

POSITIVITY AND INTENTION TO STAY AMONG  
PILOTS IN THE ROYAL MALAYSIAN AIR FORCE

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**POSITIVITY AND INTENTION TO STAY AMONG  
PILOTS IN THE ROYAL MALAYSIAN AIR FORCE**

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**POSITIVITY AND INTENTION TO STAY AMONG PILOTS IN  
THE ROYAL MALAYSIAN AIR FORCE**

**ABSTRACT**

The present study looks into the issue of intention to stay among pilots in the Royal Malaysian Air Force (RMAF). Intention to stay is an inverse concept of turnover intention. The psychological effect that requires pilot to serve the organisation over a period of time willingly or by compulsion is the precursor of this study. Taking insight from the positivity approach, the researcher examined the relationship between psychological capital and intention to stay, through work engagement and work happiness as mediators. The data was obtained from 364 pilots working in various RMAF units for a cross sectional approach. The hypotheses were tested using partial least squares structural equation modelling (PLS-SEM). The results underscore the role of work engagement and work happiness as mediator between psychological capital and intention to stay. The results also highlight work happiness is a better intervening mechanism for psychological capital of pilots in explaining their intention to stay. Finally, limitations of the study, theoretical and practical implications of the findings are discussed.

Keywords: conservation of resources theory, broaden and build of positive emotion, psychological capital, intention to stay, work engagement, work happiness

# **POSITIVITI DAN NIAT UNTUK KEKAL DALAM PERKHIDMATAN**

## **JURUTERBANG TENTERA UDARA DIRAJA MALAYSIA**

### **ABSTRAK**

Kajian ini membincangkan isu niat untuk kekal dalam perkhidmatan di kalangan juruterbang di Tentera Udara Diraja Malaysia (TUDM). Niat untuk kekal dalam perkhidmatan adalah konsep songsangan niat keluar dari perkhidmatan. Kesan psikologi yang memerlukan juruterbang untuk berkhidmat kepada organisasi dalam tempoh masa secara sukarela atau dengan paksaan adalah tujuan utama kajian ini. Mengambil pandangan dari pendekatan positif, penyelidik mengkaji hubungan antara model psikologi dan niat untuk kekal, melalui penglibatan kerja dan kebahagiaan bekerja sebagai mediator. Data diperoleh daripada 364 juruterbang yang bekerja di pelbagai unit TUDM. Hipotesis telah diuji menggunakan pemodelan persamaan struktur dengan menggunakan (PLS-SEM). Hasilnya menggariskan peranan penglibatan kerja dan kebahagiaan kerja sebagai pengantara antara modal psikologis dan niat untuk tinggal. Hasil kajian membuktikan kebahagiaan kerja adalah mekanisme intervensi yang lebih baik untuk model psikologi juruterbang dalam menjelaskan niat mereka untuk kekal. Batasan kajian, implikasi teoretikal dan praktikal hasil kajian juga dibincangkan.

Kata kunci: pemuliharaan teori sumber, meluaskan dan membina emosi positif, modal psikologi, niat kekal, penglibatan kerja, kebahagiaan kerja

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## LIST OF SYMBOLS AND ABBREVIATIONS

AVE	: Average Variance Extracted
CB-SEM	: Covariance Based Structural Equation Modeling
COR	: Conservation of Resources Theory
CR	: Composite Reliability
HTMT	: Hetrotrait-Monotrait
INSPEKA	: Institut Pegawai Kanan Tentera Darat
IntStay	: Intention to Stay
JDR	: Job Demand Resource
MBA	: Master of Business Administration
MPOU	: Markas Pemerintahan Operasi Udara
MTU BSM	: Markas Tentera Udara Bahagian Sumber Manusia
PCI	: PsyCap Intervention
PCQ	: Psychological Capital questionnaire
PLS-SEM	: Partial Least Squares Structural Equation Modeling
PMAT	: Perintah Majlis Angkatan Tentera
POB	: Positive Organization Behavior
PsyCap	: Psychological Capital
RMAF	: Royal Malaysian Air Force
RO	: Research Objectives
ROD	: Retirement of Date
RQ	: Research Questions
SPSS	: Statistical Package for Social Research
UMREC	: UM Research Ethics Committee
USAF	: United States Air Force
UWES	: Utrecht Work Engagement Scale
WE	: Work Engagement.
WH	: Work Happiness.



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## CHAPTER 1: INTRODUCTION

### 1.1 Background of Research Problem

Employees are regarded as the backbone of any organisation. Thus, employee's retention is paramount as to keep the organisation survive and remain relevant. In the course to retain the employees, organisations would adopt strategies to satisfy their needs and make staying in the job attractive (Hong, Hao, Kumar, Ramendran, & Kadiresan, 2012).

In general, an organisation will retain its employees for a specified period of time to utilize their skills and competencies output in order to complete certain projects or tasks. Depending on the role and function of that organisation, the level and type of competencies acquired by their personnel will determine the success of the organisation in the competitive scenario. Keeping the desirable employees within the organisation is important for gaining competitive advantage that is impossible to be substituted by other competitors in terms of their skill level and performance (Hong et al., 2012).

Past studies have identified that employees leave their employers due to job dissatisfaction, not enough supervisor assistance and feedback, insufficient training and development and also unsatisfactory pay (Kemelgor & Meek, 2008). Researchers also noted it is very difficult for an organisation to handle retention issue among the employees, concurrently by keeping the turnover rate low which in turn will not give any detrimental effect to the organisation by following the business norms (Phillips & Connell, 2003). This is attributable to the extreme demand of talented workers within the same industry and also limited numbers of talented workers available. The situation becomes more prominent when the labour market for talented workers in the said industry has reached its exhaustiveness (Hughes & Rog, 2008). As such, from the economic point

of view, it is crucial to retain the employees rather than creating employees with required skill and train them within a short period of time (Vasquez, 2014).

Pertaining to the retention in the public sector, studies indicated that managers in the public sector acquire direct influence on retention of the employees (Grissom, 2012). Therefore, managing retention is important as real employee turnover will directly affect an organisation to perform at its optimal level (Hancock, Allen, Bosco, McDaniel, & Pierce, 2013; Park & Shaw, 2013). Consequently, when performance of a public sector is below than the optimal level, substandard services are offered to the public at large which is not acceptable. In the same vein, Cho & Lewis (2012) find that hiring new employees may incur more cost to the organisations. In a similar study conducted in the military context, Steel, Griffeth & Hom (2002) highlighted that the United States Air Force (USAF) regarded the pilot-retention as a significant problem. There were about two third of their pilots opted to leave the military service after satisfying their initial compulsory service period. They surrendered their commission and left for another job in the private sectors. The attrition rate had caused alarm to the USAF, the scope of the problem was further expounded when it was revealed that to train a single pilot in the Air Force would bring a cost to about USD 6 million (Steel, Griffeth, & Hom, 2002).

In relation to the Royal Malaysian Air Force (RMAF), the issue of pilot retention is also prominent. There were instances where the higher authority had to intervene (Perintah Majlis Angkatan Tentera (PMAT) Bilangan 1 Tahun 2004(A), 2004; Perintah Majlis Angkatan Tentera (PMAT) Bilangan 3 Tahun 2010, 2010). The Armed Forces Council which is the highest authority to administrate and manage the Malaysian Armed Forces (MAF) had issued two instructions prominently on matters of retention of pilots. The said instructions were issued in 2004 and 2010 respectively. The instructions are still in force and legitimate.

The recruitment and retention of pilots have been integral to the RMAF in developing policy for the human capital. A highly knowledgeable and skilful workforce is seen as vital to the organisation's function and development as the air force deals directly with the latest technology and capability. Moreover, continuous development of skills and capabilities are rooted from the continuous research development, service innovation and the utilisation of high-tech sophisticated systems, suggesting that the role of pilots in the RMAF is of great value. The contributions and the importance of pilots in the RMAF are summed up in the following remarks by the Chief of Air Force, General Tan Sri Dato Sri Haji Affendi bin Buang RMAF in his inauguration instruction (*Perintah Ulung*) as the new Chief of Air Force in 2017 (Buang, 2017). His instruction suggests that the role of pilots in the RMAF is undoubtedly very critical for the growth of the organisation. The same emphasis was followed suit by the subsequent Chief of Air Force, General Dato' Sri Ackbal bin Hj Abdul Samad RMAF in his "Perintah Ulung" speech when he assumed office in early 2020.

## **1.2 Problem Statement**

Presently, the total strength of pilot in the RMAF is about 587 (as of Nov 2019, MTU-BSM). It takes about one year for a student pilot in RMAF to finish his course in the flying school. Then after, upon receiving "wing" or graduation, the pilot will undergo a series of conversion course before he could be deployed to respective operational flying squadrons. At the operational squadron, the newly posted pilot who is a rookie will still have to undergo various types of conversion before he/she becomes a full fledge operational pilot. To reach this level, it takes another 2 to 5 years depending on variables that affect the conversions such as aircraft and supporting crew availability, weather and human performance.

In terms of cost, the approximate cost for a basic flying training for a pilot candidate is about RM500,000 (Perintah Majlis Angkatan Tentera (PMAT) Bilangan 3 Tahun 2010, 2010). The operational conversion course for a pilot is costlier as it uses the real operational aircraft. Depending on the aircraft types, the cost ranges from RM 400 thousand to RM 24 million (MPOU-A5; Steel et al., 2002).

The RMAF produces their own pilots from its sole basic flying school in Air Force College, Alor Setar. Annually, the flying school could only produce 30-40 pilots. Of this number, 10 percent will normally be delayed or dropped from the conversion due to various reasons (MTU-BSM). On the other hand, the number of pilots leaving the service annually ranges from 30 to 70 people. Of this figure, 0.9 to 3 percent were pilots leaving the service prematurely (MTU-BSM) while the others were upon reaching compulsory retirement (P.U.(A) 183/2013, 2013)

The worry of the imbalance of recruiting versus leaving service pilots issues was prominent when the Malaysian Armed Forces Council made an instruction in 2010 to extend the term of service from 13 to 18 years for the newly pilots trained and recruited (Perintah Majlis Angkatan Tentera (PMAT) Bilangan 3 Tahun 2010, 2010). This motion is intended to retain pilots in the service.

Based on the promulgation of the PMAT 3/2010, pilots graduated after 2010 will have to serve minimum of eighteen years from the date of receiving wings. However, the compulsory extending the years of service will not address the real issue of pilots leaving the service prematurely. This has left the real issue to the nature without being appropriately attended. Thus, there is a gap for further research on this matter. To date, there was no proper research conducted on the said matter especially on the extension of the retention of pilots.

In the furtherance, even though the probability of minimum tenure of serving pilots in the RMAF has been extended to eighteen years (with the increment of five years). This may lead to the condition where the pilots continue to serve the **RMAF by compulsion and not by own free will** after the thirteen years of service (Rousseau, 2012). This individual's own free will articulates the concept of psychological presence which is regarded as personally engaged behaviours (Kahn, 1990). These behaviours that constitute the personal energies are being channelled into physical, cognitive, and emotional labours (Kahn, 1992). As such, by having the psychological presence of compulsion and not own free will, this will eventually increase the predictor of intention to leave among the pilots.

Literatures suggested that although intention to leave may not necessarily lead to real turnover, there is evidence that shows it may lead to lower engagement (Schaufeli & Bakker, 2004), lower performance (Shaukat, Yousaf, & Sanders, 2017) and lower happiness level (Bakker & Oerlemans, 2016). In addition, this condition may also increase the negative behaviour such as high in absenteeism (Avey & Jensen, 2009).

The way this research is being conducted, after considering the literature from Steel, Griffith and Hom (2002), is that this research would not embark on the financial cause of the retention issue as salary, remuneration and emolument of RMAF pilots which will involve the political and policy at the national treasury level in which is beyond the RMAF full command and control. The design of this study is focusing on the outcome that the RMAF as an organisation could remedy and take the necessary actions within its own boundary for its command and control.

In the furtherance, the focus of the study is on the individual strength of the pilot itself particularly on the psychological resources. Alternatively, it is interesting to see despite the fact of the issuing Armed Forces Council Instruction on the extending the service of

the pilots, there were pilots who opted to leave the organisation, but in the same vein, there were also pilots who chose to remain in the Air Force service. It is an undeniable fact that monetary gains which were offered by the private airlines were much more lucrative, and yet most RMAF chose to stay in the RMAF.

The statistic of the strength of the RMAF pilots obtained from the RMAF Headquarters – Human Resource Department (MTU-BSM) shows the alarming scenario. Even though the figure of pilots leaving prematurely ranges between 0.9 to 3 percent, considering the cost and other incidentals, it gives a great impact to the organisations and subsequently to the nation, considering the role of the RMAF that is to safeguard the sovereignty. The total number of pilots is also decreasing each year from 689 in 2012 to 587 in 2019. The statistic of pilots who left the RMAF service prematurely is shown in Figure 1.1. The current strength of pilots serving the RMAF as of Nov 2019 is also shown in Figure 1.1.

Year	Retirement age	Number of pilot retired prematurely	Total pilot retired prematurely	Total population of pilots in RMAF	Percentage %
<b>2012</b>	35	1	6	689	0.9
	46	2			
	50	1			
	51	2			
<b>2013</b>	46	4	8	685	1.2
	49	1			
	55	1			
	56	2			
<b>2014</b>	44	13	18	578	3.0
	46	1			
	47	2			
	49	1			
	50	1			
<b>2015</b>	43	1	8	570	1.4
	44	2			
	45	3			
	48	1			

Year	Retirement age	Number of pilot retired prematurely	Total pilot retired prematurely	Total population of pilots in RMAF	Percentage %
	56	1			
<b>2016</b>	38	1	14	568	2.4
	44	2			
	45	1			
	46	3			
	47	3			
	49	1			
	51	1			
	52	2			
<b>2017</b>	44	1	5	554	0.9
	45	1			
	46	2			
	51	1			
<b>2018</b>	34	1	10	611	1.6
	44	1			
	45	1			
	47	3			
	48	3			
	55	1			
<b>2019</b>	41	1	13	587	2.2
	42	1			
	43	1			
	44	1			
	45	2			
	47	1			
	48	3			
	53	1			
	54	1			
	57	1			
<b>TOTAL</b>		<b>82</b>	<b>82</b>		

**Figure 1.1: Pilots left the RMAF service prematurely (source: MTU-BSM)**

Based on the statistic given above, it is suggested that 0.9 to 3 percent of the RMAF pilots had left the organisation prematurely since 2012 until 2019. In the extension of this thought that 0.9 to 3 percent pilots had left, the remaining pilots which form the bigger



representation opted not to leave the organisation. In fact, they continued to serve the RMAF until their compulsory retirement age despite the great potential of being employed in the private airlines which offer very lucrative salary. As such, it is more appropriate to look into the question of why RMAF would want to stay in the service rather than leaving the service.

To date, after the promulgation of the PMAT 1/2004 and PMAT 3/2010 which extended the service of pilots from 10 to 13 years and subsequently 18 years respectively, there was no official study that had been conducted to investigate the effect of such promulgations. This has left behind questions and uncertainties of the level of RMAF pilots' personal resources in discharging their duties in their predetermined tenure. As such, there is a gap for research to explore the RMAF pilots' personal resources in their psychological effect, in their state of mind while accomplishing their duties and their level of happiness while performing their duties.

In academic research, the retention leading factors were deliberately identified (Kumar & Govindarajo, 2014). Several factors for increasing retention were studied such as; reward system which includes managerial style, hiring practice, competitive compensation, and lack of recognition (Abbasi & Hollman, 2000; Science, 2017); fairness at workplace which includes the justice system being adopted within the organisations. In the aspect of fairness, the perception of how justice is being carried out at work place was also studied (Colquitt, Wesson, Porter, Conlon, & Ng, 2001; Gillet, Becker, Lafrenière, Huart, & Fouquereau, 2017); Factor of wage and salary, researchers observed that the increment of salary also plays important role on turnover among workers (Trevor, Gerhart, & Boudreau, 1997).

An alternative perspective is propagated where it would diverse from the negative (Seligman & Csikszentmihalyi, 2000) in which it has also been noted by Luthans and

Avolio, (2009) that over the years probably more attention in organisational behaviour psychology has been given to the positive than the negative.

In the military context, Matthews, (2008) propagated that military is the best place for positivity approach. Considering the nature of its training and operation, a military person lives in a culture of living in pressure and that makes him always to be positive in pursuing the military career. In addition, the vast majority of the military personnel are typically young and healthy. Those who have medical issues have been filtered and estopped from joining the military right at the entry point before joining the military service. Thus, in the same spirit, the study of positivity which focuses on the individual strength of resources would be more appropriate in the context of RMAF pilots.

Since the study is looking from the inner strength of the pilots, this also involves RMAF pilot's own resources that has been nurtured and cultured in them by virtue of the military robust training throughout their service career. The resources vary from the physical and psychological aspect. However, for this study, the researcher intends to look solely on the non-physical resources.

Taking insights of the positivity and the strength of personal own resources, past studies suggested that positivity work within the ambit of determined variables. As such from previous literature, the scope of this study will look into the perspective of positivity research.

From positivity point of approach, a study by Schulz, Luthans, & Messersmith, (2014) discovered that psychological capital gives effects on performance-based outcome, hence offering more researches could have been conducted in this area of positive psychology. The researcher also suggested that those employees with high psychological capital will have higher levels of job satisfaction and commitment to their organisation. In the

consequence, the employees are therefore less prone to quit. Empirical evidence has also shown that psychological capital could be utilised in improving retention rates especially for truck drivers (Schulz et al., 2014). Taking this into consideration, it is therefore essential to extend the study of the inner strength of positive psychology to the RMAF pilots.

In the circumstance, as this study adopts from the viewpoint of a positive psychological, the focus is on understanding and fostering the factors that enable individuals interacting with communities and society to flourish (Seligman & Csikszentmihalyi, 2000). Hence, positive psychology objective is to uncover and understand what makes life good, focuses on the individual strength, which identify the positivity of an individual, the positivity that relates to the retention in an organisation. Past studies have shown that psychological capital gives positive effect on intention to stay, due to its inclination towards positivity (Avey & Jensen, 2009; Avey, Luthans, & Youssef, 2010). Studies also suggested that high psychological capital employees are confident, optimistic, and resilient, hence they are efficacious, involved, and immersed in their work (Luthans, Youssef, & Avolio, 2007).

A study conducted by Diener & Biswas-Diener, (2008) shows that happy employees prone to stay in the current job with the same employer as opposed to inclination to quit and find looking for another job elsewhere. This is due to the fact that happy workers are more likely to enjoy their job environment (Diener & Biswas-Diener, 2008). In the circumstance, it would essential to see that work happiness could affect the retention of pilots in the RMAF. Therefore, this study would also seek in examining work happiness in relation to the RMAF pilots.

Likewise, Schaufeli & Bakker, (2004) have identified that work engagement to be positively related with the intention of staying with one's organisation. Thus, work

engagement is identified as a precursor to determine the employee's retention. In the extension, this precursor would be crucial in determining the RMAF pilot's retention. As such, work engagement will be further examined with regard to the RMAF pilots in this study.

Therefore, this study will be conducted from the viewpoint of positivity. Encouraging the positivity in the organisation is much more beneficial, doable, simpler rather than focusing on negativity and trying to reverse it which coincides with the famous saying, "prevention is better than cure!".

In view of the discussion above, we submit that a proper research needs to be conducted as to oversee this underlying issue in the perspective of positivity. Thus, it is imperative to investigate this issue from the positive psychology approach in the retention of pilots in the RMAF. Consequently, it is a necessity to investigate psychological capital, work happiness and work engagement and their relationship with the intention to stay.

### **1.3 Research Questions**

The problems of the study have guided us in formulating the major questions of this study as, what individual, psychological, emotional and conditional factors are influencing intention to stay. To further investigate intention to stay within the RMAF setting, this study will focus on the following research questions (RQ):

RQ-1: Will psychological capital influence work engagement among pilots in the RMAF?

RQ-2. Does psychological capital have any relationship with work happiness among the pilots in the RMAF?

RQ-3. Does work engagement have any relationship with intention to stay among the pilots in the RMAF?

RQ-4. Does work happiness have any relationship with intention to stay among pilots in the RMAF?

RQ-5: Will work engagement mediate between psychological capital and intention to stay?

RQ-6: Will work happiness mediate between psychological capital and intention to stay?

#### **1.4 Research Objectives**

Taking insight from the research questions, the central objective of this study is to investigate psychological capital on intention to stay through the mediating process of work engagement and work happiness. So, on the basis of this prime objective, we articulate several research objectives (RO) as follows:

RO-1: To determine whether psychological capital has any relationship with work engagement.

RO-2: To determine whether psychological capital has any relationship with work happiness.

RO-3: To investigate whether work engagement has any relationship with intention to stay.

RO-4: To assess whether work happiness has any relationship with intention to stay.

RO-5: To examine whether work engagement has any mediating effect between the relationship of psychological capital and intention to stay.

RO-6: To analyse whether work happiness has any mediating effect between the relationship of psychological capital and intention to stay.

### **1.5 Purpose of the Study**

This paper is intended to examine a proposed model of intention to stay where psychological capital, work happiness and also work engagement affect intention to stay. The study will also examine the effect of work engagement and work happiness as a mediating between psychological capital and intention to stay, and this proposed direct relationship is contingent on the emotional value and behaviour among the RMAF pilots. Therefore, this proposed study aims to test a comprehensive mediation model of intention to stay of pilots in the Royal Malaysian Air Force.

### **1.6 Significance of Research**

The psychological effect of pilot continuing the service by compulsion but not by own free will after the promulgations of PMAT extending their period of service is in need for further research. This study has established the influence of psychological capital through work engagement and work happiness on intention to stay among pilots in the Royal Malaysian Air Force. This outcome will serve as an input towards a better understanding of the importance of positivity in managing pilots in RMAF.

In addition, this study will contribute to the modelling of the relationship between psychological capital and employee retention, by investigating the mediating effect of work engagement and work happiness relationship with intention to stay. Empirically, it is the first study to explore systematically the relevance of constructs from Broaden and Build Theory (Fredrickson, 2001) and Conservation of Resources Theory (Hobfoll, 1989) to an understanding of pilots in the RMAF context.

The study also introduces two mediating effect simultaneously, hence, offering the distinction between the two of their importance towards retention of employee in an organisation. Previous study acknowledges the significance of work engagement and happiness, but less research was conducted to test both mediators simultaneously.

