influencing their subordinates to accomplish their mission. Krabberød (2014) identified mission command as a new guiding philosophy for US military leaders to lead effectively in various challenging situations. In the same context, Shernock (2016) articulated that a mission must be accomplished by all levels of leadership through coordination and cooperation.

In some cases, military leaders are also organisationally positioned according to the mission. Military leaders are thus positioned based on specific missions (Kirchner, 2018). Brownson (2014) argued that the organisational mission and structure play significant roles in determining leadership behaviour. In another study, mission criteria were found to be a basis for specific military appointments such as Chief of Staff (Alvinius et al., 2017).

Another important source of guiding principles for effective military leadership is military doctrines. Shernock (2016) expressed the importance of strategic doctrines in influencing military leaders' decision-making processes. Kirchner (2018) argued that military doctrines provide guidance for leader development programs in the Army. Other researches highlighted that military leadership is also affected by several different

sources, such as subordinates' input (Hyllengren, 2017) and specific military principles (Brownson, 2014; Shernock, 2016).

2.2.3.2 Military Leadership Development

The review of literature on military leadership revealed that leadership development is considered as an enabling factor for military leaders effectiveness. Foster et al. (2018) argued that leadership development is one of the core elements within the military organisation. Consistently, military professionals believe that leadership skills that they possess were developed through military training that they have undergone. A research study conducted on military veterans by Kirchner (2018) revealed that military veterans concurred that leadership development programs that they experienced while they were in military service had produced positive impacts on their lives after the service. In his study, Kirchner identified numerous necessary development actions, events and schemes pursued by the veterans, which included the Army leader development domain, progressive leadership development program, reviewed training and development, military leader development studies, self-development, leader development models and Army leadership doctrine. Accordingly, Alvinius et al. (2017) explained that the leadership of military leaders is not only continuously developed but consistently evaluated and monitored as part of their personal career growth and individual development programs.

Hyllengren (2017), on the other hand, expressed that military leaders are highly trained in pre-defined situations that usually stimulate challenging military scenarios. Thomas and Hirschfeld (2015) suggested that military leadership development programs have to focus on 'action' or practical function rather than concentrating on 'theoretical' knowledge. Krabberød (2014) articulated that military leadership development training

must emphasise the 'lack of information' scenario as mission command philosophy is susceptible to deviation when uncertainties escalate.

2.2.3.3 Military Leaders' Attributes

The review of recent military leadership empirical studies revealed that leaders' attributes still play a crucial role in explaining effective leadership. The most notable leader attributes are leaders' experience, trust, confidence, adaptability, leadership skill, proficiency in making decisions, emotional stability, intelligence and competency. These attributes are explained in the following paragraph.

Fisher and Robbins (2015) explained that combat-experienced military leaders emerge to be more effective when they can relate and use their experiences to lead. Shernock (2016) asserted that police officers with military experience are perceived as better leaders, especially in participative decision making and encouragement in generating new initiatives to lower-level police officers. Hyllengren et al. (2011), in another study, suggested that experience is one of the desired leadership competencies in explaining swift trust in the military context.

Brownson (2014), in his study related to female leaders in the military context, suggested trust is successfully achieved if they cleverly manage to maintain their physicality and femininity. Friedrich et al (2014) found trust to be a mediocre antecedent compared to 'voice' in driving relationships between leaders and followers. This was based on a case study of George C. Marshall, an American soldier and statesman. In another review, Hyllengren et al. (2011) expounded the importance of swift trust in determining the outcome of the leading group.

Leaders' confidence was also found to be an essential attribute in recent studies. Bartone et al. (2013) suggested that a hardy person possesses high confidence in solving problems effectively, especially in stressful situations. Correspondingly, Kirchner (2018) argued that military leaders with high confidence were more effective, while Brownson (2014) asserted that leaders who lack self-confidence are never effective in military settings.

The review also revealed that leaders' adaptability plays a crucial role in the military. Hyllengren (2017) suggested that leaders' adaptability influences their actions in relation to unexpected occurrences and associated leaders' adaptability with other positive attributes. Bartone, Kelly, and Matthews (2013) proposed that adaptability is a critical military leader attribute because they effectively deal with and respond to uncertain situations.

Ramthun and Matkin (2014) emphasised that leaders' skill and abilities moderate shared leadership and team performance in dangerous military situations. Coherently, Friedrich et al. (2014) argued that leaders' cognitive skill is positively related to performance. Krabberød (2014) suggested, based on his study that military leaders make independent decisions faster in information deficient situations but still within the mission command philosophy needs. In another study, Firing, Karlsdottir, and Laberg (2009) articulated that military leaders decisions were very much influenced by their group, denoting a social process in making decisions within the military context.

Leaders' emotional stability has also become an important attribute. Hyllengren et al. (2011) argued that leaders' emotional stability played a crucial role in building trust amongst followers. Hyllengren (2017), on the other hand, expounded emotional stability

and an ‘inner moral compass’ as strongly related to relationship-oriented behaviour. These two attributes were explained as the softer side of relationship-oriented leadership behaviour.

Leaders’ intelligence was also found to be an effective leadership attribute. Hyllengren (2017) acknowledged the significant function of intelligence in military leaders. An intelligent leader is visionary and thus could provide direction to subordinates with more appropriate decisions. Friedrich et al. (2014) suggested that intelligent leaders produce and generate higher performance.

Leaders’ competency has also been positioned as an essential attribute in military leadership. Fisher and Robbins (2015) articulated that a leadership competency framework is continuous and periodically reviewed within military training institutions. The framework is used not only as important guidance, especially in leadership development training, but also used in specific cases as an evaluation criterion for military leaders. Hence, Hyllengren et al. (2011) argued that the desired leader competencies are pre-defined and critically used in leadership development programs.

2.2.3.4 Military Leadership Composition

Based on discussion in the previous section, there are reasonably close similarities between general effective leadership concepts and military concepts, especially in terms of positive outcomes resulting from effective leadership. Nevertheless, the review revealed several important points that uniquely applied to effective military leadership. Firstly, military leadership is mostly often conceptualised as leading in extreme environments or extreme differences in environment. Extreme differences may be explained at one time as extremely adverse situations and at another time as peaceful

environments. Hence, military leaders are to be highly capable in selecting the right approach to deal with the differences in situations and environments.

Secondly, military leaders exercise their leadership with several authoritative limitations and constraints in the form of pre-defined mission statements, doctrine, philosophy and command structures. Thirdly, military leaders are highly trained through systematic leadership development programs and schemes. The process is progressively conducted in parallel with the career advancement of military officers or leaders. Fourthly, leaders' traits and attributes are still crucial approaches to evaluate effective military leadership. The approach is augmented in the form of multiple traits and models.

Therefore, as a result of the review, this research conceptualised effective military leadership as, firstly, a combination of positive leader attributes (traits or virtues). Secondly, the attributes are inherited and further developed through systematic and continuous military leadership training, and thirdly, the leadership is guided through formalised authoritative power. Hence, based on the highlighted concepts, the research has reviewed several multi-trait and multi-model approaches to predict effective leadership and subsequently settled with WICS (an acronym for Wisdom, Intelligence, Creativity Synthesised) as the best suited model representing effective military leadership (Sternberg, 2008). Further review of the model is explained in the next segment.

2.2.4 WICS Effective Leadership Theoretical Perspectives

The WICS model is closely associated with leadership effectiveness (Sternberg et al., 2011; Sternberg, 2003; Sternberg, 2005). The model was proposed through a series of rigorous research studies conducted by Robert J. Sternberg, a prominent psychologist (Sternberg et al., 2011). The model is based on three crucial predictors that were explained

according to three critical directions: as psychological constructs or attributes (Northouse, 2016; Sternberg, 2009), virtues (Hackett & Wang, 2012; Northouse, 2016), and trait-like attributes (Northouse, 2016; Zaccaro, 2007). Hence, due to the complexity in explaining these entities, the three predictors were used interchangeably throughout this research.

Sternberg, Jarvin, and Grigorenko (2011) articulated WICS as comprising innate forces and giftedness that propel leaders to be more effective than others. What is more appealing to military leadership is that the three qualities of 'giftedness' or virtues can be developed in leaders through their planned and unplanned interaction within external and internal environments. Sternberg (2008) conceptually expounded WICS as a crucial internal drive that guides leaders to make the right decisions through timely consideration of all the available resources.

In general approaches, Sternberg explained that creativity is used to generate ideas and convince followers of their worthiness. Intelligence is used to evaluate all the processes, while wisdom is essential in seeking balance amongst common benefits. Hence, WICS is considered a virtue model with high potential for utilisation in this research. Furthermore, Bădilă (2017) proposed that the components of WICS are relevant and appropriately suitable for the evaluation of military leaders at a strategic level. Similarly, the descriptive approach conducted in this research yielded coherent opinions within the Malaysian Army context with the addition of two other important virtues: self-efficacy and courage. The process and procedure of establishing the additional virtues are further discussed in the next segment, and the method is explained in the next chapter.

One of the virtues (wisdom, intelligence and creativity) were ever incorporated as components of a new theory in the study of leadership as they were studied through

separate and fragmented approaches. Hence, theoretically, wisdom, intelligence and creativity are individually separate theoretical constructs. Wisdom has always been considered the pinnacle of human achievement (Baltes & Staudinger, 2000). Intelligence is the oldest virtue and exhaustively studied within leadership frameworks (Judge et al., 2004), while creativity is a virtue necessary for leaders to stay competitive in all situations (Mumford & Hemlin, 2017).

In the context of the WICS model, self-efficacy and courage are virtues acquired within the Malaysian Army context. Self-efficacy, which is one of the end-states in Malaysian Army leadership development doctrine, has always been a virtue in general leadership studies (Albert Bandura, 1994; McCormick, 2001) while courage, as found in the Army context, is a virtue associated with leaders in dealing with fear in adverse situations (Howard & Alipour, 2014). Imperatively within the generic military context and specific Malaysian Army perspective, leadership development is critical. Hence, the research looked upon leadership development assumption defined as; "expansion of a person's capacity to be effective in leadership roles and processes" (Velsor, McCauley, & Ruderman, 2010, p 2) as the major standpoint. Correspondingly, each of the constructs in the model is explained further in the following segment.

2.3 Wisdom and Effective Military Leadership

Wisdom has always been a crucial attribute for leaders as wisdom is regarded as the highest quality of human achievement. Such beliefs are derived from great thinkers and philosophers such as King Solomon, Confucius, Socrates, Aristotle and Plato (Solansky, 2014). Aristotle related wisdom to *phronesis*, which may be translated as 'good', and explained practical wisdom as a true and rational capacity in determining anything that is good or bad for man (Jørgensen & Svane cited in Örtenblad, 2018, pp. 149–150). In

comprehending Aristotle's notion of practical wisdom, Küpers (2016) explains practical wisdom as an individual's virtuous capacity in integrating practical and crafty ways of life encompassing the principal ones. Correspondingly, Küpers articulates theoretical wisdom as intellectual virtues that guide decisions and actions to serve the common good or enhance well-being. Baehr (2012) admirably reconciled the notion of practical wisdom and theoretical wisdom whilst argued that theoretical and practical wisdom are conceptually intertwined, where theoretical wisdom is cognitive competence applied into action as practical wisdom.

Nevertheless, modern researchers have elaborated the concept of wisdom developed from Aristotle's concept in various significant ways. Baltes and Staudinger (2000) described wisdom as the pinnacle insight of individual virtue about the means and ends of a good life. Baltes and Kunzmann (2003), in a general view, describe wisdom as expert knowledge and judgement in conducting and negotiating critical situations in life. Pauleen, Rooney, and Holden (2010) articulated wisdom as the ethical integrator of multiple types of knowledge. Coherently, in the field of knowledge management, wisdom in located as the highest level of the DIKW (Data, Information, Knowledge and Wisdom) hierarchy, superseding data (the bottom), information and knowledge (Rowley, 2006a). Equitably, Jifa (2013) analysed wisdom as a means to rightfully utilise knowledge.

In the psychological context, Ardelt (2004) explained wisdom as the simultaneous presence of cognitive, reflective and effective personality dimensions of a person that makes them wise. The three dimensions allow an individual to have deeper understanding towards life, thus increases his/her personality quality development.

Sternberg (1998) described wisdom as the element that balances interests and tasks toward a common good. Nayak (2016) associated wisdom with making a decision between right and wrong, or between better and worse wrongs. Ylimaki and McClain (2009) explained wisdom as the ultimate common and uncommon ability and virtue to see the in-depth reality of things. Rowley and Slack (2009) claimed that wisdom is fundamentally the amalgamation of knowledge, experience and action.

Wisdom is the supreme of positive virtues (Ko & Rea, 2016). Jørgensen and Svane in Örtenblad (2018) argued that wisdom is evidenced by virtuous acts and deeds. Hence, the in-depth inquiry and analysis of wisdom has been dynamic over the years. However, the fundamental concept of wisdom could be derived as the highest virtue of human capacity that enables them to be good, to think and act well and be able to promote good.

From the same perspective, many wisdom scholars and researchers have associated wisdom with the wise. Wise people are described as having all the personal qualities and virtues of wisdom, which include being well-balanced and stable in behaviour, interpersonally competent, concerned with their own and the surroundings' well-being, and have outstanding knowledge, superior judgement and excellent advice-giving skills (Ardelt, 2004; Baltes & Staudinger, 2000; Sternberg, 2003). Jørgensen and Svane in Örtenblad (2018) affirmed this stand, articulating being wise as a reflection of practical wisdom in the form of wise judgements, decisions and actions for the good of individuals, societies and organisations. Kriger (2013) asserts wisdom is manifested in the ways of wise action, wise communication and speech, and the thoughts and awareness of the workings of the mind itself. Küpers (2016) argued that wisdom ensures wise action which drives individuals to be ethical and pragmatic while building and displaying wellness in living. Frick (2018) explained being wise corresponds to qualities associated with

wisdom, expressing being wise as resulting from the accumulation of profound understanding, superior judgemental capacity, far-sightedness, and intuition and the possession of inside knowledge and crafty or insightful attitudes. Hence, the words wisdom and wise are often used in concert as being wise is apparently wisdom in action. Clearly established from the discussions that wisdom is the inner quality of a human and translated into wise actions.

Wisdom has also been found to be a crucial property in dealing with adverse situations. Ko and Rea (2016) expressed the critical virtues of wisdom amongst leaders in dealing with increasingly volatile, uncertain, complex and ambiguous (VUCA) global business environments. Roos (2017) argues that practical wisdom amongst new leaders has to be developed to confront complex and severe challenges of sustainability in the business education sector. Küpers (2016) demonstrated the crucial role of practical wisdom in negotiating extraordinary complexities and ambiguities shaped by instability, volatility and unexpected and disruptive change. Mckenna, Rooney, and Boal (2009) articulated the practical application of wisdom in management and leadership resulting in the ability to deal with the complexities of enigmas and paradoxes in economic, political and social life, with the incorporation of ethical issues. Rooney and McKenna (2007) claimed that exercising wisdom is the most fundamental and practical way to live in a complex and uncertain situation. Holliday, Statler, and Flanders (2007) explained that a wise leader deals with the complexity and uncertainty of organisational life authentically, ethically and effectively.

Due to all the virtues that wisdom offers, wisdom as a subject has also been deployed as one of the fundamental attributes in explaining leadership. Mckenna et al. (2009) argued that wisdom allows leaders to use their cognitive abilities in coping with complex

and uncertain occurrences, think profoundly and rationalise situations, think creatively and intuitively in judgement, have long-term vision, and influence subordinates through the use of their verbal expressions and actions. Yang (2011) expounded that wisdom as having three essential elements of leadership: (1) a quality that allows a person to exhibit outstanding leadership character, (2) a higher level of reasoning in analysing leadership experience, and (3) A positive real-life process explicitly displayed in actualising leadership.

In connection with leadership theory, the recognised roles and functions of wisdom have also been diverse across time, context, subjects and disciplines. Traditionally wisdom was viewed as the attribute of great leaders, and early research was often conducted in religious contexts; however, in recent years, the paradigm has drastically shifted to leadership efficiencies and effectiveness (Solansky, 2014).

While wisdom is deeply rooted in leadership, a recent review on wisdom and leadership revealed that most of the literature has adopted a conceptual approach and the concept has hardly been empirically tested. Furthermore, the research settings were found to be constrained to educational and religious leaders. Consequently, researchers have highlighted several issues that lead to such discrepancies. Firstly, wisdom is a complex theory to digest. Rowley (2006a) claims that naturally, wisdom is more complex and abstract. Bassett (2012) coherently illustrated the notion of wisdom as "Elusive. Abstract. Complex. Multifaceted. Value-laden. Vague" (p. 2). Jørgensen and Svane in Örtenblad (2018) argued that undoubtedly, wisdom is complex to explain. Secondly, wisdom in the management field is considered as still in the infancy stage compared to other theory and constructs. Hence, due to its complexities and being a relatively new concept, operationalising it is perceived to be more challenging (Glück, 2015). Consequently, most

researchers have not noticed the existence of any instrumentation to measure wisdom (Sharma & Dewangan, 2017).

The empirical study of wisdom is believed to have begun in the 1970s initiated within the psychology discipline. It was instigated with the notion that wisdom increases with age (Frick, 2018). Nevertheless, this notion has been found to be inconsistent in their findings, where other pieces of evidence suggested that wisdom is interrelated with better physical health and improved quality of life at an older age. Extensive empirical tests of wisdom conducted over the last four decades have conclusively found that wisdom is the finest outcome of human development. Notwithstanding this, wisdom is not the accumulation of personality traits but can be displayed through personal behaviour and social interaction useful for individuals as well as society (Bangen, Meeks, & Jeste, 2013; Thomas et al., 2015). Hence, several current studies on wisdom and leadership have shown significant positive findings.

Wisdom has been suggested as playing a significant role in determining leadership style and eventually influencing employees' job satisfaction (Elbaz & Haddoud, 2017). Leader's wisdom was also suggested to have an effect on leader-member exchange (LMX) qualities (Zacher, Pearce, Rooney, & McKenna, 2014) and transformational leadership (Greaves et al., 2014). The application of wisdom in leadership amongst leaders has been shown to positively benefit subordinates, ultimately increasing organisational performance (Ahmad, Salleh, Awang, & Mohamad, 2013). A qualitative approach suggested that the scope of leadership-related wisdom is not restricted or limited to small or individual organisations but encompasses a greater range of society (Yang, 2011). A rigorous mixed approach study suggested that some components of wisdom from leadership experiences can be learned and fostered (Yang, 2014). These studies on

wisdom in a variety of contexts verify that wisdom has positively predicted effective leadership behaviours that ultimately uphold the well-being and development of individuals and organisations at large.

Surprisingly while wisdom holds all the virtues and qualities that military leadership must retain, the studies related to it were inadequate. Wisdom properties are all crucial for military leaders to be effective and include the highest capacity of knowledge, good judgement, wise behaviour and action. Additionally, for the military leadership context, all these fundamental properties are needed in the most adverse and life-threatening situations (Zacher, McKenna, Rooney, & Gold, 2015). Hence, articulating from Aristotle's conception of wisdom, Roennfeldt (2019) expounded wisdom as a truly pertinent virtue for military leaders. Roennfeldt argued that it is wisdom that negotiates the 'fog of war' with 'sensitive and discriminating judgement' discussed by Clausewitz in Howard, Paret, and Brodie (1976).

Military leaders are highly trained to rely on themselves to make quick decisions based on limited information and knowledge in the most dangerous situations. Hence, Roennfeldt (2019) suggested wisdom as part of the military officers training scheme. Corresponding to these aspirations, wisdom scholars have believed that wisdom could be cultivated. Sternberg, Jarvin, and Grigorenko (2011) explained wisdom as giftedness, not merely inborn attributes but parts that can be developed. Recent studies have also suggested that wisdom can be learned from other leaders' experiences (Yang, 2011), the capacity for wisdom can be developed (Örtenblad, 2018), learning from relevant and meaningful life experiences of others can foster wisdom (Yang, 2014), wisdom can be enhanced through psychological intervention (Glück, 2015), and extensive learning is an of attribute of wisdom (Ko & Rea, 2016).

On other views, Sharma and Dewangan (2017) proposed that longer continuous training and practice is required to cultivate personal wisdom. On a similar context, Gayton and Kehoe (2019) found that young military officers pointed to their senior officers as having more wisdom, while their subordinates were seen as trustworthy. Consequently, this research holds to the notion that wisdom can be cultivated and developed in military leaders via longitudinal military training and practical job experiences. Hence, additionally, age and service tenure would be other important possible criteria in determining wisdom in military leaders. Aligned with these characteristics, the research developed Hypothesis 1 as:

Hypothesis 1. There is a significant relationship between wisdom and effective military leadership.

2.4 Emotional Intelligence and Effective Military Leadership

The WICS model emphasises the intelligence of leaders to exercise effective leadership. Discussions on general intelligence per se can be traced back from the era of Plato (428 BC) and eventually, a plethora of definitions, explanations and theories were developed (Pal, Pal, & Tourani, 2004).

Judge, Colbert, and Ilies (2004), through their study on the relationship between general intelligence and leadership, primarily asserted that intelligence is very much related to leadership. The notion corresponds to theoretical standpoints that leaders must possess intelligence to be effective. Nevertheless, the overall result suggested that the relationship is lower than what was theorised. The study suggested that leaders' stress level moderated intelligence and leadership. Consequently, leaders must possess some other leadership traits together with intelligence to be effective. Hence, Judge, Colbert,

and Ilies (2004) suggested alternative concepts of intelligence that potentially play other crucial roles in complementing general intelligence. These include social intelligence, practical intelligence and emotional intelligence.

Amongst the general intelligence components, emotional intelligence (EI) has garnered crucial consideration and attention from scholars and researchers, as well as practitioners. This is due to the growing interest in research, strong theoretical explanations, and empirically sound instruments of EI (Miao, Humphrey, & Qian, 2018). EI has been conceptualised and operationalized in various ways and according to various contexts; however, current researchers have consistently referred to Salovey and Mayer and Goleman in explaining the fundamental concepts of EI.

Salovey and Mayer (1990) explained EI as a subsection of social intelligence and defined it as the "ability to monitor one's own and others' feelings and emotions, to discriminate among them and to use this information to guide one's thinking and actions" (p. 189). Salovey and Mayer expressed emotions as fundamental to cognitive processes and social behaviours. Correspondingly, emotions are forces that drive relationships, motivation, attention and learning. Theoretically, Salovey and Mayer posited that each individual has a different level of ability in efficiently regulating and exercising the intensity of their own emotions.

Explanation of EI was refined in 1997 when Salovey and Mayer introduced a four-branch model of EI, which explained as "(1) Managing emotions to attain specific goals: (2) Understanding emotions, emotional language, and the signals conveyed by emotions; (3) Using emotions to facilitate thinking, and; (4) Perceiving emotions accurately in oneself and others" (Mayer, Salovey, & Caruso, 2008). Each branch represents a set of

sophisticated skills ranging from perceiving emotions to physical expressions. The EI notion has thus been moved to the level of regulating one's own emotions, which is explained by Mayer, Salovey and Caruso (2008) as managing emotion.

Regarding the same concept, Goleman (2000) held to the notion that EI is more important than general intelligence (IQ). He associated EI with leadership, which he defined as "the ability to manage ourselves and our relationships effectively" (p. 4) and explained that it "consists of four fundamental capabilities: self-awareness, self-management, social awareness, and social skill" (p. 4). Consequently, many leadership researchers connect EI with effective leadership under the premise that leaders must have the ability to manage subordinates' or followers' emotions as well as their feelings to actualise success (Edelman & van Knippenberg, 2018).

Since the 1990s, EI has been found to be a critical concept in explaining leadership theories, styles and effectiveness (Palmer, Walls, Burgess, & Stough, 2001). Hence, a series of the most current empirical research studies connecting EI and leadership were reviewed for this research.

Rajesh, Prikshat, Shum, and Suganthi (2019) argue that the relationship between EI and transformational leadership is significant that it promotes job satisfaction and mediates subordinate job stress. Miao et al. (2018) suggested that EI is positive and significantly related to authentic leadership. Consequently, leaders' EI has been postulated to play a crucial role in predicting followers' performance and organisational citizenship behaviour (OCB).

Zhang, Cao, and Wang (2018) suggested that transformational and transactional leadership mediates the relationship of EI with satisfaction (performance contribution, efficiency and interest). Alzyoud, Ahmed, AlZgool, and Pahi (2019) argue that leaders' EI can induce a sense of belongingness resulting in increased job satisfaction amongst subordinates. Mullen, Limberg, Tuazon, and Romagnolo (2019) demonstrated that EI is significantly correlated with positive leadership performance, leadership self-efficacy and self-leadership. Issah (2018) suggested leaders' EI plays an essential role in change leadership effectiveness, particularly in building a team to influence change and dealing with resistance to change attitudes. In sport leadership studies, Lee (2019) argued that EI plays a significant role in mediating servant leadership and the development of goal orientation. Edelman argues that EI predicts leader responses to followers' emotions and mediates the relationship between EI and effective leadership. In another study, Lee and Chelladurai (2018) suggest coach (acknowledged as sports leaders) EI was significantly related to athletes' burn-out, job satisfaction and turn-over intention.

The review exposed several crucial results in EI and leadership effectiveness. Firstly, EI and effective leadership were empirically tested in a variety of contexts. Secondly, EI is an important and positive indicator or antecedent that explains leadership effectiveness through interaction between leaders and subordinates. Thirdly, EI has also played a mediating role for positive outcomes between leaders and subordinates, and fourthly, leaders with EI were found to have high potential in influencing the wellbeing of subordinates and organisations, resulting in positive outcomes.

EI has also been consistently discussed and studied in military contexts. Nevertheless, most discussions were found to be on conceptual approaches. Military writings on EI were limited and confined to sharing and disseminating EI knowledge and creating

awareness of EI importance amongst military personnel and organisations. This account was realised from several current articles on EI in the military context.

Sewell (2011), a senior officer involved in military training organisations for many years, explains EI as one of the important dimensions in describing individual's or soldier's strengths besides the social, spiritual, family and physical dimensions. Accordingly, EI is assessed to be a decisive factor in influencing a soldier's motivation and satisfaction while interacting with peacetime and wartime environments. In the earlier discussion, Sewell (2009) argued the importance of EI and suggested EI to be strategically and dynamically applied in the US Army leaders evaluation and training scheme.