Through an examination of the factors influencing retention of pilots employed in RMAF, this study addresses *lacuna* of previous research in this area with regard to the RMAF context. It seeks to replicate and extend previous studies using Broaden and Build and Conservation of Resources Theory, simultaneously to apply them in a new context (Fredrickson, 1998) . Thus, this study explores the relevance of the concept of positivity yields extended thought-action repertoires, consequently building up the physical, psychological, and social resources, particularly the extent to which psychological capital influences RMAF pilots to stay.

The significance of this research will also identify the underlying issues related to premature turnover intention for pilots within the RMAF. The operational pilots who left the service prematurely were similarly regarded as amongst those smartest and talented (Abbasi & Hollman, 2000). By virtue of the smartest and talented employees who opted to leave, their valuable experiences, valuable knowledge and built talent also leave with them, resulting vacancy that is timely and costly to be replaced (Abbasi & Hollman, 2000), which in return, could disrupt the smooth function of an organisation.

Even though flying and conversion cost are very expensive, monetary factor is not the only concern of turnover. RMAF should also mitigate the consequence of turnover as it gives direct impact to successful military mission. It affects the efficiency of the organisation, may also affect the morale of its personnel(Abbasi & Hollman, 2000) and may also affect the smooth operation and function of the RMAF as a distinguished military organisation (Watrous, Huffman, & Pritchard, 2006).

In this circumstance, understanding of employees' responses and their implications for organisational outcomes will enable organisations to plan and implement policies and practices that can influence employees' present and future retention behaviours. It is a bottom-up rather than a top-down approach that this study seeks to be conducted.

### **1.7 Scope of the Study**

The focus of this research is theoretical in nature: the enhancement of the relevance of constructs from Broaden and Build Theory (Fredrickson, 2001) and Conservation of Resources Theory (Hobfoll, 1989) to an understanding of pilots in the RMAF context. Such enhancement can be infused through the facilitating condition factor, which should account for any external variable that might impact RMAF behaviour within the models' framework. The boundaries of this study can be explained from different angles. First, the intention of RMAF pilot and Second this study conducted in military context.

### **1.8 Thesis Outline**

This study is organized into five chapters. Chapter 1 of the study gives an overview of the background of research problem and consequently by the description of the problem statement, research questions, research objectives, purpose of the study, significance of study and definition of the variables of study

Chapter 2 provides the literatures from the past studies on intention to stay as dependent variable and the relationship with one independent variable that is psychological capital through two mediation variables: work engagement and work happiness. Consequently, construction of the research model is discussed and finally hypotheses of the study is developed.



Chapter 3 deliberates on research methodology of the study. This comprises research design, population of the study, sampling method, the development of the questionnaire for the research, measurement of data analysis and pilot study.

Chapter 4 gives explanation about data analysis result based on the questionnaire distribution, which data is collected and analysed by using Statistical Package for Social Research (SPSS) and Smart PLS-SEM software. The summary of the results is presented in several tables to foster interpretation.

Chapter 5 explains about the discussion and conclusion derived from the study. It comprises of research overview, discussion on research result, implication of the study, study limitations and future research and lastly, conclusion.

## **1.9 Conclusion.**

This chapter explains and describes the research background, problem statement and further explains research question, research objective and significance of research. Finally, the organisation of the chapter and its conclusion is explained by this chapter. Focus was given to the intention to stay, psychological capital, work engagement and work happiness. The next chapter will explain the literature review that is relevant with this study.

## **CHAPTER 2: LITERATURE REVIEW**

### **2.1 Introduction**

This chapter will discuss the literature review of intention to stay, psychological capital, work engagement and work happiness. This chapter will also discuss previous literatures on positivity inclusive of intention to stay. In addition, this review will also look into the important aspect of definitions, constructs' antecedents and outcomes, dimensions and its relationships with other constructs which are the focus in this study; along with the measurements used that will also be determined. The underpinning possible theories in order to support the model the study will also be highlighted. At the end of this chapter, hypotheses development then is discussed which is related to the theoretical framework of this research

### **2.2 Intention to Stay**

According to Saridakis & Cooper, (2016), productivity and performance place importance on retaining talent and it is capable in improving the organisation's efficiency. It is stated by the theory of intention to stay that the intention of workers is a significant indicator of one's intention to stay in the organisation (Mobley, 1977; Steel, 2002; Steel & Lounsbury, 2009). In the eyes of an individual, the perceptions are observed as the reality and job-related perceptions play an outstanding function in the process of the intention to stay (Mobley, Griffeth, Hand, & Meglino, 1979). Workers assess present job content, which has an effect on job satisfaction, resulting to process of decision making whether to stay or quit.

Within the retention literature, the problem of low retention is normally expressed in terms of high turnover resulting from lower commitment with an organisation (Gellatly, Meyer, & Luchak, 2006; Meyer & Herscovitch, 2001; Steel et al., 2002; Steel & Lounsbury, 2009; Steers, 1977; Tett & Meyer, 1993). Researcher observed the solution

to the problem is then operationalised in terms of the mobilisation of long-term commitment, or intention to stay within the organisation, or via provisioning the reward in the long term career planning within the organisation (Baruch, 2004).

Several definitions of intention to stay proposed by many authors are found in the literature. For instance, Ajzen and Fishbein (1980) and Igbaria and Greenhaus (1992) view the willingness of the employee to remain in an organisation as intention to stay. A number of authors such as Kim, Price, Mueller, and Watson (1996) Lyons, (1971), Price & Mueller (1981) and Tett and Meyer (1993) corroborated on intention to stay as referring to the plan to continue with the organisation.

Nevertheless, it has been highlighted in the literature regarding the interchangeability between the terminologies “intent to stay” and “propensity to leave” by the authors. Several authors claimed that both terminologies are deemed as vital turnover determinants (Igbaria & Greenhaus, 1992; Tett & Meyer, 1993). Despite of the argument on the usage between the two terminologies, Tett and Meyer (1993) put forward those terminologies are the key factors in determining the actual turnover in an organisation. Hence, the construct of turnover intention was deployed by the researchers in some studies despite having intention to stay as the focus of investigation (eg, Bozeman & Perrewé, 2001; Johari et al., 2012).

In the circumstance, literatures on turnover that distinguishes between actual leaving and having the intention to leave are also found where the focus is more on the intent (Johnsrud & Rosser, 2002). Martin (1979) asserted that once a person intends on leaving, there is an existence of inclination to resign and this is the final step prior the actual leaving which indicates as a strong predictor of the actual turnover (Bluedorn, 1982; Lee & Mowday, 1987; Vigoda-Gadot & Ben-Zion, 2004). Intention to stay is referred by the

researchers as behavioural commitment and attachment, , intent to quit, the propensity to leave and intent to stay (Halaby, 1986; Mueller, Finley, Iverson, & Price, 1999).

When researcher discussed about intention to stay, they would associate this topic with retention, commitment and turnover. Scholars have identified that intention to stay should be regarded as related to commitment (Meyer & Herscovitch, 2001; Steers, 1977; Tett & Meyer, 1993), on the other hand, turnover and retention should be viewed as an observable outcome of the current intention in practice. In the absence of turnover within self, latent desire to leave may thus be affected without realising the circumstances of the external labour market. As such, retention may involve the combination of internal alienation and commitment within self. The internal alienation is regarded as negative and in contrast, commitment is positive. So, there were negative and positive factors that mingling around in retention.

Allen & Meyer, (1990) identified three aspects that were involved in the relationship between retention and commitment. First, the continuance of commitment simply depending on the avoidance of cost and risk which is associated with leaving. Second, employees can be cultivated to have the feeling of normative commitment with the sense of obligation to stay with the current employer/organisation. Lastly, the employee feels to have the emotional attachment to the organisation with an affective commitment.

These three aspects are regarded as elements of commitment instead of different category due to the ability possessed by an employee to have all three aspects (Meyer & Allen, 1991). Previous related studies on intention to stay and commitment support the relation between retention and commitment by many researchers in different fields (for example Choi, Oh, & Colbert, 2015; Lee, Allen, Meyer, & Rhee, 2001; Vandenberghe, 1996, 2003; Wasti, 2003; Gellatly, Meyer, & Luchak, 2006; Meyer & Herscovitch, 2001;

Steers, 1977; and Tett & Meyer, 1993) involving researches on hospitality (e.g., Cichy, Cha, & Kim, 2009; López-Cabarcos, Machado-Lopes-Sampaio-de Pinho, & Vázquez-Rodríguez, 2015; Namasivayam & Zhao, 2007).

Employees who voice commitment towards the organisation could have more optimistic view regarding their organisations and display greater intention to stay which resulted to decreasing turnover (Cho, Johanson, & Guchait, 2009; Cho, Woods, Jang, & Erdem, 2006; Costen & Salazar, 2011). From the perspective between certain dimension of commitment with regard to employee turnover, it has been discovered by some studies that affective commitment has strong inverse relationship with turnover intention (e.g., Kim & Brymer, 2011; Mohamad Abdullah & Abdul Rahman, 2011; Zopiatis, Constanti, & Theocharous, 2014). It was also discovered in continuance commitment that there is a strong relationship between continuance and turnover (Mayer & Schoorman, 1992). Jaros, Jermier, Koehler, & Sincich, (1993) explored the withdrawal tendency variable which influences the quitting thoughts, intent to search, intent to leave including turnover and discovered that there was a significant indirect effect between affective and continuance commitment and turnover.

In the consequence, Ghosh, Satyawadi, Prasad Joshi, and Shadman, (2013) stated that besides affective commitment and goal clarity, it was also discovered that normative commitment influences the intention of employees among the managers to stay in an organisation. Although past studies supported the positive (negative) correlation between organisational commitment and the intention to stay (turnover intention), several inconsistencies where insignificant relationships between commitment dimensions and intention to stay were present (e.g. Carbery, Garavan, O'Brien, & McDonnell, 2003; Zopiatis et al., 2014)

Steers (1977) identified that there is a positive relation between commitment and the intent/desire to stay in an organisation. Therefore, the three aspects of organisational commitment play a significant role in binding the employees with the organisation (Gellatly et al., 2006). Previous study (Tett & Meyer, 1993) also identified that intention to stay is strongly related and becomes mediator to the effect of commitment on actual behaviour.

In the aspect of antecedents and consequence of employee turnover, research on intention to stay will also discuss the turnover process as both are the antecedent and effect of actual turnover (Mobley, Homer, & Hollingsworth, 1978).

Steel and Lounsbury (2009) suggested that turnover can be further categorised into three frameworks, which is universal, modal and subpopulation turnover. The researchers also argued that each framework analyses turnover distinctly. The universal framework analyses turnover by explaining individual turnover without considering the unique circumstances of that person. In contrast, modal framework recognises the fundamental diversity of individual in decision making process. Meanwhile, subpopulation framework combines the personal and contextual factors that lead to turnover in the decision process. Thus, it is suggested that the subpopulation turnover framework is the framework that integrates between individual and labour market in affecting turnover factors.

Many studies in the past have proposed that intention to stay is a good predictor of employee turnover (Cavanagh & Coffin, 1992; Price & Mueller, 1981; Weisman, Alexander, & Chase, 1981). When an employee has no intention to remain in an organisation, this intent is trailed by turnover behaviour (Irvine & Evans, 1995). A study carried out by Chang and Chang (2008) revealed that employees are prone to stay within the same organisation rather than to leave the organisation if human resources are

effectively practiced. Nedd (2006) also highlighted the importance of factors linked to the intention of stay among the employees to the management so as to create strategies to assist the intent to stay of the employees in similar organisation.

As retention and turnover are related, they may not necessarily reciprocate. Steel, Griffeth, & Hom (2002) proposed that employee may stay with or leave an organisation for similar or different reasons. In another study, Steel and Lounsbury (2009) contended that turnover theory primarily looking at antecedents for quitting rather than justifying reasons for staying (such as employee retention) due to the assumption that retention (decision to stay) is inversely related to turnover (decision to leave). However this assumption was debated by Steel et al., (2002) and (Mitchell, Holtom, Lee, Sablinski, & Erez, 2001) who contended that theory of turnover may not explain the concept of intention to stay (retention).

According to Steel and Ovalle (1984), Carsten and Spector (1987) and Iverson, (1996), there was a strong negative relationship between intention to stay and turnover. However, intention to stay is merely the inverse of turnover intention (Johari et al., 2012; Kim et al., 1996). Black and Stevens (1989) stated that there was a strong negative correlation between intention to stay and turnover. As being referred to as the willingness of an employee to remain in an organisation, the intention to stay constantly exhibited with turnover compared to other turnover precursors (Tett & Meyer, 1993).

According to Johari et al., (2012), employees will be more occupied with their job when they believe that they have contributed to the organisation and this will lead to less likelihood for them to leave their organisation. Similarly, those employees who deem that there is a higher possibility for them to be promoted are more prone to remain in the organisation instead of leaving it. The chances of promotion will provide a sense of

gratitude, appreciation to the employees and will affect their decision whether they want to remain in or leave the organisation.

In another research by Gamage and Herath's (2013) indicated that career development has positive relationship with intention to stay. Both claimed that in deciding whether to leave or stay, it depends if the work is demanding for the employees or they receive work support and personal growth in organisation.

The discussion above suggests that intention to stay (retention) and turnover which involve physical mobility are behaviours that can be measured. On the other hand, intention to leave or stay involving physical mobility is regarded as perception or attitudes which cannot be readily observable. The connection between employees' behaviour (such as retention) and employee's attitude (such as intention to stay) is commitment. In the same vein, Allen and Meyer (1990) regarded commitment as a psychological concept in which the observable outcome would be a turnover or retention. However, there was less information on psychological process related to the development of commitment in an organisation (Mowday, Porter, & Steers, 1982). Consequently, Mowday, Koberg, & McArthur (1984) found that many studies are in support to the proposition that job attitude influence withdrawal cognition in turnover behaviour. However, there are conceptual reasons which indicate that decision in turnover may differ depending on the circumstances and job setting of an employee being employed in different organisation (Mowday et al., 1984).

Similarly, in the military organization study of retention has also become paramount. For examples; A study to examine subjective operational experiences and career intentions in deployed UK military personnel using data gathered toward the end of an operational deployment (Morris-Butler, Jones, Greenberg, Campion, & Wessely, 2018). A study on retaining female air force officer associated with satisfaction and career



intentions regardless of family type (King, DiNitto, Salas-Wright, & Snowden, 2019). A study on recruitment and retention in British Army Reserve Logistics Unit (Bury, 2016). A study was conducted to examine the impact of inclusion on reducing intentions to leave in a military context through the role of burnout (Merlini, Bupp, Merlini, & Garza, 2019). Study of voluntary turnover on Canadian Forces recruits undergoing basic military training (Godlewski & Kline, 2012). Study on reasons for staying in or leaving the military among navy mothers in deployment missions (Kelley et al., 2001). Study on intention to stay among US Air Force Physicians, indicated from their findings that commitment is more of important determinant factor as compared to satisfaction (Kim et al., 1996).

### **2.2.1 Definition of Intention to Stay**

Aboobaker, Edward and KA (2019) defined intention to stay as “an employee’s conscious and deliberate willingness to stay with the organization”. Shahid (2018) defined, “employees’ intention to stay in the existing employment relationship with their current employer on a long-term basis”. Sandhya and Kumar (2011)’s definition on intention to stay as “the workers loyalty and the degree of their planning to remain in the company”. Kim, Price, Mueller and Watson (1996) define, “intention to stay is simply the converse of turnover intention”. Tett and Meyer (1993) have defined intention to stay as “employees’ willingness to stay with an organization”. Johari (2012) define intention to stay as “Employees’ intention to stay in the present employment relationship with their current employer on long term basis. This is an inverse concept of turnover intention or intention to quit”. Their studies have proven that intention to stay is the actual predictor of retention or actual turnover.

**Table 2.1: Summary Definition of Intention to Stay**

<b>Authors</b>	<b>Definition</b>
Aboobaker, Edward and KA (2019)	“an employee’s conscious and deliberate willingness to stay with the organization”
Shahid (2018)	“employees’ intention to stay in the existing employment relationship with their current employer on a long-term basis”
Sandhya and Kumar (2011)	“the workers loyalty and the degree of their planning to remain in the company”
Kim, Price, Mueller and Watson (1996)	“is simply the converse of turnover intention”
Tett and Meyer (1993)	“employees’ willingness to stay with an organization”
Johari (2012)	“Employees’ intention to stay in the present employment relationship with their current employer on long term basis. This is an inverse concept of turnover intention or intention to quit”

### **2.2.2 Operational Definition of Intention to Stay**

There are multiple number of definitions advocated by scholars on intention to stay. This study adapts the definition by Johari (2012) which state “Employees’ intention to stay in the present employment relationship with their current employer on long term basis. This is an inverse concept of turnover intention or intention to quit”. The voluntary action by an individual to continue staying in organization is due to the positivity acquired within self, any challenges and adversarial situation at workplace are alleviated by this positivity. Such intention will eventually lead to remain in the organization until the compulsory retirement age.

### **2.3 Positive Psychology**

This paper adopt from the stand point of positive psychology which seeks to understand and foster factors that enabling individuals, together with community and society to flourish (Seligman & Csikszentmihalyi, 2000). As such, positive psychology

primary aim is to uncover and understand what really makes life good. This means to say this positive psychology study is simply to understand the feeling and importance of being good (Luthans, Youssef, et al., 2007).

Positive psychology has emerged as a movement to reinforce the notion that psychological has its own strength and resources. These strengths and weaknesses could shape attitude and lead to desirable outcomes in many instances especially outcomes at workplace (e.g. Lyubomirsky, King, & Diener, 2005). This movement has reoriented and shifted the focus of previous psychological researchers from negative; of what is wrong with the people into positive; of what is right with people. The aim of the movement is to use the scientific approach as their methodology in order to analyse and advocate the research of vitality building up individuals' strengths as opposed to research on their weaknesses (Seligman & Csikszentmihalyi, 2000).

In the military context, Matthews (2008) suggested that positive psychology approach should be adopted in the study of the military as military establishment is the perfect home for positive psychology. He enshrined the military as being composed of relatively young age, healthier and pathological free individuals. Only the young ones can join the military and those with health issues will be filtered from entering the establishment. The armed forces which emphasize strongly on character development, morale and welfare is thus construed as a positive institution (Matthew, 2008)

### **2.3.1 Broaden and Build Theory of Positive Emotion**

The Broaden and Build theory emerged from the notion of positive emotions feel good, in the furtherance Fredrickson propagated this statement acts as the precursor to venture further into the positive emotions (Fredrickson, Tugade, Waugh, & Larkin, 2003). Fredrickson & Joiner, (2002) propagated that positive emotions do not only promote feeling good in the present time but also increase the chances of one to feel good in the

future (an upward spiral towards emotional wellbeing). As such, Fredrickson & Joiner (2002) regarded positive emotions possess the potential to build eternal state of wellbeing. Hence, understanding in depth the value of positive emotions could assist fostering positive emotions in an individual. Contrary to negative emotions which give effect to narrow people's thought action repertoires, people's thought action repertoires will be broaden by positive emotions, at the same time will encourage them to uncover the fresh ways of thought and action within self (Fredrickson, 2001). Therefore, an individual's sense of wellbeing is built and broaden and not constrained by negative emotions.

### **2.3.2 Conservation of Resources Theory**

Conservation of Resources Theory (COR) by Hobfoll (1989) describes an individual seeks to acquire and maintain resources in order to accommodate, to withstand, to overcome threats or to improve strengths. In the course of seeking and acquiring these resources, one may accumulate material resources (such as food, clothes or homes), personal resources (such as self-confidence, self-esteem and optimism), conditions resources (such as financial security, social support, status) and also energy resources (such as knowledge, time and money).

From this theory, there were principles, propositions and assumptions associated with. As resources is a subject matter in discussing this theory, it is essential to identify what resources are already possessed by oneself, on the other hand, one must also identify resources that do not belong to himself or herself at the material time but possibly be acquired. As such, the first principle in this theory is that individuals will invest in their own resources so as to face the hostile circumstances and simultaneously to protect themselves against any negative outcomes (Hobfoll, 1989). The next principle is individuals do not only struggle to protect their own resources, but also to collect them in the sense that new resources will be added to their original amount of resources. Hence,

resources tend to generate other resources in multiplicity, as such creating resource caravans, in which may result positive outcomes, such as increasing level of coping reactions and improve well-being (Hobfoll, 2002). Ultimately this theory will avoid any detrimental effect but promote improved conditions instead.

#### **2.4 Psychological Capital (PsyCap)**

From the psychological capital literature, it was initiated based on the positive psychology focusing on understanding of normal people's well-being, inclusive of their productivity, function and potential (Seligman, Steen, Park, & Peterson, 2005). This approach of positive psychology has sparked many researchers in various field such as management and organizational behavior, which consequently apply the positivity to the workplace (Luthans, 2016; Luthans & Avolio, 2009).

Based on positivity, positive organization behavior (POB) was developed to understand the positivity of human resources strength and psychological capacities. As such POB is defined as “the study and application of positively oriented human resources strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement in today's workplace” (Luthans, 2002, p.59). Some criteria for a psychological construct which needs to be inserted in POB are highlighted by this definition. First of all, in order to be considered as scientific study, it has to be theory-evidence-based. Next, it should have positive orientation and hence, coherent with positive psychology, positive organisational scholarship, and other positive research streams. Moreover, it should be able to provide valid and reliable measurement which enables for thorough scientific study and research. Apart from that, there should be an allowance for management and development. Lastly, it has to be linked to anticipated and quantifiable work attitude, behavior and performance criteria (Luthans, 2002a, 2002c).

In the furtherance, Luthans, Avolio, Avey, and Norman (2007) found that employees possess four types of positive psychological states which are composed of self-efficacy, optimism, hope, and resiliency. Later, Luthans, Norman, Avolio, and Avey (2008) and Luthans, Youssef-Morgan, and Avolio, (2015) suggested that psychological capital is one's state of development that could be characterized by: (1) having confidence (self-efficacy) able to face and take necessary action to succeed in a challenging environment/mission, (2) adapting a positive attribution (optimism) on how to succeed at present and future time, (3) persevering mission statement (hope) and reorienting paths to goals when necessary in order to succeed and (4) when encountering problems and adversity, able to sustain and bounce back and even beyond (resiliency) as to capture success.