Sewell's concerns were explained in a more precise manner by Oden, Lohani, McCoy, Crutchfield, and Rivers (2015). They explained that military personnel are required to have high EI abilities. The situation becomes evident when military leaders and personnel must endure uncertainty and chaotic operational settings with their team members of different religious beliefs and customs. Hence, moments of stress would challenge them emotionally. Uncontrolled emotion may lead to negative behaviour, judgements and decisions. Consequently, EI is proposed to be an important training subject for military personnel development. This kind of training would be beneficial for them to strategically and effectively recognise and regulate their own and their counterparts' emotions.

On another development, Daffey-Moore (2015) explained that the current operational environment for the military had changed significantly. Today's operational environment is considered to be of higher-risk and more dynamic than ever before, which justifies EI as an essential attribute. Hence, the EI concept must be further explored, accepted and blended into each and every rank structure of the British Armed Forces.

The review on conceptual approaches revealed the importance of EI for military personnel and leaders, in particular. Daffey-Moore (2015) suggested that military training institutions play more important and serious roles in instilling and nurturing EI in soldiers and military leaders. It is rational to give such a recommendation as many EI-keen researchers and scholars believe that EI can be nurtured and developed. Goleman (2000) insists that EI is not merely an innate talent, but it can be measured, learned and developed. Similarly, Sternberg, Jarvin, and Grigorenko (2010) expressed EI as giftedness in individual humans that can be developed and is modifiable. Reasonably, the apprehension toward EI in military organisations is evidenced in the growing number of recent EI empirical studies on its context.

Koman and Wolff (2008) conducted research to examine the relationship among military team leaders, EI competencies, team level EI and overall team performance. Data were collected from 422 members of 81 teams in a military organisation. The result demonstrates that team leader EI is significantly related to the presence of emotionally competent group norms of the team they lead and the emotionally competent group norms are related to overall team performance.

Rockstuhl and Seiler (2011) studied the capability of leadership to lead effectively in diverse cultural settings of cross-border responsibilities. The respondents were 126 Swiss military officers assigned to cross-border and domestic duties. Results indicated EI as a strong predictor of domestic effectiveness, while cultural intelligence was a strong indicator of cross-border leadership abilities. The overall result suggested that EI competency is critical, especially in dealing with domestic military leadership issues, while cultural intelligence holds value for cross-border capabilities.

Vidic, Burton, South, Pickering, and Start (2016) conducted a survey on 535 officer cadets of a military academy with the aim of examining four leadership style profiles, namely, servant, transformational, transactional, and passive (avoidant), and the specific roles of EI and motivation. The leadership style was compared with a range of motivational and EI dimensions. The study revealed that Global EI had a positive relationship with Servant Leadership. This finding indicates the importance of interpersonal relationships in determining leader and organisation performance.

A study conducted by Koh and O'Higgins (2018) on EI's relationship with perceived and actual leadership effectiveness resulted in a significant positive correlation. The study assessed 86 officer cadets from the Republic of Singapore Air Force (RSAF) using a two-scaled EI self-reporting instrument on perceived leadership effectiveness. The result not only explained that EI is significantly connected to effective leadership but also provides a practical impact to the training strategy of the RSAF.

Kozáková and Saliger (2019) evaluated the level of EI among future Czech Republic Army leaders. The self-assessing test of EI was conducted among 31 military students of the Faculty of Military Leadership, University of Defense, as a pilot survey. The result showed a very diverse EI quotient amongst the respondents. The pilot survey result revealed several crucial EI issues to be further analysed for the real research endeavour.

Based from the extant researches, several deductions could be derived from the review on military EI empirical studies. Firstly, EI has been tested on leaders of the lowest hierarchical levels or military tactical levels, which includes team leaders and leaders conducting operations, as in the case of the Swiss military, and officers attending courses or officers-to-be (officer cadets) in some cases. In contrast, studies of EI concerning

middle and higher rank military officers are far lacking even though these officers often hold crucial leading posts and appointments at the military operational and strategic levels. The emotional challenges at these levels and the nature of social interaction are far different.

Secondly, most EI concepts in the military were studied in actual real-life settings and included targeted individual and groups. Military leaders work in a variety of extreme environments ranging from extremely peaceful to extremes of crisis. Furthermore, they deal with a variety of social classes, from rulers to the prisoners of war (POWs). They even deal with enemies that at any opportunity would kill them, and in contrasting situations, they deal with wounded subordinates and war refugees. Hence, all such situations demand a high level of EI; therefore, this research adopted hypothesis two as:

Hypothesis 2. There is a significant relationship between EI and effective military leadership.

2.5 Creativity and Effective Military Leadership

Creativity and innovation have been identified as the most imminent concepts to be applied when scholars of the business community explain and forecast the world business environment of the 21st century (Mumford et al., 2007). In recent studies, Randel and Jaussi (2019) asserted that creativity and innovation are the foremost concepts and enablers business organisations rely on to maintain their competitive advantage. Creativity is explained as the ability to develop ideas into novel and valuable procedures, processes, products and services (Harding, 2010). Additionally, this may also encompass novel solutions to a business problems, management strategies, or creative changes in work processes (J. Zhou & Shalley, 2003). Innovation is conceptually described as the

translation or production of creativity (Mumford et al., 2007) or successful application or implementation of creativity (Amabile, 1988). Currently, both concepts are crucial to discussions in various fields and disciplines.

Many scholars and researchers of leadership have believed that leaders must possess creativity capacity to be effective. Prominent psychologist and leadership scholar Sternberg (2008) explained that creativity in leaders is not comprised of innate abilities but displayed through the decisions and ways of making decisions. Additionally, Sternberg has argued that creativity is the leaders' ability to devise and solve problems. In another description, Amabile (1988) explained creativity acting as a resolution for leaders to clarify their goals to followers in the form of a story. When followers understand the underlying story, they would appreciate the work that they have to perform. Symbolically, a leader generates the idea and the followers follow.

Creativity and leadership have also been illustrated in many expressions. Mainemelis, Kark, and Epitropaki (2015) connoted creativity and leadership as many comparable terms but similar in meaning, such as "creative leadership", "leading for creativity and innovation", and "managing creative." In conveying the crucial role of present leadership creativity challenges, Stoll and Temperley (2009) symbolised leadership creativity as 'outward-looking', more adventurous, looking and thinking 'outside the box', and doing things differently from the norms but achieving dramatic positive results.

On the other hand, Harding (2010) discussed creativity as an essential attribute of a leader in the overall process of leading change, especially when the change process does not give the expected or intended outcome. Hammershøj (2018) studied the creativity and innovation of two important figures: Steve Jobs (a successful entrepreneur) and Lars von

Trier (a successful film director). His analysis suggested that creativity and innovation not only involve cognition but are natural traits that can be facilitated through cultivation. Employees can be trained for these leadership attributes rather than focusing on managerial qualities. Furthermore, many recent studies suggested that leaders play a crucial role in influencing their subordinates' creativity.

Oedzes, Rink, Walter, and Van Der Vegt (2019) proposed that team creativity will increase when leaders apply more empowering behaviour. Drawing from Peralta, Saldanha, Lopes, Lourenço, and Pais (2019), the study suggested that team members struggle to maintain and implement their creative ideas if leaders lack the courage to pursue them. Within this context, several researchers have examined creativity through the lenses of transformational leadership and leader-member-exchange (LMX) theory as both are observable leadership behaviours relating to the notion of creativity.

Wang and Rode (2010) have suggested that transformational leadership, identification with leaders, and the innovative climate are very much connected with employee creativity. Zhang, Sun, Jiang, and Zhang (2019) suggested that transformational leaders augment subordinates' personality heterogeneity and idea development or creativity. Nevertheless, Herrmann and Felfe (2013) suggested that the influence of transformational leadership effectiveness fluctuates depending on the task and followers' creativity characteristics.

On LMX theory, Gu, Tang, and Jiang (2013) argued that high employee creativity is greatly influenced by leaders' LMX behaviour. Lin, Ma, Zhang, Li, and Jiang (2018) suggested that LMX is related to employee creativity level, may improve creativity, and is even stronger for employees with high power-distance characteristics. Gu, Chen,

Huang, Liu, and Huang (2018) suggested knowledge sharing between leaders and subordinates would reflect the creativity of both the leaders as well as their teams.

The literature review has revealed that leadership behaviour plays a crucial role in enhancing organisational and subordinate creativity. The following review further explains the function of leaders as an agent in promoting organisational and subordinate creativity. Firstly, to equip and facilitate transformational leaders in promoting organisational creativity, Carmeli, Sheaffer, Binyamin, Reiter-Palmon, and Shimoni (2014) suggested the creation of a psychological safety environment and reflexivity processes. Carmeli et al. (2013) argued that inclusive leadership explained in terms of openness and friendliness may foster employee creativity by developing a psychological safety environment. A psychological safety environment promotes and convinces employees that it is safe to voice out and bring out useful new ideas to solve specific issues. Hence, in turn, employees will actively involve themselves in creative work.

In other research, leaders' are acknowledged as crucial to provide a creative climate for employees and organisations. Wang, Rode, Shi, Luo, and Chen (2013) found that creativity climate strength was higher when group diversity and transformational leadership were low. The result suggested that homogenous groups that perceive their work environment as lacking encouragement of creativity change their perceptions when transformational leadership is high. Akkermans and Isaksen (2011) established through their study that leadership behaviour of leaders plays a pivotal role in designing a creative climate and ultimately generates innovative productivity. Avey, Richmond, and Nixon's (2012) study suggested that leader's PsyCap (hope, efficacy, resilience and optimism) positively related to that of subordinates. Practically, this indicated that PsyCap from

leaders or 'leader positivity' could be cascaded through followers and developed accordingly. This effect is indicative of improved employee creativity performance.

The review has managed to highlight important directions based on the most recent extant research. Firstly, leadership creativity studies have suggested that it is not necessary that leaders be creative, but they must have the ability to facilitate creativity. Secondly, leadership creativity is about leaders' understanding of key creativity element processes and their requirements, and thirdly, leadership creativity is about leading others to attain a creative outcome. Hence, it opens up the new quandary of whether a leader needs to be creative to facilitate creativity himself. To have an in-depth answer to this question, it is essential to look at the context of this study, which is effective military leadership.

Creativity is a profound attribute in the military context. Vego (2013), asserted that military leadership is unique, and creativity is applied in a narrower framework as every action is subjected to strict military rules and regulations. Hence, military culture, in general, restricts drastic or novel solutions to some new challenges or endeavours. Nevertheless, Vego (2013) acknowledged creativity as the key element in the successful conduct of military operations during peace and wartime.

Connelly and Zaccaro in Mumford and Hemlin (2017) asserted that military leaders must possess creative capacity corresponding to that of leaders in any field, because creativity positively influences leadership outcomes. Comparing military challenges with other fields, Connelly and Zaccaro (2017), explained that military leaders with creativity deal with crucial problems and challenges more effectively and efficiently. The challenges include the impact of globalisation, dynamism of today's warfare,

sophisticated new military technologies and managing and operating within situational constraints. Nevertheless, accordingly, the military organisation holds the advantage of having their specialised training institutions and facilities, which allow regular training schemes to systematically develop leaders' creativity.

Although the military and other settings acknowledge that leaders must possess the capacity of creativity, empirical research on this was found to be lacking. Likewise, self-rated empirical research from strategic-level military officers was found to be deficient. In congruence with Vego's (2013) observations discussed above, Kark, Karazi-Presler, and Tubi (2016) explained paradoxes of military leadership in connecting "flexibility and creativity versus military conformity and discipline." The paradoxes clearly become evident when the military environment is observed to be resistive to creativity progression. Obviously, this perception refers to creativity in an orderly and strictly hierarchical organisation operating in complex social and cultural contexts and fluid and dynamic adverse situations. Hence, this research seeks to examine creativity and effective military leadership as Hypothesis 3, which is specified below.

> **Hypothesis 3**. There is a significant relationship between creativity and effective military leadership.

2.6 Courage and Effective Military Leadership

Courage was found to be the most consistent leadership attribute as revealed by five prominent military commanders of the MAF. The acquisition of this finding was accomplished through a systematic interview and is deliberated in detail in Chapter 3 of this study. Hence, the study appropriately recognised courage to be another critical attribute together with the WICS model in predicting military leadership effectiveness.

Courage is denoted as "heart and spirit" in French and viewed as a principal human virtue by various philosophers, namely, Plato, Socrates and Aristotle (Rijamampianina, 2018). Philosophers' notions of courage were substantially described as the midpoint between fear and bravery, or determination in encountering adversity (Palanski, Cullen, Gentry, & Nichols, 2015). Like wisdom, intelligence and creativity virtues, the definition of courage was found to diverge dynamically across theories, settings and approaches. Notable modern scholars and researchers have in the past brought up numerous meanings of courage, either highlighting contentions amongst them or instead putting effort to modify, provide advancement or offer improvements to strengthen the elaboration of its explanation.

These are the two definitions found to be useful in advancing the discussion. Rate, Clarke, Lindsay, and Sternberg (2007) defined courage and courageous behaviour as comprising four important criteria: "(1) a wilful, intentional act, (2) executed after mindful deliberation, (3) involving objective substantial risk to the actor, (4) primarily motivated to bring about a noble good or worthy end" (p. 94), while Norton and Weiss (2009) defined courage as "persistence or perseverance despite having fear" (p. 212). What appear to be major differences here is the consideration of 'fear' as emotion. Hence, is the presence of fear is a prerequisite for having courage? Howard and Alipour (2014), in a way, supported the notion that the presence of fear is a prerequisite in explaining courage and courageous behaviour, or otherwise the notion of bravery is more appropriate. Hence, this study embraces Howard and Alipour's notion with the following consideration of courage in a military setting.

It appears that the paradigm of courage has been primarily discussed in the military context. Philosophers such as Aristotle and Aquinas considered courage as a warrior's virtue of always being prepared and ready for an honourable and noble death in battle (Qiaoying, 2013). Zavaliy and Aristidou (2014) contemplated courage as one of the fundamental and prevalent military virtues, explained as one's ability to overcome fear in the face of significant danger and harmful situations. Similarly, Coulston (2013) asserted that courage is closely linked to military bravery in the adverse environment of any war, battle and military campaign or operation. Courage is also a driving factor that motivates a soldier to fight and deal with fear in combat (Fennell, 2013).

Eventually, various assimilations of courage emerged as crucial concepts devoid of the physical and emotional intensity associated with military contexts. The notion includes self-affirmation of personal values and flawless rationality and prudent behaviour, which have been explained in various forms and contexts as social courage, moral courage, psychological courage and managerial courage (Rijamampianina, 2018). Amongst the several studies of courage, moral courage is found to be the most prevalent notion in recent years. While there is a very close relationship between physical courage and moral courage, the thin line that separates them involves ethical behaviour and values. In more detailed elucidation, moral courage is explained as "the capacity to overcome the fear of shame and humiliation in order to admit one's mistakes, to confess wrong, to reject evil conformity, to denounce justice, and to defy immoral or imprudent orders" (Miller, 2000 in Olsthoorn, 2011, pp. 49–50).

In another approach in the military context, Hannah, Avolio, and Walumbwa (2014) define moral courage as "(1) a malleable character strength, that (2) provides the requisite conation needed to commit to personal moral principles, (3) under conditions where the

actor is aware of the objective danger involved in supporting those principles, (4) that enables the willing endurance of that danger, (5) in order to act ethically or resist pressure to act unethically as required to maintain those principles" (p. 557). In their argument, Hannah, Avolio, and Walumbwa merged courage of fighting against the enemy (physical courage) with the act of saying 'no' to any attempt to get secret information by the enemy when one is tortured while in enemy captivity.

The review managed to highlight the necessity of the fear element in explaining courage or courageous acts either through physical courage or moral courage. Generally, courage has also been widely advocated as effective in leadership (Worline, 2012). Bangari and Prasad (2012) developed four quadrants encompassing high to low courage (moral and physical) and high to low cowardice (moral and physical) in the form of a typology of courage in decision-makers or leaders. Based on the study, the most ideal leaders are the ones categorised under high courage (physical and moral), and several prominent leaders were found to be under this quadrant, such as Mahatma Gandhi, Nelson Mandela and Martin Lurther King. Effective leaders exhibit courage during crises to take full responsibility for their decisions as they believe they were the right decisions and should be defended.

Palanski et al. (2015), through their study, found at least two crucial indications: (1) leaders becoming more courageous when adverse situations intensify, regardless of their actual behaviour; and (2) behavioural courage is important and leaders must maintain this behaviour proactively, especially under adverse situations. Amos and Klimoski (2014) tested courage in flexible team situations in which leading the team is optional and often involves risk. The study suggested that courage in leaders is constructed by three qualities: character, confidence and credibility.

Courage had been found to be a critical virtue for leaders in exercising their influence on subordinates to achieve high performance. Peralta, Saldanha, Lopes, Lourenço, and Pais (2019) argued that leaders (supervisors) courage to go beyond compliance has a direct effect on teams' performance and creativity. Sekerka and Marar Yacobian (2017), through their research on public leaders' moral courage in addressing Islamophobia issues, suggested that leaders must exercise character strength to promote tolerance, graciousness and respect as a proactive approach. The study indicated that power from morally courageous leadership could be disseminated to employees, creating a bias and discrimination free environment. Mostafa (2019) found that abusive supervision by leaders had a negative impact on subordinates' moral courage. Abusive supervision is protracted or prolonged emotional or psychological mistreatment of subordinates. In another finding, moral efficacy moderated the relationship between abusive supervision and moral courage; when moral efficacy was high, moral courage reduced. These findings suggest that leaders' abusive behaviour may have an impact on subordinates' courage to act ethically (in this case, reducing it).

Studies on courage have also been conducted to evaluate certain leadership behaviour. Rijamampianina (2018), in a qualitative paradigm study, suggested courageous leadership is driven by internal and external factors, such as values and beliefs, which are firmly related to facets of authentic leadership. Similarly, Hannah et al. (2014) suggested that moral courage is directly linked with authentic leadership.

The review managed to re-emphasise that courage and courageous behaviour are important leader virtues. In the military context, leaders are demanded to overcome fear to lead effectively in the most adverse environments and situations. Hence, this study

involves testing the relationship between courage and effective leadership, as stated in Hypothesis 4.

Hypothesis 4. There is a significant relationship between courage and effective military leadership.

2.7 Self-Efficacy and Effective Military Leadership

Self-efficacy refers to an individual's capability and capacity to produce the designated performance that influences their lives. Self-efficacy makes individuals feel good about themselves and therefore motivates them for actions. Individuals with a high level of self-efficacy tend to set a high standard of performance for themselves and perceive tasks given to them as challenges or opportunities to be encountered rather than threats that have to be avoided. Furthermore, they maintain a strong commitment and have a sense of control over situations with strong determination. Conversely, individuals without self-efficacy will easily withdraw from challenging situations, have no faith in their own capabilities, and thus easily succumb to stress and depression (Albert Bandura, 1994; Flammer, 2001; Wood & Bandura, 1989).

Due to all the virtues, many researchers have acknowledged and linked self-efficacy with effective leadership and performance (McCormick et al., 2002). Hannah, Avolio, Luthans, and Harms (2008) proposed that self-efficacy drives leadership efficacy in a threatening situation through self-leadership, self-motivation to lead, increased leader-follower interaction, and eventual achievement of the desired performance. Associating self-efficacy to self-confidence and explaining the significance of self-efficacy within the social cognitive theory, McCormick (2001) argued that self-efficacy is the crucial predictor of effective leadership. Paglis (2010), based on her meta-analysis study on self-

efficacy, asserted that a high level of self-efficacy was linked with leadership's better performance regarding subordinates or the organisations they led.

Studies on self-efficacy have been prevalent over the years. Currently, self-efficacy is being operationalised and linked to several other crucial concepts of human virtue. Sternberg's (2007) well-known WICS (Wisdom, Intelligence and Creativity, Synthesised) model for leadership holds that self-efficacy establishes important beliefs in leaders which drive them to lead with a never give up attitude in facing any challenges. Hence, he stressed the strong interrelatedness of the WICS model with self-efficacy. Self-efficacy has also become a foundation to many other attributes and psychological constructs in the form of leaders' efficacy (Paglis, 2010), collective efficacy (Erez, 2018), creativity efficacy (Pamela Tierney & Farmer, 2002), and self-leadership (Lucke & Furtner, 2015).

Consequently, self-efficacy has been used as a positive predictor of outcomes in many leadership studies. Cumberland, Meek, and Germain (2015) found that the self-efficacy of franchisee executives had strongly contributed to firm performance. Wu et al.'s (2019) research suggested that emotional intelligence is positively related to self-efficacy. Danish, Asghar, Ahmad, and Ali (2019) expressed openness to change as having a strong positive relationship with self-efficacy.

Correspondingly, self-efficacy has also been used as an intervening variable in explaining many positive outcomes. Ng, Ang, and Chan (2008), in their study of leadership trait theory, suggested that leaders' self-efficacy mediates neuroticism, extraversion and conscientiousness (personality constructs) with leader effectiveness. Cavazotte, Moreno, and Bernardo (2013) proposed that self-efficacy mediates perceived

transformational leadership with employee performance. Osman (2017), in his research in a higher education institution, suggested that self-efficacy mediates the relationship of leadership style and job performance. In a study on officer cadets in the Norwegian Military Academy, Boe, Säfvenbom, Johansen, and Buch (2018) argue that self-efficacy mediates self-concept and increased coping capacity, cooperation in adverse situations and motivation to enhance performance. Hence, the review exhibited self-efficacy as operationalised in a variety of settings contingent upon research objectives and paradigms. Additionally, self-efficacy has also been shown as having positive orientations and outcomes in most of its operationalisation.

In the military context, self-efficacy in leaders has been rationally expressed as a prime importance standard. Relative to this fact, self-efficacy has all the virtues which military leaders should possess and be equipped with. Hence, self-efficacy has also been an important purpose of leadership development guidelines for the Malaysian Army (Malaysian Army HQ, 2003). While self-efficacy is stated as self-confidence, the aim of the doctrine is apparently that leaders must possess self-efficacy virtues in whatever mission is assigned to them. Hence, the training scheme and direction of the Malaysia Army must be held to this doctrine as their foremost important guidelines. This outcome statement realises a crucial component in the study of self-efficacy, which is whether self-efficacy can be developed and taught in training.

Indeed, prominent scholars and keen researchers of self-efficacy have approved the notion based on their extensive research endeavours. Bandura (1997), anticipatively asserted that self-efficacy is developed through (1) experiences, especially when overcoming adversities in one's life; (2) interaction, especially with someone experiencing and overcoming animosities or adversities; (3) watching others successful

or failed efforts; (3) by receiving comments and criticism from others, and (4) individual physical and emotional states. In this regard, Avolio and Hannah (2008) suggested that an organisation must provide a conducive climate and facilities to support leaders' development, including training to enhance self-efficacy amongst leaders.

Similarly, Machida and Schaubroeck (2011) argued that learning self-efficacy is a very complex process and very dependent on how leaders are ready to be developed. Likewise, a study conducted on young military leaders by Lester, Hannah, Harms, Vogelgesang, and Avolio (2011) suggested that semiformal mentor intervention enhances self-efficacy provided there is a good relationship, trust and cooperation between protégés and mentors. Hence, despite the complexities, there are many examples of evidence indicating that self-efficacy can be developed in leaders. It involves highly positive interactions and contingent effectiveness intertwined between the one who delivers and the recipients.

Much has been written on self-efficacy development; however, empirical research on the notion is still considered to be inferior, primarily when involving military settings. Additionally, the military is a crucial organisation, which places great emphasis on competency development of leaders via sequential formal and informal training (Kirchner & Akdere, 2017). Furthermore, military officers, in contrast to leaders in more generic contexts, will live in the military system and environment for as long as the duration of their service, which is usually 30 years. It is during this period that the process of sharing talent and competencies (i.e., self-efficacy, etc.) and experiences take place, which include formal and informal mentoring, training and self-development (Lyle & Colarusso, 2010).

Yukl (2010) explained that outcome of leadership performance (likewise in this research explained as effective leadership) can be observed as causal chain of reactions. Additionally, the use of intervening variable mediates the effect of the prior or later variable which eventually evident the overall achievement of a leader (Yukl, 2010). Moreover, Yukl (2010) described that intervening variable may provide immediate or delay effect of leadership. Hence, while mediating effect is crucial especially in explaining effective leadership, Yukl (2010) argued that very few studies have measured the mediating processes. Hence, this research would give a closer look at self-efficacy as a mediator. This approach is to shed some light on whether wisdom, emotional intelligence, creativity and courage are variables that give immediate effect on effective military leadership or; is self-efficacy would delay the effect. Hence, the outcome of this research would explain further the position of self-efficacy as a strategic principle of leadership stipulated in the doctrine.

Therefore, it is imperative to empirically evaluate the relationship of self-efficacy with effective leadership amongst senior Army officers in the Malaysian Army. Correspondingly, the study will assess the mediation role of self-efficacy with the other leadership virtues in the WICS model and effective leadership. Hence, the hypotheses below were developed.

Hypothesis 5. There is a significant relationship between self-efficacy and effective leadership.

Hypothesis 1a. Self-efficacy significantly mediates the relationship between wisdom and effective leadership.

Hypothesis 2a. Self-efficacy significantly mediates the relationship between emotional intelligence and effective leadership.

Hypothesis 3a. Self-efficacy significantly mediates the relationship between creativity and effective leadership.

Hypothesis 4a. Self-efficacy significantly mediates the relationship between courage and effective leadership.

2.8 Conceptual Framework

Numerous leadership studies have disputed the existence of ideal leaders. Nevertheless, since long ago, leadership scholars and researchers have extensively established leadership theories to explain leaders' traits and behaviours to differentiate leaders and non-leaders. Leadership theories have thus been evolving and recognised as dynamic across time from the 'great man theory' to the contingency theory of leadership. Consequently, thousands of models of leadership traits and behaviours were developed to explain effective leadership (Bass, 1990a).

In evaluating leadership trait research, Yukl (2010) argued that effective leaders must possess the ability to balance their leadership style between too extreme and too lenient in influencing the subordinates. The situation would require a combination of several essential leader continuums of capacity, skill and traits, which include cognition, maturity, emotion, toughness and flexibility (p. 219).

Correspondingly, Isaac Mostovicz, Kakabadse, and Kakabadse (2009) argued that leaders have to make choices that fit their worldviews and are tailored to their

organisational needs. Hence, continuous improvement is a critical aspect in relation to achieving what is right through leaders' lenses and what they see and define as being successful. Consequently, a systematic approach to leadership development was suggested. In this context, Isaac Mostovicz et al. (2009) conceptualised that leaders should possess the ability to make relevant, appropriate choices of leadership style that are in tandem with effective leadership as expressed by Yukl.