The above statement clearly suggested that psychological capital consists of four constructs: self-efficacy, optimism, hope and resiliency. Although the four constructs possess different theoretical background and definitions, researchers have developed combining the four constructs theoretically and empirically tested as a core construct which is known as the psychological capital (Avey, Luthans, & Jensen, 2009). As such, psychological capital arises from the positive organisational behaviour (POB). This core construct may be used to develop positive psychological states of an individual. Extracting from Fredrickson's (2001, 2009) notion of broaden-and-build that positivity can develop psychological resources that could be exploited when desired and theories of psychological resource (see Hobfoll, 2002 for a review), these four are dealt with and later regarded as positive psychological resources, which have a common underlying thread of meeting the criteria for inclusion and are therefore part of an interconnected, synergistic resource set, instead of isolated and entirely independent psychological constructs (see Luthans et al., 2015 pp. 31-32).

Self-efficacy is regarded as an individual's perceptions or beliefs in relation to their ability in controlling certain situations with confidence to perform a specific task (Bandura, 1994).

Hope is defined as “a positive motivational state that is based on an interactively derived sense of successful (1) agency (goal-directed energy) and (2) pathways (planning to meet goals)” (Snyder, 2002). Snyder (2002) identified hope is composed of two dimensions namely willpower and pathways. Willpower denotes motivation by an individual to accomplish specific missions/objectives (Luthans, Avey, Clapp-Smith, & Li, 2008), while pathways indicate other optional route to achieve a goal, which assist individuals in accomplishing their set goal regardless of their challenges or difficulties (Luthans, Avolio, et al., 2007).

Resilience “refers to a class of phenomena characterized by patterns of positive adaptation in the context of significant adversity or risk,” in that making sure individuals could recover immediately and successfully from unpleasant circumstances (Masten & Reed, 2002). With regard to POB, Luthans (2002) defined resilience as “the capacity to rebound or bounce back from adversity, conflict, failure, or even positive events, progress, and increased responsibility” (Luthans, 2002).

In general, optimism means exhibiting or showing positive vibes in matters related to life. An optimistic individual will always be hopeful of good things to happen compared to a pessimist who expects negative outcomes in life (Scheier & Carver, 1985). These psychological abilities collectively are “theoretically developed and empirically tested as a state-like positive core construct termed psychological capital” (Avey, Luthans, & Youssef, 2009).

As discussed earlier, PsyCap integrates the four constructs (hope, self-efficacy, resilience and optimism) of positive psychological resources which exhibits a perfect match with the POB inclusion criteria (Luthans, Luthans, & Luthans, 2004; Luthans, Youssef-Morgan, et al., 2015; Luthans & Youssef, 2004). Collectively, the combination of the four resources has resulted to them being supported empirically (Luthans, Avolio, et al., 2007), hence, regarded as a higher-order construct found on the commonalities shared by the four first-order constructs and their distinctive characteristics. Consequently, from the discussion, the coherence could be observed with Hobfoll's, (2002) "resource caravans," notion i.e., the possibility of psychological resources to collectively move and synergistically interrelate to construct different manifestations across time and contexts.

With regard to commonalities, autonomy, intentionality, and non-comparable goal pursuit are shared by hope, efficacy, resilience, and optimism. Besides that, a common theme of "positive appraisal of circumstances and probability for success based on motivated effort and perseverance" is also shared by them (Luthans et al., 2007, p.550). For instance, individuals who are optimistic will regard that there is a high possibility for them to succeed. Due to this confidence (i.e., possessing high efficacy), these individuals will deliberately select goals that are challenging and feel encouraged to accomplish the pre-selected goals. Meanwhile, hope will uphold the initiation and quest of several pathways towards those objectives and being resilient would let one to recover from hindrances when the pathways are obstructed. These four resources collectively will assist sustaining an internalized sense of control and intentionality whilst pursuing and accomplishing goals are taking place.

PsyCap and its constructs are deemed to be state-like and are not trait-like. Luthans, Youssef, et al. (2007) described this difference along with a trait-state continuum. Though



trait-like constructs signify rather stable psychological characteristics, PsyCap and its components are inclined to be influenced easily and susceptible to development (Avey, Luthans, & Youssef, 2009; Hudson & Fraley, 2015; Luthans et al., 2007).

Researches on PsyCap evidently show that PsyCap has a significant role and associated with the desired work behaviour and attitude towards work. It was found from the studies conducted by Avey, Wernsing, & Luthans (2008), indicated that “employees’ psychological capital was related to their positive emotions that in turn were related to their attitudes and behaviours which is relevant to the organisational success” (p.48). It indicates that employees having high both positive psychological capital and emotions could exhibit behaviours that subsequently will steer to positive organisational results. At the same time, employees will have positive attitude at work and they will become more engaged in their work, feeling happy at work and more favourable to be loyal to the organisation. Ultimately, there will be less favourable issues that would allow the employees to be of any detrimental effect to the organisation.

Previous literature indicated that PsyCap resources have positive effect on psychological well-being (Malekitabar, Riahi, & Malekitabar, 2017), career success (Ngo, Foley, Ji, & Loi, 2013), work engagement (Costantini et al., 2017), employees’ well-being and performance (Rabenu, Yaniv, & Elizur, 2016), and intention to stay, organizational commitment and job satisfaction (Luthans & Jensen, 2005; Schulz et al., 2014). On the other hand, psychological capital was negatively related to job burnout (Malekitabar et al., 2017; Peng et al., 2013), intention to quit (Munyaka, Boshoff, Pietersen, & Snelgar, 2017; Schulz et al., 2014). In Malaysia, study of psychological capital is also active where Hanafiah, Yousaf, & Usman, (2017) studied on the growth of entrepreneurial venture, and Khan, Nasurdin, & Ling, (2018) studied on nursing performance.

Research on psychological capital is also of an interest in the military context, Gurbuz and Yildirim (2019) conducted a study of psychological capital on Turkish Army Aviation units. The study aims to see the impacts that psychological capital has on task performance, affective commitment, organizational citizenship behaviour, and job satisfaction. Data was collected from 260 aircraft mechanics employed within the Turkish Army Aviation units. Result indicated that mechanics with higher psychological capital are prone to exhibit task performance, highly engaged in extra role behaviour, show high commitment to the military service and are very satisfied with their jobs in which is an advantage to the army aviation settings.

In other study, Varas, Encinas, and Suárez, (2019) conducted a study on 492 Spanish soldiers aiming to identify psychological capital, work satisfaction and health self-perception could predict psychological wellbeing in a military context. Krasikova, Lester, and Harms, (2015) studied the relationship between psychological capital and psychological health outcomes within the deployed US Army soldiers.

#### **2.4.1 Definition of Psychological Capital**

The definition of psychological capital follow suits on the development of this construct over time. As the construct is not exhaustive on its dimension, it continues to further be developed. Luthans (2002) defined psychological capital as “the study and application of positive oriented human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement in today’s workplace”. Luthans, Avey, Avolio, Norman and Combs (2006) define psychological capital as “a concept going beyond human capital (what you know) and social capital (who you know) and suggest that it is more directly concerned with ‘who you are’ and ‘who you are becoming’.” Then, Luthans, Youssef and Avolio (2007) defined, “an individual’s positive psychological state of development that is characterized

by: (1) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive attribution (optimism) about succeeding now and in the future; (3) persevering toward goals and, when necessary, redirecting paths to goals (hope) in order to succeed; and (4) when beset by problems with adversity, sustaining and bouncing back and even beyond (resiliency) to attain success.”

**Table 2.2: Summary Definition of Psychological Capital**

Authors	Definition
Luthans (2002)	“the study and application of positive oriented human resource strengths and psychological capacities that can be measured, developed, and effectively managed for performance improvement in today’s workplace”
Luthans, Avey, Avolio, Norman and Combs (2006)	“a concept going beyond human capital (what you know) and social capital (who you know) and suggest that it is more directly concerned with ‘who you are’ and ‘who you are becoming’.”
Luthans, Youssef and Avolio (2007)	“an individual’s positive psychological state of development that is characterized by: (1) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive attribution (optimism) about succeeding now and in the future; (3) persevering toward goals and, when necessary, redirecting paths to goals (hope) in order to succeed; and (4) when beset by problems with adversity, sustaining and bouncing back and even beyond (resiliency) to attain success.”

#### 2.4.2 Operational Definition of Psychological Capital

The researcher uses the definition by Luthans, Youssef and Avolio (2007), “an individual’s positive psychological state of development that is characterized by: (1) having confidence (self-efficacy) to take on and put in the necessary effort to succeed at challenging tasks; (2) making a positive attribution (optimism) about succeeding now and in the future; (3) persevering toward goals and, when necessary, redirecting paths to goals (hope) in order to succeed; and (4) when beset by problems with adversity, sustaining and

bouncing back and even beyond (resiliency) to attain success.” The definition is used on the basis that individual’s state on self-efficacy, optimism, hope and resiliency can influence the level of positive psychology in determining intention to stay or reduce turnover.

## **2.5 Work Engagement**

For work engagement, Kahn's, (1990) conceptual foundation has become initial references for most researchers embarking on this topic (Rich, Lepine, & Crawford, 2010; Saks, 2006; Schaufeli et al., 2002). Kahn’s engagement concept is the fundamental in organizing literatures for this topic. Kahn (1990) suggested personal engagement is representing the state of an employee to carry himself/herself while performing his/her role at work, invest personal strength and venturing emotional connection to his/her work. In this perspective, work role is represented by option exercised by the individual through behaviour, energy, and expression holistically and simultaneously (Kahn, 1992; Rich et al., 2010). Hence, work engagement is regarded as a fundamental of a motivational concept representing personal resources against the task which is in connection with the work role (Kanfer, 1990; Rich et al., 2010).

Work engagement is associated with “a positive, fulfilling, work-related state of mind that is characterised by vigour, dedication, and absorption” (Schaufeli, Salanova, Gonzalez-Roma, & Bakker, 2002). Work engagement denotes a combination between high, positive and affectively motivated energy, elevated dedication level and strong concentration on work (Schaufeli & Bakker, 2010). Work engagement has become a favourable trend towards “positive psychology” which focusing on human strengths as compared to weaknesses with optimal functioning. As such, the contemporary public and private sector have a great interest in having engaged employees because it has been discovered that engagement concurs the high levels of creativity among workers,

organizational citizenship behavior, workers' task performance, customer satisfaction (Bakker, Demerouti, & Sanz-Vergel, 2014).

Kahn (1992) proposed that engagement refers to conduct or behavior in which employees would play a work role in order to perform their task by utilising their emotional connection, personal energy and persistence. Schaufeli (2013) acknowledged that combination of psychological concepts is important in engagement and the combination includes; continuance commitment, affective organizational commitment, and extra-role behavior. Bakker, Schaufeli, Leiter and Taris (2008) remarked that study on burnout will draw an attention in work engagement. Those employees who experience burnout perceived work as demanding and stressful meanwhile, those who are engaged perceived work as a challenge and would have a sense of motivation and energy while performing the work (e.g. Maslach & Leiter, 1997; Roma, Schaufeli, Bakker, & Lloret, 2006; Schaufeli & Bakker, 2003).

Engagement proposes a continuous affective-cognitive state which "is not only focuses on any particular object, individual, event, or behavior." Similarly, engagement explains the degree of an employee being involved with, in the concurrence to intensity the extent of commitment to their work (Bakker & Demerouti, 2008).

In the same vein, literatures in many studies often cited work engagement as the opposite of job burn out. However, there was still no consensus arrived at the researchers. Another perspective is employees who are engaged is distinct and in negative to be related with burnout. According to Leiter & Maslach (2004) and Roma et al. (2006), engagement and burnout are bipolar dimensions. In another view, Schaufeli & Bakker (2004) discovered that work engagement is not the diametrically the inverse of burnout but a detached construct that has correlation with it instead.

Schaufeli et al. (2002) termed work engagement as “a positive, fulfilling, work-related state of mind that is characterized by vigor, dedication, and absorption” (p. 74). Besides, they acknowledged that vigour as “characterized by high levels of energy and mental resilience while working, the willingness to invest effort in one’s work, and persistence even in the face of difficulties” (p. 74). Vigour is regarded as a positive affective work trait and in the burnout construct, it is the inverse concept of exhaustion (Shirom, 2011). An employee with high level of vigour is illustrated by an employee demonstrating very positive attitude and so determine to find solution.

Schaufeli et al. (2002) acknowledged dedication as “characterized by a sense of significance, enthusiasm, inspiration, pride, and challenge” (p. 74). Apart from that, dedication is the inverse concept of cynicism within the construct of burnout.

Schaufeli et al. (2002) also acknowledged that absorption is “characterized by being fully concentrated and deeply engrossed in one’s work, whereby time passes quickly and one has difficulties with detaching oneself from work” (p. 75). Csikszentmihaly (1990) regarded absorption as a “flow”, since it is the representation of the level to which an employee is cognitively immersed persistently at work. However, absorption is not regarded as the inverse of personal efficacy within the discussion of burnout construct, as principally exhaustion and cynicism signify the gist of the burnout construct.

Meta-analyses studies discovered work engagement could act as predictor in employee retention, customer satisfaction and employee productivity (eg. De Lange, De Witte, & Notelaers, 2008; Harter, Schmidt, & Killham, 2003). It also became a predictor in health, and self-efficacy (Schaufeli & Salanova, 2007).

Evidently, in empirical research, engagement has been discovered to be acting as a mediator between job resources and positive motivational outcomes such as lower

turnover intentions (Kim & Yoo, 2018; Schaufeli & Bakker, 2004; Shahpouri, Namdari, & Abedi, 2016), organizational commitment (Hakanen, Bakker, & Schaufeli, 2006; Llorens, Bakker, Schaufeli, & Salanova, 2006) personal initiative, work-unit innovativeness (eg. Hakanen, Schaufeli, & Ahola, 2008; Weigl et al., 2010)

A between-person approach has been adopted by most studies on work engagement indicating presence of mean of level differences in work engagement among individuals determined by their working circumstances, personal traits and behavioral strategies espoused (Bakker et al., 2014). On the other hand, researches over the past decade have indicated that there is a possibility of fluctuation within persons in the work engagement's level – across time and circumstances. For instance, studies show that high engagement of the workers is displayed during the taxing two-hour work periods (Reina-Tamayo, Bakker, & Derks, 2017), throughout workdays before the evenings when they are well recovered (Sonnentag, 2003), and in workdays when an array of resources is accessible to them (Bakker, 2014).

In study of work engagement, researcher also investigated the resources available for and within employee which include job resources and personal resources. Job resources denote features of the job which assist in accomplishing goals, reducing job demands and stimulating personal growth and development (Demerouti, Bakker, Nachreiner, & Schaufeli, 2001). The nature of job resources might be in the form of physical, social, psychological or organisational for example tools, involvement in making decision, social support from fellow-workers and non-rigid working times. Job resources are intrinsic motivation as basic human needs such as the needs for relatedness, competency, and autonomy are fulfilled (Van den Broeck, Vansteenkiste, De Witte, & Lens, 2008). Job resources motivate extrinsically as they assist in accomplishing goals that are related to work (Bakker & Demerouti, 2014). When a variety of job resources are made accessible

to the workers, this enables them to handle high job demands. Moreover, personal resources may also play a vital role. These personal resources signify the employees' thoughts or beliefs concerning the perceived control that they possess over their environment. The evidence of the research indicates that employees have high work engagement when their level of personal resources is higher including optimism, resilience, and self-efficacy (Mikangas, Feldt, Kinnunen, & Mauno, 2013).

In work engagement literature, human resources study has also become of interest by researcher in determining the level of work engagement of employee in an organisation. Some studies indicated that practices by human resources for example job redesign could have positive influence on work engagement – especially through their influence on their job (Alfes, Shantz, Truss, & Soane, 2013; Holman & Axtell, 2016) Besides that, studies also suggested that leaders have a vital role in employees' work engagement, for instance, by displaying transformational leadership, thus affecting employees' personal and job resources (e.g. Breevaart et al., 2014; Tims, Bakker, & Xanthopoulou, 2011; Tuckey, Bakker, & Dollard, 2012). However, less research was found to be carried out regarding influence of organizational-level resources for instance strategic alignment (e.g. Biggs, Brough, & Barbour, 2014).

Work engagement was discovered to act as a good predictor in employee, team, and organizational outcomes. As such, it has become an area of interest for many researchers. Due to being dedicated and focussed in their work activities, these highly engaged workers perform better in-role task performance (Christian, Garza, & Slaughter, 2011), contribute better financial performance (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2009). In addition, due to the worker's positive behaviour of openness in accepting new ideas and experiences, workers who are engaged acquired higher positive creativity, hence acquire higher level of innovation and be good in entrepreneurial (Gawke,



Gorgievski, & Bakker, 2017; Orth & Volmer, 2017). In the extension of these individual-level performance outcomes, researchers found that workers who have high work engagement are more prone to give hand to their colleagues. Within organisation on working with colleagues and peers, teamwork engagement has been found to be positively associated with team performance (Costa, Passos, & Bakker, 2015; Tims, Bakker, Derks, & Van Rhenen, 2013). Engagement spread over from one individual to the others, as such demonstrated ripple effects among team (Bakker, Van Emmerik, & Euwema, 2006; Gutermann, Lehmann-Willenbrock, N., Boer, Born, & Voelpel, 2017; Van Mierlo & Bakker, 2018).

Interest in studies on work engagement also spread out to the military environment, Castanheira, Oliveira-Cruz, Chambel, and Lopes, (2016) conducted a study on relational job characteristics and work engagement which is mediated by pro social motivation. A study of 567 contract soldiers from the French Air Force was implemented to investigate the relationships between soldiers' motivational profiles and work engagement (Gillet et al., 2017). Study to explore the relationship of authentic leadership with work engagement and organizational citizenship behaviors (OCB) on 225 Spanish soldiers (Pastor Álvarez, Molero Alonso, Bardera Mora, & Moriano León, 2019). Johansen, Martinussen, & Kvilvang, (2016) investigated the influence of military identity on work engagement and burnout among 211 soldiers from the Norwegian Army Rapid Reaction Force.

### **2.5.1 Definition of Work Engagement**

Kahn (1990) defined “personal engagement as the harnessing of organization members’ selves to their work roles: in engagement, people employ and express themselves physically, cognitively, emotionally, and mentally during role performances”. According to Maslach and Leiter (1997), “engagement and burnout are the positive and

negative endpoints of a *single continuum*. More specifically, engagement is characterized by energy, involvement and efficacy, which are considered the direct opposites of the three burnout dimensions exhaustion, cynicism and lack of accomplishment, respectively”. Schaufeli, Salanova, Gonzalez-Roma and Bakker (2002) defined work engagement as a concept in its own right as “a positive, fulfilling, work related state of mind that is characterized by vigor, dedication, and absorption”. According to the Gallup Organization, Harter, Schmidt and Hayes (2002) defined, “the term employee engagement refers to an individual’s involvement and satisfaction with as well as enthusiasm for work”. Saks (2006) has defined “employee engagement as a distinct and unique construct consisting of cognitive, emotional, and behavioural components that are associated with individual role performance”.

**Table 2.3: Summary Definition of Work Engagement**

<b>Authors</b>	<b>Definition</b>
Kahn (1990)	“personal engagement as the harnessing of organization members’ selves to their work roles: in engagement, people employ and express themselves physically, cognitively, emotionally, and mentally during role performances”
Maslach and Leiter (1997)	“engagement and burnout are the positive and negative endpoints of a <i>single continuum</i> . More specifically, engagement is characterized by energy, involvement and efficacy, which are considered the direct opposites of the three burnout dimensions exhaustion, cynicism and lack of accomplishment, respectively”
Schaufeli, Salanova, Gonzalez-Roma and Bakker (2002)	“a positive, fulfilling, work related state of mind that is characterized by vigor, dedication, and absorption”
Harter, Schmidt and Hayes (2002)	“the term employee engagement refers to an individual’s involvement and satisfaction with as well as enthusiasm for work”
Saks (2006)	“employee engagement as a distinct and unique construct consisting of cognitive, emotional, and behavioural components that are associated with individual role performance”.

### **2.5.2 Operational Definition of Work Engagement**

The researcher uses the definition by Schaufeli, Salanova, Gonzalez-Roma and Bakker (2002), “a positive, fulfilling, work related state of mind that is characterized by vigor, dedication, and absorption”. The definition is used on the basis that individual’s state of mind related at workplace on vigour, dedication and absorption which affect the level of positivity in determining intention to stay or reduce turnover.

## **2.6 Work Happiness**

For work happiness literature, most researchers will explain the origin of happiness prior discussing the intended study variable which is work happiness (for e.g. Fisher, 2010; Kun & Gadanez, 2019; Omar, Jayasingam, & Abu Bakar, 2019; Tadic, Bakker, & Oerlemans, 2013). As such for better understanding the same approach is thus adhered.

### **2.6.1 Happiness**

Happiness is an affect-oriented well-being evaluation involving dominance of positive affect rather than negative affect (Diener, 1984). This viewpoint asserts that an individual is perceived to do fine (happy) once he encounters (i.e. individual’s appraisal) more feelings of positive compared to negative in his life (Christopher, 1999) and greater emotional intelligence (Carmeli, Yitzhak - Halevy, & Weisberg, 2009).

Diener (2000) further described that happiness consists of positive thoughts and emotions that lead to subjective well-being and a broad connotation of satisfaction of life. Despite being the quest for many, it requires to be made clear that happiness goes beyond the personal life boundaries of an individual. Researchers defined, “being happy refers to somewhat higher levels of activation as being satisfied or contented” (Joo & Lee, 2017, p.207).

Researchers (e.g. Cropanzano & Wright, 1999; Lounsbury et al., 2003; Seligman, 2002) associated the term subjective wellbeing (SWB) to the term “happiness”. Being happy denotes the condition of being gratified or contented at its highest level of activation. Those happy employees will have higher possibility to be more active, energetic, approach oriented, sympathetic to their colleagues, attentive in their work, and determined in the face of hardships unlike the unhappy employees.

There are two common components in SWB: affective balance (i.e. the evaluation between the level of positive and negative affect level in an individual’s life), as well as opinions regarding satisfaction of life (Diener, 1984; Erdogan, Bauer, Truxillo, & Mansfield, 2012). Being a component of subjective well-being, positive outcomes in multiple life domains are associated with happiness which includes health of the physical and mental, resilience, salary, work performance and social relationships and citizenship (Kansky & Diener, 2017; Lyubomirsky, King, et al., 2005)

Past literature regarding subjective well-being recommended that well-being must encompass a wider phenomenon which entails the aspects of cognitive, behavioural and affective (Ryff, 1989; Ryff & Keyes, 1995; Seligman, 2011)

The concept of well-being can be approached with subjective well-being and psychological well-being. Several factors are covered by the umbrella term of subjective well-being (Kun & Gadanez, 2019). Despite the unanimity that well-being is a multidimensional construct, there are varied components theoretical interpretations that have been put forward. Hedonic aspects of well-being is not only the main focus in the happiness and subjective well-being constructs which is doing your best to achieve maximum pleasure and positive emotions but also eudemonic aspects too, for example self-actualisation and autonomy (Fisher, 2010).