In the same context, Sternberg (2008) theorised WICS as the critical component of effective leadership. The approach was recognised as 'gifted' qualities or virtues, built and developed within individual leaders to guide them in making the right choices and in leading effectively.

The WICS model consists of several underlying theories. Nevertheless, Sternberg (2003) and Sternberg, Jarvin, and Grigorenko (2011) connected wisdom, intelligence and creativity with the theory of giftedness. While challenging the traditional theory of giftedness, Sternberg et al. (2011) rationalised the myth behind the approach and posited that giftedness could be changed over time, that giftedness is a social construct, there are multiple criteria of giftedness, as well as there being multiple tests to measure giftedness. Hence, Sternberg, Jarvin and Grigorenko pursued the notion that one is never born gifted, but wisdom, intelligence and creativity are forms of developmental competency and expertise which are strongly influenced and constructed by the environment. Hence, this belief rejected the traditional views that stressed 'fixed traits' or behaviours that make people gifted.

In a similar context, Sternberg (1998) operationalised wisdom within a balanced theory that generically described it as "the application of tacit knowledge, mediated by values

toward goal of achieving a common good (a) through a balance among multiple intrapersonal, interpersonal, and extrapersonal interests and (b) to achieve a balance among responses to environmental contexts: adaptation to existing environmental contexts, shaping of existing environmental contexts, and selection of new environmental contexts" (p. 353). Accordingly, Sternberg acknowledged the theories of wisdom developed by other scholars such as Ardelt (2000) and Baltes and Staudinger (2000) in further explaining wisdom in the WICS context (Sternberg et al., 2011a). Correspondingly, the WICS model recognised other measurable constructs associated with the range of intelligence and creativity (Sternberg et al., 2011a, 2011b).

The WICS model view that virtues in leaders can be developed was shared by many researchers. Velsor, McCauley, and Ruderman (2010) specified leader development as the "expansion of a person's capacity to be effective in leadership roles and processes" (p. 2). Dalakoura (2010) explained leadership the development process as conducted based on a series of well-coordinated events and activities with well-defined aims and objectives. Additionally, Day, Fleenor, Atwater, Sturm, and McKee (2014) and Day (2000) argued that leadership development effectiveness must be conducted continuously and progressively to yield the desired outcomes.

As such, this research argues that military organisations accomplish the continuous improvement of their leaders within the full spectrum of their service. The organisations develop leadership skills and traits in their personnel from their first day of joining the service until the day they retire (LaMoe & Strickler, 2012). Hence, based on the premises of military leadership development strategy through formal and informal training *vis-à-vis* the gifted notion of the WICS model, the conceptual framework for this study has been established.

This study chose a conceptual framework rather than a theoretical framework due to the fact that a conceptual framework is an integrated way of looking at a problem (Liehr & Smith, 1999), while a theoretical framework refers more narrowly to the theoretical bases that a researcher chooses to guide their research (Imenda, 2014). In its detailed explanation, a conceptual framework is somewhat affiliated with an inductive process, where parts of concepts are combined in possibly meaningful relationships rather than firmly obtaining them from a strictly theoretical perspective. Furthermore, this model is considered to be abstract, and little extant empirical research information is available; therefore, it is more appropriate to characterise it as a conceptual framework (Elo, Kääriäinen, Isola, & Kyngäs, 2013).

The second set of concepts of this study are related to the operationalisation of the courage and self-efficacy constructs in the framework. Although these two constructs are connected with social cognitive theory, as discussed, they are infrequently deployed, and neither has been empirically tested, particularly in relation to the WICS model. The two are essential concepts related to traits, virtues and psychological constructs, making them crucial in explaining military leadership in the Malaysian Army context. Self-efficacy is tied explicitly with the Army's in-house leadership development doctrine, while courage is the most consistent concept yielded through the focus group approach. The inter-relationship of both concepts in the WICS model was acknowledged by an expert panel, as elaborately discussed in Chapter 3. Hence, this study is guided by the conceptual framework and hypotheses highlighted in Figure 2.1.

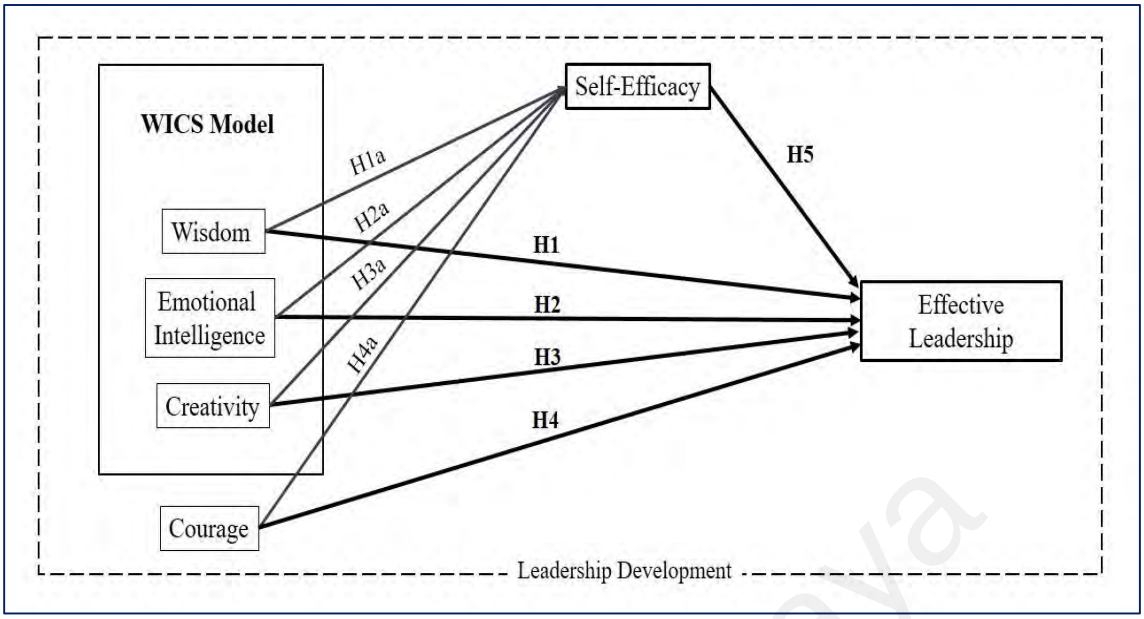

Figure 2.1: Research conceptual framework

2.9 Summary

The review identified the WICS model as a crucial predictor of effective military leadership. The three individual virtues—wisdom, intelligence (emotional intelligence), and creativity—were also found to be crucial predictors employed by diverse effective leadership studies. Nevertheless, the virtues were previously studied in a fragmented manner. This study integrates and synthesises all the virtues according to an empirical research design. Moreover, the review supported incorporating courage and self-efficacy as variables exclusively suited to the Malaysian Army context. Consequently, the review was essential to the development of nine hypotheses for this study that justify the overall conceptual model.

CHAPTER 3: RESEARCH METHODOLOGY

3.1 Introduction

This chapter explains the methodology used for the research. Principally, the study used a quantitative approach (positivism). The main research instrument was a survey questionnaire. The questionnaire was issued to Malaysian Army senior-level leaders who had completed their course at MAFDC. The course prepares Malaysian Army leaders to assume advanced leadership posts in various fields within the Army consistent and coherent with the Army Doctrine principles (Malaysian Army HQ, 2003) is the highest and in most cases, the final course of officers' careers. Furthermore, this course collaborates with local institutes of higher learning, blending knowledge of military leadership and universal practices.

3.2 Research Philosophy

This research applied the positivism philosophical stance. Saunders, Lewis, and Thornhill (2016) denoted positivism as what is 'posited'. The philosophy relies on and highly focuses on empiricist or pragmatist methods and structure. In positivism, research is designed to harvest authentic and unprejudiced data that is free of bias. Additionally, positivism emphasises the realistic nature of entities such as existing organisations and individuals (in this case: the Malaysian Army organisation and leaders). Phenomena are explained through observation and measurement, resulting in the production of meaningful data and information. An existing theory was referred to in developing hypotheses subsequently submitted to appropriate testing processes.

The findings provide a new or fresh explanation through which relevant theory is confirmed or refuted, accordingly. The respective theory is then further developed, expanded or altered. Correspondingly, causal relationships create generalisations

incoherent to what had or had not been found or what had or had not been established by previous extant research and theory.

Universal rules and laws help a positivist researcher to explain and predict behaviour or events in organisations. Moreover, positivism is usually inclined toward a deductive approach that practically uses data to test a theory and thus is rationally very close to quantitative methodology. Therefore, a positivist relies very much on data and information standardisation, which could be realised through well-structured and well-designed research methodology (Saunders et al., 2016). Consistent with positivism philosophy, this research employs quantitative methods, and the process is further elaborated in the following research design explanation.

3.3 Research Design

Research design is a master plan or a framework that explains the methods and procedures for data collection and analysis in research (Zikmund et al., 2010). It serves as a path that guides researchers throughout the research journey, which includes decisions on how respondents are selected, how data is collected and analysed, as well as how findings are communicated (Kumar, 2011). Therefore, a research design is likewise considered as a 'check and balance' mechanism for a researcher to always keep attuned with the method until the research endeavour gets its desired outcome and reaches the intended aims.

The research was intended to determine the relationships between all operational constructs (wisdom, emotional intelligence, creativity and courage) as the independent variables (IVs) and effective military leadership as the solitary dependent variable (DV). Correspondingly, the research examined self-efficacy as a mediator between all the IVs

and the DV. A survey research method was properly implemented to provide answers to all the research questions.

A survey is inclined toward a deductive research approach and mostly employed in cross-sectional studies. Undeniably, a survey is a popular strategy as it promotes several advantages, which include standardised data collection from a sizeable population, cost-effectiveness and permitting easy comparison judgement (Saunders et al., 2016). Concomitantly, Babbie (2010) describes surveys as "excellent vehicles for measuring attitudes and orientations in a large population" (p. 254), and they provide flexibility to allow a researcher to collect related data which cannot be observed directly.

Correspondingly, Yukl (2010) recognised surveys as the most common method used in effective leadership studies. They are employed mainly to study the relationships between various antecedents and outcomes. The relationships are regularly constructed based on leaders' attributes and leadership behaviours. Additionally, Yukl argued that survey research in leadership studies frequently involves individuals, dyadic or at group level, including the leaders themselves, the subordinates, groups under leaders or their peers as critical respondents. Therefore this research employed a self-administered questionnaire as its survey method, which respondents were asked to complete individually (Babbie, 2010; Saunders et al., 2016). In this research, the respondents are the leaders themselves.

There are several reasons as to why a self-administered questionnaire was chosen for this research, and all the advantages were correspondingly supported and acknowledged by prominent research methodology scholars such as Saunders et al. (2016), Zikmund et al. (2010) and Kumar (2011). First amongst these advantages was that respondents could

answer the questionnaire at their convenience. Since the respondents involved in this research were senior Army officers, their time was always tight with scheduled and non-scheduled events and activities. There were times where they were required to perform their work out of the office environment or in an operation area. Hence, with advance information and smartphone technology, they could respond to the questionnaire conveniently at their available chosen times. Additionally, there was no requirement to set an interview appointment, which would take time to coordinate.

Secondly, bias could be reduced as no interviewer was present and the questionnaire could be sent through e-mail or through other more practical digital applications such as WhatsApp. Furthermore, some respondents were stationed overseas performing their duties as defence attachés or attending courses.

The third advantage of a self-administered survey questionnaire is in relation to economic factors. In this research, some respondents were stationed in East Malaysia. Therefore, digital applications were found to be appropriate and more economical in terms of cost and effort.

While there are disadvantages corresponding to self-administered questionnaires such as misunderstanding or misinterpretation of questions, the motivation of respondents to answer, and incomplete answers (Babbie, 2010), this research overcame the challenges by explaining the importance of the study in the questionnaire forms (hardcopy and softcopy versions). The researcher was always attentive to any phone calls or messages posted by the respondents to further clarify any inquiries by them.

3.4 Research Process

The research process of this study includes four critical phases, as illustrated in Figure 3.1. The first phase is designated as the 'defining phase'. In this phase, the research problem was defined through the review of literature on military leadership concepts, theories and findings of previous research. A focus group approach was also employed to ascertain and confirm several crucial concepts from highly reliable practitioners or subject matter experts. Additionally, the effort was interwoven with determining the right and appropriate population and sampling frame.

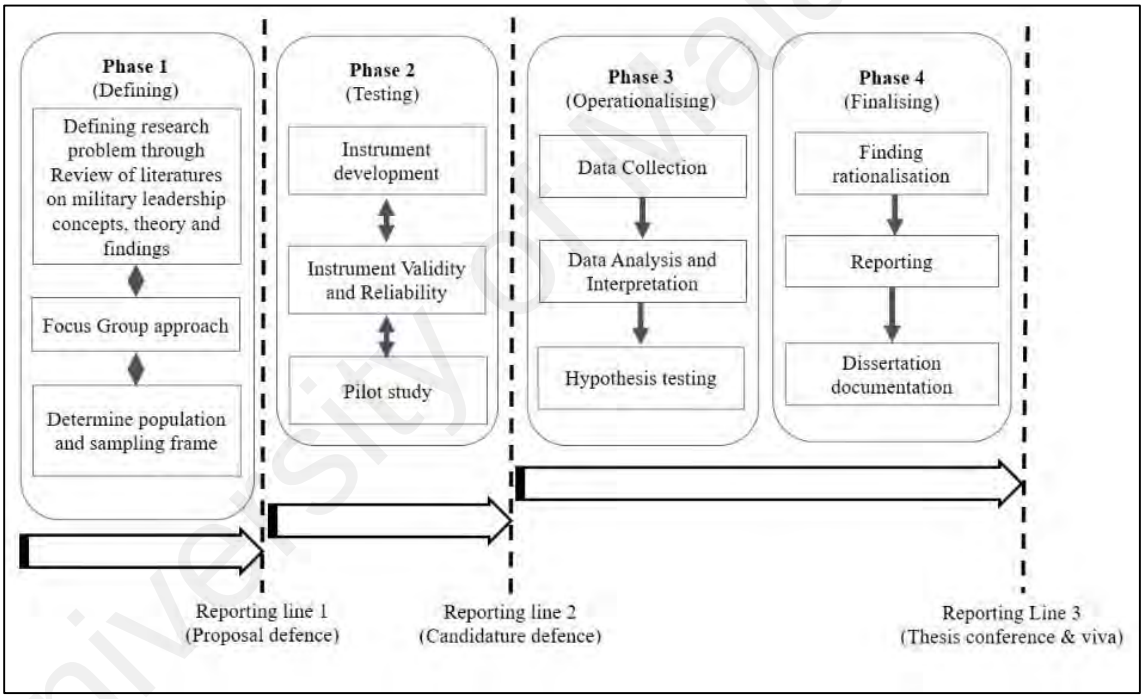

Figure 3.1: Research process

The second phase is described as the 'testing phase'. In this phase, research instrumentation was developed and correspondingly underwent refinement and purification processes through validation procedures and reliability testing.

The third phase is called the 'operationalising phase'. In this phase, data was extensively collected. Strict data collection procedures guided the process based on what

is considered best practise to minimise research bias and errors. Collected data then underwent appropriate purification processes before being analysed and further interpreted, as well as tested.

The fourth phase is acknowledged as the 'finalising phase'. As connoted, this was the final stage of the research endeavour, where rationalisation and reporting procedures were extensively conducted on the findings before the documentation process began.

It is imperative to explain that the research process also takes into consideration the communicating and monitoring mechanism to justify its rigour. While closely supervised and consulted on by the appointed research supervisor, the research has also been scrutinised by numerous reputable research boards in terms of proposal defence (PD) and candidature defence (CD) sessions. Subsequently, a thesis seminar and *viva-voce* are the two final boards to substantiate the whole research endeavour.

3.5 Ethical Challenges

Kumar (2011) stressed the importance of ethics in research by explaining ethics as codes of conduct applying to any profession. Saunders et al. (2016) referred to ethics in a study as "standards of behaviour that guide your conduct concerning the rights of those who become the subject of your work or are affected by it" (p. 239). Hence, this research emphasised ethical considerations as comprising two requisites: (1) compliance with university standards, and (2) compliance with the MAF security protocol.

The research was ethically cleared by the University of Malaya Research Ethics Committee (UMREC) on 13 June 2018. Following that, the researcher also sought approvals from respective Army Command Headquarters for conducting interviews and

surveys involving officers as respondents in this research. Correspondingly, all interviewees or respondents were clearly informed and reminded of the objectives and scope of the research. They were also reassured of the confidentiality and anonymity of the whole data collection process.

3.6 Focus Group

This research adopted focus group research as a necessity due to several underlying military leadership challenges. Focus group research has been widely used in various research settings with numerous motives (Nyumba, Wilson, Derrick, & Mukherjee, 2018). Amongst the rationality of focus group research is to obtain in-depth knowledge and information concerning attitudes, perceptions, beliefs and opinions of individuals regarding specific issues. Besides, interviews conducted in a focus group manner is also used to; further explaining certain behaviours, creating constructs and hypothesis (Rankin, 2015).

Correspondingly, this research applied a focus group technique with the primary purpose of acquiring and establishing fundamental comprehension of the subject, in this case, effective Malaysian Army leadership. The process was initially directed to obtain views and thoughts from top-level Army leadership with the aim of collecting sufficient background information and to verify specific useful facts that would facilitate the viability of the overall research. While the researcher gaged prior knowledge on effective leadership in military settings based on his personal experience, the focus group research was also meant to either verify, clarify or alter any notion of bias (Simon, 2011) which could arise in a qualitative research paradigm approach (Dilshad & Latif, 2013).

Hence, a semi-structured interview was planned and designed with the following aims: (1) verifying the importance of effective leadership within the military context and in this case, the Malaysian Army; (2) exploring the most consistent military leader virtues and attributes to support the existing construct found in the literature on effective leadership; and (3) confirming the constructs that had been empirically verified by extant research and linking it with the Malaysian Army context.

Based on the aims, an interview protocol was developed as follows: (1) Why is effective military leadership important? (2) What are the most important criteria or attributes of effective military leadership in the Malaysian Army context? (3) How does attending training and courses improve Army officers' leadership development?, and (4) Are wisdom, intelligence and creativity (WICS) necessary in actualising effective leadership in a military context? To ensure that interviewees were not driven by the WICS notion, protocol number four was forwarded in the final or last phase of the interview and once all the other protocols had been attended to.

Accordingly, five respectable senior commanders and military officers were interviewed. The three participating commanders were experts in their respective disciplines, including operations, training, doctrine, and logistics, who were currently leading their respective Army Command Headquarters. The other two participants were senior high-ranking staff who were serving in Army and MAF advisory positions and who were proficient within their areas of expertise. One was well-experienced in combat support roles, particularly army electronic communications, and the other was an experienced senior military staff member who commanded joint operational support units. These senior military officers held a range of high military ranks from Brigadier

General up to Lieutenant General or the equivalent and had served in their illustrious military service for more than 35 years.

The interview method and reporting complied with modestly applied thematic analysis. In a general qualitative research setting, thematic analysis is a useful tool to identify, analyse, organise, describe and report themes found in a data set (Braun & Clarke, 2006). While thematic analysis is often found to be very flexible and easy to be implemented by a novice researcher, trustworthiness is the essential element in its approach (Nowell, Norris, White, & Moules, 2017). Hence, this analysis has undergone all the necessary basic steps recommended (Nowell et al., 2017) to increase the trustworthiness, which included transcription, generating codes, establishing themes, reviewing themes, defining themes and producing the report.

Finally, the result is reported in the contact summary form as shown in Appendix B, and the overall findings are displayed at Appendix C. The reporting structure was adopted from (Miles, Huberman, & Saldana, 2014). The report summary of the findings is explained in the following segment.

All interviewees acknowledged the critical role of effective leadership in the Malaysian Army settings. Interviewees associated the importance of effective leadership in the military with 'change', including (1) ever-changing geostrategic and geopolitical environments, (2) changes in threat perception, (3) changes in military technology, (4) changes in organisational culture, (5) changes in policy and organisation structure resulting in differences in academic levels and the way operations are designed and conducted, and (6) generation gap issues.

All respondents pointed out knowledge and experience as the most important criteria for effective military leadership. Notably, Gugerell and Riffert (2012), in reviewing the definition of 'wisdom', posited that knowledge and experience are the key components of 'wisdom', as explained by scholars and researchers such as Baltes, Ardelt, Ryan, and Whitehead.

There were many attributes highlighted by the interviewees associated with explaining effective leadership in the Army. Nevertheless, all respondents were at the same wavelength about 'courage' and its related connotations, such as bravery and determination. In a behavioural setting, courage is rationalised as fearlessness and 'persistence or perseverance despite having fear' (Norton & Weiss, 2009, p. 214).

All interviewees agreed that wisdom, intelligence and creativity (attributes from the WICS model) are essential attributes or virtues for predicting effective military leadership. They justified their statements by connecting all the WICS attributes in dealing with scarcity of resources, a critical time to make a sound decision, establishing the element of realism in training, quick information processing, designing plans, executing orders and maintaining subordinates' morale. More importantly, all respondents have also in agreement that training in the military will improve and alter behaviour to attain and retain effective leadership.

The focus group provided an in-depth understanding of this research in Malaysian Army settings. Firstly, effective leadership was verified to be important in various disciplines in the Malaysian Army. Secondly, courage was found to be the most consistent attribute and another main virtue in the Malaysian Army leadership context. Thirdly the WICS model was acknowledged to be applicable across ranges of discipline in the

Malaysian Army, and lastly, training and career courses attended by all the officers played critical roles in developing and actualising effective leadership.

3.7 Expert Panel

The employment of expert opinion in research endeavours is not new (Evans, 1997) and is often employed in research when there is insufficient empirical evidence to support or explain theories or phenomenon (Herman & Raybould, 2014) or to further synthesize present knowledge (Waltz et al., 2015). Due to those facts, this research utilised the expert opinion approach with the employment of a panel of experts with two primary purposes. The first was to review and validate the proposed research model (Waltz et al., 2015), and the second was to evaluate and validate pretesting strategy involving the structure of questionnaires and linguistic issues (Rothgeb, Willis, & Forsyth, 2007).

Many researchers have different opinions on the number of experts required to produce a considerable effect on the research effort. Nevertheless, Jansen (2005) used two experts in his research self-questionnaire evaluation, while in an earlier explanation, Willis (1996) argued of the employment of an individual expert reviewer or group of reviewers, depending on research circumstances.

For this research, two expert panels were used. The first group involved academic experts and the second group were industry experts, in this case, senior military officers who had considerably vast knowledge and experience in military research. The detailed composition of the panels are described in following related discussions.

3.8 Population

The target population was defined in parallel with the aim of this study, which is to assess the Malaysian Army leaders who have undergone the MAFDC course. The MAFDC course is the highest career course that an officer or leader in the Malaysian Army has to attend. Officers who have attended this course have gone through all the career courses required, thus have gone through all the formal trainings at tactical, operational and strategic level from the rank of 2nd Lt up to Lt Col. Hence, for this research, officers at this level are considered to have been fully trained to perform effectively. Therefore, they are the most qualified population to actualise this research.

The MAFDC course was conducted from 1981 and until 2017 (the beginning of this research). The course managed to produce 1,276 graduates of which 664 officers were from the Malaysian Army, 193 officers were Royal Malaysian Navy (RMN) officers, 246 officers were from the Royal Malaysian Air Forces (RMAF), 74 were from the Royal Malaysian Police (RMP), 40 were Malaysian Public Service officers, one officer was from the Malaysian Maritime Enforcement Agency (MMEA) and 68 were military officers from overseas.

The college underwent a great leap when the course was upgraded to a master's degree programme in 2002. Collaboration with Universiti Kebangsaan Malaysia (UKM) saw 641 graduates awarded master's degrees with a composition as follows: 312 Malaysian Army, 113 RMN, 114 RMAF, 20 RMP, 13 Public Service, one MMEA and 68 from overseas. The composition is best illustrated in Table 3.1.

Table 3.1: MAF officers graduated from MAFDC from 1981 to 2017

1981 – 2017					
Malaysian Army	**RMN**	**RMAF**	**Others**	**Overseas Participants**	**Total**
664	193	246	74 RMP, 40 Public Service, 1 MMEA	68	1,276
2002 – 2017 (Awarded with Master of Defence & Strategic Studies degrees)					
Malaysian Army	**RMN**	**RMAF**	**Others**	**Oversea Participants**	**Total**
312	113	114	20 RMP, 13 Public Services, 1 MMEA	68	641

Notes:
RMN – Royal Malaysian Navy; RMAF – Royal Malaysian Air Force; RMP – Royal Malaysian Police; MMEA – Malaysian Maritime Enforcement Agency

Out of the 312 Army Officers, 201 were found to be still in service and could be divided into three main groups: 107 Combat, 34 Combat Support and 60 Logistics. The details are arranged in Table 3.2.

Table 3.2: MAFDC Army graduates still serving according to group

Combat	Combat Support	Logistics	Total
107	34	60	201
53%	17%	30%	100%

All officers who attended this course were mostly at the rank of Lieutenant Colonel (Lt Col). The Lt Col rank is a rank just above the rank of Major and just below a Colonel (Col). Generally, a Lt Col serves as a Commanding Officer of an infantry battalion or equivalent (i.e., a regiment for specialised units such as Signals, Military Police, Artillery) and leading around 300 to 600 under-command officers and soldiers. He or she is assisted by various Company or Squadron Officer Commanding (OC) with the rank of Major and Senior and Junior Non-Commissioned Officers (SNCOs/ JNCOs) and soldiers. A Lt Col may also serve as Staff Officer Grade 1 in various high-level formation headquarters or

as Commandant or a Directing Staff member at military training institutions. Hence, military officers at this rank are actively involved either in strategic, operational and tactical decision processes. Generally, it takes 16 to 22 years for Army officers to reach the Lt Col rank. Based on records, 75% of the officers who underwent the MAFDC course were promoted to a higher rank (Colonel and above) (HQ, 2000).

Hence, this research used 201 as the population from which the sampling process would be pulled. Israel (2003) explained that it is advisable to use the entire population as sample when a population is small. Furthermore, a population of 200 is considered to be a small population (Israel, 2003). Correspondingly, Etikan, Musa, & Alkassim (2016) maintained the approach as total population sampling (TPS) at which the entire population that is relatively small meets all the characteristics of a research.

3.9 Sampling and Response Rate

Considering the small population that was identified, this study used a partial least squares-structural equation modelling (PLS-SEM) approach. Hair, Hult, Ringle, and Sarstedt (2014) argued that PLS-SEM works efficiently with a small sample size. Additionally, Cassel, Hackl, & Westlund (1999) asserted that PLS-SEM practically work efficiently with small sample size and complex model. It is important to declare that, while using the entire population as sample, the sampling procedure used is to ensure that sufficient amount of responses must be met to ensure minimum sample size requirement (Hair, Hult, Ringle, & Sarstedt, 2014). Correspondingly, as an initiation the sample size, or rather the recommended response rate, is shown in Table 3.3, below.

Table 3.3: Sample size recommended by SmartPLS

Maximum Number of Arrows Pointing at a Construct	Significance Level											
	1%				5%				10%			
	Minimum R^2				Minimum R^2				Minimum R^2			
	0.10	0.25	0.50	0.75	0.10	0.25	0.50	0.75	0.10	0.25	0.50	0.75
2	158	75	47	38	110	52	33	26	88	41	26	21
3	176	84	53	42	124	59	38	30	100	48	30	25
4	191	91	58	46	137	65	42	33	111	53	34	27
5	205	98	62	50	147	70	45	36	120	58	37	30
6	217	103	66	53	157	75	48	39	128	62	40	32
7	228	109	69	56	166	80	51	41	136	66	42	35
8	238	114	73	59	174	84	54	44	143	69	45	37
9	247	119	76	62	181	88	57	46	150	73	47	39
10	256	123	79	64	189	91	59	48	156	76	49	41

Since the maximum number of arrows pointing at a construct for this study was five, the study considered 70 respondents for sampling, considering a 5% significance level and 80% statistical power (Hair et al., 2010). Other sampling procedures were also considered to verify the sampling process further. For that reason, G-Power was used, yielding a sample size of 92 respondents, as shown in Figure 3.2.

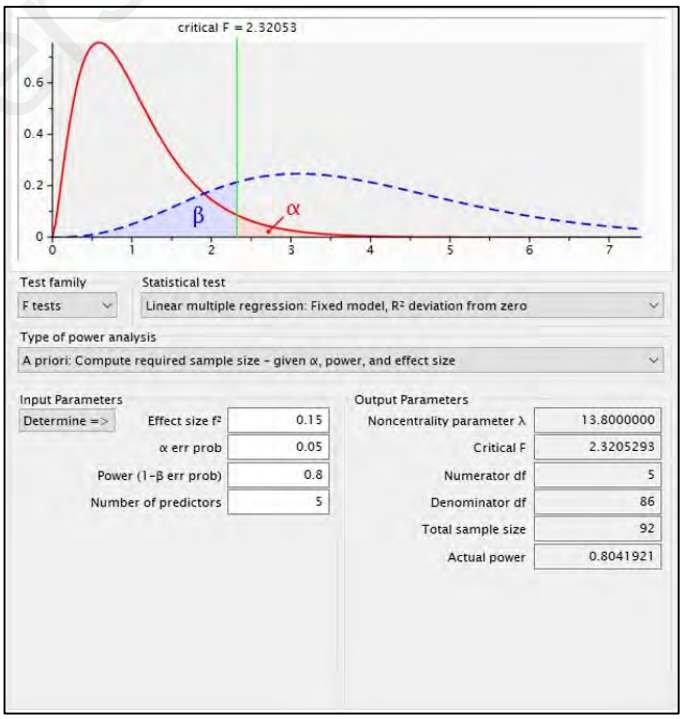

Figure 3.2: Sampling result using G-Power

The two sampling procedures suggested the sample size for this study to be between 70 and 92, respectively. The sample sizes were somewhat consistent with what was proposed by Hair et al. (2010, p. 197) according to the rule of thumb recommending between 50 to 100 under the correlation and regression scheme. Consequently, as Cunningham and McCrum-Gardner (2007) pointed out that the most practical and optimum sample size should be chosen appropriately from various sampling procedures, this study used the sample size, or response rate, of a minimum of 70 respondents.

Since this study considered three groups of leaders or Army officers, that is, Combat, Combat Support and Logistics, this study adopted a stratified sampling technique, as well. Hence, based entirely on the percentage of these three groups in the MAFDC course, the sampling was stratified based on a sample size (minimum) of 70: Combat – 53% (37), Combat Support – 17% (12), and Logistics – 30% (21).

3.10 Unit of Analysis

The unit of analysis is the central entity or object (what or who) that is analysed in research. In social science research, individuals, teams, or organisations are the most common conventional units of analysis. For the three groups, individuals were found to be the most common units of analysis to be employed (Kumar, 2011).

Researchers and leadership practitioners have long acknowledged the importance and significant function of an individual effective leader in determining positive outcomes of teams, units, and organisations (Kaiser et al., 2008). Leaders' performance can be evaluated within various contexts. Nevertheless, the most common evaluations are from the leaders themselves, their followers, their superiors and their peers (Dusen & Veeder, 2009; Popa, 2012; Yukl, 2010). Hence, this study used 'individuals' as the unit of

analysis, which comprises the leaders themselves. In this context, it has hoped that the outcome of this research gives a complete view of the main objectives.

It is important to note that bias issue may arise when the same individual leaders are used to answer the predictor and criterion variables during a survey (Podsakoff, Mackenzie, Lee, & Podsakoff, 2003). The same source, self-rating or self-report bias are categorised as general method bias which also known as Common Method Variance (CMV) (Podsakoff & Todor, 1985). While these bias could not be totally eliminated, measures to minimise them must be addressed accordingly (Podsakoff, MacKenzie, & Podsakoff, 2012; Tehseen, Ramayah, & Sajilan, 2017).

3.11 Research Instrument

A research instrument is a crucial tool in a quantitative research approach. It is used to measure variables, the results of which are analysed using statistical procedures (Creswell, 2013). Hence, for this study, self-administered questionnaire items on every variable or predictor were adapted or adopted from previous successful research.

The instrument was divided into three main sections. Section A, covering demography of the respondents, consisted of six questions; Section B was the DV (Effective Leadership) consisting of 19 items, and Section C comprised all the IV questions, including 51 items (12 items for Wisdom, 16 items for Emotional Intelligence, eight items for Creativity, six items for Courage and nine items for Self-Efficacy). The items consisted of positive statements and are summarised as Table 3.4.

Table 3.4: Research instrument items

Section	Instrument	Developer	Items
A	Demography		9 Questions
B	Effective Leadership	(Oyinlade, 2006)	19
C	Wisdom	(Thomas et al., 2015)	12
	Emotional Intelligence	(Wong & Law, 2002)	16
	Creativity	(Carmeli et al., 2013)	8
	Courage	(Howard & Alipour, 2014)	6
	Self-Efficacy	(Hannah et al., 2008)	9

Effective leadership instrument is adapted from the essential behavioural leadership qualities (EBLQ) method of leadership assessment (Oyinlade, 2006). The instrument was based on evidentially defined behavioural qualities, and the effectiveness assessment is standards-based (competence standard model). Furthermore, the instrument indicates leaders required to champion certain critical behaviours systematically determined by their behaviours rather than traits. Adequate knowledge of their roles as leaders and realising their own competency levels would make this scale useful to define effective military leadership from the military leaders themselves.

The wisdom instrument is based on the 12-Item Abbreviated Three-Dimensional Wisdom Scale (3D-WS-12) (Thomas et al., 2015). The 3D-WS-12 represents a scale of wisdom factors in three dimensions, incorporating cognitive, reflective and affective factors (Ardelt, 2004). Accordingly, the cognitive factor involves the ability to comprehend life-related challenges including intrapersonal and interpersonal matters. The reflective factor connotes that life is possible only if individuals engage in reflective thinking, and the affective factor involves compassionate or positive feelings towards others. Hence, through this scale, wisdom is conceptualised as a developmental personality virtue rather than inherited trait. Hence, senior-level leadership of the Malaysian Army were found to be the right respondents to evaluate themselves

appropriately after going through all the formal and non-formal military training throughout their service.

Emotional intelligence is adapted from Wong and Law (2002), who emphasised emotional intelligence as a core variable that affects leadership performance. The 16-item scale was designed based on psychometric and practical emotional intelligence useful for leadership and management research. The prominent Mayor and Salovey definition and sets of skill were employed in this scale in which four distinct appraisals were brought into focus: emotion in the self, emotion in others, regulation of self-emotion, and emotion to facilitate performance (Salovey & Mayer, 1990; Wong & Law, 2002).

This research used the creative problem-solving scale in explaining leadership and creativity relationships (Carmeli et al., 2013). This scale evaluates leaders' creativity capacity and capability, which includes: "to identify, construct, search, and acquire information, and generate ideas and evaluate, select, and implement them" (p. 97). What is more appealing about utilising this scale was that it is based on creativity that can be cultivated in leaders.

Courage is another construct operationalized in this research. Courage is measured by the improved construct devised by Howard and Alipour (2014) which is based on Norton and Weiss (2009). The later version expounded 'persistence despite fear' rather than a subjective feeling of fear. This version includes the leaders' ability to take risks appropriately.

Self-efficacy is based on the C-LEAD (an acronym for Crisis Leader Efficacy in Assessing and Deciding) scale (Hadley, Pittinsky, Sommer, & Zhu, 2009). The scale is

based on leaders' self-efficacy personal judgement, which correlates with Bandura's (1994) notion on how well one can execute an action and encounter prospective situations in several different crisis contexts (Avolio & Hannah, 2008).

3.11.1 Reliability Test

Research reliability refers to the estimation of consistency amongst variables or collections of variables in what they are intended to gauge (Hair et al., 2010). Accordingly, Hair et al. (2010) explained that reliability is measured through Cronbach's Alpha Coefficient analysis from which ranges of 0–1 and 0.6–0.7 are deemed to be the lower limits of acceptability. Sekaran and Bougie (2010), on the other hand, have a comparable explanation on Cronbach's Alpha values: below 0.6 are poor, 0.6 to 0.7 are acceptable and above 0.8 is good. The Cronbach's Alpha values for this study is discussed in detail in the pilot test report.

3.11.2 Validity of Instruments

The validity of an instrument plays a crucial role in any research. While reliability relates to the consistency of the measures, validity is concerned with accuracy, and the concept is appropriately defined by those acceptable standards (Hair et al., 2010). Hence, the instrument for this study was subjected to construct and content validity confirmation as follows.

3.11.2.1 Construct Validity

Construct validity is concerned with how well the questionnaires were translated. The method used is the 'back-to-back' translation technique to substantiate linguistic validity and to maintain and sustain meaning. Back-to-back translation is explained as; "taking a questionnaire that has previously been translated into another language and having a

second, independent translator to translate it back to the original language" (Zikmund et al., 2010, p 648). The researcher translated, interpreted and altered the items from the original English language to Bahasa Melayu according to the research objectives as the primary reference. Next, the questionnaires underwent a screening process by independent experts from the Language Department, Directorate of Education, Malaysian Armed Forces Headquarter.

3.11.2.2 Content Validity

For content validity, this study engaged expert panels to identify the clarity of the questions (Cresswell, 2014). Five experts from academic institutions were engaged, and the draft questionnaires were distributed on which three responded. The three were one Professor from Malaysia National Defence University (UPNM), one Associate Professor from University of Malaya (UM), and one Senior Lecturer from Malaysia University of Technology (UTM). All the experts were PhD holders with specialisations in human resource management, leadership and industrial psychology disciplines. The questionnaire validation form is included in Appendix D.

Comments from the experts include (1) spellings and grammar, (2) double-barrelled questions, (3) common method bias (CMB) issues, and (4) negative orientation questions. The detailed comments are listed in Appendix E. CMB was found to be a significant concern within the comments. If not carefully addressed, CMB can seriously affect research findings, especially when using single individuals of a particular group as respondents (in this case the Army leaders) (P. Podsakoff et al., 2003). In the same context, CMB is the result of CMV (Jakobsen & Jensen, 2015; Tehseen et al., 2017) at which appropriate measures must be taken to minimise them. However, it is essential to be reminded that actions taken to address CMB may also disrupt a certain level of scale

validity and cause reliability issues regarding the original questionnaires. Hence, to deal with CMB issues, this research carefully applied two critical CMB remedial techniques: procedure remedies and statistical remedies proposed by Podsakoff et al. (2003).

On the procedure remedies, this research was administered with a high level of protection of the respondents in terms of their anonymity. They were informed, kept aware and convinced about this procedure through a statement displayed in the survey forms (hardcopy as well as softcopy version). Therefore, it was through this statement that their honesty in answering the questionnaires was assured at a reasonably acceptable level. Additionally, the questionnaire was not arranged in the order of the conceptual framework, which was done as a measure to counterbalance respondents' mood states.

As a statistical remedy, this research applied a collinearity assessment approach through variance inflation factors (VIF) in SmartPLS Version 3.0 (Hair et al., 2014). Tehseen et al., (2017) acknowledged this assessment as one of the advantage and benefit from SEM-PLS to deal with CMV and CMB issues. Correspondingly, Kock (2015) proposed that any incidence of VIF greater than 3.3 indicates the presence of CMB in the model. Likewise, the result of a full collinearity test of 3.3 and lower indicates that models are free from CMB. The VIF score is further examined and explained in the next chapter.

The questionnaire was amended appropriately based on the experts' suggestions and recommendations. Hence, the improved version of the questionnaire is in Appendix F (as is the questionnaire used for the pilot test). Consequently, the items were reduced from 70 to 54 operational items.

3.12 Pilot Test

A pilot or feasibility study is an essential step in any research process, and the results acquired provide essential directions to the main research (Donald, 2018). A pilot test is, generically, "a small scale preliminary study to test research protocols, data instruments, sample strategies, and other research techniques in preparation for a larger study" (Zailinawati Hassan & Mazza, 2006, p. 70). The pilot test is a process that helps the researcher to rectify insufficiencies before the further process of administering the instrument takes place. This effort will minimise or reduce biases, thus testing the reliability of the research instrument appropriately (Kumar, 2011).

Ali Memon et al. (2017) recently highlighted several critical issues in determining sample size for a pilot study. While there are no specific rules, the review of literature suggests 10 to 100 individuals are appropriate for a pilot test, or 10% of the sample project for the real research. This is coherent with what the suggestion by Sekaran and Bougie (2010) that posited 30 as the acceptable size. Hence, for this study, 30 respondents were selected to validate the questionnaire before operationalising it in the actual research.

Several additional considerations were made to facilitate the actual research. Firstly, the 30 respondents were selected based on the exact percentage of groups, with the Combat group (53%) comprising 16 of them, the Combat Support group (17%) comprising five of them, and the Logistic group (30%) comprising nine of them.

Secondly, the pilot test also alowed respondents to answer the questionnaires in electronic form. Hence, about 50%, or 14 of the respondents, for the pilot test answered the questionnaires via electronic means using WhatApp or e-mail. For such responses, questionnaires were developed and deployed using the Google Form application.

Thirdly, since the population of the actual research was relatively low, the pilot study used any Army officers with the rank of Lt Col who had not attended the MAFDC course and held at least master's degrees in any field as respondents. This was done to circumvent any rightful respondent for the real research to minimise bias, except for two senior officers for specific reasons mentioned below.

Fourthly, there were two respondents amongst the senior Army officers with doctor of philosophy (PhD) qualifications purposely selected as industry panel experts from whom expert opinions were required. Hence, they verified and validated the questionnaire from a military expert's perspective. Furthermore, other respondents were provided with a special section to give their comments after answering the questionnaires. The section was used to get feedback on the clarity of each of the questionnaires. The feedback report is explained in Appendix G.

The pilot test was analysed using the Statistical Package for Social Sciences (SPSS) version 25.0. The Cronbach's Alpha values for the instrument are shown in Table 3.5, below.

Table 3.5: Cronbach's Alpha Values

Variables	Items	Cronbach's Alpha Value	Described as	Remarks
Effective Leadership	19	0.897	Good	
Wisdom	7	0.438	Poor	W2 & W3 deleted resulting, 0.738
Emotional Intelligence	8	0.812	Good	
Creativity	5	0.830	Good	
Courage	5	0.606	Acceptable	C1 deleted resulting, 0.893
Self-Efficacy	10	0.836	Good	

3.13 Data Collection Process

The data collection process began by listing out the officers who had attended the MAFDC course from the college itself and counter verified the list with Human Resource Division, Army Headquarters (HQ). It was found out from this effort that only 201 officers were available to participate in this research from the total of 310 officers. The other 109 officers were not available due to retirement, leaving the service early or having passed-away.

Once all the available officers had been identified and permission to reach them and involve them in the research was granted, the survey was administrated according to their respective formation HQ or immediate superior (Creswell, 2013). Consent documents were issued to the respondents prior to the issuance of questionnaires (Kumar, 2011).

All the completed questionnaires and results from whatever level (interim or complete) were kept as password protected if data in electronic format or were well-kept in secured storage if in hardcopy form. These procedures were meant to protect participants' confidentiality and privacy (Creswell, 2013).

3.14 Statistical Techniques and Tools

This study employed a quantitative method. Therefore, as statistical analysis was used to rigorously analyse data, appropriate statistical software selection was critical.

There are many statistical software applications available to facilitate quantitative research analysis. Amongst the well-known software are SPSS, Minitab, SAS, R-programming, LISREL, SEM-AMOS and SmartPLS. However, the most common and currently used statistical tools in social science quantitative research are SPSS, SEM-

AMOS and SmartPLS (Hair, Ringle, & Sarstedt, 2011; Lowry Paul & Gaskin, 2014; Ong & Fadilah Puteh, 2017). Table 3.6 summarises common research objectives in social science research with corresponding statistical analyses and methods of testing along with software suggested for use in performing the analyses.

Table 3.6: Common statistical analyses used in the social science research field

Research Objective	Type of Statistical Theory	Possible Method	Suggested Statistical Software
To examine the significant differences between two interested groups towards one continuous targeted variable.	Univariate comparison analysis	Independent t-test analysis	SPSS
		Mann-Whitney test analysis	SPSS
To measure the significant differences among more than two comparison groups towards one continuous targeted variable.	Univariate comparison analysis	One-way analysis of variance (ANOVA)	SPSS
		Kruskal-Wallis test analysis	SPSS
To measure the significant differences among more than two comparison groups towards more than one continuous targeted variable	Multivariate comparison analysis	Multivariate analysis of variance (MANOVA)	SPSS
To determine the significant bivariate relationship between two continuous interested variables.	Univariate correlation analysis	Pearson' correlation analysis	SPSS
		Spearman's rank correlation analysis	SPSS
To examine the causal and effect relationship between a set of independent variables paired with one continuous dependent variable.	Multivariate correlation analysis	Multiple linear regression (MLR) analysis	SPSS
To examine the causal and effect relationship between sets of independent variables, where these sets of independent variables involve a categorical variable paired with one categorical dependent variable.	Multivariate correlation analysis	Logistic regression analysis or multinomial regression analysis	SPSS
To examine causal and effect relationships between sets of independent variables, where these sets of independent variables do not involve a categorical variable paired with one categorical dependent variable.	Multivariate correlation analysis	Discriminant analysis	SPSS

Table 3.6 Continued

To examine causal and effect relationships between a number of independent and dependent variables with priority to confirming or rejecting theories.	Multivariate correlation analysis	Covariance-based structural equation modelling (CBSEM)	AMOS
To examine causal and effect relationships between a number of independent and dependent variables with priority given to exploring theories.	Multivariate correlation analysis	Variance based structural equation modelling (VBSEM)	SmartPLS
To refine, reconstruct or confirm variable structures that share common variance.	Multivariate correlation analysis	Exploratory factor analysis (EFA)	SPSS

Source: Ong & Fadilah Puteh (2017)

The research further examined the key-features of CB-SEM (AMOS) and PLS-SEM (SmartPLS). The comparison is as shown in Table 3.7.

Table 3.7: Key features of CB-SEM (AMOS) and PLS-SEM (SmartPLS)

CB-SEM (AMOS)	PLS-SEM (SmartPLS)
• Theory testing and confirmation • Requires a large sample size • Normality assumptions must be met (restrictive assumptions) • Data are continuous (reflective) • Confirmatory study	• Theory prediction and development • **Able to operate with a small sample size** • **Normality assumptions need not be met (less restrictive assumptions)** • Data could be formative • Exploratory study

Source: Hair et al. (2014)

Two critical features were of real concern in this research: the sample size and the normality issues (highlighted in bold at Table 3.7). Hence, based on the initial analysis displayed above, it was decided that the research would go for PLS-SEM relying on usage of the SmartPLS application for the data analysis. Furthermore, Reinartz, Haenlein, & Henseler (2009) expressed that PLS can gather a profound information from a small sample size of as low as 20.

Furthermore, SmartPLS is a widely accepted second-generation data analysis approach for SEM besides its extensive usage in determining correlation and regression amongst the variables in most recent research (Hair et al., 2014). Correspondingly, the theory introduced in this study is less developed and the central focus is to predict and explain the primary targeting constructs and identify the main driver constructs. As mentioned, this research has four IVs, one mediating variable and one DV. Each IV was tested for its significance and all the hypotheses were tested accordingly, coherent with the research questions and objectives (Arkkelin, 2014).

While PLS-SEM (SmartPLS) was be used comprehensively in this research, the use of SPSS was employed primarily in articulating descriptive statistics. As mentioned, the pilot test conducted in this research also utilised SPSS.

Descriptive statistics comprise concise collections of data gathered before any subsequent statistical procedure takes place. They are mainly taken from respondents' parameters to identify the central tendency and standard deviation of collected data (Creswell, 2013). In this research, the focus was on respondents' ages, service tenure, and latest academic qualifications. Inferential statistics were then used to test hypotheses.

3.15 Summary

Quality research begins with proper planning, which includes appropriate design, structure and organisation. Correspondingly, adherence to reliable research philosophy, techniques and methodology increase the possibility of addressing and solving research problems appropriately. Hence, this research adopted positivism research philosophy and quantitative research methodology. The main crux of the research was to study the relationship of leaders' virtues with effective military leadership. Consequently, self-

administered questionnaires were chosen as the data collection technique and Malaysian Army senior-level officers were the respondents. The population and sampling frame were identified in compliance with accepted research conventions. The research instruments also underwent validity testing. Reliability testing in the form of a pilot study yielded a commendable result, which allowed the real test to be carried out accordingly. Finally, the selection of statistical techniques for data analyses led to the selection of appropriate statistical software for the research.

CHAPTER 4: DATA ANALYSIS AND FINDING

4.1 Introduction

The chapter analyses all data obtained from the research and presents the findings accordingly. Two important statistical tools were utilised for the entire data analysis. Descriptive statistical analytics were conducted mainly based on the Statistical Package for the Social Sciences (SPSS) version 25, while SmartPLS version 3.0 was employed in analysing the detailed features of the research model. Consequently, the findings are presented coherently from both statistical tools and based on the widely accepted techniques employed by previous researches and prominent scholars of the respective disciplines. Hence, crucial elements and procedures of validity and reliability of the instruments and research models are included as essential to the discussion of results. The analysis then addresses the research questions by operationalizing the hypotheses testing subsequent to the validity and reliability issues being dealt with appropriately. The chapter concludes by providing a grasp of the outcomes discussed in the chapter, interweaving the data analysis and findings in a significant conceptual manner.

4.2 Data Examination and Verification

Data examination is as critical as data collection in any research endeavour, especially when SEM is used. Several issues were required to be addressed in the data examination effort, which primarily involved (1) missing data, (2) inconsistent answers, (3) outliers, and (4) data distribution, with is usually referred to as data normality (Hair et al., 2010, 2014).

4.2.1 Missing Data

Scanning and treating the missing data is one of the initial processes conducted technically after research data are collected. The process precedes all other descriptive

statistical procedures. Missing data are discovered when a case or subject of inquiry is not properly responded to in the course of investigations. It usually occurs when respondents fail to respond to survey questions (Hair et al., 2010).

There were eight responses missing from the survey questionnaire data, one each from effective leadership (EL), emotional intelligence (EL), and creativity (CR) and five from self-efficacy (SE) constructs. All missing data were realised to be dispersed randomly from the 91 respondents. With no specific pattern, the missing data is categorised as known missing data which occurred due to errors in data entry (Hair et al., 2010). The analysis is presented in Table 4.1 as recommended by the literature, resulting in 0.16% missing data with consideration of 91 respondents and 54 items.

Table 4.1: Missing data analysis

Variables (items)/ Respondents	EL (19)	W (7)	EI (8)	CR (5)	C (5)	SE (10)	Missing Data	
							Number	Percent
91	1		1	1		5	8/54(91)	0.16%
Missing Data by Variable							**Total Missing Value**	
Number	1		1	1		5	8	
Percent	0.02		0.02	0.02		0.1	0.16%	

Hair et al. (2010) suggested that random missing data below 10% for an observation can generally be ignored. Nevertheless, to be on the safe side and for the purpose of total data cleaning, the remedial action of a mean substitution replacement method was deployed as this method is considered as easily implemented and able to provide the cases with the best complete information (Hair et al., 2010).

4.2.2 Outliers

Outliers are an extreme observation or response in terms of value to a particular question or to all items (Hair et al., 2010, 2014). Outliers may affect the normality and have a considerable impact on the statistical result. Hence, the research utilised univariate standardised z-scores to identify outliers besides detecting outliers found in histograms and boxplots. The z-score results are shown in Table 4.2. The threshold value was guided by Hair et al. (2010) for a sample of more than 80, where outliers are typically at the value of 4 or greater. It is highlighted from the table that none of the variables surpassed the threshold, indicating an acceptable level of outlier issues.

Table 4.2: Z-score result for outliers

Variables	Z-score	
	Highest	Lowest
Effective Leadership (EL)	1.0622	-3.02365
Wisdom (W)	1.02614	-3.85919
Emotional Intelligence (EI)	1.07417	-2.41689
Creativity (CR)	1.28695	-2.07968
Courage (C)	1.35612	-2.2800
Self-Efficacy (SE)	1.43822	-1.90346

4.2.3 Normality Test

Normality testing was employed to identify the degree of data distribution corresponding to a normal distribution. A normal distribution is described by the distribution shape based on two measures: skewness (balance of the distribution, right or left) and kurtosis (the “peakedness” or “flatness”). Normality is crucial, especially for small sample size data (Hair et al., 2010) as is the case with this research in particular. Many statistical procedures assume normality; therefore, the research employed skewness and kurtosis assumptions with absolute values of +2 and -2 to demonstrate sufficient

normality (Garson, 2012). Detailed analysis was conducted on each construct, and the results are further discussed appropriately.