There are numerous psychological well-being theories belong to more comprehensive eudemonic well-being concept. One of these theories is the self-determination theory (SDT) invented by Ryan and Deci, (2000), who concluded that autonomy, relatedness and competence are the three basic psychological needs. Well-being is fostered when these three needs are fulfilled. Ryff (1989) examines numerous approaches to happiness in variety psychology's subfields and presented a six-dimensional well-being model which consists of the following reasons: environmental mastery, self-acceptance, autonomy, personal growth, purpose in life, and positive relations with others.

The autotelic personality concept by Csikszentmihalyi too suits the term eudemonic happiness. Autotelic people regularly participate in important events for the their own good (Baumann, 2012; Csikszentmihalyi, 1990).

Along the same vein, from the context of positive psychological, Seligman's (2002) authentic happiness model recognises three kinds of life that collectively form an all-inclusive happy life: a pleasant life, a meaningful life and a good/an engaged life. Hence, Peterson, Park, & Seligman (2005) developed the orientation of happiness following the three pathways to happiness which include: pleasure, or the "pleasant life", meaning, or the "meaningful life", and engagement, or the "engaged life".

Firstly, "pleasant life" which refers to hedonia. Happiness and pleasure associated with direct reward, it follows the immediate effect such as pleasure of eating at your favourite restaurant where you get the taste of it instantaneously; other instances such as going to movies where you could watch the film immediately. Diener, Sandvik, & Pavot (2009) found that experiencing pleasure frequently increases life satisfaction and increase positive effect. The researcher also regarded experiencing positive emotion frequently is of importance. Kuppens, Realo, & Diener (2008), in a vast cross-national study, found that comparatively positive emotions have stronger correlation to life satisfaction as

compared to the absence of negative emotions. Nevertheless, experiencing immediate pleasure is not long lasting as it will dissipate over time once the pleasurable stimulus faded (Seligman, 2002; Steger, Kashdan, & Oishi, 2008). For instance, physical pleasure was found to be associated with short term period of satisfaction in life (within a day), but negatively in the period of longer term (over several weeks) (Oishi, Schimmack, & Diener, 2001). Concurrently, other research establishes hedonia tends to improve life satisfaction, well-being, and positive affect within the short term period of time, on the other hand eudaimonia leads to longer and lasting improvements, suggesting increase in benefit for a long term (Huta & Ryan, 2010; Tonicic & Anic, 2014).

Secondly, the “meaningful life” that based on eudaimonia in which pursuing activities that will contribute to and connecting to something which is larger than oneself could provide a sense of purpose and meaning. Meaning can be found by way of volunteering, involve in spirituality, or by helping others (Peterson et al., 2005). Person who encounter and reach a meaningful life describes their feeling towards their actions are significant, making a difference, and have a purpose in life. These feelings lead in achieving goals simultaneously guiding to promote well-being, also to have interaction and social connections with others (Masten & Reed, 2002). Those who feel they have purpose in life report that they exhibit a greater life satisfaction, experiencing more positive affect, being more optimistic, and turning out to be better in self-esteem and physically healthier (Compton, Smith, Cornish, & Quails, 1996). In addition, meaning in a person’s life is significantly in association with happiness, positive affect, and life satisfaction, and negatively in association with depression, negative affect across the lifespan, and psychopathology (Park, & Peterson, 2010; Steger, Oishi, & Kashdan, 2009).

The third and final orientation is the “good life”, which is also known as the life of engagement. Good life or engagement oversee to what extend a person engaged in their

activities. One who experiences “flow” despite of any challenges pop out during the continuance of that activity, will become completely engrossed with the activity engaged (Mihaly Csikszentmihalyi, 1975). Flow is then said to occur when there are optimal balance between challenge and skill which one would successfully orientate the task in the face of challenge (Moneta, 1996). Instances when one might experience flow is when a person is writing, at work, painting, or playing with own children (Seligman, 2002). However, flow is contended to be significantly overlap with hedonia (pleasure) and also eudaimonia (meaning). The contention is, the overlap can happen in conditions that leading to personal growth (Waterman, 1993); the overlap could also be experienced in less meaningful but virtuous activities such as playing video games (Hsu & Lu, 2004). Despite the fact that flow is linked with hedonia and eudaimonia, it is also regarded as distinctive from them, as such it was recognised as the third component of orientation to happiness (Peterson et al., 2005).

However, Omar, Jayasingam, & Abu Bakar (2019) contended that happiness is subject to different environments and are categorised based on distinctive organisational culture and individual and societal values and norm (Hofstede, 2011). A study conducted by Uchida and Kitayama (2009) showed that the Americans regarded personal achievements as happiness while for the Japanese, social harmony is the source of their happiness. The contextual factors for instance the condition of the economy further propagated the disparity of happiness. Even though several studies (Joo & Lee, 2017; Oi Ling Siu, Cheung, & Lui, 2015) had also observed South Korea and Hong Kong context and found that they are also different in the aspect of the conditions of culture and economy. Erdogan et al., (2012) stated that those individuals who live in a collectivist culture have lower level of subjective well-being. However Joo and Lee, (2017) discovered that that their study’s respondents experienced higher level of subjective well-being.

### 2.6.2 Work Happiness

Happiness can also include the feeling that one has regarding his/her workplace (Salas-Vallina, López-Cabrales, Alegre, & Fernández, 2017). As such, the study of happiness at work is mooted from the simple hypothesis, “happy worker is a better worker”, and this hypothesis has created interest for many researchers to study on work happiness (Diener & Biswas-Diener, 2002; Diener, Suh, Lucas, & Smith, 1999; Leung, Chiang, Chui, Lee, & Mak, 2011; Ryan & Deci, 2001; Peter Warr, 2007). It has been observed that there has been an increase in research regarding work happiness for the past few decades. Many authors have tried to find the causes of happiness and as a result, vital but varied determinants were found (e.g. Argyle, 1987; Mihaly Csikszentmihalyi, 1990; Diener, 1984; Emmons, 1986; Freedman, 1978). Happiness is one of the most studied aspects of wellbeing but it is the sole aspect that is being considered by the researchers (Jayawickreme, Forgeard, & Seligman, 2012).

Work happiness which is a term that explains the employees’ experience whose work has energised them and increase their enthusiasm towards work, search for meaning and reason in performing their work, exhibits healthy relationships at their place of work and have full commitment in their work (Kun & Gadanecz, 2019). Comprehensive or universal workplace happiness signifies the condition or quality of the work life evaluated by the employees in general and most studies depend on the this type of universal reports (e.g. Kahneman, Krueger, Schkade, Schwarz, & Stone, 2004). Most studies have tested objective variables that have an effect on well-being and happiness. However, a subjectivist approach could be utilised in interpreting happiness which takes into account in interpreting happiness from the perspective of the individual himself, and self-report measurement of global happiness has trailed due to this concept (Lyubomirsky & Lepper, 1999). In the same vein, (Williams, Kern, & Waters, 2015) examined the factors which are correlated with happiness involving both organisation and individual stage. Other



researchers (Choi, Tran, & Kang, 2017; Salas-Vallina et al., 2017) explored leadership while a few studies (Joo & Lee, 2017) concentrated on psychological capital and other studies (Salas-Vallina et al., 2017) examined perceived organisational capital learning. Some other studies (Lyubomirsky & Layous, 2013) centred at positive effects while some studies (Simons, Peeters, Janssens, Lataster, & Jacobs, 2016) still concentrated on the age factor. Meanwhile, a few of them (Meyers & Van Woerkom, 2016) examined strength.

Many of the studies have exposed that organisations will benefit from the overall well-being and happiness at the workplace (Seligman, 2002). Study showed that individuals who have high level of well-being and happiness will have better performance at work, and are more supportive (George, 1991). This has caused the intensifying interest among the researchers regarding the area of work happiness (Joo & Lee, 2017; Kansky & Diener, 2017; Lyubomirsky, King, et al., 2005). Employees who are happy have been described as being more energetic, focussed in the work, sympathetic towards their colleagues, and steadfast in facing hardships which will do good to the employer (Joo & Lee, 2017). As such, it is suggested based on happiness-related constructs and work outcomes that there is a relation between positive attitudes, and occurrences with advantageous aftermaths for the employees and also organizations

Many researchers also propagated that there is a correlation between satisfaction and work happiness. Erdogan et al., (2012) proposed a public opinion of happiness at workplace which is happiness relies on how one is satisfied with the environment and other aspects such as leadership, job characteristics, career development, and person-environment fit add to the comprehension of happiness or well-being at work. In addition, Joo & Lee (2017) believed that the sense of well-being is non-predetermined and individual intention and contextual factors could affect it. They also took on the life satisfaction approach, which is grounded on how well-being is appraised based on an

individual's subjective cognitive or a person's quality of life based on universal assessment. This approach is subject to determination of criteria of a good life by the respondents (Diener, 1984). There is a negative relationship between life satisfaction with cardiovascular death (Chida & Steptoe, 2008), complaints of sleep (Brand et al., 2010), and burnout (Haar & Roche, 2010). With regard to the organisational outcomes, there is a correlation between life satisfaction and lower turnover intentions (Rode, Rehg, Near, & Underhill, 2007). In another study, a person with a state of positive well-being will be more productive and also have a higher job satisfaction (Zelenski, Murphy, & Jenkins, 2008). Past studies had also shown that work happiness creates more positive workplace relationships and produces workers who express higher level of job satisfaction (Boehm & Lyubomirsky, 2008b; Connolly & Viswesvaran, 2000).

With regards to work performance, although the most common effect of transitory happiness seems to be positive; concurrent work performance could be harmed by moods and emotions. Beal, Weiss, Barros and MacDermid, (2005) suggested that regardless whether the emotions are positive or negative, there is a possibility for task performance to be reduced by redirecting limited attentional resources far from the job and in the direction of the source of the effect. Hence, the emphasis of work performance and work efficiency could harm the happiness of the employees (Manning, 2016). On productivity, there seems to be mutual agreement among the researchers that at trait perspective, happy people are undeniably more productive and when people are happy, they are more productive (Diener & Biswas-Diener, 2008; Wright, Cropanzano, & Meyer, 2004; Zelenski et al., 2008).

On retention and turnover, Qasim, Javed, and Shafi, (2014) study offered supporting results that revealed presence of high association between feelings of unsatisfactory at work and turnover rate among employees. Past studies also indicated that job satisfaction

and organizational commitment are negatively related to intention to quit and actual turnover (Griffeth, Hom, & Gaertner, 2000; Meyer, Stanley, Herscovitch, & Topolnytsky, 2002). A wealth of research (Mauno, De Cuyper, Tolvanen, Kinnunen, & Mäkikangas, 2014; Oi Ling Siu et al., 2015; van der Vaart, Linde, & Cockeran, 2013) have also proposed that positive emotions at workplace, that is related with work well-being, can reduce the turnover intention rate. The study on wealth is important as the cost of employee turnover is “cost employers between 100 and 300 percent of the former employee’s base salary” (Manning, 2016). In addition, the study of wealth (or income), steady employment, health, healthy relationships, and contented current life activities (e.g. buying house, child birth, marriage etc.) are linked with higher SWB (Weimann, Knabe, & Schöb, 2015). In the circumstance, employees are more likely to remain in an organisation. Additionally, Proudfoot, Corr, Guest, and Dunn, (2009) discovered that workers who have gone through a program on cognitive-behavioral training might score higher in the measure of well-being followed by a substantial drop in turnover rate. According to Wang and Yi (2011) poor relationship between the leader and his employees could become a negative stressor which can also lead to turnover intention.

In the same vein, research has indicated that happier individuals are physically and psychologically healthier and have longer life (Lyubomirsky, King, et al., 2005; Røysamb, Tambs, Reichborn-Kjennerud, Neale, & Harris, 2003) perform better, handle demanding incidents better (Wood & Joseph, 2010), experience more positive workplace relationships and express high satisfaction in their work (Boehm & Lyubomirsky, 2008a; Connolly & Viswesvaran, 2000; Pan & Zhou, 2013) recognised the correlation between positive organisational behaviour (POB) and happiness at workplace.

In the military context, there were less evidence to show that work happiness was a favourable area research of interest. Among the literatures are study conducted by

Chambel and Oliveira-cruz, (2015) which revealed that motivations to be a soldier are linked to happiness at work. Their findings indicated that autonomous motivation represents social context characteristics on soldiers' happiness. Hence, the soldier acts with a full sense of desire and decide to work in the army, which is the main function in the soldier's happiness at work. Proyer, Annen, Eggimenn, Schneider, and Ruch, (2012) examined how variables of positive psychological functioning are interrelated to the extent to which the pleasurable, engaged and meaningful life relate with work or life satisfaction and if these orientations to happiness are possible to determine satisfaction among Swiss career officers. In this study, the researcher found that military officers who endorsed engagement or meaning are more likely to achieve success in both subjective and objective career. Morgan et al., (2017) conducted a study on happiness and physical health among post 9/11 veterans by examining associations of religious attendance, trauma, appreciation in life, and ease of readjustment to civilian life with well-being. Afia and Harbi, (2017) revealed a distinction is drawn between the direct and the indirect impact of military endeavor on happiness which operates through the impact of military endeavor on income and the impact of income on happiness.

### **2.6.3 Definition Work Happiness**

Diener (2000) defined happiness as "happiness is the evaluation of both affective and cognitive states of emotion felt in the sum aspect of the individual's life". Peterson, Park and Seligman (2005) advocated definition of happiness as "happiness is associated with pleasure, meaning and engagement which are important in long-term life satisfaction and need to be balanced and nurtured to maintain happiness". Snyder and Lopez (2007) defined happiness as "a positive emotional state that is subjectively defiance by each person". Paschoal and Tamayo (2008) defined happiness as "the prevalence of positive emotions at work (including affects and moods) and perception by individuals that, in their work, they express and develop their potential, and progress in achieving their goals

in life (self-actualization)”. Fisher (2010) defined happiness at work as “refer to pleasant judgments (positive attitudes) or pleasant experiences (positive feelings, moods, emotions, flow states) at work”.

**Table 2.4: Summary Definition of Work Happiness**

<b>Authors</b>	<b>Definition</b>
Diener (2000)	“happiness is the evaluation of both affective and cognitive states of emotion felt in the sum aspect of the individual’s life”
Peterson, Park and Seligman (2005)	“happiness is associated with pleasure, meaning and engagement which are important in long-term life satisfaction and need to be balanced and nurtured to maintain happiness”
Snyder and Lopez (2007)	“a positive emotional state that is subjectively defiance by each person”
Paschoal and Tamayo (2008)	“the prevalence of positive emotions at work (including affects and moods) and perception by individuals that, in their work, they express and develop their potential, and progress in achieving their goals in life (self-actualization)”
Fisher (2010)	“refer to pleasant judgments (positive attitudes) or pleasant experiences (positive feelings, moods, emotions, flow states) at work”

#### **2.6.4 Operational Definition Work Happiness**

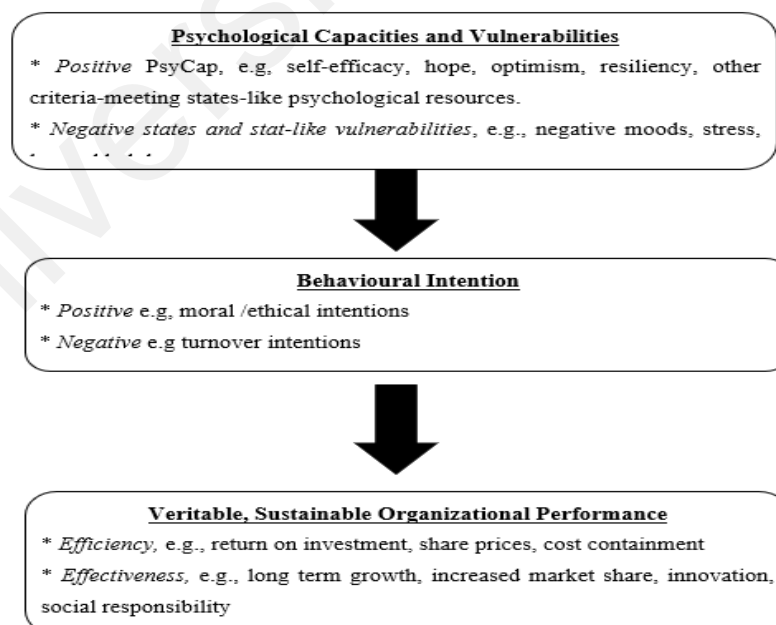
In operationalisation the definition of work happiness in this study, the researcher adapted the definition by Peterson, Park and Seligman (2005) which defined as “ work happiness is associated with work of pleasure, work of meaning and work of engagement which are important in long-term life satisfaction and need to be balanced and nurtured to maintain happiness”. The definition is used as the association of the three dimensions namely work of pleasure, work of meaning and work of engagement offers life satisfaction and happiness that influence the level of positivity in retaining employees for a long term.

## 2.7 Research Framework and Development of Research Model

Considering the research question, research objective and literature review, we operationalised the circumstances and propose to the following concept and research framework. Operationalization of the Constructs is attached as per **APPENDIX B**.

### 2.7.1 Conceptual Framework

Luthans, Youssef-Morgan, & Avolio (2015) suggest that several comprehensive conceptual models have been proposed for psychological capital. The first of these models appeared in the Oxford Handbook of Positive Psychology and Work and is shown in Figure 3. The purpose of this model was to offer a “big picture” approach to psychological capital and to address some challenges in psychological capital research and positive psychology at large, namely: (1) an equilibrium between positive and negative constructs, (2) a wide array of traits and states, (3) multiple levels of analysis, and (4) multiple outcomes (C.M. Youssef & Luthans, 2010).



**Figure 2.1: An integrated conceptual framework of positive psychological capital and workplace outcomes.**

Source: Adapted from Youssef & Luthans (2010). An integrated model of psychological capital in the workplace. In P.A Lindley, S. Harington & N. Garcea (2010) (Eds.), Oxford handbook of positive psychology and work. (pp 277-288). Oxford, UK : Oxford.

## 2.7.2 Research Framework

Considering from the literature discussed, the researcher come up with the following concept and framework.

### 2.7.2.1 Research Model of the Study

Based on the conceptual framework adduced in the previous section, the research objective between psychological capital towards work engagement and work happiness can be viewed as direct relationship. In the consequences, work engagement and work happiness were likely to mediate between psychological capital and intention to stay as shown in Figure 2.2 below.

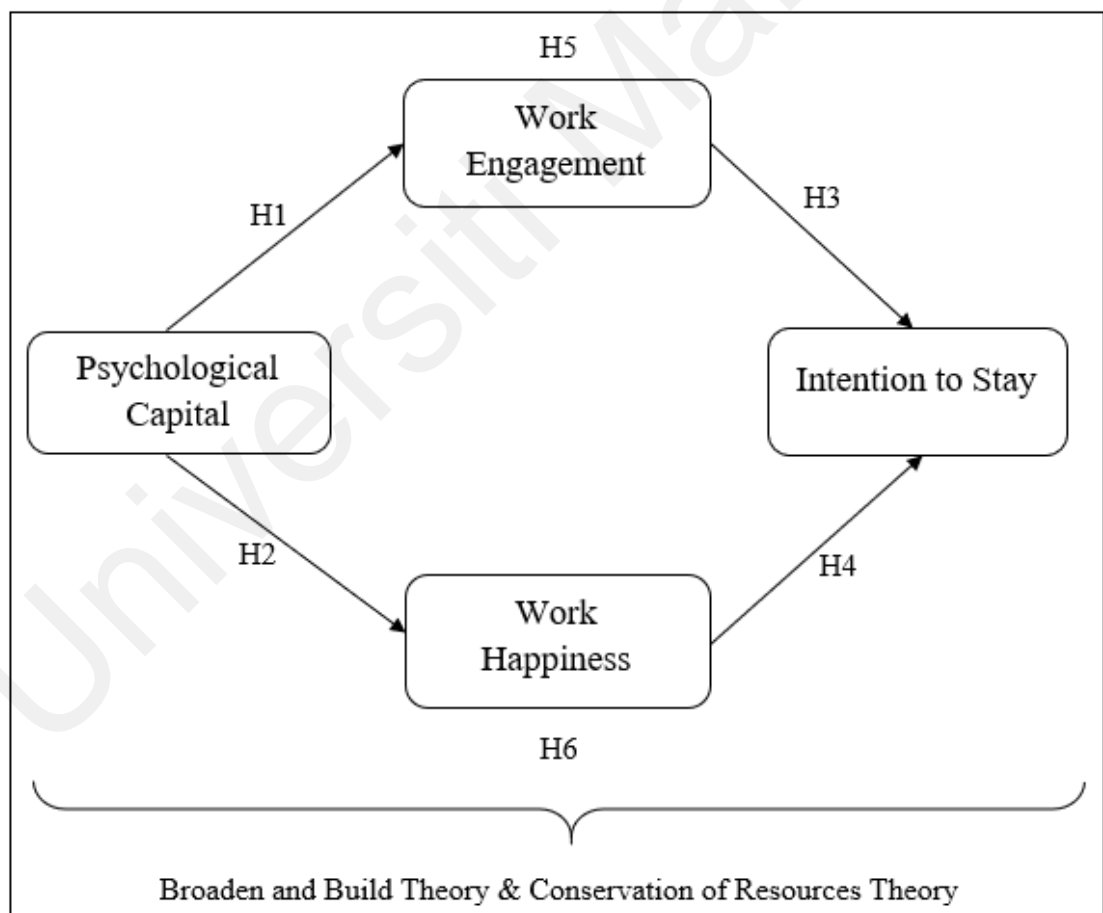


Figure 2.2: Research Model of the study

## **2.8 Hypotheses Development**

Hypothesis development is further operationalised as follows:

### **2.8.1 Psychological Capital with Work Engagement**

Belief in self efficacy by employees is the strength to overcome challenges and hurdles at work. At the individual level, adopting self-confidence will leverage employees to become themselves freely at work, which is the reason for inherent growth of a person, in the consequence making them happy at work. Self-confidence and believe in own capabilities will channel own energies to meet up situational demands which in turn motivates the employees into what are they doing at work (Xanthopoulou, Bakker, Demerouti, & Schaufeli, 2007). Therefore, employees with difficult task, do not regard it as a burden, self-efficacy treat it as a challenge which lead to higher degree of embracement of own self coupled with their work role.