Effective leadership (EL), self-efficacy (SE) and creativity (CR) are the three constructs that demonstrated sufficient normality, as shown in Tables 4.3 to 4.5, respectively. On the contrary, wisdom (W), emotional intelligence (EI) and courage (C) were not. One item each of the mentioned constructs were found not fulfilling the normal distribution standard. Clearly, the kurtosis values of W3 (2.221), EI6 (4.146) and C5 (4.302) are the three indicators, and they are highlighted respectively in Table 4.6 for wisdom (W), Table 4.7 for emotional intelligence (EI) and Table 4.8 for courage (C). It is quite disturbing for research with a small sample size when data is not distributed in a normal manner. Nevertheless, the phenomenon could be surmounted with PLS-SEM or PLS path modelling since this statistical method disregards the normal distribution assumptions (Hair et al., 2014).

Table 4.3: Normality test for effective leadership construct

Indicators (Items)	N	Skewness		Kurtosis	
		Statistic	Std. Error	Statistic	Std. Error
EL1	91	-0.323	0.253	-0.675	0.500
EL2	91	0.195	0.253	-0.936	0.500
EL3	91	-0.015	0.253	-1.086	0.500
EL4	91	-0.015	0.253	-1.086	0.500
EL5	91	-0.713	0.253	-0.432	0.500
EL6	91	-0.633	0.253	-0.619	0.500
EL7	91	-0.488	0.253	-0.934	0.500
EL8	91	-0.978	0.253	-0.019	0.500
EL9	91	-0.771	0.253	-0.423	0.500
EL10	91	-0.516	0.253	-0.602	0.500
EL11	91	-0.453	0.253	-0.698	0.500
EL12	91	-0.511	0.253	-0.617	0.500
EL13	91	-0.886	0.253	-0.182	0.500
EL14	91	-0.480	0.253	-0.619	0.500
EL15	91	-0.961	0.253	-0.083	0.500

Table 4.3 continued

EL16	91	-0.798	0.253	-0.320	0.500
EL17	91	-0.166	0.253	-0.554	0.500
EL18	91	-0.917	0.253	-0.158	0.500
EL19	91	-1.250	0.253	0.621	0.500

Table 4.4: Normality test for self-efficacy construct

Indicators (Items)	N	Skewness		Kurtosis	
		Statistic	Std. Error	Statistic	Std. Error
SE1	91	-0.352	0.253	-0.746	0.500
SE2	91	-0.108	0.253	-0.576	0.500
SE3	91	-0.843	0.253	0.719	0.500
SE4	91	-0.794	0.253	0.491	0.500
SE5	91	-0.523	0.253	0.345	0.500
SE6	91	-0.473	0.253	1.584	0.500
SE7	91	-0.327	0.253	0.013	0.500
SE8	91	-0.269	0.253	-0.685	0.500
SE9	91	-0.447	0.253	0.131	0.500
SE10	91	-0.588	0.253	-0.671	0.500

Table 4.5: Normality test for creativity construct

Indicators	N	Skewness		Kurtosis	
		Statistic	Std. Error	Statistic	Std. Error
CR1	91	-0.306	0.253	-0.623	0.500
CR2	91	-0.609	0.253	0.353	0.500
CR3	91	-0.134	0.253	-0.521	0.500
CR4	91	-0.626	0.253	-0.773	0.500
CR5	91	-0.127	0.253	-0.435	0.500

Table 4.6: Normality test for wisdom construct

Indicators	N	Skewness		Kurtosis	
		Statistic	Std. Error	Statistic	Std. Error
W1	91	-1.582	0.253	1.420	0.500
W2	91	-0.407	0.253	-0.639	0.500
W3	91	-1.683	0.253	**2.221**	0.500
W4	91	-1.153	0.253	1.937	0.500
W5	91	-0.820	0.253	0.196	0.500
W6	91	-0.760	0.253	-0.195	0.500
W7	91	-0.730	0.253	0.171	0.500

Table 4.7: Normality test for emotional intelligence construct

Indicators	N	Skewness		Kurtosis	
		Statistic	Std. Error	Statistic	Std. Error
EI1	91	-0.257	0.253	-0.749	0.500
EI2	91	-.0535	0.253	-0.641	0.500
EI3	91	-0.724	0.253	-0.495	0.500
EI4	91	-0.755	0.253	-0.379	0.500
EI5	91	-0.854	0.253	1.043	0.500
EI6	91	-1.744	0.253	**4.149**	0.500
EI7	91	-0.693	0.253	0.279	0.500
EI8	91	-0.516	0.253	0.474	0.500

Table 4.8: Normality test for courage construct

Indicators	N	Skewness		Kurtosis	
		Statistic	Std. Error	Statistic	Std. Error
C1	91	-0.804	0.253	-0.012	0.500
C2	91	-0.960	0.253	1.150	0.500
C3	91	-0.023	0.253	-1.040	0.500
C4	91	-0.966	0.253	1.777	0.500
C5	91	-1.399	0.253	**4.302**	0.500

4.3 Descriptive Statistics

Descriptive statistics is a branch of statistics that explains the phenomena of interest in terms of how frequently occurrences take place, the average score and variability of collected data, as well as its central dispersions of the dependent and independent variables (Sekaran & Bougie, 2010; Zikmund et al., 2010). It is also considered an elementary statistical step conducted before a further in-depth statistical test. Hence, descriptive statistics were conducted on the respondents and the instrument.

4.3.1 Respondents

The response rate is a considerable factor in governing the validity of any data analysis. The response rate is the rate of respondents who completed and returned the questionnaires divided by the determined sample size of a survey (Zikmund et al., 2010). In normal circumstances, the response rate is expressed in the form of a percentage. For

this research, a total of 201 questionnaires corresponding to the number of the population were distributed in hardcopy and on-line digital form.

The hard copies were distributed to 42 (21%) respondents, while 159 (79%) were distributed on-line by using the WhatsApp application. The initial overall response rate was 49%, or 99 respondents, with 28 respondents responding to the hardcopy form, while 71 respondents answered to the on-line questionnaires. Further analysis on the responses later resulted in eight responses being rejected due to not meeting the survey criteria, which are described as follows: (1) A total of six respondents were from different services (two from the RMAF and four from the RMN), and (2) two respondents had left the service at the time of the questionnaires were issued.

All rejected were respondents that answered the questionnaires via the on-line application. Hence, only 91 sets of questionnaire were analysed, yielding the actual response rate of 45%. Bartlett, Kotrlik, and Higgins (2001), regarding issues of response rate in a research survey, suggested following Salkind (1997), who estimated minimal sample size to be 40% to 50% when considering uncooperative subjects and lost mail. Hence, a 45% response rate is a fair proportion for this research, and accordingly, the response figures are still within the prerequisite sampling frame standard.

The data were then further amalgamated into 28 (31%) hardcopy respondents and 63 (69%) on-line respondents. The comprehension of the descriptive statistics of the respondents' demographic profile is detailed in Table 4.9.

Table 4.9: Respondent demographic profile (N=91)

Demographic	Frequency	Percentage
Status of Service		
Still in Service	91	100
Retired	0	0
Service Orientation		
Malaysian Army	91	100
Royal Malaysian Air Force	0	0
Royal Malaysian Navy	0	0
Attended MAFDC	91	0
Rank Group		
Brigadier General and above	21	23.1
Lieutenant Colonel and Colonel	70	76.9
Corps and Regimental Group		
Combat	44	48
Combat Support	25	27
Logistics/Service Support	22	25
Gender		
Male	91	100
Female	0	0
Age		
Above 50 years old	61	67
41-49	30	33
Below 40	0	0
Service Tenure		
Above 30 years	67	73.6
21-29 years	24	26.4
Below 20 years	0	0
Current academic qualification		
Diploma or PG diploma	0	0
First degree	0	0
Master's degree	91	100
Doctoral/PhD	0	0

It is crucial to reiterate that the scope of this research is concentrated on in-service senior officers of the Malaysian Army who had attended the MAFDC. Hence, these premises are reflected clearly in the table as 100%, particularly for the opening lines. The other 100% profiles were gender and academic qualification of respondents, where all the respondents were male, holding master's degrees. The profile corresponds to the fact that females who had attended MAFDC were relatively small in number, and all graduated from the MAFDC were awarded master's degrees.

Amongst the 91 respondents, 21% were senior Army officers above the Brigadier General rank, while 70% were from the Lieutenant Colonel and Colonel Groups. The allocation of corps and regimental groups were divided into three, where the Combat Group comprised 48.4%, Combat Support 27.5% and Logistics/Service Support 24.2%. Noticeably the percentage slightly diverged from the initial aim of the data collection process, where the portion forecasted comprised the Combat Group at 53%, Combat Support at 17% and Logistics/Service Support Group at 27%. Nevertheless, the percentages were within the acceptable tolerance of ±10% and thus did not affect the overall outcome of the research (Bartlett et al., 2001). All respondents were male, 67% were above 50 years old and 33% were between 41 to 49 years of age. Out of that figure, 73.6% had served the Army for more than 30 years, while the remainder served the Army for 21 to 29 years. Finally, all the respondents held master's degrees as their academic qualifications.

4.3.2 Instrument

Utilising the statistical computing tool IBM SPSS version 25, the research examined the mean, standard deviation, variance, minimum value and maximum value of each construct and indicators or items. Each construct explains the result. The generic code of N represents the number of respondents, which in the circumstances of this research were 91, and the Min as well Max correspond with the responses to options based on the Likert scale comprising 1 as strongly disagree to 5 as strongly agree.

The mean, also known as average, is a measure of central tendency value representing an overall view of data (Sekaran & Bougie, 2010). It is measured by dividing the sum of individual observations by the number of observations. A high mean value suggests a strong influence, while a low value suggests otherwise. Standard deviation is denoted as SD, on the other hand, and is a common measure of dispersion. The smaller the SD value, the tighter the data is grouped around the mean and the bigger the value, the looser the data is clustered around the mean (Sekaran & Bougie, 2010).

4.3.2.1 Effective Leadership

Effective leadership is a construct with 19 indicators (items), as shown in Table 4.10. The mean values of the indicators ranged from 4.2967 to 4.6484. The figures suggest a great influence of respondents to effective leadership. The SD measurements indicate notable values of 0.52111 to 0.62116 suggesting a consistent weight of respondents to effective leadership.

Table 4.10: Mean, standard deviation, variance, minimum value and maximum value for effective leadership construct

Indicators (Items)	N	Min	Max	Mean	SD
EL1	91	3.00	5.00	4.3736	0.58970
EL2	91	3.00	5.00	4.3407	0.52111
EL3	91	3.00	5.00	4.3956	0.53498
EL4	91	3.00	5.00	4.3956	0.53498
EL5	91	3.00	5.00	4.4835	0.60300
EL6	91	3.00	5.00	4.5165	0.56495
EL7	91	3.00	5.00	4.5165	0.54493
EL8	91	3.00	5.00	4.5495	0.60118
EL9	91	3.00	5.00	4.5495	0.56300
EL10	91	3.00	5.00	4.4066	0.61424
EL11	91	3.00	5.00	4.4396	0.58135
EL12	91	3.00	5.00	4.4286	0.59894
EL13	91	3.00	5.00	4.5495	0.58240
EL14	91	3.00	5.00	4.3956	0.61245
EL15	91	3.00	5.00	4.5275	0.62076
EL16	91	3.00	5.00	4.5055	0.60321
EL17	91	3.00	5.00	4.2967	0.58679
EL18	91	3.00	5.00	4.5165	0.62116
EL19	91	3.00	5.00	4.6484	0.54515

4.3.2.2 Wisdom (W)

Wisdom is a construct with seven indicators (items), as shown in Table 4.11. The minimum value is 2.00 while the maximum value is 5.00, which indicates respondents overall orientation with wisdom as tending toward ‘agree’ to ‘strongly agree’. Correspondingly, the mean values ranged from 4.1319 to 4.7582 (between ‘agree’ to ‘strongly agree’). The SD indicates important notable values of 0.45560 to 0.84602, which suggests spread of the data from the mean.

Table 4.11: Mean, standard deviation, variance, minimum value and maximum value for wisdom construct

Indicators	N	Min	Max	Mean	SD
W1	91	3.00	5.00	4.7582	0.45560
W2	91	3.00	5.00	4.3736	0.60825
W3	91	2.00	5.00	4.6044	0.68116
W4	91	2.00	5.00	4.5165	0.60300
W5	91	2.00	5.00	4.1319	0.84602
W6	91	2.00	5.00	4.3187	0.74355
W7	91	2.00	5.00	4.3187	0.69728

4.3.2.3 Emotional Intelligence (EI)

EI is a construct with eight indicators (items), as shown in Table 4.12. The minimum value is 2.00 while the maximum value is 5.00, which indicates respondents' overall inclination toward EI ranged from 'agree' to 'strongly agree'. Correspondingly, the mean values ranged from 4.2088 to 4.6484 (from 'agree' to 'strongly agree'). The SD indicates significant notable values ranging from 0.56387 to 0.73811, which suggesting a little spread of the data from the mean.

Table 4.12: Mean, standard deviation, variance, minimum value and maximum value for EI construct

Indicators	N	Min	Max	Mean	SD
EI1	91	3.00	5.00	4.3846	0.57289
EI2	91	3.00	5.00	4.4615	0.58324
EI3	91	3.00	5.00	4.5385	0.56387
EI4	91	3.00	5.00	4.4945	0.60321
EI5	91	2.00	5.00	4.4066	0.63207
EI6	91	2.00	5.00	4.6484	0.56517
EI7	91	2.00	5.00	4.2088	0.73811
EI8	91	2.00	5.00	4.2308	0.65110

4.3.2.4 Creativity (CR)

Creativity is another construct deployed for this research. Creativity is assessed with five indicators (items), and the results are generally described in Table 4.13. The minimum value is 2.00, while the maximum value is 5.00. The result suggested respondents' overall inclination with the construct was toward 'disagree' to 'strongly agree'. Nonetheless, the mean values ranged from 4.2308 to 4.5495, situated between 'agree' to 'strongly agree' in indication of the actual mainstream disposition. Essentially, the SD results show important values of 0.54291 to 0.66776, suggesting a little spread of the data from the mean.

Table 4.13: Mean, standard deviation, variance, minimum value and maximum value for creativity construct

Indicators	N	Min	Max	Mean	SD
CR1	91	3.00	5.00	4.2967	0.62351
CR2	91	2.00	5.00	4.2747	0.66776
CR3	91	3.00	5.00	4.2857	0.58282
CR4	91	3.00	5.00	4.5495	0.54291
CR5	91	3.00	5.00	4.2308	0.59772

4.3.2.4 Courage (C)

Courage as another construct used with five indicators (items) with an overall outcome as shown in Table 4.14. The Minimum response value is 1.00, while the maximum value is 5.00, which indicates the inclination of responses was toward 'agree' to 'strongly agree'. Respectively, the mean values were from 3.6593 to 4.4369 (corresponding to the 'agree' area of the Likert scale). The SD indicates important notable values of 0.63611 to 1.16638, which suggest a spread of data from the mean.

Table 4.14: Mean, standard deviation, variance, minimum value and maximum value for courage construct

Indicators	N	Min	Max	Mean	SD
C1	91	1.00	5.00	3.6593	1.16638
C2	91	2.00	5.00	4.4396	0.63611
C3	91	2.00	5.00	3.9341	0.78602
C4	91	1.00	5.00	4.0879	0.79789
C5	91	1.00	5.00	4.3516	0.70512

4.3.2.5 Self-Efficacy (SE)

Self-efficacy is the last in this part of the discussion of results but was not the least in importance of the constructs for this research as it operated as a crucial mediating variable. It is a construct with ten indicators (items), and an overview of corresponding results is provided in Table 4.15. The minimum value is 1.00, while the maximum value is 5.00, which indicates respondents' overall inclination toward EI spanned the whole scale from 'strongly disagree' to 'strongly agree'. Nevertheless, the mean values ranged from 3.4505 to 4.5055 ('agree' to 'strongly agree'). Analysis on the SD yielded values of 0.56517 to 0.96912 reflecting a quite extensive range of distribution.

Table 4.15: Mean, standard deviation, variance, minimum value and maximum value for self-efficacy construct

Indicators	N	Min	Max	Mean	SD
SE1	91	3.00	5.00	4.2637	0.66391
SE2	91	3.00	5.00	4.3077	0.57140
SE3	91	1.00	5.00	3.7143	0.91026
SE4	91	1.00	5.00	3.4505	0.96912
SE5	91	2.00	5.00	3.9231	0.74879
SE6	91	2.00	5.00	4.3077	0.57140
SE7	91	2.00	5.00	4.0879	0.67739
SE8	91	3.00	5.00	4.2308	0.65110
SE9	91	2.00	5.00	4.0549	0.72053
SE10	91	3.00	5.00	4.5055	0.56517

4.4 Evaluating Measurement and Structural Models

The research employed the PLS-SEM technique to assess and evaluate the findings. There are various statistical packages software involved in using this technique and SmartPLS is one of them (Kwong-Kay Wong, 2013). Hence, the research utilised SmartPLS 3.0 as the primary statistical software due to its being a state-of-the-art and up-to-date statistical package, its user-friendly interface and well-advanced reporting structure.

One of the crucial procedures at the beginning of PLS-SEM analysis is to identify and specify the relationships of the constructs and their indicators in a model. There are two essential approaches for the relationship specification, which is the selection of either a reflective or formative model with respective definite measurement schemes (Hair et al., 2014). Accordingly, the model for this research complied with a reflective model due to the "multiple reflective indicators" (p. 13) of the constructs.

The model was analysed through the measurement model and structural model. The measurement model is also known as the outer model, which represents the relationships between constructs and indicator variables. The structural model, on the other hand, is also known as the inner model, which is used to evaluate the relationship between constructs (Hair et al., 2014, p. 40). Hence both models were analysed and findings were explained accordingly.

4.5 Measurement Model

The reflective measurement model consists of three critical assessment criteria: (1) internal consistency, (2) convergent validity, and (3) discriminant validity (Ramayah, Cheah, Ting, & Menon, 2018). Correspondingly, the measurement model is assessed through several analyses, as illustrated in Figure 4.1.

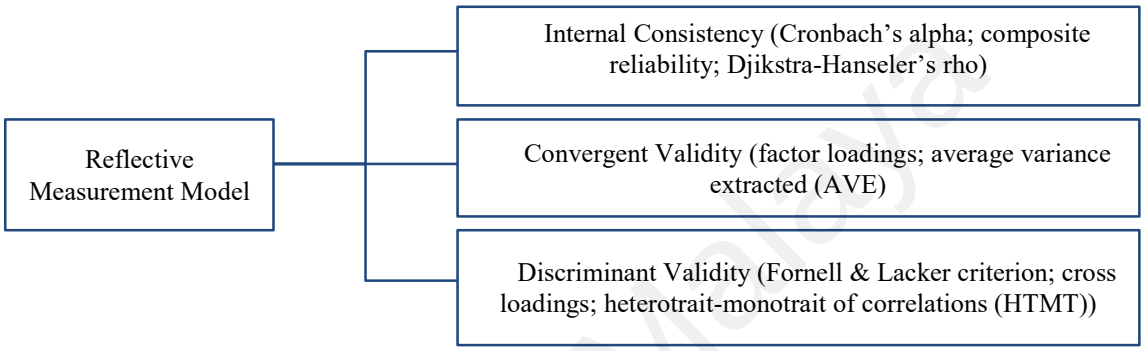

Figure 4.1: Reflective measurement model protocol

4.5.1 Internal Consistency and Convergent Validity

Conventionally, Cronbach's alpha is used to measure internal data consistency or for reliability estimation established on the inter-correlation of observed indicators. Eventually, despite its extensive usage in the research field, Cronbach's alpha, research exposed its discrepancies and limitations. Alternatively, omega reliability, or composite reliability, (ρA or rho A) was proposed as a more consistent measure, especially in PLS application (Mcneish, 2017; Ramayah et al., 2018). The threshold value is still similar as composite reliability (CR) of > 0.7 is justified as sufficient internal consistency (Hair et al., 2014a; Hair, Risher, Sarstedt, & Ringle, 2018; Ramayah et al., 2018).

The research began with assessing the indicator reliability by observing the outer loading values. The purpose was to acquire consistency between indicators or sets of indicators and what they are intended to measure. Customarily, common average variance

extracted (AVE) is employed to explain convergent validity, or to measure the correlation between items of the same construct (Hair et al., 2014; Hulland, 1999). The accepted threshold value is equal to or more than 0.4, which then influences the AVE scores of 0.5 or higher. The analysis adhered to the rules exhibited in Table 4.16.

Table 4.16: Rules for internal consistency and convergent validity

Outer Loading Rules	Recommended action	Consideration	References
> 0.7	Keep		
0.4 to 0.7	Consider removing	Only remove if resulting CR or AVE increase	Hair et al., 2014; Henseler, Ringle, & Sinkovics, 2009; Ramayah et al., 2018
< 0.4	Remove		

Overall outer loadings are shown in Table 4.17. The AVE value of 'courage' is found to be below < 0.4 (at 0.383). Similarly, scores of other constructs are not at a satisfactory level. Hence, complying with outer loading rules, the research opted to remove related items that resulted in an increase of CR and AVE.

Table 4.17: Overall outer loadings

Construct	Items	Outer Loadings	Cronbach's Alpha	ρA	Composite Reliability (CR)	Average Variance Extracted (AVE)
Effective Leadership (EL)	EL1	0.649	0.938	0.943	0.945	0.477
	EL2	**0.588**				
	EL3	0.639				
	EL4	0.611				
	EL5	0.774				
	EL6	0.725				
	EL7	0.707				
	EL8	0.712				
	EL9	0.746				
	EL10	0.858				
	EL11	0.619				
	EL12	0.731				

Construct	Items	Outer Loadings	Cronbach's Alpha	ρA	Composite Reliability (CR)	Average Variance Extracted (AVE)
	EL13	0.649				
	EL14	0.751				
	EL15	0.705				
	EL16	0.599				
	EL17	**0.559**				
	EL18	**0.656**				
	EL19	0.709				
Wisdom (W)	**W1**	**0.458**	0.810	0.823	0.860	0.474
	W2	0.581				
	W3	0.746				
	W4	0.738				
	W5	0.679				
	W6	0.705				
	W7	0.846				
Emotional Intelligence (EI)	EI1	0.774	0.878	0.876	0.904	0.545
	EI2	0.793				
	EI3	0.758				
	EI4	0.864				
	EI5	0.773				
	EI6	0.658				
	EI7	0.604				
	EI8	0.644				
Creativity (CR)	CR1	0.799	0.873	0.881	0.908	0.665
	CR2	0.878				
	CR3	0.882				
	CR4	0.709				
	CR5	0.797				
Courage (C)	**C1**	**0.206**	0.717	0.792	0.806	0.483
	C2	0.769				
	C3	0.690				
	C4	0.820				
	C5	0.795				
Self-Efficacy (SE)	SE1	0.702	0.816	0.848	0.852	**0.383**
	SE2	0.723				
	SE3	**0.354**				
	SE4	**0.225**				
	SE5	**0.559**				
	SE6	0.675				

Construct	Items	Outer Loadings	Cronbach's Alpha	ρA	Composite Reliability (CR)	Average Variance Extracted (AVE)
	SE7	0.688				
	SE8	0.708				
	SE9	**0.631**				
	SE10	0.706				

From among the process, nine indicators were removed: EL2, EL17, EL18, W1, C1, SE3, SE4, SE5 and SE9. These are indicated as bold letters and shaded boxes in Table 4.18. The removal was decided when all the reliability indicators' were below the threshold value of 0.4 in compliance with the procedures for increased CR or AVE (Henseler et al., 2009; Ramayah et al., 2018). Figure 4.2 shows the CR values and Figure 4.3 displays the AVE scores after the deletion of the nine items. Correspondingly, overall outer loading results are much clearer, as shown in Table 4.18.

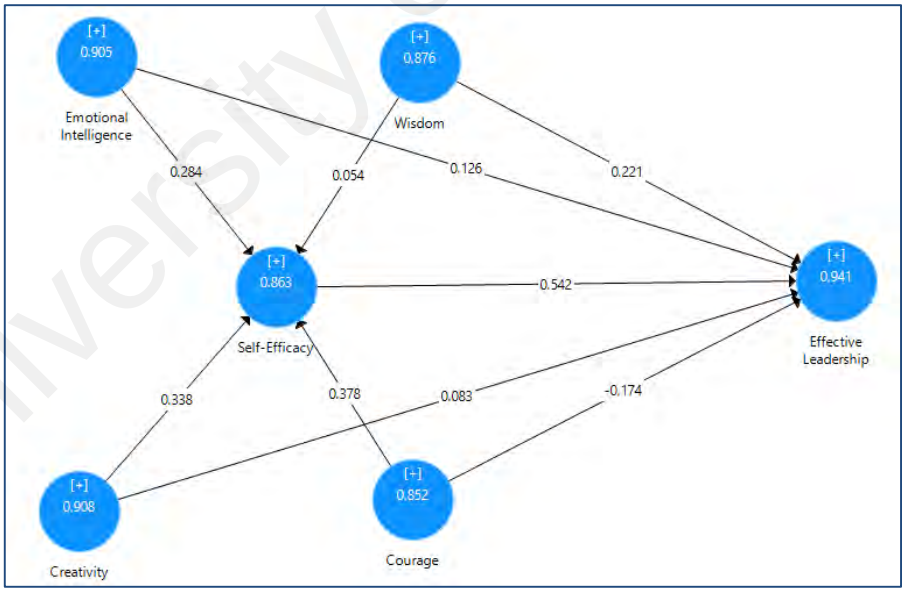

Figure 4.2: Composite reliability (CR) score diagram

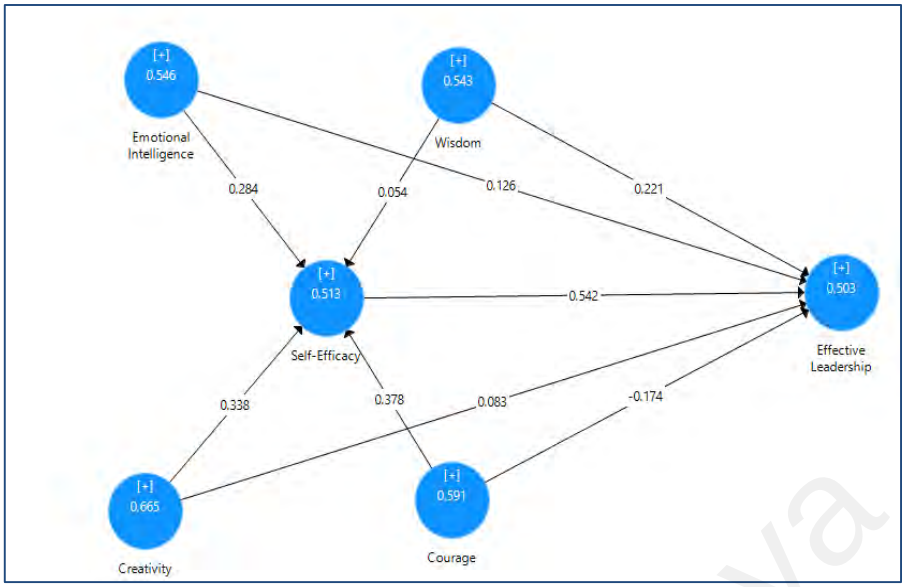

Figure 4.3: Average variant extracted (AVE) score diagram

Table 4.18: Overall outer loading result after deletion of nine items

Construct	Items	Outer loading	Cronbach's Alpha	ρA	Composite Reliability (CR)	Average Variance Extracted (AVE)
Effective Leadership (EL)	EL1	0.671	0.933	0.937	0.941	0.503
	EL3	0.648				
	EL4	0.662				
	EL5	0.776				
	EL6	0.732				
	EL7	0.711				
	EL8	0.718				
	EL9	0.758				
	EL10	0.857				
	EL11	0.623				
	EL12	0.741				
	EL13	0.654				
	EL14	0.755				
	EL15	0.709				
	EL16	0.592				
	EL19	0.693				
Wisdom (W)	W2	0.612	0.832	0.858	0.876	0.543
	W3	0.763				
	W4	0.765				
	W5	0.673				
	W6	0.720				
	W7	0.863				
Emotional Intelligence (EI)	EI1	0.779	0.878	0.877	0.905	0.546
	EI2	0.796				
	EI3	0.763				
	EI4	0.867				
	EI5	0.772				
	EI6	0.665				
	EI7	0.594				
	EI8	0.635				
Creativity (CR)	CR1	0.799	0.873	0.88	0.908	0.665
	CR2	0.877				
	CR3	0.881				

Construct	Items	Outer loading	Cronbach's Alpha	ρA	Composite Reliability (CR)	Average Variance Extracted (AVE)
	CR4	0.712				
	CR5	0.798				
Courage (C)	C2	0.780	0.775	0.794	0.852	0.591
	C3	0.674				
	C4	0.812				
	C5	0.802				
Self-Efficacy (SE)	SE1	0.722	0.811	0.814	0.863	0.513
	SE2	0.749				
	SE6	0.700				
	SE7	0.690				
	SE8	0.733				
	SE10	0.702				

It is critical to note that all the values for the assessment conformed to the threshold pre-requisite values. Hence, the results suggest that (1) the items used to represent the constructs satisfactorily conformed to the internal consistency reliability scheme, (2) all items used for this study have demonstrated satisfactory indicator reliability, and (3) the study's measurement model has demonstrated an adequate convergent validity procedure.

4.5.2 Discriminant Validity

Discriminant validity refers to the extent or degree to which a construct is genuinely distinct from one another. Correspondingly, it explains how much the indicators correlate with one another, as well as how much indicators represent only a single construct (Hair et al., 2014). This research is using three types of criteria to evaluate discriminant validity: (1) Cross loading criterion; (2) Fornell and Larcker's criterion, and (3) Heterotrait-Monotrait ratio of correlations (HTMT) (Ramayah et al., 2018).

4.5.2.1 Cross Loading Criterion

Cross loading is a process of correlating indicators alongside other constructs in the model concerned (Hair et al., 2014). Consequently, several suggestions are to be observed. Firstly, the loading indicators of assigned latent variables have to exhibit higher values than other latent variables, and secondly, the difference between loadings must not

be less than 0.1 (Chin, 1998; Ramayah et al., 2018). Cross loading results are shown in Figure 4.4.

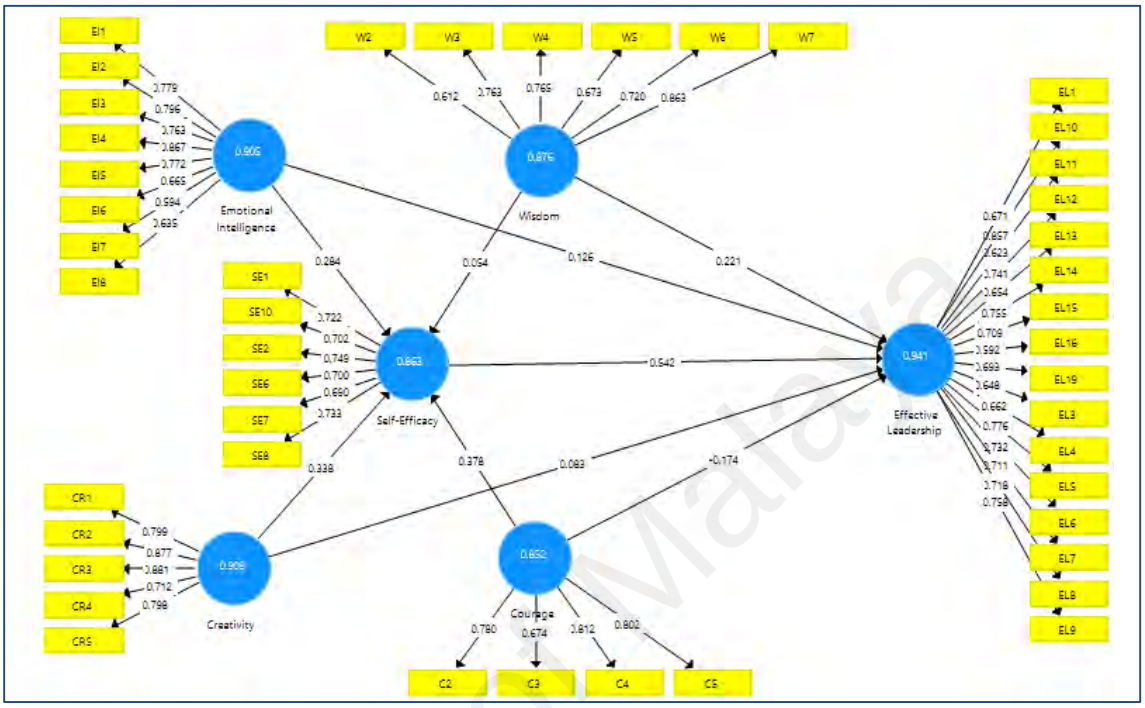

Figure 4.4: Cross loading results

The cross-loading data of the research is clearly displayed in tabulated form in Table 4.19. The results, by column, demonstrate that all measured indicators loaded higher against the other latent variables. Consistently, the results by row also exhibit that the loadings of each indicator are higher than the other construct, and importantly, the readings are more than 0.1. The loadings were evidently distinct from one another from the view of latent constructs as well as their indicators as theorised. Hence, the result concludes that the model achieved discriminant validity.

Table 4.19: Cross loadings result

Cross Loading	Effective Leadership (EL)	Wisdom (W)	Emotional Intelligence (EI)	Creativity (CR)	Courage (C)	Self-Efficacy (SE)
EL1	**0.671**	0.349	0.467	0.309	0.406	0.523
EL3	**0.648**	0.27	0.425	0.331	0.289	0.496
EL4	**0.662**	0.306	0.381	0.407	0.187	0.403
EL5	**0.776**	0.375	0.388	0.446	0.183	0.481
EL6	**0.732**	0.302	0.304	0.279	0.156	0.388
EL7	**0.711**	0.299	0.295	0.256	0.168	0.352
EL8	**0.718**	0.438	0.371	0.384	0.176	0.499
EL9	**0.758**	0.479	0.403	0.288	0.299	0.439
EL10	**0.857**	0.512	0.460	0.467	0.254	0.533
EL11	**0.623**	0.431	0.468	0.524	0.310	0.478
EL12	**0.741**	0.39	0.492	0.453	0.352	0.641
EL13	**0.654**	0.29	0.332	0.443	0.121	0.458
EL14	**0.755**	0.543	0.443	0.453	0.295	0.608
EL15	**0.709**	0.401	0.436	0.294	0.23	0.411
EL16	**0.592**	0.261	0.409	0.412	0.375	0.415
EL19	**0.693**	0.413	0.581	0.457	0.275	0.463
W2	0.330	**0.612**	0.337	0.077	0.089	0.217
W3	0.273	**0.763**	0.342	0.205	0.234	0.239
W4	0.455	**0.765**	0.489	0.517	0.264	0.476
W5	0.436	**0.673**	0.437	0.435	0.258	0.411
W6	0.273	**0.72**	0.334	0.247	0.220	0.282
W7	0.522	**0.863**	0.524	0.373	0.406	0.475
EI1	0.379	0.433	**0.779**	0.365	0.368	0.511
EI2	0.296	0.427	**0.796**	0.328	0.272	0.43
EI3	0.443	0.446	**0.763**	0.391	0.26	0.498
EI4	0.386	0.445	**0.867**	0.333	0.341	0.507
EI5	0.491	0.436	**0.772**	0.536	0.311	0.541
EI6	0.444	0.545	**0.665**	0.492	0.431	0.527
EI7	0.477	0.318	**0.594**	0.394	0.395	0.465
EI8	0.503	0.34	**0.635**	0.485	0.407	0.539
CR1	0.494	0.382	0.54	**0.799**	0.282	0.57
CR2	0.464	0.439	0.532	**0.877**	0.349	0.565
CR3	0.472	0.371	0.477	**0.881**	0.298	0.566
CR4	0.408	0.283	0.277	**0.712**	0.266	0.399
CR5	0.424	0.387	0.489	**0.798**	0.455	0.644
C2	0.334	0.36	0.461	0.417	**0.780**	0.641
C3	0.23	0.169	0.254	0.276	**0.674**	0.39
C4	0.183	0.149	0.278	0.192	**0.812**	0.382
C5	0.317	0.333	0.412	0.308	**0.802**	0.559
SE1	0.643	0.461	0.595	0.576	0.462	**0.722**
SE2	0.447	0.31	0.444	0.516	0.452	**0.749**
SE6	0.434	0.408	0.382	0.406	0.507	**0.700**

Table 4.19 Continue

SE7	0.399	0.327	0.391	0.431	0.429	**0.69**
SE8	0.453	0.333	0.527	0.524	0.544	**0.733**
SE10	0.503	0.326	0.584	0.443	0.488	**0.702**

4.5.2.2 Fornell and Larcker Criterion

The Fornell and Larcker criterion is another fundamental approach in evaluating discriminant validity in PLS-SEM. In principle, the criterion was set to ensure that a construct is connected with its indicators more than other constructs. Technically, the Fornell and Larcker criterion evaluates the AVE square root values with the latent variable correlations. The regulation associated with the criterion is AVE should exceed squared correlation with other constructs (Hair et al., 2014a). The Fornell and Larcker data for the research is shown in Table 4.20.

Table 4.20: Fornell and Larcker analysis

Fornell & Lacker	Effective Leadership (EL)	Wisdom (W)	Emotional Intelligence (EI)	Creativity (CR)	Courage (C)	Self-Efficacy (SE)
Effective Leadership (EL)	**0.709**					
Wisdom (W)	0.546	**0.737**				
Emotional Intelligence (EI)	0.594	0.579	**0.739**			
Creativity (CR)	0.556	0.460	0.578	**0.816**		
Courage (C)	0.363	0.355	0.480	0.408	**0.769**	
Self-Efficacy (SE)	0.681	0.508	0.692	0.681	0.672	**0.716**

The bolded and shaded values in the table represent the square roots of the AVE and all the values without representing the intercorrelation values between constructs. All the values below the respective bolded and shaded values (√AVE) are of lower value. Hence, the result suggested the model has met the Fornell and Larcker criterion.

4.5.2.3 HTMT criterion

While the Fornell and Larcker criterion was a predominantly helpful approach to assess discriminant validity, Henseler, Ringle, and Sarstedt (2014) established an

alternative approach called HTMT. HTMT could be considered an improved version of the Fornell and Larcker criterion with higher consistency, and thus it is more reliable. The research used HTMT to enrich while confirming the validity of each construct.

HTMT refers to the ratio of intra- and inter-construct correlation (Hair et al., 2018; Ramayah et al., 2018). Principally, Henseler, Ringle, and Sarstedt (2014) suggest a threshold value of 0.90 for conceptually similar constructs. As a point of reference, a value above 0.90 indicates the absence of discriminant validity. Additionally, a more lenient value of 0.85 can also be accepted for a conceptually distinct construct. Hence, the research used the threshold value of 0.85 and the overall assessment result is shown in Table 4.21.

Table 4.21: HTMT analysis

HTMT	Effective Leadership (EL)	Wisdom (W)	Emotional Intelligence (EI)	Creativity (CR)	Courage (C)	Self-Efficacy (SE)
Effective Leadership (EL)						
Wisdom (W)	0.578					
Emotional Intelligence (EI)	0.637	0.649				
Creativity (CR)	0.608	0.488	0.636			
Courage (C)	0.405	0.384	0.543	0.466		
Self-Efficacy (SE)	0.758	0.571	0.796	0.793	0.803	

The overall HTMT result obtained evidently revealed that all constructs are below the 0.85 scores. The result indicated the model has satisfactorily fulfilled the discriminant validity estimates.

4.6 Structural Model

Structural model evaluation is conducted when the measurement model result is satisfied (Hair et al., 2018). The evaluation criteria which should be considered include (1) the coefficient of determination (R^2); (2) predictive relevance (Q^2); (3) size and significance of path coefficients; (4) f^2 effect size, and (5) q^2 effect size (Hair et al., 2014).

4.6.1 Coefficient of Determination (R^2)

The coefficient of determination, denoted as R^2, is an amount of an endogenous construct's variance that is described by its predictor constructs (Hair et al., 2014). In another explanation, it is a measure of the model's predictive accuracy. R^2 values range from 0 to 1, and, principally, the higher the level, the higher the predictive accuracy. Nevertheless, there was complexity in establishing a tight rule-of-thumb for the R^2 value in which they were many differences in model complexity and discipline.

Similarly, Moksony (1990) argued that social science phenomena are complex and the value of $R^2 = 0.7$ is not common in social sciences. Nevertheless, R^2 should never be too small, as well, as this would indicate the model is weak. Referring to a study in the marketing discipline, Reisinger (1997) explained that a larger sample size would yield a smaller R^2. In this case $R^2 = 0.2$ would be considered 'high'. Additionally, studies involving primary data would show a lower R^2 compared to secondary data. It is apparent that there is no hard and fast rule regarding the R^2 value as it varies across studies and disciplines. Hence for this research, the rough rule of thumb recommended by Hair et al. (2014) was adopted as follows: a substantial value is 0.75, moderate is 0.50 and weak is 0.25. The R^2 scores for the model are shown in Figure 4.5.

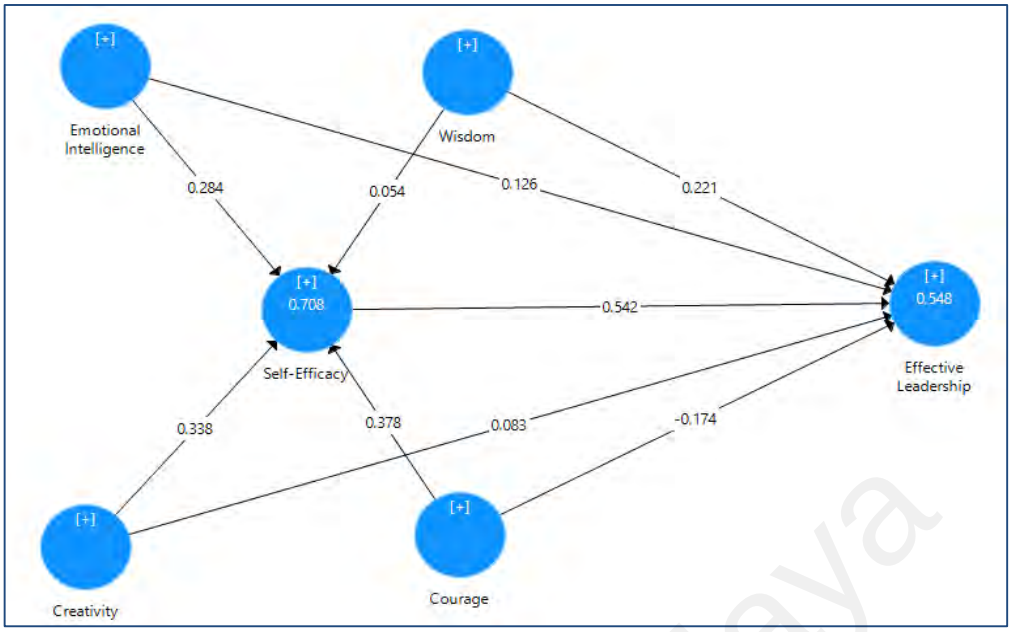

Figure 4.5: R^2 scores

The R^2_{adj} (i.e., R^2 adjusted value) is the modified R^2 score corresponding to the number of exogenous variables or IVs and the sample size. Hence, it was also advisable for the researcher to consider R^2_{adj} to complement the R^2 analysis. The R^2_{adj} results for this research are shown in Figure 4.6.

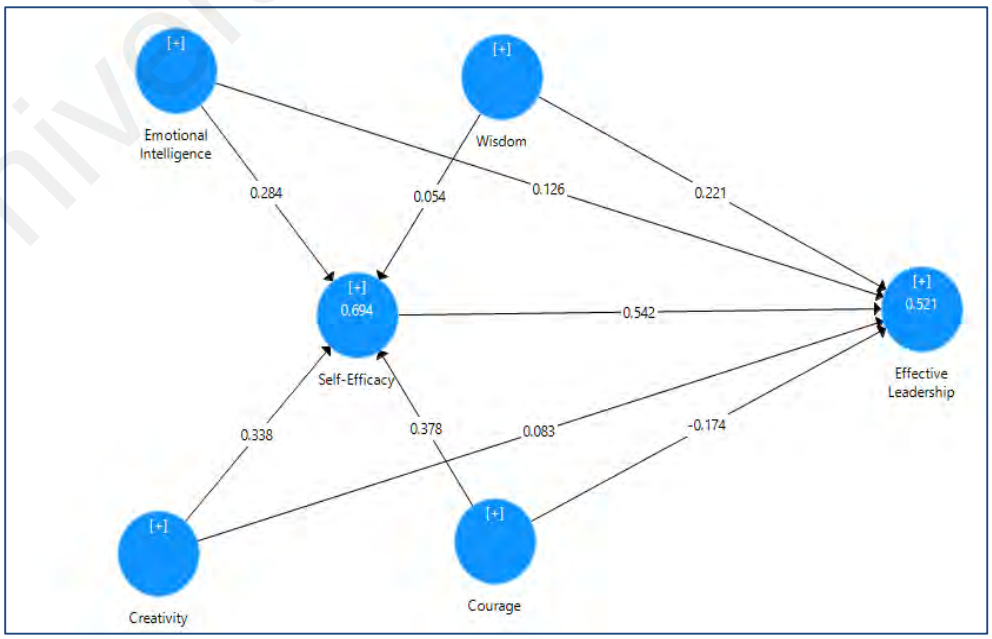

Figure 4.6: R^2_{adj} scores

Much clearer R^2 and R^2_{adj} results for the model are shown in Table 4.22. The table clearly shows that the coefficient of determination the two endogenous variables are between the levels of 'moderate' (effective leadership) and 'substantial' (self-efficacy), respectively. Indeed, based on Henseler and Sarstedt (2013), the scores indicate a high goodness-of-fit (GOF) index.

Table 4.22: R^2 and R^2_{adj} scores

R-Square (R^2)	**R Square** (R^2)	**R Square Adjusted** (R^2_{adj})
Effective Leadership	0.548	0.521
Self-Efficacy	0.708	0.694

4.6.2 Effect Size (f^2)

Another important assessment regarding exogenous construct effects on the endogenous is f^2 or effect size. Effect size (f^2) is a measure used to evaluate the strength of the contribution of one exogenous construct in explaining a corresponding endogenous construct (Cohen, 1988; Hair et al., 2014; Ramayah et al., 2018). The effect size (f^2) results for this research are shown in Figure 4.7.

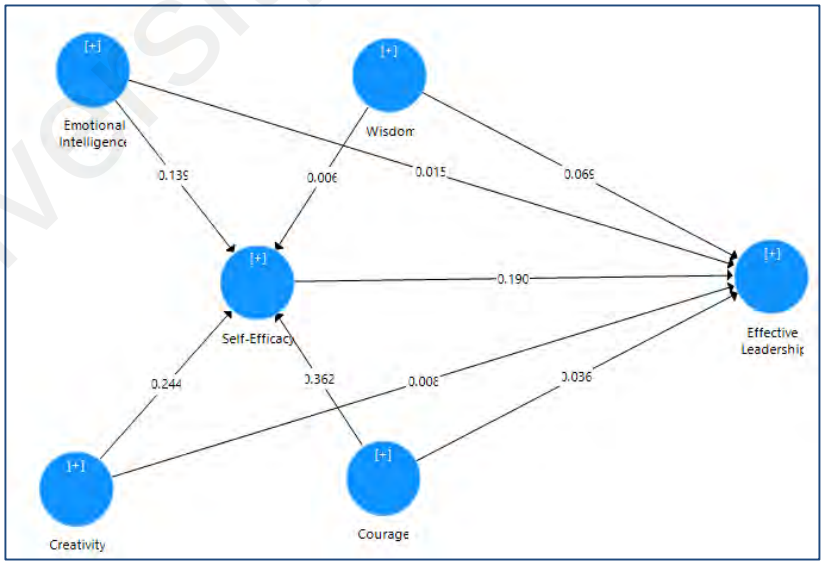

Figure 4.7: Effect size (f^2) scores

Effect size is used to indicate the strength of the relationship between two variables. The strength, however, varies across sample sizes and disciplines (H. Chen, Cohen, & Chen, 2010). Nevertheless, as a point of reference, Cohen (1988) has formulated a 'rule-of-thumb' approach to explain the effect size in research. While the 'rule-of-thumb' approach hase been marred with several disputes among scholars, it is still applicable as a general standard across multiple studies (Maher, Markey, & Ebert-May, 2013; Ramayah et al., 2018).

Accordingly, Cohen (1988) set the values of 0.35, 0.15 and 0.02, which are considered large (L), medium (M) and small (S) effect sizes, respectively. The f^2 scores are clearly displayed in Table 4.23. It is apparent through the scores that the exogenous constructs (W, EI, CR and C) have relatively low and medium values in relation to their endogenous constructs (EL and SE), except for courage (C), which contributes a relatively high effect on self-efficacy (SE).

Table 4.23: f^2 scores

f^2	Effective Leadership (EL)	Self-Efficacy (SE)
Effective Leadership (EL)		
Wisdom (W)	0.069 (L)	0.006 (L)
Emotional Intelligence (EI)	0.015 (L)	0.139 (M)
Creativity (CR)	0.008 (L)	0.244 (M)
Courage (C)	0.036 (L)	0.362 (H)
Self-Efficacy (SE)	0.190 (M)	

4.6.3 Variance Inflation Factor (VIF) Collinearity

VIF is typically used to assess formative measurement models. Nevertheless, it is also useful to determine collinearity in the structural reflective measurement model. In a reflective model, VIF is regularly used to measure the latent variables of exogenous constructs. Collinearity is achieved when two constructs are highly correlated (Hair et al., 2018). The assessment criteria of VIF are summarised in Table 4.24, and the VIF values for the research are shown in Table 4.25. Kock (2015) suggesting VIF value to be below

3.3 for a model to be CMB free. Hence, the VIF scores of the research model indicated that collinearity is satisfactorily present in the structural model and consequently, the model is relatively free from CMB issue.

Table 4.24: VIF criteria

VIF Value	Sign	Reference
> 5	High possible collinearity issues	(Hair et al., 2018)
3 to 5	Problem of collinearity	
< 3	Ideal value (close to 3 is acceptable)	

Table 4.25: VIF assessment result

VIF	Effective Leadership (EL)	Self-Efficacy (SE)
Effective Leadership (EL)		
Wisdom (W)	1.580	1.570
Emotional Intelligence (EI)	2.269	1.992
Creativity (CR)	1.991	1.601
Courage (C)	1.842	1.353
Self-Efficacy (SE)	3.224	

4.6.4 Blindfolding

Blindfolding is a procedure for estimating model parameters by taking out single points in the data matrix and assigning them with the mean. The process is repeated until a new estimation is achieved. The process is only used for endogenous constructs and measured as Q^2, which is known as the predictive relevance of the model. Basically, the procedure compares predictions and real data (1 - SSE/SSO, where SSO is the sum of squared original and SSE is the sum of squared error) (Hair et al., 2014a, 2018).

Accordingly, Hair et al. (2014) argued that the value $Q^2 > 0$ has predictive ability, while $Q^2 < 0$ does not. Hence, the results of the research shown in Table 4.26 indicate firm predictive model relevance: EL = 0.229, while SE = 0.314.

Table 4.26: Blindfolding results

Blindfolding	SSO	SSE	Q^2 (= 1 - SSE/SSO)
Effective Leadership (EL)	1,456.00	1,122.74	0.229
Wisdom (W)	546	546	
Emotional Intelligence (EI)	728	728	
Creativity (CR)	455	455	
Courage (C)	364	364	
Self-Efficacy (SE)	546	374.53	0.314

4.6.5 Path Coefficient

Path coefficients determine the relationships between the latent variables in a structural model. Correspondingly, all the scores are comparable to standardised beta (β) in a regression analysis (Hair et al., 2010, 2014). A path coefficient estimates and directly compares all the coefficients as to the relative power of outcome variables. The path coefficient is shown in Figure 4.8 and is clearly recapped in tabulated form in Table 4.27.