Past studies shows there was a significant and direct relationship between psychological capital and work engagement (Bakker, Albrecht, & Leiter, 2011). According to Bakker & Demerouti (2008), the Job Demand Resource (JDR) model considered psychological capital as a personal psychological resource which makes an employee positive and leads to both emotional and cognitive level of engagement in the work irrespective of work challenges and job demands. Employees who has a positive belief and who are confident about their inner capabilities (i.e., high on PsyCap) will capitalise their own energy to face the demanding challenge at workplace, hence will immerse and becoming engross at work (Xanthopoulou et al., 2007).

Xanthopoulou, Baker, Heuven, Demerouti, and Schaufeli, (2008) discovered that work-related self-efficacy is connected to both in-role and extra-role performance, through employees' work engagement deploying 44 European flight attendants sample. Bergheim et al., (2013) noted that the Norwegian air traffic controllers' psychological



capital has positive correlation with safety climate perceptions. In a current study, Karatepe and Talebzadeh, (2016) revealed that psychological capital has an impact on the service recovery performance, life satisfaction and work engagement of the Iranian flight attendants.

Hobfoll's, (1989) conservation of resources (COR) theory and Campbell, McCloy, Oppler, and Sager's, (1993) comprehensive model of performance could offer a theoretical reasoning for the associations between psychological capital with work attitude and behavior. In relation to the theory of COR, people are prone to obtain and collect four kinds of resources; namely energies, objects, personal attributes and conditions (Hobfoll, 1989). Abundant resources when available generate resources caravans which consecutively cause positive outcomes (Hobfoll, 2002). Grounded on this conception, psychological capital is regarded as personal resources (Karatepe & Talebzadeh, 2016), while work attitude and behavior (e.g., job satisfaction, OCB, task performance and affective commitment) are caused when individual resources are accumulated. The latter theory theorises that the main antecedent of individual performance is motivational effort. To be exact, the four positive psychological resources which are the dimensions of psychological capital could give the essential drive for motivational urge so as to function successfully at workplace. A primary theoretical mechanism for the effects of psychological capital on the attitude and behaviour of employee is which in comparison with employees with lower psychological capital, the employees who have higher psychological capital will perform better, display greater OCB and have higher organisational commitment and job satisfaction (Avey, Reichard, Luthans, Luthans, & Mhatre, 2011).

Recognizing the abovementioned discussion, this study advocates that employees with high psychological capital display high work engagement. RMAF pilots with high

psychological capital are capable of managing obstacles emerging from any unfavourable outcome at work and troubles in executing their duties. They are competent and confident in their skill and abilities to perform their job (Luthans, Avolio, et al., 2007b), able come out with possible ways in acquiring desired goals and search for alternative means if their original methods are useless or impracticable. They are also capable of evaluating things that are achievable and non-achievable when facing challenging situations (Luthans, Avolio, et al., 2007b) and pull through from stumbling block or obstacles and make adjustment to the challenging conditions (Avey et al., 2008). In view of that, employees are more prone to be vigorous, involved in work intensely and have high work engagement when they are efficient, optimist, resilient and hopeful.

As such, dedicated employees will keep themselves vigorous and absorbed with their role function at work. Resiliency of employee to bounce back facing any challenge at work shows the ability of employees in applying their resources on physical, cognitive and emotion to the higher degree. In the light of positivity between the sub dimension of both psychological capital and work engagement above, hence, the hypothesis for the research is stated:

**H1: Psychological capital has positive relationship with work engagement**

**2.8.2 Psychological Capital with Work Happiness**

Many studies (Culbertson, Fullagar, & Mills, 2010; Diener & Seligman, 2002; Luthans, Luthans, & Luthans, 2004) have come into conclusion that there was a relationship between psychological capital and happiness. Having psychological resources like self-efficacy, hope, optimism and resilience embedded into a person, one can say that the inner strength of psychology would deter that person from being depressed. Regardless of what the challenge ahead, a person with rich psychological capital would endeavour by becoming resilient to face the challenge. In the hard time,

being positive by optimising the situation with positive hope, telling self that the hardship would only be temporary, concurrently regard it as a blessing, a blessing to bounce back and explore new opportunities. Hence, happiness would always be accorded for a person with richer in psychological capital (Avey, Luthans, Smith, et al., 2010).

In the same vein, positive organisational behaviour (POB) was developed based on the movement of positive psychology. POB is termed “as the study and application of positively oriented human resource strengths and psychological capacities that can be measured, developed and effectively managed for performance improvement in today’s workplace” (Luthans, 2002, p.59). It is stated in the broaden-and-build theory (Fredrickson, 2004) that within an individual’s state will be influenced by positive values which subsequently will assist him/her to prosper, be impartial to information, ascertain action of thought and strengthen one’s attentiveness (Fredrickson & Branigan, 2005). As such, the circumstances will bring about the ‘broadening and building’ of an individual’s physical, intellectual, and social resources likewise, allows an individual to experience positive emotions. Compared to positive traits that are relatively stable over time and relevant through circumstances, POB’s positive state-like capacities are rather more pliable. Hence, these capacities are susceptible to variation and growth (Luthans, 2002a, 2002b). The positive psychological resources capacities advancement is pertinent to the current place of work scenario, in which agility and flexibility needs to cope and comprehend the realities and complexities of the fast-paced unpredictable environment.

In view of that, positive resource capacities are subjected to the investment and further development (Luthans, Avolio, et al., 2007b; Fred Luthans, Avolio, Avey, & Norman, 2007a), could offer an exceptional prospective resource of competitive gain in human resources to an organisation. It serves as a compelling predictor to the individual’s total happiness (Diener, Sandvik, & Pavot, 1991). The constructs of POB describe that

acceptance is intensified by positivity at workplace (Luthans, 2002b; Luthans, Youssef, et al., 2007) and develops positive emotional feelings. Individuals who are positive are likely to view uncertain incidents as less intimidating which allows them to better elicit the positive feelings (Wright et al., 2004). Whilst these studies show the potential effect of POB towards happiness, Williams, Kern, and Waters, (2015) and Joo and Lee, (2017) emphasised the significance which correlate such condition with work happiness.

The POB's general domain incorporates different psychological capacities, for example, Luthans, (2002b) put forward a five-factor model for POB that consists of psychological capacities and strengths like subjective well-being/happiness, optimism, hope, confidence/self-efficacy and emotional intelligence. Luthans, Youssef, et al., (2007) expanded this by including optimism, efficacy, resiliency, psychological capital and hope. Several researches (Avey et al., 2008; French & Holden, 2012) used the POB method and examined the effects of optimism, resiliency and hope. It seems that none of the pre-defined psychological capacities were found that ought to be inserted the POB model. Basically, it is essential to take in state-like psychological capacities that are positive which will exhibit a positive impact on the outcomes.

Past studies have identified that dispositions of positive behavior which comprise of emotional stability, self-efficacy, and self-esteem are able to cause individuals to feel happy at their place of work (Fisher, 2010; Judge & Bono, 2001; Judge & Hurst, 2008). Being a psychological capital's construct, there is a negative association between optimism and depression (Cheuk & Wong, 2011) but a positive association with subjective well-being (Daukantaitė & Zukauskienė, 2012). Hope is a component that has been used in combatting demanding work situations (Avey, Luthans, & Youssef, 2009). Likewise, individuals who are resilient, are likely to utilise positive emotions to manage tense activities (Tugade, Fredrickson, & Feldman Barrett, 2004). A different study (Avey

et al., 2008) discovered a positive relationship between hope, optimism and resilience and positive emotions. Similarly, (Cordery, 2007) noted a positive and significant relationship between hope, optimism, and resilience and work satisfaction. In this research, satisfaction with work appears as a component of work happiness. Hence, it can be inferred that work happiness construct will be affected positively by the components of psychological capital.

Some studies recounted that psychological capital and well-being established positive relationship. Avey, Luthans, Smith, et al., (2010) discovered a positive relation between psychological capital and well-being of an employee over time. Similarly, (Culbertson et al., 2010) stated that eudemonic well-being mediated the correlation between psychological capital and hedonic well-being, computed two weeks distant. In their recent study of employees in South Korea, Choi and Lee, (2014) reported presence of correlation between psychological capital and the perceived happiness in work and subjective well-being. In recent times, Joo and Lee, (2017) and Singhal and Rastogi, (2018) discovered that psychological capital, which is a POB's expansion, has positive impact on subjective well-being or work happiness. Resulting from Fredrickson's (2001) work that asserts cognition (hope, optimism and resilience) functions as the initiator and basis for emotion (work happiness). As the latest study investigate the predictor of happiness at work, it is suggested that when there is a presence of a high degree of psychological capital in the employees (i.e. hope, optimism, self-efficacy and resilience), they tend to display high level of satisfaction with their professions as pilot which subsequently will head to a high level of happiness. Therefore, this research hypothesises that:

## **H2: Psychological capital has positive relationship with work happiness**

### 2.8.3 Work Engagement and Intention to Stay

The literature on the correlation between work engagement and intention to stay will always be associated with the literature on turnover. As stated in the prior section, intention to stay is consistently displayed to have a stronger negative relationship with turnover (Carsten & Spector, 1987; Iverson, 1996; Steel & Ovalle, 1984). As highlighted, past studies had proposed intention to stay as a good predictor of turnover among employees (Cavanagh & Coffin, 1992; Price & Mueller, 1981; Weisman et al., 1981). In the circumstances, scholars have inserted a lot of effort in investigating the employees' turnover intention towards their organisation (Carmeli & Weisberg, 2006; Egan, Yang, & Bartlett, 2004; Kim, 2017). Turnover intention is regarded as an important issue to organizations in correlation with remaining to be competitive by retaining human capital (Carmeli & Weisberg, 2006). Tett and Meyer's, (1993) definition of turnover intention is the "conscious and deliberate wilfulness to leave the organization" (p. 262). To be exact, it is a potential tendency of an individual leaving the organization within a short time in the future (Carmeli & Weisberg, 2006).

Similar to intention to stay, Mobley, Griffeth, Hand, and Meglino, (1979) affirmed that turnover intention is the turnover behavior's direct precursor, that can be deemed not only as a powerful predictor of future behaviour of an employee (Carmeli & Weisberg, 2006; Shuck, Reio, & Rocco, 2011) but also the strongest precursor to actual turnover (Egan et al., 2004).

The increased interest in work engagement has transpired due to its array of significant individual and organisational outcomes, which includes low turnover intention (Shuck, Nimon, & Zigarmi, 2016). By principle, when organizations have higher levels of work engagement, there will be lower turnover rates (Halbesleben, 2011; Juhdi, Pa'wan, & Hansaram, 2013; Ray, 2006; Shuck & Reio, 2014). Past research also suggested there was

a strong relationship between work engagement and turnover intention (Saks, 2006; Shuck & Reio, 2014).

Engagement theory (Kahn, 1990) suggests that “people exhibit engagement when they become physically involved in tasks, whether alone or with others; are cognitively vigilant, focused, and attentive; and are emotionally connected to their work and to others in the service of their work” (Rich, LePine & Crawford, 2010, p.619). These positive emotional connections with engagement are likely to have affected individual work-related attitudes and behaviors (Alfes, Shantz, Truss, & Soane, 2013; Memon, Salleh, & Baharom, 2016).

Notably, “engaged employees spread their positive feelings and emotions and they can act as role models for others” (Ghorbannejad & Esakhani, 2016). As such, it is suggested that employees with high work engagement tend to have a higher sense of belonging in an organization they are attached or landed a job, reducing their intention to leave (Memon, Salleh, et al., 2017; Ramayah, Cheah, Chuah, Ting, & Memon, 2016; Saks, 2006; Schaufeli & Bakker, 2004; Soane et al., 2012). A few studies also indicated that work engagement is related to employees’ intention to leave (Bailey, Madden, Alfes, & Fletcher, 2017; Juhdi et al., 2013; Saks, 2006).

In the furtherance, Schaufeli & Bakker (2004) reported that there is a negative relationship between engagement and turnover intention amongst employees in Netherlands. Recently, Bailey et al., (2015) made a study on 21 studies of the relevant topics revealed that engagement has significant negative correlation with employee turnover intention, offering strong proof to link these constructs.

Engagement does not only create work-related experiences that are positive and fulfilling but also a condition of mind that is associated with good health and gradual

work exertions (Schaufeli & Bakker, 2004; Sonnentag, 2003). Based on conservation of resources (COR) theory (Hobfoll, 1989), it is not likely for resources to be isolated or distant from one another as it is people's desire to have their resources to be accumulated. COR theory foresees these resources accumulation will lead to positive personal consequences, for instance engagement (Hobfoll, 2002). Work engagement is considered as a vital personal resource which assist one to accomplish their objectives as people who have a lot of resources are capable in coping the obstacles that they are experiencing. Hence, work engagement will assist RMAF pilots attending to the hindrances at their workplace. Work engagement signifies the positive agentic resources that individuals have, which allow them to flourish and succeed (Sweetman & Luthans, 2010).

As such, employees will display work-related consequences that are more positive, have higher regards in their employees, and are less prone in leaving the organisation (Saks, 2006; Schaufeli & Bakker, 2004). In the circumference, employees are emotionally attached with the present employment and are not likely to search for other employment opportunities. Amalgamating with intention to stay which is denoted as the willingness of employees to remain in an organisation (Tett & Meyer, 1993), hence, the hypothesis can be stated as below:

**H3: Work engagement is positively related to intention to stay.**

#### **2.8.4 Work Happiness and Intention to Stay**

In previous study, Lyubomirsky et al., (2005, p.803) concluded that "Numerous studies show that happy individuals are successful across multiple life domains, including marriage, friendship, income, work performance and health." The claim was the findings of these relationships are not only because success leads to happiness but being happy in the aspect of characteristics and positive state impact then causally affect success. Happy



individuals perform specific behaviors that are established to produce better outcomes in the domain of physical, psychological, and even physiological.

At the state level, there is an association between emotions and action inclination characteristics. For example, anger is correlated with action inclination of attack and escape is associated with fear. Action tendencies or inclinations for happiness are not that specific but entail approach, outgoing, and openness (Lazarus, 1991). The element of safety denoted in happiness allows for play and experimentation. Broaden and build theory by Fredrickson (2001) further elaborates the mechanism whereby momentary positive effect could stimulate success.

Explicitly, positive emotions “broaden people’s momentary thought-action repertoires and build their enduring personal resources, ranging from physical and intellectual resources to social and psychological resources.” They also strengthen broad-minded coping, hasten recuperation from negative conditions, and may “trigger upward spirals toward enhanced emotional well-being” (Fredrickson & Joiner, 2002, p. 172). It has been discovered that positive activated moods enrich creativity and could assist goal accomplishment (Aspinwall, 1998; Baas, De Dreu, & Nijstad, 2008). There is an extensive amount of literature examining the intricate manner where positive mood could impact information processing even though the impact is not generally beneficial to task performance (c.f. Forgas, 1995; Forgas & George, 2001; Martin & Clore, 2001).

Whilst the most common impact of momentary happiness towards work seems to be positive; emotions and mood are capable of harming concurrent work performance. Beal et al., (2005) propose that all emotions regardless if they are positive or negative, are capable of reducing task performance via redirecting scant attentional resources far from the task and moving towards the cause of the effect.

A number of researchers conducted study on happiness-related constructs and work outcomes propose that there is a relationship between positive attitudes, and experiences and beneficial outcomes for both employees and organizations. For example, there is a negative correlation between job satisfaction and organizational commitment and intention to quit and actual turnover (Griffeth et al., 2000; Meyer et al., 2002).

In addition, Diener and Seligman (2002) advocated that member of happy group will experience positive feeling most of the time, but not ecstatic. They occasionally experience negative mood. Putting positive into play, a happy person will always take the environmental factor as positive as possible. Despite of all the circumstances at work place especially great challenges or highly demanding job scope, the positive feeling will be the guiding principle of what a person with high level of happiness likely to engage. As positive behaviour will lead to positive outcome. Feeling happier eventually will also promote the good value which in turn will be beneficial to the organisation or their employer.

In a study by Van Katwyk, Fox, Spector and Kelloway (2000) indicated that happiness has a negative relation with turnover intention among 114 respondents of civil service employee working at University of South Florida. The researcher examined Job- Related Affective Well-Being Scale (JAWS) in relation with many variables inclusive of turnover decision.

As Mobley et al., (1978) found that intention to stay or to leave was the immediate precursor of actual withdrawal behavior which is turnover. Turnover intention denotes the wilful intention of an individual to quit from their current job as to find a new one. Exploiting this variable, the likelihood of the real turnover possibility can be captured as (Ajzen, 1991) put forward that it is difficult to measure actual turnovers. Researchers come to this opinion that this decision happens following a series of events that cause an

individual to end his career at the organization. Emphasised from the previous section, Carsten and Spector (1987), Iverson (1996) and Steel and Ovalle (1984) stated that there was a strong negative relation between intention to stay and turnover. Therefore, the literature of turnover is also essential when discussing work happiness and intention to stay.

Omar and Noordin (2015) found that there was a negative relationship between work happiness and intention to leave. Work happiness was also found out in this research which can be one of the antecedents in order to explain the behaviour of the intention to leave. It also emphasised the existence of positive emotions such as being happy at work could assist organisation to lessen the unbecoming intention to leave in an organisation.

Studies have found that criticality of work is crucial to well-being of an individual (Burack, 1999; Krishnakumar & Neck, 2002; Warr, 2003). Hence, work designs that allow employees to feel enjoyed and purposeful in what they carry out at work will make them experience meaningful work. In the furtherance, managerial practices that focus at social and organisational improvement have been proven to insert value to the well-being of the employees at workplace (Bakke, 2005; Tehrani, Humpage, Willmott, & Haslam, 2007). Therefore, to ensure that the employees enjoy their work and feel connected to the society, managers can provide challenging, clear and authentic work to the employees so that they can experience meaningfulness in their work.

The Broaden and Build theory (Fredrickson, 2013) suggests that momentary thought-actions (the broaden effect) of people are broaden by positive emotions , which in turn encourages social and personal resources growth, revealed through better outcomes such as job satisfaction and lower turnover intentions (the build effect). The positive emotions experience “expand the obtainable array of potential thoughts and actions that come readily to mind” (Fredrickson & Branigan, 2001) and has lasting consequences on

employee job attitudes and outcomes such as higher organisational performance, productivity and lower turnover intentions (Cotton & Hart, 2003; Oi Ling Siu et al., 2015). It has been reported in several studies that social, emotional and economic resources have a role as predictors of employees' intention to stay or leave with their organisation (Aboobaker et al., 2019; Aryee, Budhwar, & Chen, 2002; Bambacas & Kulik, 2013; Blau, 1964).

From the findings gathered, it can be inferred that there is a relationship between work happiness and intention to stay with the organization, because an individual's emotional resource is reflected by one's work happiness. Therefore, it is proposed that when an employee experiences high level of work happiness, this could be observed in intense intention to remain with the organisation. Hence, the following hypothesis can be stated:

**H4: Work happiness is positively related to intention to stay**

**2.8.5 Work Engagement as Mediator between Psychological Capital and Intention to Stay**

Hobfoll (1989, 2002) classified conditions, energies, objects and personal characteristics as resources. Grounded on Hobfoll's (2002) analysis on various theories on resource, there are four distinctive components which display the main construct of psychological capital, which are self-efficacy, resilience, hope and optimism and are identified as personal traits resources, which might apply their effects on stress resistance, and hence improve the individuals' ability in handling difficulties which lead to unlikeliness of them to quit despite being in stressful circumstances.

Previous studies have suggested an existence of positive relationship between psychological capital and work engagement (Bakker et al., 2011; Karatepe & Talebzadeh, 2016). In the same vein, Karatepe and Karadas, (2015) discovered that employees who

are engaged are optimistic, hopeful, self-efficacious, and resilient. Their study also indicated the indicators of psychological capital trigger employees' work engagement, which are vigour, dedication and absorption.

Energetic employees who have high enthusiasm and high engagement in their work are less likely to have the intention to leave. Laschinger, Grau, Finegan, and Wilk (2012) disclosed that work engagement mitigated employees' inclination to leave the organisation. In recent times, Shahpouri, Namdari, and Abedi (2016) demonstrated that work engagement showed a negative association with intention to quit among employees.

Grounded on the JD-R model, it is propositioned that the effects of personal resources on job outcomes are mediated by work engagement (Bakker & Demerouti, 2008). To be specific, Specifically, employees with adequate personal resources (i.e., self-efficacy and resilience) are able to concentrate fully in their work. Employees with high work engagement are less likely to have the intention to leave the organization and increase the level of wanting to stay in the same organisation. In short, work engagement is the mediator of the effects of personal resources on job outcomes. Laschinger et al.'s (2012) study indicated that the direct impact of psychological capital on intention to quit was positive, even though work engagement seemed to link psychological to quitting intentions. A study by Shahpouri et al. (2016) showed that work engagement functioned as a full mediator between personal resources (i.e., psychological capital) and turnover intention.

As such, from the discussion, RMAF pilots who have abundance of psychological capital are becoming more immersed with their work, able to manage all the job demand imposed, have become more positive in their job, in turn would have higher degree of intention to stay. Therefore, the following hypothesis can be stated:

## **H5: Work engagement mediate the relationship between psychological capital and intention to stay**

### **2.8.6 Work Happiness as Mediator between Psychological Capital and Intention to Stay**

The broaden-and-build theory of positive emotions (Fredrickson, 2013; 1998) views that positive emotions increase awareness (attention and thinking); the broaden effect. The extensive awareness subsequently triggers social and personal resources growth that heighten well-being, the build effect. RMAF pilots who have such social and personal resources growth to effectively handle problems and adjust to the work environment adversities experience higher level happiness at work, less stress symptoms for instance psychological strain (e.g. depressive mood) and physical strain (e.g. insomnia). Positive emotions are capable of building the personal resource which can equip individuals to be better in facing opportunities and challenges in life that leads to going through life satisfaction (e.g., Cohn, Fredrickson, Brown, Mikels, & Conway, 2009). Therefore, RMAF pilots who have positive emotions can feel higher level of work happiness and resulting to having lower intention to leave, but higher intention to stay in their present job. Thus, positive emotions strengthen the resources of psychological capital in accomplishing sought-after work outcomes.