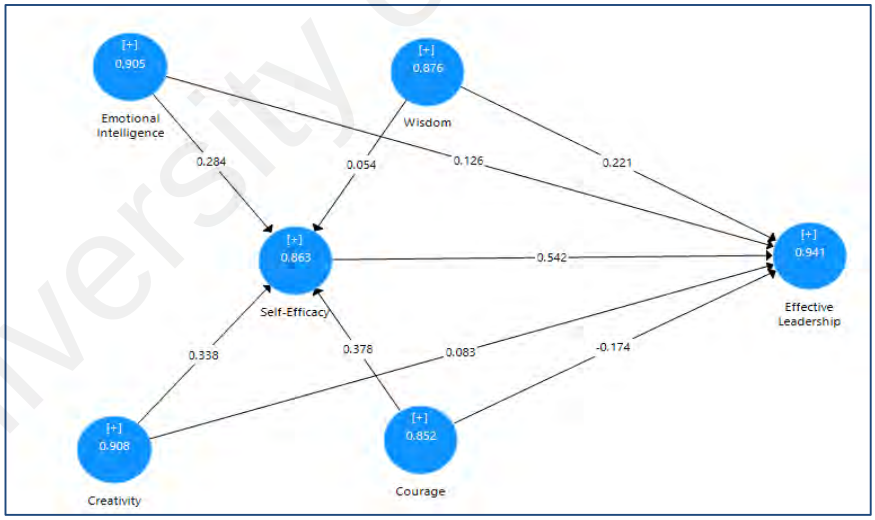

Figure 4.8: Path coefficient model

Table 4.27: Path coefficient score

Path Coefficient	Effective Leadership (EL)	Self-Efficacy (SE)
Effective Leadership (EL)		
Wisdom (W)	0.221	0.054
Emotional Intelligence (EI)	0.126	0.284
Creativity (CR)	0.083	0.338
Courage (C)	-0.174	0.378
Self-Efficacy (SE)	0.542	

Wisdom, emotional intelligence, and creativity were found to be positively related with effective leadership and self-efficacy. However, courage was found to have a negative relationship with effective leadership despite its positive relationship with self-efficacy.

Further analyses were conducted, including t-statistics as well as determination of significance levels (p-values) for all the paths. The processes were conducted by using a bootstrapping function. The results were analysed and evaluated to determine the acceptance or rejection of the proposed hypotheses.

4.7 Testing the Hypotheses

The estimated relationship between two variables or more based on a correct theoretical framework could be tested through appropriate statistical analyses. Correspondingly, these testable relationships were represented as a hypothesis (Sekaran & Bougie, 2010). Within the structural model analysis, the path linking two latent variables represent a hypothesis testable in confirming or disconfirming the conjectured relationship. Besides that, it is fundamentally important to start the testing by analysing the direct effect of all the IVs to the DV to establish several directions in meeting the mediation analysis in the subsequent part of the hypotheses testing.

Hence, the research examined the relationship between the independent variables and the dependent variable by first observing the path coefficient results shown in Table 4.28.

Table 4.28: p-value analysis

Direct Effect	Original Sample (O) or β	Sample Mean (M)	Standard Deviation (STDEV)	t-Statistics (O/STDEV)	p-values
Wisdom -> Effective Leadership	**0.221**	**0.24**	**0.093**	**2.383**	**0.0170**
Emotional Intelligence -> Effective Leadership	0.126	0.128	0.116	1.084	0.2780
Creativity -> Effective Leadership	0.083	0.078	0.104	0.803	0.4220
Courage -> Effective Leadership	-0.174	-0.165	0.106	1.640	0.1010
Self-Efficacy -> Effective Leadership	**0.542**	**0.53**	**0.146**	**3.713**	**0.0000**

Note: p-value < 0.05; t value > 1.96 (two tailed)

The level of acceptance is explained as p-value < 0.05; t value > 1.96 (two-tailed) (Hair et al., 2014; Ramayah et al., 2018). The assessment shows that two direct relationships (in bold) are significant, while the other three are not (Table 4.28). These results are explained in the form of research hypotheses, as shown in Table 4.29.

Table 4.29: Research hypotheses analysis result

Research Hypotheses		Result
Code	**Statement**	
H1	There is a significant relationship between wisdom and effective leadership	Supported
H2	There is a significant relationship between emotional intelligence and effective leadership	Not supported
H3	There is a significant relationship between creativity and effective leadership	Not supported
H4	There is a significant relationship between courage and effective leadership	Not supported
H5	There is a significant relationship between self-efficacy and effective leadership	Supported

The result explicitly explained two important directions. Firstly, the hypotheses are varied (two supported and three not supported) and secondly, provide an essential guidance for the mediation analysis.

4.8 Mediation analysis

A mediating relationship is an intervening mechanism (construct) between antecedents and the consequent variables (Baron & Kenny, 1986; Hair et al., 2014). PLS is the appropriate method to evaluate the mediating effects of a more complex model (Chin, Marcolin, & Newsted, 2003; Hair et al., 2018). Accordingly, Henseler et al. (2009) argued that assessing the direct and indirect relationships of latent variables (endogenous and exogenous) is another crucial assessment in a structural model.

Notably, in previous years, Baron and Kenny's (1986) mediation procedure was extensively employed in social science research. Nevertheless, recent studies have suggested that there are inadequacies to the strict concept and guidelines of Baron and Kenny's mediating stand. Principally, Baron and Kenny's procedures embraced mediation as only occurring when there is a significant direct relationship between the IV and DV; IV and the mediating variable; the mediating variable and DV, and the effects of the IV and DV decrease when a mediator is added to the model (Preacher & Hayes, 2008).

The discrepancies of Baron and Kenny's procedure were criticised based on several identified shortcomings. Firstly, the procedure is prone to Type 1 error (i.e., the false conclusion that there is mediation when there is not); secondly, the procedure did not really measure the real magnitude of mediation effects; and thirdly, it does not evaluate models with inconsistent mediators (Ramayah et al., 2018; Rungtusanatham, Miller, &

Boyer, 2014). Hence, scholars and researchers recommended that direct effects do not have to be significant in evaluating mediation (Ramayah et al., 2018; Shrout & Bolger, 2002; Zhao, Lynch, & Chen, 2010).

It is obvious in this research that the direct effect of IV and DV are varied, only the direct effect of H1 and H5 are supported. Rungtusanatham et al. (2014) explain that alternative approach could be used to analyse such scenario of which mediator is examined to demonstrate and to explain statistical difference of IV and DV via the mediator. The approach is labelled as Transmittal Approach (Rungtusanatham et al., 2014). Transmittal approach allows the intention to examine mediating process and explain the statistical influence of relationship between IV and mediator, mediator to DV with its statistical significance (Rungtusanatham et al., 2014).

It is important to note that there are many methods and procedures to test mediation effects. For this research, bootstrapping is preferred based on several rulings especially when the method is the most suitable for this research framework which includes: the method is recommended for the non-normality sampling distribution, not a multi-level model and it offers greater flexibility (Rungtusanatham et al., 2014). Additionally, Ramayah et al. (2018) emphasised bootstrapping the indirect effect as being a more rigorous and powerful method (Preacher & Hayes, 2008; Ramayah et al., 2018; Shrout & Bolger, 2002; Zhao et al. 2010).

The results of mediation assessment for this research are shown in Table 4.30. Based on the results, it can be concluded that three mediations are significant at t-value > 1.96 and p-value < 0.05. All the significant mediations are indicated numerically in bold characters.

Table 4.30: Mediation assessment

Mediator	Original Sample (O)	Sample Mean (M)	Standard Deviation (STDEV)	t-statistics (|O/STDEV|)	p-value
Wisdom -> Self Efficacy -> Effective Leadership	0.029	0.036	0.034	0.858	0.391
Emotional Intelligence -> Self Efficacy -> Effective Leadership	**0.154**	**0.15**	**0.064**	**2.422**	**0.015**
Creativity -> Self Efficacy -> Effective Leadership	**0.183**	**0.177**	**0.06**	**3.077**	**0.002**
Courage -> Self Efficacy -> Effective Leadership	**0.205**	**0.198**	**0.061**	**3.368**	**0.001**

Note: p-value < 0.05; t value > 1.96 (two tailed)

The next statistical procedure conducted was the 95% bootstrapped confidence interval analysis. The results are exhibited in Table 4.31.

Table 4.31: 95% bootstrapped confidence interval analysis result

Bias Corrected	Original Sample (O)	Sample Mean (M)	Bias	2.50%	97.50%
Wisdom -> Self Efficacy -> Effective Leadership	0.029	0.036	0.006	-0.024	0.106
Emotional Intelligence -> Self Efficacy -> Effective Leadership	**0.154**	**0.15**	**-0.004**	**0.054**	**0.322**
Creativity -> Self Efficacy -> Effective Leadership	**0.183**	**0.177**	**-0.006**	**0.084**	**0.326**
Courage -> Self Efficacy -> Effective Leadership	**0.205**	**0.198**	**-0.007**	**0.108**	**0.353**

Based on the table, three hypotheses are supported (indicated numerically in bold characters), while one is not supported. The three indirect effects, β = 0.154, β = 0.183 and β = 0.205, are significant with the t-values of 2.422, 0.060 and 0.061. The indirect effects of 95% confidence interval corrected (LL = 0.054, UL = 0.322, LL = 0.084, UL = 0.326, LL = 0.108, UL = 0.353) do not overlap a value of zero, indicating the presense of mediation (Preacher & Hayes, 2008; Ramayah et al., 2018). One hypothesis was determined as not supported. The hypothesis H1a indirect effect is β = 0.029, while the 95% interval corrected is LL = -0.024 and UL = 01106. The result indicates the absence

of mediation as the LL and UL values overlapped with zero. The complete results of bootstrapping analysis of the mediating hypotheses are reported in Table 4.32.

Table 4.32: Mediating hypotheses

Hypotheses Testing	Relationship	Std Beta β	Std Error	t-Value	Confidence Interval		Decision
					LL	UL	
H1a	Wisdom -> Self Efficacy -> Effective Leadership	0.029	0.034	0.858	-0.024	0.106	Not supported
H2a	**Emotional Intelligence -> Self Efficacy -> Effective Leadership**	**0.154**	**0.064**	**2.422**	**0.054**	**0.322**	**Supported**
H3a	**Creativity -> Self Efficacy -> Effective Leadership**	**0.183**	**0.060**	**3.077**	**0.084**	**0.326**	**Supported**
H4a	**Courage -> Self Efficacy -> Effective Leadership**	**0.205**	**0.061**	**3.368**	**0.108**	**0.353**	**Supported**

4.9 Mediation Inquiry

The research extended the mediation inquiry by first affirming suggestions by Preacher and Hayes (2008) and Rungtusanatham et al. (2014) to avoid the terms 'complete' or 'partial' mediation in hypothesis statements. Nevertheless, this research was inspired to extract more information by analysing the established significant indirect effect (Nitzl, Roldan, & Cepeda, 2016) yielded in the research.

This research applied a variance accounted for (VAF) procedure to determine the type of mediation. VAF is the ratio of indirect effects to total effects in percentage (Hair et al., 2014; Ramayah et al., 2018). The rules of thumb are as follows: VAF < 20% is no mediation; 20% ≤ VAF ≤ 80% is partial mediation; and VAF > 80% indicates full-mediation. The situation where VAF is larger than 1.0 or more than 100%, is categorised as full mediation. The complete calculation of VAF and the type of mediation for this research are shown in Table 4.33.

Table 4.33: VAF results

Relationship	(a*b / (a*b) + c') * 100	VAF %	Mediation Type
Emotional Intelligence -> Self Efficacy -> Effective Leadership	(0.154 / 0.280) * 100	55	Partial
Creativity -> Self Efficacy -> Effective Leadership	(0.183 / 0.266) * 100	68	Partial
Courage -> Self Efficacy -> Effective Leadership	(0.205 / 0.379) * 100	664	Full

Note: a*b is in-direct effect, c' is direct effect

Partial mediation can be divided into either complementary or competitive partial mediation. Complementary partial mediation is usually identified as positive confounding or a consistent model, while competitive partial mediation is identified as negative confounding or complementary mediation (Ramayah et al., 2018; Zhao et al., 2010). The partial mediation for this research is identified to be complementary partial mediation or positive confounding.

4.10 Summary

The chapter presented the data analysis and findings of the research. The analysis started with a descriptive analysis of the respondents as well as the instrument employed for the research. The response rate and respondent profile were found to be in conformance with the intended sampling frame requirement. Nevertheless, the normality test did not achieve a satisfactory level, which justified the employment of the PLS-SEM method. Consequently, SmartPLS 3.0 and its evaluating procedures were extensively utilised. The model was ascertained to be a reflective measurement model, and the necessary underlying assessment schemes were employed appropriately. Nine indicators or items out of 54 were removed to justify internal consistency and convergent reliability of the entire measurement model prior to evaluating the structural model. Several significant findings were then revealed in structural model assessment based on the

recommended scheme and procedure. The procedure was then followed up with research hypotheses testing. It was found that only wisdom (W) had a significant positive relationship with effective leadership (EL), while emotional intelligence (EI), creativity (CR) and courage (C) did not.

Mediation analysis highlighted more stimulating findings as self-efficacy (SE) was found to significantly mediate the relationships of EI, CR and Courage with EL. Further mediation analysis indicated full mediation of courage (C) on EL, while EI and CR were partially mediated by SE respectively to EL. The next chapter provides a more significant and revealing discussion on the results obtained in relation to the conceptual framework.

CHAPTER 5: DISCUSSION AND CONCLUSION

5.1 Introduction

This chapter summarises the hypotheses and the findings attained from the data analysis. There are two significant questions separated into nine critical research questions, as discussed in Chapters 1 and 2, respectively. The discussions of research hypotheses and questions include comparisons with previous studies in terms of consistency or inconsistency. Several important realities are then derived and further discussed in the form of limitations and implications. Consequently, recommendations for future studies are described before the chapter is concluded.

5.2 Research Synopsis

The principal objective of this research was to determine the relationship of five critical virtues, namely, wisdom, emotional intelligence, creativity from WICS model while courage and self-efficacy from the Army context, in predicting effective military leadership amongst Malaysian Army senior leaders. In the same framework, this research also addressed the influential role of self-efficacy in mediating virtues with effective military leadership. Consequently, the following eight research questions are listed and recapped accordingly.

a. RQ 1: What is the relationship between wisdom and effective military leadership?
b. RQ 2: What is the relationship between emotional intelligence and effective military leadership?
c. RQ 3: What is the relationship between creativity and effective military leadership?

d. RQ 4: What is the relationship between courage and effective military leadership?
e. RQ 5: What is the relationship between self-efficacy and effective military leadership?
f. RQ 6: What is the effect of self-efficacy in mediating wisdom and effective military leadership?
g. RQ 7: What is the effect of self-efficacy in mediating intelligence and effective military leadership?
h. RQ 8: What is the effect of self-efficacy in mediating creativity and effective military leadership?
i. RQ 9: What is the effect of self-efficacy in mediating courage and effective military leadership?

Consequently, eight research objectives were devoloped in relation to the research questions.

a. RO 1: To determine the relationship of wisdom with effective military leadership.
b. RO 2: To determine the relationship of emotional intelligence with effective military leadership.
c. RO 3: To determine the relationship of creativity with effective military leadership.
d. RO 4: To determine the relationship of courage with effective military leadership.
e. RO 5: To determine the relationship of self-efficacy with effective military leadership.

e. RO 6: To investigate the intervening role of self-efficacy between wisdom and effective military leadership.
f. RO 7: To investigate the intervening role of self-efficacy between intelligence and effective military leadership.
g. RO 8: To investigate the intervening role of self-efficacy between creativity and effective military leadership.
h. RO 9: To investigate the intervening role of self-efficacy between courage and effective military leadership.

The research was designed as four main phases. The first phase is known as 'defining', which primarily includes defining the research problem, RQs and ROs. In this phase, an extensive systematic review of the literature was carried out on general effective leadership studies and military leadership studies. A research gap was identified based on the review, and a model was coherently developed with confirmation from prominent Malaysian Army commanders. In relation to the WICS model, conceptualised virtues were found in the literature, while self-efficacy and courage were virtues established from the Malaysian Army perspective through a focus group discussion approach. Each of these virtues is constructed and supported with underlying theories and finally, leadership development theory fully informed the overall endeavour, as leadership in military or Army leaders (officers) is continuously developed through formal and informal schemes throughout their career progression.

The second phase was 'testing' in which instruments were developed and pre-tested through a pilot study. Determining the sample was accomplished between the first and second phases. It was decided that the Malaysian Army officers who had undergone the highest career training or courses before assuming posts with MAF strategic level

command and management were the population from which the sample would be extracted.

The third phase involved operationalising the research in which the survey questions were distributed to the in-service officers who had undergone the MAFDC. As of 2017, 201 senior officers were identified as fulfilling all the requirements to be respondents, and the sampling frame was intended to be not less than 70 participants. All in the population (201) were issued survey questionnaires, of which 91 met all the respondent criteria and ultimately responded to the questionnaire. Data were analysed accordingly, and hypotheses were tested using two critical statistical tools, SPSS Version 25 and SmartPLS Version 3.0.

The final stage was finalising all the designed processes. Out of nine hypotheses, five were found to be 'supported', whereas the other four were 'not supported'. The core of the findings is briefly discussed in the following segment.

5.3 Summary of the Findings

The research findings suggested that two virtues, wisdom and self-efficacy, are significantly related to effective military leadership, whereas emotional intelligence, creativity and courage, are not. Nevertheless, it was found that self-efficacy significantly mediates the relationship between emotional intelligence, creativity and courage with effective military leadership, while self-efficacy does not mediate wisdom and effective military leadership.

The overall results for the research hypotheses are summarized in Table 5.1. Amongst the nine hypotheses, five hypotheses were supported (H1, H5, H2a, H3a and H4a) and four (H2, H3, H4 and H1a) were not supported.

Table 5.1: Summary of research hypotheses and findings

Hypotheses Codes	Hypotheses	Findings
H1	There is a significant relationship between wisdom and effective military leadership	Supported
H2	There is a significant relationship between emotional intelligence and effective military leadership	Not supported
H3	There is a significant relationship between creativity and effective military leadership	Not supported
H4	There is a significant relationship between courage and effective military leadership.	Not supported
H5	There is a significant relationship between self-efficacy and effective leadership	Supported
H1a	Self-efficacy significantly mediates the relationship between wisdom and effective leadership	Not supported
H2a	Self-efficacy significantly mediates the relationship between emotional intelligence and effective leadership	Supported (Partial mediation)
H3a	Self-efficacy significantly mediates the relationship between creativity and effective leadership	Supported (Partial mediation)
H4a	Self-efficacy significantly mediates the relationship between courage and effective leadership	Supported (Full mediation)

5.4 Discussion of the Findings

The following segment presents and further discusses the findings in line with the premises of the research questions. The results are also evaluated further in relation to extant previous studies.

5.4.1 What are the relationship between wisdom, emotional intelligence, creativity (WICS) and courage towards effective military leadership?

The research conceptualised effective military leadership through the WICS model and respectively identified self-efficacy and courage as crucial constructs tailored to the Malaysian Army setting. Indeed, the five virtues of wisdom, emotional intelligence, creativity, courage and self-efficacy were operationalized accordingly. Hence, the Research Question was extended into another five major questions through which the five virtues were hypothesised to have significant relationships with effective military leadership. The findings suggest several important points to be discussed for this research.

5.4.1.1 RQ 1: What is the relationship between wisdom and effective military leadership?

The study revealed that wisdom has a significant relationship with effective leadership ($\beta = 0.221$, $t = 2.383$, $p < 0.05$). Therefore, within this research context and empirically supported, it is apparent that wisdom is indeed a virtue directly related to effective military leadership. Notably, the result conforms to WICS model notions (particularly regarding wisdom) and several other conceptual approaches (Küpers, 2016; Sternberg, 2008; Yang, 2011). The result is also consistent with several previous studies that examined wisdom and effective leadership through various approaches (Ahmad et al., 2013; Greaves et al., 2014; Zacher et al., 2015).

Leaders with wisdom are recognised as knowledgeable leaders. Wise leaders have been examined in a variety of contexts and have been discussed at length, particularly in Chapter 2 of this research. Nevertheless, in a more simplistic approach, Chatterjee (2006) explained wise leaders as leaders able to effectively reconcile needs in micro and macro

systems, great and small matters, leading and following, and between one's self and the world. All the mentioned abilities could be seen in wise leaders' behaviour. Several scholars have argued that wisdom comes with age (Ardelt, 2000; Bassett, 2012), gender (Glück, Strasser, & Bluck, 2009), and culture (Le, 2008). Nevertheless, overall findings have suggested that age, gender and culture do not significantly influence leaders to be wiser nor do they endow more wisdom.

In relation to this research, the respondents were only male senior Army officers at the ages of 40 years old (33%) and above 50 years old (67%). All of them were Malaysian, hence there were no issues regarding distinct cultural differences, and they had all been serving in the Army for 20 to 29 years (26.4%) and above 30 years (73.6%). Therefore, it is apparent that issues on gender, age and cultural differences were not major interfering issues with this research. Hence, the findings have opened-up three crucial indicators or suggestions.

Firstly, wisdom is a virtue of effective leadership. While series of studies have conceptualised WICS as critical virtues explaining effective leadership (Sternberg, 2008; Sternberg, Jarvin, & Grigorenko, 2011a; Sternberg, 2003; Sternberg, 2017), the research has shown that wisdom is the only virtue that has a direct link with effective leadership. Sternberg (2003) conceptualised leaders with wisdom as leaders who successfully use their intellect, creativity and values in a well-balanced manner. On the other hand, Sternberg asserted that ineffective leaders more often exhibit stereotypical misconceptions in their thinking. Elements of intelligence and creativity are shaped or altered by wisdom. Hence, in this respect and by reconsidering Sternberg's WICS model, this study suggested wisdom is relatively the most dominant virtue compared to

intelligence and creativity, as well as courage and self-efficacy, in predicting effective leadership.

Secondly, wisdom is a critical virtue in predicting effective leadership within the Malaysian Army senior-level leadership context. Wisdom has been acknowledged as the greatest of positive virtues and the pinnacle of individual virtue (Baltes & Staudinger, 2000) as a result of cognitive, reflective and affective personality traits (Ardelt, 2004). Cognition, as described by Ardelt, is the capacity to understand basic human matters. Reflection, on the other hand, is the ability to observe situations or phenomena from multiple angles or perspectives is association with a self-insight capability that fosters self-criticism and striving to improve one's self. The affective element is mainly about empathetic human feelings toward others. All these dimensions, sometimes known as wisdom components, are held within humans and improved over time based on their interaction with events in their lives.

Based on this belief, the findings suggest that in a generic approach, the Malaysian Army high-level leaders have gained many dimensions or components of wisdom through their interactions with life events. Correspondingly, their interactions with life events mainly involve military life, either through formal training or informal training. Senior officers in the Army have been in the service for not less than twenty years. Furthermore, formal training in their entire service has exposed them to all kinds of adverse, warlike or critical situations and environments, and in some cases, they were involved in real life-threatening occurrences. Hence, their knowledge and experiences, either through formal or informal training, have contributed significantly to their wisdom and being wise in their leadership endeavours. The findings suggest that formal and informal training

throughout the entire service of senior Army leaders has furnished them with the virtue of wisdom.

Thirdly, contingent to secondary factors, this empirical research has suggested wisdom as a journey, or continuous developmental process. Correspondingly, Solansky (2014) argued that the journey must have a beginning and proposed foolishness as the major factor that motivates leaders' pursuit for wisdom. Consequently, foolishness is reduced, or error is minimised. Understandably, error can cause severe and disastrous impacts or outcomes in the military environment, and many have experienced such situations in the Army. Hence, the research has suggested that due to this phenomenon, wisdom is always being developed consistently amongst senior Army leaders in their training, directly or indirectly. Therefore, senior Army officers have always sought for wisdom as opposed to foolishness. All these factors may influence the first finding discussed.

5.4.1.2 RQ 2: What is the relationship between emotional intelligence and effective military leadership?

Emotional intelligence is found not to have a significant positive relationship with effective leadership ($\beta = 0.126$, $t = 1.084$, $p > 0.05$). The finding is contradictory to several previous studies that suggested emotional intelligence played an integral part in explaining effective leadership (Koh & O'Higgins, 2018; Koman & Wolff, 2008; Oden et al., 2015). The finding may represent a new dimension of emotional intelligence *vis-à-vis* effective leadership in Malaysian Army senior-level leaders investigated by this research. Several arguments may relate to the findings.

Antonakis (2003) once held a pessimistic view of the notion that emotional intelligence is vital in predicting effective leadership. In responding to early scholars of emotional intelligence, Antonakis's argument was that emotional intelligence theory or notions lacked several factors from leadership concepts or theory such as contextual factors, including culture, hierarchical level, gender, and environment characteristics, which are crucial factors in explaining leadership theory not considered in emotional intelligence concepts, and consideration of other important variables of leadership such as a leader's general cognitive ability and personality. Antonakis described these factors as essential leader attributes that were excluded in expressing emotional intelligence in relation to leadership notions.

In another critical view, Antonakis (2004) argued that emotional intelligence did not matter for a leader to be effective, especially concerning top-level leadership. Antonakis quoted several research studies that suggested emotional intelligence was indeed negatively related to effective leadership. Antonakis further argued that leaders who demonstrate and spread positive emotions (sadness or anger) might not be effective as they would be perceived as week or lacking control and thus not effective (Goleman,1998). Correspondingly, Antonakis postulated that leaders' cognitive ability in terms of general intelligence suffices to sufficiently control their emotions.

Antonakis first view was supported by recent research. Lone and Lone (2018) argued that the deployment of Western emotional intelligence scales may not be effective in the eastern world. Citing several researches in Indian settings, Lone and Lone explained that assessing emotional intelligence and effective leadership using Western scales may not yield consistent outcomes, especially for middle and high-level leaders. In correspondence, Kim and Kim (2017) articulated emotional intelligence scales as having

doubtful accuracy with overstated benefits. The study referred to was in the leadership development context.

Consequently, previous studies implicated several critical explanations for this research finding from the present study. These include (1) differences of context (John Antonakis, 2003) as the scales used were based on Western culture. Thus, the hierarchical level of military leaders and environmental characteristics were amongst other issues that leading to deficiencies in operationalising the survey. (2) Cognitive ability of Malaysian Army leaders varied. This assertion indicates a possible dominant effect of wisdom in controlling and altering emotional intelligence within the senior officers. Hence, emotional intelligence was not significantly related to effective leadership. Lastly, (3) a variety of personality traits of respondents determine inconsistency of results. All these issues may become important aspects suggested for future research.

5.4.1.3 RQ 3: What is the relationship between creativity and effective military leadership?

Corresponding to emotional intelligence, creativity too, was found have no significant relationship with effective leadership ($\beta = 0.083$, $t = 0.083$, $p > 0.05$). Previous conceptual approaches to leadership have suggested that effective leaders solve problems and make decisions creatively. Hence, leaders' creativity is considered to play a significant role in effective leadership performance (Mainemelis, Kark, & Epitropaki, 2015; Randel & Jaussi, 2019; Sternberg, 2007).

This notion was conceptual in their approach, thus minimal in its empirical analysis. Many recent researches have addressed the critical roles and behaviour of leaders in encouraging and inspiring creativity in subordinates and organisations. Hence, the

direction of this research in gauging creative problem solving and decision making in leaders, personally, has revealed important findings. Several challenging external issues or factors could explain why creativity is not significant to effective military leadership.

Amabile (1988, 1998) argued creativity in individuals or organisations grows and prevails based on several critical identified factors: freedom or autonomy, resources, workgroup features, leadership encouragement and support. Hence, leaders are to be aware of these factors and provide an appropriate environment to facilitate the growth of creativity. Correspondingly, de Miranda, Aranha, and Zardo (2009) expanded the notion of creativity as very much induced and shaped by culture and environment.

Consequently, this research is in agreement with Vego (2013), who described military culture and environment, its restricted freedom of action and limited organisational support as obstacles to the growth of creativity. These factors were further explained in light of the description of military environments as moulded by inherently strict, centralised and hierarchical command structures, intolerance and anti-intellectualism. Obedience, rigorous execution of orders, and strictly following the rules and leaders' decisions as commands that cannot be questioned are some other environmental factors integral to military organisations that preclude the exercise of creativity.

On a similar note, Wheeler (2013) argued that with rigid military organisational structure, especially in times of battle, creativity is inhibited as leaders or commanders are handcuffed with military principles, procedures, regulations and mission statements. Furthermore, Wolters, Hinds, and Grome (2012) asserted that military command and control culture is not conducive to the growth of creativity, and the situation has become an influential factor in military training institutions.

In a similar context, Allen (2009) contended that the military strictly operates based on very clear standard operating procedures (SOPs), adhering to all regulations and doctrines, including those on developing knowledge and competencies in their training curriculum. Hence, in a way, military leaders are taught and trained to think and to react within limitations and constraints, which at the same time, limit their 'out-of-box' thinking skill.

A study conducted on students of the US Army War College provided evidence to explain this phenomenon. Senior military officers tend to use more sensing, thinking and judging preferences that contrast with than the more intuitive, sensing, feeling and perceiving that creative individuals usually possess. The finding was based on the Myers-Briggs Type Indicator (MBTI) profile test. While the indicators do not encompasses all situations, it was useful to explain the low level of creativity amongst senior Army officers in the United States setting. Hence, it is nothing new that Kark, Karazi-Presler, and Tubi (2016) articulated creativity for effective military leaders as a challenging task as they balance strict military order and discipline with flexibility and creativity. Hence, creativity is one of the paradoxes in military leadership.

Nevertheless, this research has suggested that wisdom is the foremost virtue that dominates creativity in the military context. This notion is comprehensively proposed even within WICS model context. Hence, due to the limits on the growth of creativity in the military environment, wisdom may strike a balance between creativity and mission requirements.

5.4.1.4 RQ 4: What is the relationship between courage and effective military leadership?

In this research, courage was found not to have a significant relationship with effective leadership (β = -0.174, t = 1.640, p > 0.05). What is more surprising, courage has a negative relationship with effective leadership, in contrast with some of the previous studies which asserted courage as a crucial positive predictor to effective leadership (Amos & Klimoski, 2014; Bangari & Prasad, 2012; Peralta et al., 2019). Indeed, courage is a complex construct and varies by category, application and approaches (Woodard & Pury, 2007).

Van Boven, Loewenstein, and Dunning (2005) explained courage from an emotional perspective as an illusion in consideration of dual reasoning: self-predictions and social predictions. The notion suggests that when an occurrence is not real and immediate, then one will overestimate or underestimate their courage to react accordingly. Metaphorically, people in a neutral state will underestimate how much they would be bothered by thirst compared to people whose thirst is aroused by intense running exercise. This empathy gap is explained as emotional arousal, which can be negative and thus includes fear, anxiety and embarrassment. This example of self-prediction will lead to a social-prediction which entails the overestimation that other people react in a similar manner when facing the same challenges. Boven, Loewenstein, Welch, and Dunning (2012) suggested that the illusion of courage in self-prediction is emotionally driven, shaped by and contingent to the situation. In relation to this premise, this research on courage and effective leadership may correspond to the notion that the respondents could have been in a reactive or neutral state where fear and anxiety was not a real issue at the time of answering the survey.

Correspondingly, courage may also be associated with negative action. Pury, Starkey, Kulik, Skjerning, and Sullivan (2015) articulated courage from the dark side or as bad courage. Bad courage is the actors' motivation to conduct a courageous act which is undesirable or unacceptable and condemned by society at large. These kinds of activities include rampage or spree killing, acts of terrorism or uncalled for revenge. Hence, respondents may have had a mix of views on courage when responding to the questionnaires.

In explaining the above notions, it is apparent that respondents (Malaysian Army) of this research may have mixed views on courage. While courage is evidently an important virtue of effective military leadership, it may also be reflected as undesirable negative act such as rampage, terrorism and uncalled revenge. It is thus reasonable that courage was found as having a negative link to effective leadership in this context. What is more appealing is that wisdom may become the balancer in deciding between good or bad courage. Additionally, self-efficacy mediates courage and effective leadership as the later segment would explain further.

5.4.1.5 RQ 5: What is the relationship between self-efficacy and effective military leadership?

Self-efficacy was found to have a positive significant relationship with effective leadership ($\beta = 0.542$, $t = 3.713$, $p < 0.05$). The result conforms to many major studies and conceptual approaches (Hannah, Avolio, Luthans, & Harms, 2008; McCormick, Tanguma, & Lopez-Forment, 2002; Paglis, 2010). The study has operationalised self-efficacy as personal judgement and the efficacy to perform in a variety of settings.

Boe et al. (2018) argued that military officers have always been trained to handle difficult and extreme environments. Correspondingly, military officers are trained to believe that they can handle such situations, and it is part of their profession. This is emphasised in many military doctrines. Studies have suggested that individuals with a high level of self-efficacy will set a high standard of achievement for themselves and become more resilient to achieve those standards. Consequently, individuals with high self-efficacy would be more effective in achieving objectives individually set by themselves or by organisations.

The military environment allows self-efficacy to flourish amongst its members. As mentioned, Bandura (1997) highlighted several critical modes in which self-efficacy can be developed, which include, firstly, self-efficacy in individuals developed accordingly after experiencing hardship and succeeding; secondly, self-efficacy built and developed through interaction with someone who has had experience and success in adversities and thirdly, watches or learns from others' success or failures.

In the military, training is designed and simulated as realistically as possible to the actual situation. Military leaders lead in these simulated scenarios, and their performance is practically evaluated and assessed primarily during formal training or when attending career courses. They might even have to endure military punishment if their performance is not up to the required standard. Marks could be deducted, or they could even fail the entire course. The situation could eventually affect their career progression. Therefore, all the hard and painful experiences may have contributed to the development of self-efficacy within leaders.

Senior Army officers have spent most of their lives in the service. Most of them have experienced a real situation of fighting communist terrorists when the country was involved with the Emergency situation, especially during the second state of emergency from 1960 to 1989 (Keling, Ajis, Shuib, Othman, & Md. Som, 2011; Shuib, 2013). Hence, these experiences are valuable lessons that are always being shared and passed down to junior officers during informal or formal interaction sessions. Consequently, Army officers in the service develop their self-efficacy based on these interactions. Furthermore, there are other real-life defence and security challenges that are shared consistently throughout their service.

The process of learning, unlearning and relearning is continuous in the military service. At the tactical level, military leaders are expected to lead and operate with their subordinates and their superiors through the thick and thin of military operations. This kind of conduct has been embedded as part of the essence of training and has become a culture in which military leaders have to look after their subordinates' welfare and well-being. This kind of climate in military life encourages everyone to support each other's progression and always be cooperative to deal with any challenging situations when they are triggered. Hence, during the process, they learn from each other's successes and failures, eventually developing their self-efficacy, personally (Hannah et al., 2008).

With all these considerations, this study suggests that the self-efficacy of senior-level Malaysian Army leaders is optimistically significant with effective leadership. As the Malaysian Army emphasises the development of self-efficacy as a critical virtue in the doctrine, this study has suggested that the effort is found to be a commendable one. Concomitantly, the finding indicates that the formal and informal leadership development

scheme that the officers have gone through is doctrinally operative within the context of self-efficacy.

5.4.2 Does self-efficacy mediates the relationship between wisdom, emotional intelligence, creativity (WICS) and courage towards effective military leadership?

Self-efficacy has been operationalised as another important virtue mediating wisdom, emotional intelligence, creativity and courage, with effective leadership. Similar to courage, self-efficacy is a virtue that is specifically stressed in the Malaysian Army context, particularly in its conceptualisation in the Malaysian Army Leadership Development Concept Doctrine (Malaysian Army HQ, 2003). Therefore, Research Questions of this research was designed with other virtues, and the discussion of the relationships is arranged accordingly.

5.4.2.1 RQ 6: Does self-efficacy mediates the relationship between wisdom and effective military leadership?

Self-efficacy does not mediate the relationship of wisdom and effective leadership ($t = 0.858$, $p > 0.05$). Furthermore, both have a direct relationship with effective leadership. Hence, it is clear that within the senior-level Malaysian Army leadership, their effective leadership is directly influenced by wisdom and self-efficacy, but self-efficacy has never become the intermediary mechanism to wisdom.

This finding is, in fact, held the two directions of the study conducted by Svence and Greaves (2013). Svence and Greaves found that self-efficacy had a relationship with the cognitive and reflective dimensions of the wisdom scale, but not with affective dimensions. The finding leads to the conclusion that leaders use cognitive abilities more, while the affective dimension has a subordinate relationship.

While there is minimal concrete evidence from previous research to support or to deny the finding, this study suggests the need for further empirical testing to be conducted on this relationship. The study supports the finding that self-efficacy is not a mediator between wisdom and effective leadership despite the notion that wisdom is the pinnacle of human virtue, and thus no other virtue would further explain it for any positive outcome.

5.4.2.2 RQ 7: Does self-efficacy mediates the relationship between emotional intelligence and effective military leadership?

Although emotional intelligence has no significant positive direct relationship with effective leadership, this research suggests emotional intelligence is partially mediated by self-efficacy ($t = 2.422$, $p < 0.05$). Partial mediation (55% based on VAF) denotes a less than full mediation effect (Rucker, Preacher, Tormala, & Petty, 2011). *En bloc*, the study indicates that self-efficacy plays an important role in mediating emotional intelligence and effective leadership in the Malaysian Army senior leadership context. While emotional intelligence is altered and maintained by several conditions such as officers' personality and level of cognitive ability, increased self-efficacy would complement effective leadership and emotional intelligence. Ultimately, this research supports the critical importance of self-efficacy in further explaining effective leadership.

The finding is consistent with numerous recent studies. Black, Kim, Rhee, Wang, and Sakchutchawan (2019) found that high emotional intelligence stimulated self-efficacy development and ultimately improved performance amongst senior business leaders. Individuals with high self-efficacy also possessed the self-regulation capability which would stimulate their desire to achieve higher performance. Eventually, this process could

improve self-efficacy and implies that emotional management is another critical element of self-regulation development. Therefore, another important understanding from this research is Malaysian Army senior leaders self-regulate their emotions in actualising effective leadership or competency.

Coherently, Santos, Wang, and Lewis (2018) findings suggested that emotional intelligence and decision-making difficulties concerning effectiveness were mediated by self-efficacy in education sectors. In the study, self-efficacy mediated decisions on future career achievement. The process drives students to be more motivated in achieving their goals. Emotional intelligence intervention and reflection such as through appropriate training and continuous counselling sessions are vital to developing self-efficacy.

Correspondingly, Mullen, Limberg, Tuazon, and Romagnolo (2019) have found positive proportionate linkages between emotional intelligence and higher leadership performance mediated by leadership self-efficacy in research amongst school counsellors. Noticeably, comparable empirical studies in military settings were found to be scarce; therefore, this research may provide or refresh new directions, new heights and benchmarks in the field.

Based from the previous studies, it is suggested that important training that the military officers had undergone throughout their service facilitated and provided them with appropriate abilities in exercising and continuously regulating their emotional intelligence to increase their self-efficacy. Ultimately, the process improves effective leadership performance.

5.4.2.3 RQ 8: Does self-efficacy mediates the relationship between creativity and effective military leadership?

Corresponding to emotional intelligence, self-efficacy was found to have a partial mediating effect on creativity and effective leadership ($t = 3.077$, $p < 0.05$) among the senior Malaysian Army officers (VAF = 68%). While there was no direct relationship between creativity and effective leadership, self-efficacy was found to provide a mediating role. This finding is a positive indication that creativity still exists within the senior Malaysian Army leadership in the form of self-efficacy that eventually explains effective leadership. Nevertheless, it must be noted that the partial mediating role describes several uncertain issues that needed to be investigated. The situation was discussed in the direct relationship paragraph.

The relationship also indicates several critical points. Firstly, creative problem-solving capacity of the senior Army officers was mainly in relation to self-efficacy but not directly related to competency or performance behaviour. Apparently, the element of creativity still exists within the officers in facilitating personal judgements when dealing with forthcoming situations rather spontaneously, but it is not displayed at all times. This explanation is consistent with Klemm (2017), who posited leaders need not be creative but must understand the source of creativity and manage the resources wisely to achieve desired objectives. Hence, creativity in Army leadership is about managing creativity rather than exploiting their own creativity.

Secondly, while creativity is considered a paradox in military leadership environments (Kark et al., 2016), the research suggests that military leaders are in control of creativity development. The self-regulation within self-efficacy may justify this notion. The vertically structured and tight organisation allows creativity to flourish but with certain

limitations. Due to the challenges, military leaders, especially at the top level, at some point inevitably capitalise on self-efficacy to exercise their creativity prudently and contingent upon the situation to achieve and accomplish the mission assigned to them.

5.4.2.4 RQ 9: Does self-efficacy in mediates the relationship between courage and effective military leadership?

Self-efficacy was found to fully mediate courage and effective leadership ($t = 3.368$, $p < 0.05$). Courage, in this research context, is explained as "persistence or perseverance despite having fear in terrifying activity" (Howard & Alipour, 2014). Ironically, in this research, courage is suggested to have a negative direct relationship with effective leadership; however, this study also suggests that self-efficacy fully mediates courage and effective leadership.

Empirically, courage has a connection with self-efficacy. Finfgeld (1999) suggested courage is regulated and controlled by self-efficacy. Consequently, leaders with high self-efficacy are perceived to be able to transform threats into challenges, become self-reliant, motivated and successfully take adverse situations under their control. Accordingly, Hannah et al. (2007) asserted that self-efficacy may regulate stress under depression and pressure, thus increasing one motivation to focus on goal achievement.

Furthermore, Hannah, Campbell, and Matthews (2010) articulated the strong link between courage and self-efficacy. Courage and self-efficacy are postulated to be critical human psychological capacities that energise leaders to overcome negative emotions such as fear to face challenges. Hence, this research finds that in the Malaysian Army context, courage is mediated by self-efficacy to create effective leadership success.

5.5 Windup the Findings

Effective leadership is critical in a military organisation. Therefore, the military has always emphasised leaders' development via their formal and informal training as well as evaluations for officers' career progression. Despite multiple models for appraising and estimating leadership effectiveness, this research sought to operationalise leaders' virtues and psychological constructs to explain effective leadership. Two critical paradigms were considered. One was chosen from an extensive review of the literature and acknowledged as the WICS (wisdom, intelligence and creativity synthesised) model, and the other two (courage and self-efficacy) were from in-house discourse with prominent senior Malaysian Army officers and the Army leadership development doctrines, respectively.

Because of the scarcity of studies conducted over the years, the constructs only became significant when they were posited and theorised as crucial human virtues and psychological capacities that can be developed through interactions with the environment (formal and non-formal training). Additionally, scarcity of such studies in the military setting was also a driving factor for this research.

The study revealed several essential points. Wisdom and self-efficacy were found to be the most significant virtues to explain effective leadership in the Malaysian Army senior officers' context. Emotional intelligence and creativity were not found to establish a relationship with effective leadership, while courage was found to have a negative relationship with effective leadership. Nevertheless, those three virtues were mediated by self-efficacy. Therefore, holistically, the study suggests that, in Malaysian Army context, wisdom and self-efficacy are the virtues that explain effective leadership, while self-efficacy is critical in mediating emotional intelligence, creativity and courage with

effective leadership. Hence, from the above discussion is concluded that this study has achieved its objectives. The following section discusses the limitations as well as implications of the research.

5.6 Limitations

There are several limitations concerning this research. Firstly, empirical research on effective leadership in high-level military contexts is very limited. Therefore, the research experienced numerous challenges. The challenges relate to the situation and methodology and included security issues and very hierarchical as well as formal military organisational circumstances. Hence, conducting sampling and performing data collection procedures, especially involving senior officers, required a certain level of courage and vigour. Besides, high-security awareness amongst the senior officers posed constraints especially in the data and information collection processes. Consequently, related practical issues, information and data were limited in access or reveal.

Secondly, the hierarchical and formal organisational structures established within the military are very structurally and systematically arranged. While this is good for the organisation, it limits the scope of studies. Military leaders are specifically trained and moulded by military ways and methods strictly guided by formal, systematic, detailed instructions and doctrines. Therefore, in certain instances, they were driven by these formalities in exercising their leadership and problem-solving skills. Hence, information on knowledge of leadership was bound to be limited to what is formally written and read, rather than expressed from their views and experiences. While these encounters were kept under control, variance potentially prevailed.

The third limitation is associated with measurement issues. The study found an abundance of references with regard to military leadership; however, effectiveness measures were found to be close to none. While the result provides several directions, more research is required where military performance outcomes are actually evaluated and validated.

Fourthly, all participants in this research were male senior military officers. Thus, the findings of this research must be cautiously generalised. Additionally, the study was based on the military context and might not have a similar result in other settings. Fifthly, the orientation of this study is on the positive side. This research demonstrates awareness of several negative sides of some of the constructs or virtues, including the dark side of leadership self-efficacy and the negative side of courage. The negative sides of both constructs are explained as extreme situations or scenarios in which overconfident leaders give instructions to achieve unattainable objectives (Paglis, 2010) or leaders' actions to achieve aims involve incorrect or unethical activity under the pretext of courage (Pury et al., 2015).

5.7 Implications

5.7.1 Theoretical

The research provides several important directions to the theory of leadership and the concept of leadership development. Firstly, the research suggests that human virtues play a critical role in explaining effective leadership. While trait theory is somewhat considered to be outmoded, virtues may provide a prospect to be seriously explored as human virtues could be developed in humans through interaction with their surroundings.

Furthermore, with the advance of information technologies, these surroundings could be simulated to enhance or improve virtues in leaders accordingly.

This study has re-emphasised the significant virtue of wisdom, which is considered the ultimate virtue of human intelligence by many psychologies and leadership scholars. Hence, correspondingly, this study suggests that wisdom is significantly related to effective leadership and is not mediated by self-efficacy. Accordingly, the finding gives fresh insight on utilisation of the WICS model, especially in the military, an organisation that has contributed much in leadership studies. Wisdom is found to be the ultimate virtue that explains effective leadership, whilst intelligence and creativity are suggested to play secondary roles to wisdom.

This study has also explained the mediating effect of self-efficacy between emotional intelligence, creativity and courage towards effective military leadership. Several theoretical strategies could be derived from these findings. While in many previous studies articulated emotional intelligence, creativity and courage as virtues that explain effective leadership, this study proposed otherwise. The three virtues are mediated by self-efficacy, especially in the case of courage, which is fully mediated by self-efficacy.

5.7.2 Practical

Although the research can be considered as the dawn of military effective leadership study, the findings provide potentially critical impacts on leadership development in the Army. Although leadership development training schemes are continuously reviewed, this study suggests potential new areas for future leadership training and development agencies to explore.

Under the premise that leadership virtues and psychological capacities can be developed, this study has brought forward wisdom, emotional intelligence, creativity, courage and self-efficacy as important virtues that need to be considered. This study suggests that the current training programs (formal and informal) undergone by Malaysian Army senior leaders have indicated that wisdom and self-efficacy are the most significant positive attributes that describe effective military leadership. On the other hand, emotional intelligence and creativity are significantly related to leaders' self-efficacy and thus explain effective leadership, while courage is negatively correlated with effective leadership. While virtues are able to be developed through education, continuous training and repetitive practise, Hackett & Wang (2012) have explained that virtues are also innate or inborn quality to some degree. Therefore, this research is proposing that innate virtues of a potential Army leaders are to be identified and determined well forward or during the selection process. Potential leaders with acceptable degree of innate virtues have all the fundamental capacity to be positively developed further

It was also realised through this research that continuous and systematic leadership development programs are vital to developing leaders' competencies. The military has been found to be an organisation that seriously adopted and implemented this initiative since a long time ago (Fisher & Robbins, 2015). Hence, it is time to revise and include all the virtues discussed in this research as potential components of officer competency frameworks and evaluation structures in training and career development. The findings of this research have also revealed the uniqueness of military leadership direction. Hence, the Army leadership development program must be designed or refined to suit the Army's current requirements, accordingly.

This research has indicated the importance of formal and non-formal training being practised in the Malaysian Army. To some extent, the research suggests that the training experienced by the senior officers has developed their inner virtues appropriately. Nevertheless, several issues such as sharing of knowledge and experiences were found to be areas that need to be capitalised on and emphasised as part of formal and informal training. These areas are found to be effective in developing and enhancing virtues in leaders.

For a reference and had been discussed in the earlier chapter, Bandura (1997) emphasised self-efficacy could be developed through self-experienced or interaction with other person who has experienced certain critical situation. Hence, the Malaysian Army may giving new insight in its training by first emphasise on realism in practical training; secondly, emphasise on the sharing of real life event of persons with such experience, and thirdly, documenting all critical experiences for future reference and research. Through this approach, critical virtues able to be shared, developed and prevailed.

As explained in the previous chapter, military leaders operate in adverse and most extreme environment. These may include battle environment which most of the time is associated with violence, destructions, death, fear, uncertain and complex. The most challenging part in designing training for military leaders is to explicate completely the stressful battlefield and crisis environment and condition. Hence, realism in training is the key factor and must not be neglected in leadership development training. As an example, Malaysian Army training institutions have to design their training as realistic as possible to develop effective military leaders in the environment and situations they will be facing.

With the current advancement of information and communication technology (ICT), realism may be achieved through simulation system and war gaming tools. This approach may be utilized to enhance Malaysian Army leadership development training especially in the area of decision making and battlefield management. Additionally, the approach is considered to be cost effective and covers a wide ranging of leadership level from tactical to strategic (Aebersold, 2016).

As virtues may also be developed through sharing of experience from someone who has undergone the real situation, Malaysian Army training institution may utilize this approach in enriching their training with sharing of knowledge and experience activity as part of their training. War veterans or military leaders who had undergone real military crisis can be invited to share their experience and inspire current leaders with what they have gone through. Besides that, all the critical experiences should be documented and kept as future references. The effort may help in developing current and future effective military leaders. Hence, the Army is suggested to have a dedicated establishment or center of excellence to coordinate the effort as well as documenting and keeping all these experiences.

In promoting creativity, Malaysian Army officers' jobs need to be redesigned as to expose them more into solving higher level problems activities. At least, this kind of activities could be introduced during career courses or training. Such training and exposure potentially stimulates younger officers' creativity in solving problems and increase their creative capacity within by increasing their interest, sense of work ownership, and equip them well before assuming a more senior position. (Chen & Aryee, 2007; Q. Zhou, Hirst, & Shipton, 2012).

5.8 Recommendations for Future Research

This study has led to numerous recommendations. Firstly, the scale instrument to measure effective military leadership was found to be a problematic area. While the general scales are found to be progressively improved and refined, instruments for military leadership are still inadequate. In contrast, military organisation, particularly in training institutions that develop military leaders progressively, may have specific leadership evaluation perspectives and criteria which could be further analysed and operationalised to facilitate future research. Hence, it is time to formulate and review the evaluation instruments through systematic investigation.

Secondly, the research has brought forward several critical virtues found to be operationalized in the Malaysian Army context. Hence, future studies to further reveal other important virtues are also crucial. As an example, this study has shown that courage is not a positive indicator of effective leadership. Hence, studies on courage and effective leadership are recommended to be further explored and refined. Furthermore, courage, such as moral courage, social courage, collective courage and managerial courage, has been assimilated and operationalized in multiple settings (Rijamampianina, 2018). Concomitantly, other virtues could be further explored for future research.

Thirdly, this research focused on the senior leaders' level of the Malaysian Army. Continuous leadership development happening progressively in the service may not be shown directly from this research. It is recommended for future research to focus on junior and middle level officers to have a complete evaluation of the phenomenon. Fourthly, it is recommended that the research design be continuously improved and enhanced. Not only that, it must be parallel with the review and continuous evaluation of leadership development doctrine in the Malaysian Army.

5.9 Conclusion

The study has explained the crucial leadership virtues in the Malaysian Army setting. Wisdom and self-efficacy were suggested as the prime indicators of effective leadership, while emotional intelligence and creativity were mediated by self-efficacy. Courage was found to be a negative indicator, concomitantly mediated by self-efficacy. The findings have indicated several important suggestions based on the limitations that the study encountered. Hence, the implications and recommendations were proposed to improve Malaysian Army leadership development endeavours.

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LIST OF PUBLICATIONS AND PAPERS PRESENTED

Journal: International Journal of Business and Management (IJBM).
Volume: 3.
Serial: 2.
Page: 01-15.
Year: 2019.
Title: Military leadership: A systematic literature Review of current research.
Author: Mohammad Nazri and Mohamad Rudi.
Index: Malaysia citation index (MYCITE).

International Journal of Business and Management 3 (2): 01-15, 2019
e-ISSN: 2590-3721

DOI: 10.26666/rmp.ijbm.2019.1.2

Military leadership: A systematic literature review of current research

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Abstract. Although leadership is generally a complex concept, its application is crucial, especially for military organisations. Many have believed that leadership theory begins with research on military leaders. However, empirical studies on military leadership in recent years have been scarce. This study set out to analyse the recent extant literature on military leadership by applying a systematic literature review methodology. Guided by the PRISMA technique, two databases, Scopus and Web of Science, were employed, resulting in 16 related empirical studies. Further analysis of the studies revealed four significant themes: (1) leader attributes and traits; (2) leadership development; (3) adverse situations