Behavioral intention acts as a vital precursor of actual behavior (Fishbem & Ajzen, 1975). Generally, it has been deliberated that those employees who have higher psychological capital will indicate lesser turnover intention (Avey, Luthans, & Youssef, 2010). The argument is that efficient employees are inclined to feel that they are capable to handle their work demands, hence increasing their motivation to remain in the organization. Making use of parallel argument, those employees who are highly resilient could easily recover from setbacks compared to others, which consequently lessen the

possibility of them to leave the organization. On the other hand, as previously mentioned, a higher-order construct of psychological capital could act a better predictor of performance compared to the four individual components (Luthans, Avolio, et al., 2007a). Based on broaden and build of positive emotion theory (Fredrickson, 1998), the thought action of an employee will be broadened and could achieve positive work outcome such as encountering any challenges at work. As such, the four distinctive components which exhibit the main construct of psychological capital classified as personal characteristics resources, which collectively could better impose their effects on stress resistance. This increases the ability of individuals at managing difficulties and become less prone to leave despite being in stressful situations. Therefore, it is propositioned in the current study that psychological capital will influence the behavioral intention of turnover wherein raising the level of intention to stay because of its influence on work happiness. In studies regarding the Chinese work well-being, job satisfaction which is a component of happiness and symptoms of stress are often regarded as indicators of turnover intention (Siu, Lu, & Spector, 2007; Siu, Spector, & Cooper, 2006; Siu, Spector, Cooper, & Lu, 2005).

Moreover, studies in the past revealed that psychological capital and work happiness have a positive relationship (e.g., Culbertson et al., 2010; Joo & Lee, 2017; Singhal & Rastogi, 2018). In the furtherance, work happiness is found to be one of the main mechanisms related to turnover. Omar and Noordin (2015) discovered that there is negative relationship between work happiness and intention to leave. Van Katwyk, Fox, Spector, and Kelloway (2000) indicated that happiness has a negative relation with turnover intention.

As such, it can be assumed that RMAF pilots who are resourceful in higher degree of psychological capital will be much happier at work, and contribute better in the

organization, will become more positive and become more resilient in any challenges encountered, in return, the RMAF pilots would stay longer serving the organization. Therefore, the following hypothesis can be stated:

**H6: Work happiness mediate the relationship between psychological capital and intention to stay**

## **2.9 Summary**

In summary, this section overviewed the concept of positivity in terms of its background, definition, dimensions, and approaches. In the circumstances, this section has highlighted the viability of positive psychological resources such as psychological capital, work engagement, work happiness and intention to stay. Consequently, it also reflects the underpinning theories which explain the conceptual framework. Finally, the hypotheses development has been established and will be tested for this research.



## CHAPTER 3: RESEARCH METHODOLOGY

### 3.1 Introduction

This chapter will explain research methodology and design of this research based on the research objectives and literature review on the previous chapters. This chapter will discuss research paradigm, research design and process, research framework, population and sampling. In the furtherance, discussion on data collection method, sample process, data analysis software, questionnaire design, pre-testing process, data collection procedures and data analysis procedures will follow suit.

### 3.2 Research Paradigm

A research paradigm sets the context for a researcher's study (Ponterotto, 2005). Several paradigms are identified guiding a researcher to incorporate different paradigmatic schemas in order to conceptualize and classify their research work (K. Denzin & Lincoln, 2000). Sobh and Perry (2006) stated that a paradigm is regarded as a general conceptual framework within which provides the framework or outline of the researcher's work. Within the ambit of social science research, there are two main types of research paradigms, namely: positivism and constructivism. For the purpose of this paper, only positivism will be discussed. Positivism is a form of philosophical realism adhering closely to the hypothetico– deductive method (McGrath & Johnson, 2003). Basing on the hypothetico– deductive method, positivism emphasizes on efforts to prove a priori hypotheses that are most often stated in quantitative propositions that can be transformed into mathematical formulas expressing functional relationships (McGrath & Johnson, 2003). The main goal of positivistic inquiry is an explanation that (ultimately) leads to prediction and control of phenomena. As such, this paradigm is grounded on the social science properties that can be evaluated directly using observations as to a researcher, the social world exists externally (Gray, 2004). Hence, scientifically, a positivist starts his research with the selected theory, later gathers data that either support

or reject the theory, and subsequently conducts needed revisions prior to carrying out additional tests (Creswell, 2013). In the furtherance, quantitative methods of data collection and analysis are utilised in doing a positivism research (Mackenzie & Knipe, 2006).

Based on the research objective and literature review in the previous chapters, the intention of this paper is to compute the impact of the hypothesised independent variable, mediating and dependent variable. As such, it suits the criterion that has been set out by the positivism research paradigm. In the circumstances, it is only legitimate to use the quantitative methodology in this study.

### **3.3 Research Design**

Designing research is based on the objective and purpose of this study, and also taking into consideration of where the study is going to be conducted. Since this study is going to be carried out by way of quantitative, research design is based on the nature of the investigation (Kumar, 2011). According to Isaac and Michael, (1995), “to answer questions that have been raised, to solve problems that have been posed or observed, to assess needs and set goals, to determine whether or not specific objectives have been met, to establish baselines against which future comparisons can be made, to analyse trends across time, and generally, to describe what exists, in what amount, and in what context, survey research is used”. In addition, survey strategy is usually associated with deductive approach and is also commonly and popular used in the business and management research (Saunders, Lewis, & Thornhill, 2009). Survey strategy offers the researcher to have more control on the research process, and when sampling is used, it allows representative findings from the whole population. Getting data from the whole population could be difficult, timely and costly, alternatively, sampling will cut the cost and make study feasible (Saunders et al., 2009). On the same vein, based on the previous

chapters, structured questionnaire surveys are considered to be used in this study. Since variables of the study are adopted from previous studies, the characteristic and definition of each research variable is similar to those of its origin. As such, this study will use the survey method.

The variables of this study will look into intention to stay, psychological capital, work engagement and work happiness. Based on the research objective and the time frame given to conduct this research, this study uses a cross sectional approach whereby population will be sampled and all the variables data are gathered simultaneously in time for examining the relationship among the variables. Cross sectional research is widely being used in business research because it gives a good overall illustration of the position at a given time (Singh, Chan, & Sidhu, 2006; Zikmund, Babin, Carr, & Griffin, 2013).

Levy and Lemeshow (2008) propagate that there are two steps in survey design; Firstly, a sampling plan must be developed. The methodology of sampling plan will be used to select the sample from the population. Hence, this plan will determine the approach that will be used to select the sample, adequacy of the sample size will also be identified, and the media option in which the survey will be conducted. Survey media include telephone and face-to-face interviews, as well as mailed surveys using either postal or electronic mail (Salant & Dillman, 1994). In addition, recent findings indicate that electronically-based surveys have become most common (Hulland, Baumgartner, & Smith, 2017). A structured self-administered questionnaire was deployed in gathering the data for each study variable due to the ease in tabulating the findings in numerical and statistical form (Noorzan, 2010).

Next, procedures for obtaining population estimates from the sample data are performed and to estimate the reliability of those population, estimates must be

established. It includes identification of the anticipated response rate and the desired level of accuracy for the survey (Salant & Dillman, 1994).

Survey design procedures need inputs from researcher and the researcher must distinguish the variables to be measured, the estimates needed, the reliability and validity required to make sure the practicality of the estimates, and any constraint from the resource that may be present concerning to the administration of the survey (Levy & Lemeshow, 2008). Statisticians integrate these inputs to develop a survey design that will meet the data users' requirements within the specified resource constraints

### **3.4 Population of the Study**

A population is a group of individuals or organizations who have the same characteristic (Clark & Creswell, 2015). According to Sekaran (2003), population can also be described as the total set of people, things, or events that researcher has a desire to investigate in order to draw the findings to resolve the problem. As such, population can be small, or large based on the objective of research and phenomenon understudy as well as the type of research such as quantitative researches need a large number of populations versus qualitative and mixed-methods researches (Clark & Creswell, 2015).

For the purpose of this study, based on the research objective, it is identified that pilots who are currently serving in the RMAF are the population, this involves those pilots who are actively and non-actively flying. For those actively flying, they are stationed at the various flying squadrons and for those who are not actively flying are stationed at the various RMAF establishments throughout Malaysia. A limited number of the non-active flying RMAF pilots are also serving outside the RMAF as they are assigned for special purpose such as attachment to the Malaysian Armed Forces Headquarters, United Nations, Foreign Services etc. Some RMAF pilots are seconded to other services such as Malaysian Maritime Enforcement Agency (MMEA), Malaysian Fire and Rescue

Department, Ministry of Transport etc. Hence, it is submitted that all the serving pilots in the RMAF are identified as the target population for this study. The current total population of the RMAF pilots is available from the RMAF Human Resource Department. This department also keeps track the whereabouts of the RMAF pilots.

### **3.5 Sampling**

Sampling is the process of choosing a few features from the total population and deriving conclusions regarding the population grounded on sampling (Cooper & Schindler, 2014). Field (2016) stated that sample represents a set of smaller entities from the population. Likewise, Hair, Hult, and Ringle (2017) defined sample as “a selection of elements or individuals from a larger body or population”.

Based on the quantity, workstation and nature of the job of each RMAF pilots, it is very difficult to make each of them to become a respondent in this survey research. As such, sampling was implemented.

### **3.6 Sample Design**

A researcher may need to apply an appropriate type of sampling design or strategy to select a representative sampling for targeted population (Clark & Creswell, 2015). There are two types of category which are popularly used among researchers; namely probability and nonprobability sampling (Creswell, 2013; Sekaran, 2003). However, probability sampling has the preference in a research when the emphasis is on the generalizability of findings from the sample respondents to the target population. As such, theories are used in a social to explicate an occurrence with a dissimilar context which tends to be theory generalization, instead of sampling generalization (Memon, Ting, Ramayah, Chuah, & Cheah, 2017). However, the probability sampling will only work when the sampling frame is obtainable which is the complete list of all the subjects in the target population is acquired (Cooper & Schindler, 2014; Saunders et al., 2009).

As such, because the RMAF Human Resource Department has identified and determined the target population of the study, coupled with consideration on the literature discussed, probability sampling is the most suitable for this sample design. In the furtherance, this study will use stratified systematic random sampling method (Saunders et al., 2009). The method of random sampling or probability sampling permits every units from the population to have equal chance of selection in the sample. As such, this method will control the biasness and the subsequent generalising analysis would be more prudent (Etikan, 2017).

The pilots in the RMAF are composed of those who are active and non-active. Active pilots are those pilots who are currently engaged with flying duties; they are operational and ever ready to be deployed to carry out any missions. They are stationed in established various flying units which are equipped with complete elements of operational aircraft and its supporting element such as the engineering and logistic sections. On the other hand, the non-active pilots are also RMAF pilots who are not involved with the flying duties. This does not mean that they are not qualified to fly anymore. Their qualification is the same, still subject to the operational requirement to fly but they are stationed at the non-flying units. The situation is simply due to the service requirement that warrants an active pilot to be non-active. The situation can happen due to the expertise of the pilots in another area that requires him to do the desk job, promotional reasons to lead other sections, attending long career courses, temporary duties which do not involve flying duties etc. As such, to fulfill the need of this study, the stratification of the respondent is done according to active and non-active pilots. In the circumstance, the sample design adhere stratified systematic random sampling (Saunders et al., 2009). For this reason, it will give the right representation of the total population of the whole population.

### 3.7 Sample Size

There are various practices for determining a sample size in quantitative research. First, Krejcie and Morgan (1970) founded a table that helps researcher to identify their samples based on population available number.

As sampling design and the sample size are of great importance in order to establish the representativeness for generalizability (Sekaran, 2003). According to table by Krejcie and Morgan, (1970), when the population is 611 then it shall be regarded as 650, therefore  $N=650$ . From the table, the population required for this study is determined as 242.

Another sample size determination is the Rule of Thumb which suggested that the maximum number of items shall be multiplied by 5 (Roscoe, 1975). In this case, the maximum item is 57, hence as per rule of thumb, the minimum sample size should be at least 57 multiply by 5 = 285 samples.

In addition, G\*Power (Faul, Erdfelder, Buchner, & Lang, 2009) invented by Erdfelder, Faul, and Buchner (1996) functions as a general power analysis program for statistical tests which are normally utilised in behavioural research. In this research, the G\* power was utilised to identify the right sample size that marks a huge upgrading and extension of the earlier versions (Faul, Erdfelder, Lang, & Buchner, 2007) in examining the present framework with 4 predictors such as intention to stay, psychological capital, work engagement and work happiness. Using G\*power analysis suggested by (Hair, Hult, et al., 2017), the required sample size should be enough to achieve the minimum power of 0.80 and medium size effect of 0.15. As such, using G\*power analysis as shown in below:

Effect f square = 0.15

Alpha error = 0.05

Power = 0.95

Number of Predictors = 4

The analysis yielded a minimum sample size of 129. Table below shows the result of G\*Power analysis.

### 3.7.1 G\*Power

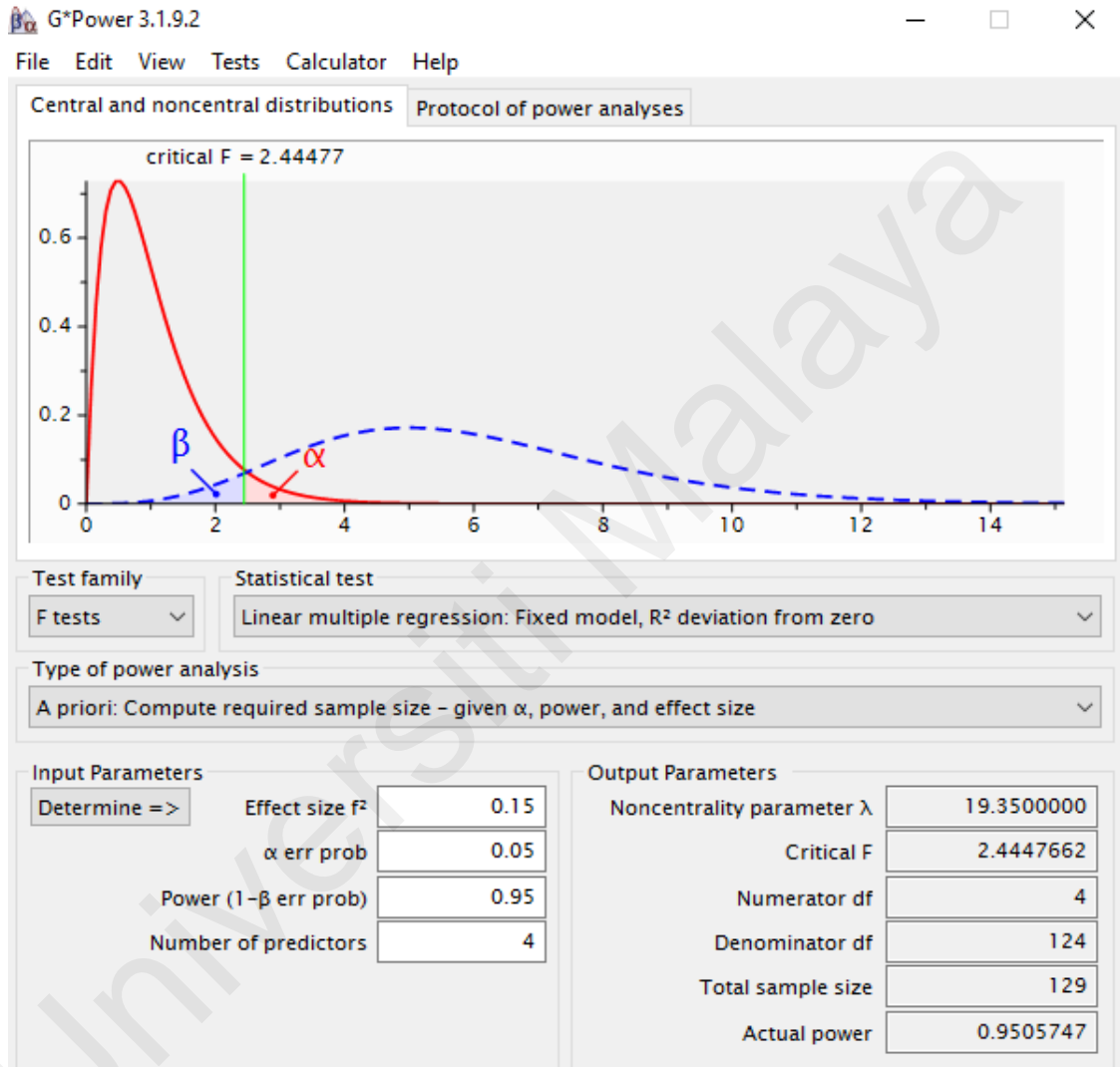


Figure 3.1: G Power Calculation

Combining the insights from the above analysis, we can make reasonable estimates of what an adequate sample size would be. The following table outlines the techniques and criterion of various sample size suggested.



**Table 3.1: Result of Sample Size Calculation**

<b>Sample Size Analysis</b>		
<b>Technique</b>	<b>Criterion</b>	<b>Sample Size Required</b>
Krejcie and Morgan (1970)	N=650	242
G*Power Analysis Tool	Effect f square = 0.15 Alpha error = 0.05 Power = 0.95 Number of Predictors = 4	129
Rule of Thumb (Roscoe, 1975)	Max no of items x 5 (items for this study is 57)	285

Based from the above analysis, the minimum number intended to be used was 285 following Rule of Thumb that will satisfy the rest of the methods.

### **3.8 Data Collection**

Since this study is a quantitative survey, questionnaire was the appropriate tool that can capture primary data. According to (Sekaran, 2003), questionnaires are a set of written questions prepared for respondents to indicate their anticipated responses in writing. In the same vein, questionnaire is widely used by scholars particularly in management and social sciences (Rowley, 2014). Questionnaires were distributed to respondents by several ways such as post, e-mail, electronic online questionnaires, or and not limited to by face-to-face (Rowley, 2014).

Since data was collected from the armed forces establishment, all rules and procedures were strictly adhered. Permission and clearance to conduct such survey was obtained from the Higher Authority. All survey visits to the respective units were planned and organized. Consent document was issued to the respondents prior to the issuance of questionnaires. All the completed questionnaires and result are kept in accordance with the required standard and not to disregard the relevant standing orders by the armed forces. As such, detrimental effect in term of breaching any security protocol and private confidentiality

could be avoided. In addition, the respondents' confidentiality and privacy were ensured protected (Creswell, 2013).

For data collection, the survey was conducted between May to Sept 2019 at various locations as indicated in Table 3.2 below:

**Table 3.2: Data collection schedule**

Date	Location	Respondent	Note
May 2019	Subang Air Base	No 2 Sqn, No 20 Sqn, 22 Sqn, PLTT- <u>Angkut</u> , No 3 Sqn Det	done
June 2019	Kuantan Air Base	No 10 Sqn, No 9 Sqn, No 15 Sqn, No 19 Sqn, PLTB 3	done
June 2019	Gong <u>Kedak</u> Air Base	No 11 Sqn	done
July 2019	Butterworth Air Base	No 3 Sqn, No 18 Sqn, PLTT-Heli	done
July 2019	RMAF <u>Alor Setar</u>	PLTB 1, PLTB 2, ILIT	done
August 2019	Kuching Air Base	No 1 Sqn, No 7 Sqn	done
August 2019	Labuan Air Base	No 5 Sqn, No 6 Sqn, No 14 Sqn	done
May - Sept 2019	RMAF HQ/Others	Staff Officers	done

The collection of data was based on the population of 611 in 2018 (MTU-BSM). In the course of data collection, close coordination between the authority in RMAF HQ - Human Resource and the researcher was carried out. Since the distribution of active and non-active pilots is almost the same. For active pilots, 22 flying units were visited for data collection. Appropriately, average population of each flying units was 15 but to give a right representation, the researcher decided to take 10 samples from the list in each flying unit. For non-active pilots assuming staff functions located at the HQ and various places, 180 pilots from the total number were pre-selected for the data collection. The selection of sample used stratified simple systematic random sampling. Hence, total number of 400 samples were intended to be collected. Reason why 400 is selected out of 611 of the population is according to Saunders et al.,(2009), researcher usually work to a 95 percent level of certainty. This suggests that if your sample is chosen for 100 times, it is definite that at least 95 percent of these sample would be certain to represent the

characteristic of the population. Therefore, the researcher chose 3 percent of the margin error, as such the sample size required should be around 400 (Following Table 7.1 of Saunders et al.,(2009) as shown in Table 3.3 below.

**Table 3.3: Sample sizes for different sizes of population at a 95 confidence level (assuming data are collected from all cases in the sample) . Source: Saunders et al., (2009)**

Population	Margin of error			
	5%	3%	2%	1%
50	44	48	49	50
100	79	91	96	99
150	108	132	141	148
200	132	168	185	196
250	151	203	226	244
300	168	234	267	291
400	196	291	343	384
500	217	340	414	475
750	254	440	571	696
1 000	278	516	706	906
2 000	322	696	1091	1655
5 000	357	879	1622	3288
10 000	370	964	1936	4899
100 000	383	1056	2345	8762
1 000 000	384	1066	2395	9513
10 000 000	384	1067	2400	9595

### 3.9 Questionnaire Design

The questionnaire has five sections; Section A, B, C, D and E. Section A is designed for the demography of the respondents; Section B is related to the independent variable which is psychological capital; Section C and D concern with the mediators which include work engagement and work happiness respectively; and Section E is associated with the dependent variable which is the intention to stay. Since the variables selected in this research are also discussed in the previous and various literatures, the approach of the questionnaire design is to adopt and adapt from the relevant and suitable literatures.

### **3.10 Seven – Point**

Likert scale is used in the questionnaire to ensure degree of dispersion and reduce neutral responses. Large Likert scales are more beneficial in obtaining accurate responses, however it may also confuse the survey participants (Bass, Cascio, & O'Connor, 1974). In the same vein, a 5-point Likert scale may limit the option to a certain extent. Thus 7-point scale is used in this study to measure items as distinctively it gives sufficient options for respondents without the confusion of larger Likert scales (Burns, Veeck, & Bush, 2017).

### **3.11 Instrument Design**

Instrument of each construct are adapted from established well researched literatures. The instrument design for selected instruments for this study are explained below.

#### **3.11.1 Intention to Stay**

There were 6 items used to measure this variable; 5 items were developed by Mowday, Koberg, and McArthur (1984) and Mobley, Homer, and Hollingsworth, (1978). 1 item was adapted from Mobley et al., (1978). 7-point scale ranging from 1= strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = neutral, 5 = somewhat agree, 6 = agree, and 7 = strongly agree was used to measure the responses. 2 of the questions were reversed scoring.

Instructions to respondents are: “Below are statements that describe how you may think about yourself right now. Use the following scales to indicate your level of agreement or disagreement with each statement.” Some examples of the items is, “I do not intend to quit my job”; “It is unlikely that I will actively look for a different organisation to work for in the next year”; and “I am not thinking about quitting my job at the present time”. The extension question is, “I am loyal to work until I reach my retirement of date (ROD)”.

The items were used by Bozeman and Perrewé (2001) to measure turnover cognitions. The items in this study were used in two different sets which are for the Master of Business Administration (MBA) alumni sample and hospitality sample. For the alumni sample, there were 172 respondents, two items were worded negatively and three were worded positively. For the hospitality sample, there were 330 respondents, utilizing the same items, the three items which were originally positively worded were changed into negatively worded. Respondents signified their agreement for each item on a 5-point scale. The coefficient alpha reliability for this scale was 0.94 for the alumni sample and 0.90 for the hospitality sample. In view of this concept, the items used to measure the turnover cognitions could also be used for intention to stay.

A study was conducted on a Malaysian sample using this questionnaires, Johari, Yean, Adnan, Yahya and Ahmad, (2012). This study was aimed to measure intention to stay among the Team 1 and Team 2 technicians of X manufacturing group of company Y situated at Kulim Hi Tech Park, Kedah. The first two items were negatively worded, and three items were positively worded. The total number of respondents were 184 and this study found the Cronbach alpha reliability for this instrument was 0.835.

### **3.11.2 Work Happiness**

Work happiness measurement is adapted from the Orientations to Happiness Scale by Peterson, Park, and Seligman (2005). This scale was built to calculate the orientation of an individual towards work happiness based on the search for work of pleasure, work of engagement, and work of meaning. There are 18 items in total in this scale: six items assessing the extent to which one approves each way in searching for work happiness. Instructions to respondents are: "All of the questions reflect statements that many people would find desirable, but we want you to answer only in terms of whether the statement describes how you actually live your life." 7-point scale is established for the ratings,

from 1 = 'not like me at all' to 7 = 'very much like me.' Measuring the average of pertinent responses to produce scores signifying the affirmation of work of engagement, work of pleasure, and work of meaning as means to work happiness produces subscale scores. Past researches had proven the reliability and empirical distinctiveness of these three subscales in which their stability over the time is confirmed, which they congregate with other researcher's report, as well as forecast behavior exhibiting the questions' orientation. In Park, Peterson and Ruch (2009), the sample's Cronbach alphas as overall were satisfactory: 0.80 for pleasure, 0.70 for engagement, and 0.83 for meaning.

In the military context, the instrument has also been used by Proyer, Annen, Eggimenn, Schneider and Ruch (2012) who conducted research on assessing good life in a military context. The respondents of this research were 221 professional officers of the Swiss Army from Land and Air Forces. The reliability coefficients for the three scales were Cronbach alphas: 0.68 for pleasure, 0.69 for engagement, and 0.8 for meaning. The instrument was also used in a broad range of research and proven to be highly validated and reliable (e.g. Chen, Tsai, & Chen, 2010; Park et al., 2009)

### **3.11.3 Work Engagement**

Work engagement instrument of 9-item version Utrecht Work Engagement Scale UWES (Schaufeli, Bakker, & Salanova, 2006) is selected to evaluate work engagement in this study (UWES 9). The UWES items are sorted into three subscales indicating the underlying engagement dimensions: Vigour (3 items), Dedication (3 items), and Absorption (3 items). A 7-point frequency rating scale which has the range from 0 (never) to 6 (always) is used to score all items. Instructions to respondents are, "The following 9 statements are about how you feel at work. Please read each statement carefully and decide if you ever feel this way about your job. If you have never had this feeling, circle the "0" (zero) in the space after the statement. If you have had this feeling, indicate how

often you felt it by circling the number (from 1 to 6) that best describes how frequently you feel that way”. An instance of the item is, “At my work, I feel bursting with energy”; “I am enthusiastic about my job”; and “I get carried away when I am working”. The items had a reliability value between 0.8 and 0.9.

The instrument was used by Karatepe and Talebzadeh (2016) in a study that examines on psychological capital, servant leadership and work engagement. The data was extracted from 200 flight attendants working with private airline companies. The instrument was highly validated and found to be reliable.

In the military context, the instrument was also used to measure work engagement among 322 officers and sergeants and 1,045 soldiers of the Portuguese Army (Castanheira et al., 2016). The items had a reliability value of 0.91. In other studies, the instrument was used and proven to be highly validated and reliable (e.g. Karatepe & Karadas, 2015; Nigah, Davis, & Hurrell, 2012)

#### **3.11.4 Psychological Capital**

The Psychological Capital questionnaire (PCQ) was utilised as a PsyCap measure. The PCQ was designed by Luthans, Avolio, Avey, Norman and Luthans (2007). There are 24 items for PCQ with 4 subscales for the 4 PsyCap components: namely self-efficacy, hope, resiliency, and optimism. A total of 6 items for each subscale are provided, and the responses are measured using a 7-point scale which ranges from 1= strongly disagree, 2 = disagree, 3 = somewhat disagree, 4 = neutral, 5 = somewhat agree, 6 = agree, and 7 = strongly agree. Instructions to respondents are: ‘Below are statements that describe how you may think about yourself right now. Use the following scales to indicate your level of agreement or disagreement with each statement.’

An example of a self-efficacy item is, “I feel confident in representing my work area in meetings with management”; an instance of hope item is, “If I should find myself in a jam at work, I could think of ways to get out of it”; an example of resiliency item is, “I usually take stressful things at work in stride”; and an example of optimism item is, “I always look on the bright side of things regarding my job”.

There was one study done on a Malaysian sample utilising the PCQ by Hanafiah, Yousaf and Usman (2017) found the Cronbach alpha for PsyCap construct is 0.922. The other constructs reliability are 0.841 (hope), 0.874 (optimism), 0.869 (self-efficacy) and 0.820 (resilience).

### **3.12 Demographic Information**

The demographic information is presented accordingly (e.g., age, gender, year of service, marital status and type of pilot) which is related with respondents’ characteristics in the RMAF. These questions have been posted both in open ended format and also in categorical format. An example of categorial question is type of pilot represented by (Fighter, Transport or Helicopter).

### **3.13 Research Instrument**

The survey questionnaire for this research is enclosed as **APPENDIX A**

### **3.14 Pre-Testing and Pilot Study**

Pre-testing is important for survey questionnaire as to make sure that there is no uncertainty in the questions, at the same time respondents of the survey could have a crystal clear understanding of the questions posed and intended by the researcher (Sekaran, 2003). For this purpose, the research instruments were referred to six expert panels; three experts from two distinct local universities serving as lecturer with doctorate degree who are expert in the development of instrument in this related field; and three



from the RMAF serving as pilot with sound position and learned military academic. According to Grove, Burns, & Gray (2013) before developing questionnaire in a research, the blueprint specifications must be submitted to an expert panel for validation of its appropriateness, accuracy, and representativeness. Minimum of five experts are recommended, but an acceptable minimum number of experts is three for reason that additional person with the expertise is not available. Researchers may look for individuals with expertise from various fields—for instance, one person who is knowledgeable with instrument development, a second person with clinical expertise in a suitable field of practice, and a third who is an expert in another discipline pertinent to the content area. As such, feedback from the experts was obtained and remedial measures were taken upon.

The number of respondent that involved in a pilot study will determine the internal consistency for reliability of the measures (Memon, Ting, et al., 2017), Hence, a sample of 30 individuals is advocated. The figure is based and originated from the Central Limit Theorem in which it generates a distributional assumption of the sample by the size of 30 or more to make sure that the mean of the research samples from the target population is close to approximate equivalent to the actual population.

#### **3.14.1 Pre Testing**

In finalizing the questionnaire for main data collection of the research, a two-stage test was conducted, namely a pre-test using expert review and pilot test. According to Churchill & Lacobucci (2002), a pre-test should be done in person, however the final pre-test must be conducted by one of the potential respondents which questionnaire was intended to (Olson, 2010). The pre-test includes the face validity and content validity

With regards to face validity, the research instrument was developed by relevant literatures as discussed in the previous chapter. Overall there are five sections composing this instrument; four sections to measure the construct and one section to seek information

on the demography. The four sections that measure the constructs (psychological capital, work engagement, work happiness and intention to stay) were adapted from previous studies that have high validation. As such, instrument selected to measure the construct has also been used by previous researchers measuring the similar and relevant constructs. Therefore, on the face validity of measuring the four main construct and the demography are therefore satisfied. In the face validity, the instrument is measuring what is supposed to be measured.

Consequently, content validity was conducted in this research. The purpose of acquiring content validity is to investigate the extent of the measurement method which involves all the major elements pertinent to the construct that is being measured. The evidence for this purpose is obtained from the three sources: namely the literature, the representatives of the relevant populations, and the content experts (De Von et al., 2007). The content experts selected are as follows:

**Table 3.4: List of Expert Panel**

No	Position & Appointment	Academic	Expert Area / Discipline
Expert 1	Academia – Senior Lecturer in local university	Doctoral	Human Resource - Positivity
Expert 2	Academia – Associate Professor in local university	Doctoral	Human Resource - Retention
Expert 3	Academia -Senior Lecturer in local university	Doctoral	Quantitative survey
Expert 4	RMAF Pilot – Top Management	Master	Human Resource - Policy
Expert 5	RMAF Pilot – Middle Management	Master	Operational
Expert 6	RMAF Pilot – Tactical Management	Diploma	Operational

The experts were then requested to review the relevance of the instrument to the research topic and the overall user-friendliness, clarity, as well as the simplicity of the

questionnaire (e.g., the wordings , the clarity of a sentence, the order or flow of statements, adequacy of instruction, level of understanding, and length of the survey).

The reviewers were subsequently asked to provide subjective feedback regarding the questionnaires, all of which were considered for the design of the final questionnaires. The questionnaires were refined based on their feedback. In the consequence of the pre-testing phase and associated revision, the questionnaires were then sent for pilot testing.

#### **3.14.2 Pilot Study**

To further validate the research instrument, a pilot study was conducted, and the research instrument was distributed to 33 pilots within the target population. The number of 33 respondents for pilot study is in harmony with Perneger, Courvoisier, Hudelson, & Gayet-Ageron, (2015) who suggested that minimum of 30 individuals is reasonable for pre-testing questionnaires. Consideration on the selection of the respondents is based on the criteria that suit as broad representative of the target population to be chosen for main data collection (Kumar, Talib, & Ramayah, 2013). A pilot testing serves as a way to evaluate the appropriateness of study and instrument design before the actual field study (Malhotra, 2015). The data obtained from the pilot study was examined for the completeness of the responses and the internal consistency of the constructs. Besides, the pilot study conducted allows an estimation of the time required to complete the questionnaires. No substantial comments were received from the respondents regarding the length and the time required to complete the questionnaires. No substantial remarks were found concerning the difficulty in answering the questionnaire items nor regarding the format and structure of the questionnaires. Thus, no major change and adjustment were performed to any of the items. Consequently, the structure and the layout of the questionnaires were retained, and the questionnaires were maintained for the final distribution stage. As presented in Table 3.5, all the measures' internal consistencies in

the pilot study range from .704 to .828. The Cronbach's alpha coefficient value of at least 0.6 reveals good reliability among the items in measuring a specific dimension (Malhotra, 2015). The results showed a satisfactory level of the initial indication of all the items' internal consistency evaluated in the pilot study.

**Table 3.5: Internal consistency on pilot study**

<b>Internal Consistencies of the Research Measure from Pilot Study (n=33)</b>			
<b>Construct Code</b>	<b>Construct</b>	<b>Cronbach's Alpha</b>	<b>No. of Items</b>
SE	Self-efficacy	0.725	6
HP	Hope	0.733	6
RS	Resiliency	0.704	6
OP	Optimism	0.712	6
VG	Vigour	0.708	3
DC	Dedication	0.828	3
AB	Absorption	0.752	3
WM	Meaning	0.717	6
WP	Pleasure	0.708	6
WE	Engagement	0.711	6
IS	Intention to Stay	0.746	6

### **3.15 Ethical Procedure**

Research ethic clearance for the research to be conducted on the targeted population has been granted by the UM Research Ethics Committee (UMREC). Reference for the clearance is UM.TNC 2/UMREC dated 27 Sept 2018. This ethic clearance is valid from September 2018 and will expire in September 2021. The research ethic clearance is enclosed in APPENDIX C.

Since this research was conducted in a military establishment which has a very strict protocol to be adhered to, the researcher has approached the highest authority in the RMAF to seek clearance and support of this study. The clearance of access to conduct this research into the establishment was acquired as enclosed in APPENDIX D.

### **3.16 Common Method Bias**

Taking into consideration that the data were gathered from single source (i.e., the RMAF pilots), a number of procedural strategies were adopted to deal with the issue on common method bias found in this research. The followings actions were adhered to satisfy the common method bias; i) the obscurity and privacy of the respondents were guaranteed; ii) the pre-testing of questionnaire to prevent ambiguity, irrelevant, and hard questions, in order to make sure that all participants need similar efforts; iii) an apprehensible set of instructions were given to complete the survey, each study constructs were segmented, to prevent confusion; iv) and participants were told that preferred answers are not applicable and honest responses are required by the researcher (Podsakoff, MacKenzie, Lee, & Podsakoff, 2003; Reio, 2010; Schwarz, Rizzuto, Carraher-Wolverton, Roldán, & Barrera-Barrera, 2017)

### **3.17 Data Analysis Procedure**

The determination of relationships between variables was done once the data from the questionnaires' responses were analysed. Therefore, the target sample is able to give the information and analyzing the data through selected population might provide different conclusions. Next, the data that was retrieved was run through the Statistical Package for the Social Sciences (SPSS). Evaluation of the data was carried out by using SPSS version 23 and Partial Least Square - Structural Equation Modelling (PLS-SEM). The summary of the data will be in the form of relevant descriptive and inferential statistics. The SPSS was deployed to produce the descriptive statistics with the purpose of describing the data or information using frequencies. Smart PLS 3.2.6 (Ringle, Wende, & Becker, 2015) was utilised to examine the measurement model (internal consistency reliability, discriminant validity and convergent validity) and then, examining the structural model (i.e., hypotheses testing), being commended by literature of PLS-SEM (Hair, Hult, Ringle, & Sarstedt, 2014).

Partial least squares structural equation modelling or PLS is the most advancing SEM technique. Furthermore, using it has made researchers to be able to examine a group of correlated hypotheses and is done by investigating the relationships between several endogenous and exogenous variables in a research model (Gefen, Straub, & Boudreau, 2000). Hair et al., (2017) stated that PLS-SEM has progressed being a statistical modeling technique..

PLS-SEM is a causal modeling approach and intends to explain the variance of the endogenous construct in the model (Ingenhoff & Buhmann, 2016). PLS is an instrument employed in SEM. In social sciences, PLS-SEM is the most functional method of advanced statistical analysis. Moreover, SEM is a “class of multivariate techniques that combines the aspects of factor analysis and regression, enabling the researcher to simultaneously examine the relationships among measured variables and latent variables as well as between the latent variables (Hair, Hult, Ringle, & Sarstedt, 2014)”. Therefore, SEM is an integration of multiple regression and factor analysis (Ramayah et al., 2016).

Besides, the PLS-SEM was considered on the basis that; not only because of the exploratory nature of the current research (Richter, Sinkovics, Ringle, & Schlägel, 2016)— but also due to insufficient information about the casual relationship between (i) psychological capital, work engagement, and intention to stay; and (ii) psychological capital, work happiness, and intention to stay. Consequently, the prediction was the main focus of this research (Hair, Hult, et al., 2017). And also taking consideration that PLS-SEM is suggested for complex models (Richter et al., 2016), particularly, mediating models (Nitzl, Roldan, & Carrion, 2016). By virtue of the present research which conducted investigation on the mediating role of work engagement and work happiness simultaneously between psychological capital and intention to stay, PLS-SEM is the most appropriate data analysis method.

### 3.18 Statistical Analyses

Based on the hypothesis development, selection of statistic tool to test the hypothesis is as follows:

No	Hypothesis	Statistic Tool
H1	Psychological capital has positive relationship with work engagement	PLS-SEM
H2	Psychological capital has positive relationship with work happiness	PLS-SEM
H3	Work engagement is positively related to intention to stay	PLS-SEM
H4	Work happiness is positively related to intention to stay	PLS-SEM
H5	Work engagement mediate the relationship between psychological capital and intention to stay	PLS-SEM
H6	Work happiness mediate the relationship between psychological capital and intention to stay	PLS-SEM

### 3.19 Summary

This chapter has discussed the research paradigm, research design and process, research framework, the research's population and sampling. In addition, discussion on data collection method, sample process, data analysis software, questionnaire design, pre-testing and pilot test process, data collection procedures, and data analysis procedures. Finally, the statistical analysis is also highlighted. The next chapter will discuss data analysis.

## **CHAPTER 4: RESULTS AND DISCUSSIONS**

### **4.1 Introduction**

This chapter reports in detail the findings of the current study. These findings are segregated into four major sections including data preparation, profiling of the respondents, descriptive statistics, and inferential statistics. Inferential statistics is divided into measurement model analysis, testing for common method variance, assessment of control variables, and structural model analysis. The chapter is concluded with a summary of results.

### **4.2 Data preparation**

As mentioned in the previous chapter, target population of this study is Royal Malaysian Air Force pilots and survey data for the study is collected by using hard copy questionnaires and google forms' online utility. Survey questionnaire of this study was adapted from established sources of relevant literatures as highlighted in the previous chapter.

Three hundred and sixty-four total responses were collected. After converting categorical demographic variables into numeric values, these 364 responses were transferred into Statistical Package for Social Sciences (SPSS, v.23) for inspection and preparation of data file for further analysis.

#### **4.2.1 Response Rate**

A total of 400 questionnaires were distributed by using manual and electronic approach (google form). This exercise was closely coordinated with the RMAF HQ Human Resource Department. A number of 364 questionnaires were returned and valid for analysis.



**Table 4.1: Questionnaires Distributed and Response Rate**

Units	Distributed	Received	Valid Response	Response Rate
Subang Air Base	50	47	47	94.00%
Kuantan Air Base	50	45	45	90.00%
Gong Kedak Air Base	10	10	10	100.00%
Butterworth Air Base	30	27	27	90.00%
Alor Setar Air Base	30	29	29	96.70%
Kuching Air Base	20	18	18	90.00%
Labuan Air Base	30	27	27	90.00%
RMAF HQ & Non-Operational Units (Non-Active Pilots)	180	161	19	89.40%
<b>Total</b>	<b>400</b>	<b>364</b>	<b>364</b>	<b>91.00%</b>

#### 4.2.2 Data Coding

Data coding is important during the process of data preparation. It requires the researcher to assign number so that the answer can be entered into the data base (Sekaran, 2003). The data collected through questionnaire survey were keyed in into the SPSS software. A total of 57 items from the questionnaire were utilized as measurement scale for the variables used in this study. The coding process involved 364 respondents via their responses in the questionnaire survey.

In the consequence, five negatively worded survey items were reverse coded to represent true measurement of those items for the respective construct. Reverse coded items include two items of intention to stay scale (IS1 and IS2), one item of resiliency (RS1) subdimension and two items of optimism (OP2 and OP5) subdimension of higher order construct, psychological capital.

### **4.2.3 Missing Data and Duplicity**

Missing data would appear when respondent does not answer the questionnaire partial or in full. The non-compliance of answering all questions could be intentionally or unintentionally. Duplicity occur when the same respondent is deemed to answer more than one questionnaire which will give a wrong representation of the target population.

In the furtherance, duplicate cases identification and missing data analysis were applied on the dataset. This is because, responses without variation (i.e., all high or all low, and duplicate cases) and missing values more than 10% both can significantly bring about invalid statistical results (Hair, Black, Babin, & Anderson, 2010). However, after the analysis, neither any duplicate cases nor missing values were found. So, all 364 collected responses were retained as the final and complete dataset for the current study.

### **4.3 Normality Test**

As for the assumption of normality is concerned, there are two conflicting schools of thought. One quarter advocated that it is deemed irrelevant depending on the type of the study basing on two justifications found in relevant methodology literature. First, according to Field (2013), data normality is often misunderstood in conjunction with the assumption of normality and “there is an awful lot of confusion about what it does mean” (p. 229). Moreover, due to the effect of central limit theorem, sampling distributions in a large sample are very likely to be normal, and so satisfying the assumption of normality in its true meaning (Field, 2013). Secondly, if the statistical tool to be used is PLS-SEM then normality test is not warranted for. PLS-SEM is a variance based path analysis technique and does not impose the condition of data normality, as it is recommended in covariance based structural equation modeling (CB-SEM) method (Hair, Hult, et al., 2017). Therefore, manifesting data normality prior to PLS-SEM analysis is not mandatory.

From another quarter's perspective, multivariate normality of the sample data is presupposed for most SEM estimation methods. Research has noticed that if meeting the assumption of multivariate normality fails, it can cause an overestimation of the  $X^2$  statistic and to an inflated type 1 error (Curren, West, & Finch, 1996; Powell & Schafer, 2002). It may also result in downward biased standard errors (Bandalos, 2002; Nevitt & Hancock, 2001). When there is a significant departure from the assumption of multivariate normality in the sample data, the assumptions in-built in some ancillary fit measures could be undermined. When conducting a SEM, researchers are informed to have both univariate and multivariate normality reported (Jackson, Gillaspay, J. A., & Purc-Stephenson, 2009).

Multivariate normality implies that all variables in the data set under consideration are univariate normally distributed, the distribution of any pair of variables is bivariate normal and all pairs of variables have linear and homoscedastic scatterplots (Kline, 2004). The overall distribution of the data should also be normal.

To determine the multivariate and univariate normality of the sample data, IBM SPSS Statistics v.23 software was used to determine the skewness and kurtosis of the data, as well as the Mardia co-efficient calculation extracted from Web Power – statistical power analysis online (<https://webpower.psychstat.org/models/kurtosis>). In determining multivariate normality, reference is focus on by looking at the Beta value of the Kurtosis, if the Beta value is more than 5, the distribution of the multivariate is non-normal (Byrne, 2016; Kline, 2015). Table 4.2 shows the values for skewness and kurtosis used to test for univariate normality. Table 4.22 represents the result from online WebPower for the Mardia's co-efficient outcome.

**Table 4.2: Data normality assessment using SPSS**

	N	Mean	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
SE1	364	5.64	.647	.128	-.817	.255
SE2	364	5.74	.043	.128	-.086	.255
SE3	364	5.62	-.205	.128	.656	.255
SE4	364	5.98	-.330	.128	.239	.255
SE5	364	5.70	-.397	.128	.778	.255
SE6	364	5.84	.260	.128	-1.062	.255
HP1	364	5.76	-.229	.128	.478	.255
HP2	364	5.75	-.138	.128	.313	.255
HP3	364	5.87	-.160	.128	-.277	.255
HP4	364	5.47	-.461	.128	1.217	.255
HP5	364	5.73	-.160	.128	.357	.255
HP6	364	5.49	-.121	.128	.890	.255
RS1	364	5.24	-.535	.128	1.191	.255
RS2	364	5.57	.087	.128	.583	.255
RS3	364	5.52	-.559	.128	.701	.255
RS4	364	5.18	-.572	.128	1.419	.255
RS5	364	5.76	-.225	.128	.130	.255
RS6	364	5.56	-.084	.128	.586	.255
OP1	364	5.41	-.490	.128	.946	.255
OP2	364	5.44	.244	.128	1.066	.255
OP3	364	5.74	-.006	.128	-.052	.255
OP4	364	5.69	-.311	.128	.574	.255
OP5	364	5.19	-.443	.128	1.243	.255
OP6	364	5.45	.034	.128	1.195	.255
VG1	364	5.24	.275	.128	.212	.255
VG2	364	5.12	.596	.128	.949	.255
VG3	364	5.19	.221	.128	.191	.255
DC1	364	5.38	.294	.128	-.181	.255
DC2	364	5.27	.454	.128	.411	.255
DC3	364	5.37	-.053	.128	-.470	.255
AB1	364	5.18	.428	.128	.618	.255
AB2	364	5.06	.580	.128	.710	.255
AB3	364	5.05	.587	.128	1.071	.255
WM1	364	5.67	-.761	.128	.867	.255
WM2	364	5.75	.272	.128	-.716	.255
WM3	364	5.79	-.109	.128	-.050	.255
WM4	364	5.68	-.084	.128	.189	.255
WM5	364	5.82	-.110	.128	-.265	.255
WM6	364	5.49	-.019	.128	.798	.255
WP1	364	5.48	-.239	.128	.925	.255
WP2	364	5.25	-.327	.128	1.953	.255
WP3	364	5.32	-.217	.128	1.728	.255
WP4	364	5.33	-.330	.128	.960	.255
WP5	364	5.65	-.138	.128	.431	.255
WP6	364	5.68	-.396	.128	.681	.255
WE1	364	5.60	-.202	.128	.773	.255

	N	Mean	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
WE2	364	5.62	-.011	.128	.380	.255
WE3	364	5.23	-.542	.128	1.060	.255
WE4	364	5.49	-.044	.128	1.267	.255
WE5	364	5.31	-.299	.128	1.949	.255
WE6	364	5.25	-.367	.128	1.873	.255
IS1	364	2.73	.591	.128	.406	.255
IS2	364	2.74	.631	.128	.800	.255
IS3	364	5.46	-.520	.128	.598	.255
IS4	364	5.23	-.596	.128	.924	.255
IS5	364	5.66	-.430	.128	.429	.255
IS6	364	5.81	-.261	.128	-.166	.255
Valid N (listwise)	364					

**Table 4.3: Data normality assessment using Mardia Coefficient**

```

Sample size: 364
Number of variables: 4

Univariate skewness and kurtosis
      Skewness   SE_skew   Kurtosis   SE_kurt
PsyCap  0.5149168  0.1278633  0.2230295  0.2550403
WE      0.3535846  0.1278633  0.3567484  0.2550403
WH     -0.2279918  0.1278633  1.1283545  0.2550403
IntStay 0.2073661  0.1278633  1.3278687  0.2550403

Mardia's multivariate skewness and kurtosis
      b          z          p-value
Skewness  1.175779  71.330606  1.102834e-07
Kurtosis  27.859135  5.313614  1.074720e-07

```

Referring to Table 4.2 above, for the multivariate normality, the result of Beta Kurtosis value is 27.859135 which is above 5 which was the threshold advocated by Byrne (2016) and Kline (2015). To test for univariate normality, the skewness and kurtosis for each variable in the data set was determined. There is no consensus regarding an acceptable degree of nonnormality, the threshold values of +/-3.00 for univariate skewness and +/-7.00 for univariate kurtosis have been proposed by Finney & DiStefano, (2013). However, Kline, (2015) suggested that the threshold kurtosis scores outside of +/- 2 times

its standard error and skewness rating outside +/- 1 times its standard error have the potential to limit the data analysis and the succeeding interpretation of results.

Inspection of the assessment of normality table shows that the result from SPSS and Mardia on the variables are univariately normal. However, from the assessment on multivariate normality from Mardia, the result shows that it has exceeded the threshold propagated Byrne(2016) and Kline (2015). As such, the data distribution is multivariate non-normal. Hence, this deviancy from normality assumption was a strong justification for employing PLS path modelling in this research (Henseler, Ringle, & Sinkovics, 2009).

#### **4.4 Profiling of the respondents**

Multiple demographic variables were added in the study survey to better understand the characteristics of the respondents. Table 4.4 represents the summary of personal information gathered from the respondents of this study on the categories of gender, rank of the respondents, pilot category of the respondents, family background, upbringing background, the education level of the respondents, age of the pilots and length of service. As for the categorical information is concerned, uniqueness of the context of the study permits the researcher to overlook gender disproportionality in the collected sample with 346 male (95.1%) and only 18 females (4.9%). This is because men are the dominant majority in the Royal Malaysian Airforce Pilots, which is the target population of this study. Demographic variables other than gender show a good mix of categories. For example, collected sample is a mix of different RMAF pilot ranks from Lieutenants and below (33, 9.1%) to Brigadier and above (18, 4.9%) with majority of the respondents fall in Major rank (142, 39%), followed by Captains (121, 33.2%), Lt Colonel / Colonels (50, 13.7%). Moreover, respondents represent almost equally the three pilot types with transport pilots (122, 33.5%), helicopter pilots (140, 38.5%), and fighter pilots (102, 28%). However, most of the respondents' family background was non-governmental

(155, 42.6%), followed by governmental (127, 34.9%), and belonging to military family (82, 22.5%). Similarly, most of the respondents belong to urban upbringing background (132, 36.3%), along with 116 (31.9%) respondents from sub-urban areas and 115 (31.6%) respondents from rural areas. Regarding the education level of the respondents, majority of the respondents hold a diploma (215, 59.1%), followed by the ones who hold post-graduate degree (90, 24.7%), holders of under-graduate degree (49, 13.5%), SPM/O-level (7, 1.9%), and STPM/A-level (3, 0.8%). For the age demography, majority of the respondents are from the pilots aged grouped within 31-40 years (159, 43.7%) followed by aged grouped 20-30 years (111, 30%), 41 – 50 years (69, 18.9%) and 51-60 years (25, 6.9%). Lastly, the years of service of pilots participated in this survey indicate that majority are from the group 10 years and below (131, 36%) and 11-20 years (139, 38.2%) and followed by year of service within 21-30 (74, 20.3%) and 31-40 years in service (20, 5.5%).

**Table 4.4: Frequency table of demographic variables**

Category	Variable	Frequency	Percent (%)
Gender	Male	346	95.1
	Female	18	4.9
	Total	364	100
Rank	Lieutenant and below	33	9.1
	Captain	121	33.2
	Major	142	39.0
	Lt Colonel / Colonel	50	13.7
	Brigadier and above	18	4.9
	Total	364	100
Type of Pilot	Transport	122	33.5
	Helicopter	140	38.5
	Fighter	102	28.0
	Total	364	100
Family Back.	Military	82	22.5
	Government	127	34.9
	Non-Govt	155	42.6
	Total	364	100
Upbringing	Urban	132	36.3
	Sub-urban	116	31.9
	Rural	115	31.6
	Others	1	0.3
	Total	364	100

Category	Variable	Frequency	Percent (%)
Education	SPM/O-level	7	1.9
	STPM/A-level	3	0.8
	Diploma	215	59.1
	Under-Graduate	49	13.5
	Post-Graduate	90	24.7
	Total	364	100
Age	20-30 years	111	30.5
	31-40 years	159	43.7
	41-50 years	69	18.9
	51-60 years	25	6.9
	Total	364	100
Years of Service	10 years and below	131	36.0
	11-20 years	139	38.2
	21-30 years	74	20.3
	31-40 years	20	5.5
	<b>Total</b>	<b>364</b>	<b>100</b>

#### 4.5 Descriptive statistics

There are four latent variables representing proposed research model of the study. Psychological capital is the independent variable, work engagement and work happiness are the mediating variables, and intention to stay is the dependent variable. For descriptive statistics in this section, summated scales of these variables have been used in SPSS to draw basic descriptive outputs of these study variables. Descriptive (see Table 4.5) include minimum-maximum values, mean scores, and standard deviation values for the variables of study. Mean score shows the average tendency of the collected data and standard deviation shows the variation in collected data.

**Table 4.5: Descriptive statistics of study variables**

Variables	N	Min.	Max.	Mean	SD
Intention to Stay	364	3	7	5.64	0.785
Psychological Capital	364	4	7	5.61	0.574
Work Engagement	364	4	6	5.21	0.409
Work Happiness	364	4	7	5.54	0.566



#### 4.6 Zero Order Correlation Matrix

Furthermore, zero order correlation matrix among study variables (see Table 4.6) is also reported. Correlation is an important parameter to understand the nature of relationship between two variables. Strength of a significant correlation coefficient decides about the value of the relationship between variables, that is, relationship is zero to extremely weak if correlation is less than 20% ( $r \leq 0.20$ ), relationship is weak if correlation is between 20% to 40% ( $r = 0.20 \leq 0.40$ ), relationship is moderate if correlation is between 40% to 60% ( $r = 0.40 \leq 0.60$ ), and correlation is strong if correlation is between 60% to 80% ( $r = 0.60 \leq 0.80$ ) (Field, 2013). However, a very high correlation (i.e.,  $r \geq 0.90$ ) indicates that both variables overlap each other. In other words, the variables are interchangeable and there is a problem of multicellularity in the study's research model (Green, 1991). The zero order correlation matrix (see Table 4.6) of the current study variables, nevertheless, displays satisfactory correlation coefficient values ranging from 0.327 (between psychological capital and intention to stay) to 0.653 (between work happiness and psychological capital), which confirms that all intervariable relationships fall in weak to moderate category (way less than 0.90) and so overlapping or multinuclearity is a no issue in this study.

**Table 4.6: Zero order correlation matrix of study variables**

	<b>IntStay</b>	<b>PsyCap</b>	<b>WE</b>	<b>WH</b>
<b>IntStay</b>	1			
<b>PsyCap</b>	0.327**	1		
<b>WE</b>	0.366**	0.496**	1	
<b>WH</b>	0.419**	0.653**	0.599**	1

Note. \*\* Correlation is significant at the 0.01 level (2-tailed). IntStay is Intention to Stay. PsyCap is Psychological Capital. WE is Work Engagement. WH is Work Happiness.

## **4.7 Inferential statistics**

Partial least squares structural equation modeling (PLS-SEM) is utilised for simultaneous path analysis of this study's proposed research model, because PLS-SEM is a widely used path analysis method in multiple streams of basic research (Hair, Hollingsworth, Randolph, & Chong, 2017; Sharma, Sarstedt, Shmueli, Kim, & Thiele, 2019). Accordingly, SmartPLS 3 (Ringle et al., 2015) is used to draw inferential statistics of the current study, because it is a premier PLS-SEM based computer program (Sarstedt & Cheah, 2019). Firstly, the process of data analysis in SmartPLS requires justification of factor structure of study constructs through measurement model analysis, followed by the analysis of structural or path model. Structural model analysis provides evidence about acceptance or rejection of hypothesized relationships of the research model of the proposed study. Moreover, it gives predictive strength and variance caused by theorized predictor(s) in the criterion. Hence, following sections report measurement and structural model analysis as per the recommended parameters in PLS-SEM literature.

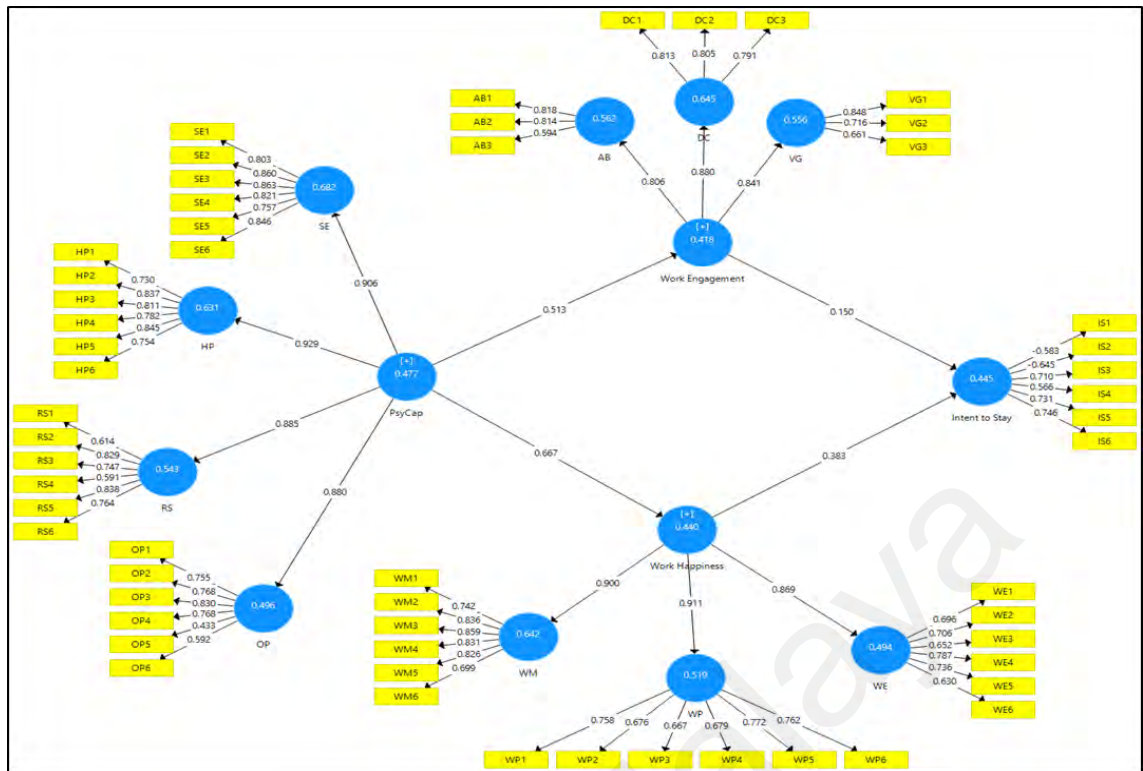
### **4.7.1 Measurement Model Analysis**

The present study's research model comprises of four latent variables, including three reflective-reflective Type-I (Becker, Klein, & Wetzels, 2012) hierarchical variables (i.e., psychological capital, work engagement, and work happiness) and one unidimensional reflective variable (i.e., intention to stay). Therefore, measurement model analysis of this study requires careful execution of recommended procedures and compliance of model outputs with threshold values to establish reliability and convergence as well as discriminant validity of study constructs. While following sections report on reliability, convergent validity, and discriminant validity of study variables, it is essential to mention that PLS-SEM requires repeated indicators procedure for hierarchical variables. So, following recent methodology literature on the measurement model analysis of higher order constructs in PLS-SEM (Sarstedt, Hair, Cheah, Becker, & Ringle, 2019), all

reflective items of first order dimensions were repeated on second order constructs in Mode-A fashion i.e., arrow heads pointing towards items. Furthermore, as Sarstedt et al., (2019) encouraged researchers to report convergent validity of first order dimensions on the second order constructs, convergence of first order dimensions is reported through separate calculation of average variance extracted (AVE) and composite reliability (CR). So, reliability and validity results are reported next.

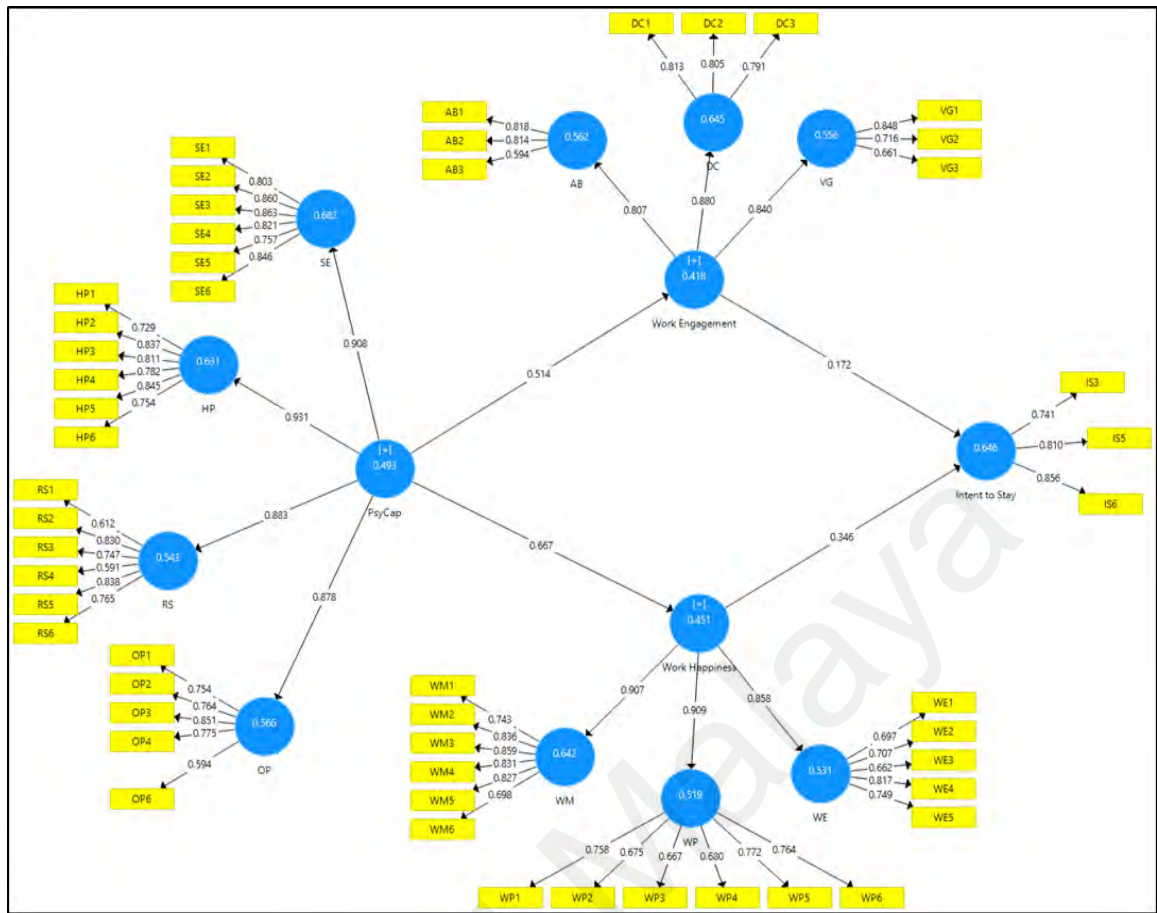
#### **4.7.1.1 Reliability and convergent validity**

In determining the reliability and convergent validity of the study constructs, a baseline path model was created in SmartPLS with all respective dimensions of second order constructs, items of first order and unidimensional constructs, and repeated indicators where required. Reliability parameters (Cronbach alpha and Composite reliability  $> 0.70$ ) and convergence parameters (item loadings  $> 0.708$ , average variance extracted  $> 0.50$ ) should meet recommended threshold values given in parenthesis (Hair, Hollingsworth, et al., 2017). The measurement model analysis output of SmartPLS is shown in Figure 4.1 below. It shows that some items did not load as per recommended standard on their respective variables. For example, IS1 (-0.583), IS2 (-0.645) and IS4 (0.566) of intention to stay, RS1 (0.614) and RS4 (0.591) of resiliency dimension of psychological capital, OP5 (0.433) and OP6 (0.592) of optimism dimension of psychological capital, WM6 (0.699) of work of meaning dimension of work happiness, WE1 (0.696) and WE6 (0.630) of work of engagement dimension of work happiness, WP2 (0.676), WP3 (0.667) and WP4 (0.679) of work pleasure dimension of work happiness, VG3 (0.661) of vigor dimension of work engagement, and AB3 (0.594) of absorption dimension of work engagement.(see Figure 4.1.)



**Figure 4.1: Measurement Model-1 with all observed variables (items)**

However, if average variance extracted from the items of a variable is more than 0.50, loading criteria can be kept lenient to 0.60 (Ramayah, Cheah, Chuah, Ting, & Memon, 2018). As a result, starting from intention to stay, items were deleted one by one to achieve AVE above 0.50. So, after deleting IS1, IS2 and IS4, reliability (Cronbach alpha = 0.736 and CR = 0.845) and convergent validity (loadings > 0.708 and AVE = 0.646) for intention to stay was achieved (see Figure 4.2 and Table 4.7). Similarly, by deleting only one most problematic item (OP5), the average variance extracted (AVE = 0.566) was achieved above 0.50 for the optimism subsdimension of psychological capital. Likewise, more than recommended threshold value of average variance extracted (AVE = 0.531) was achieved for the work of engagement subsdimension of work happiness by deleting one most problematic item (WE6) (see Figure 4.2).



**Figure 4.2: Final Measurement Model with loadings and AVEs**

Therefore, reliability and convergent validity of unidimensional construct, intention to stay, and all first order dimensions of second order constructs (i.e., psychological capital, work engagement, and work happiness) are established, as shown in Table 4.7. However, as recommended by Sarstedt et al.,(2019), convergence of first order dimensions on second order constructs of the study is calculated with average variance extracted (AVE) based on sum of the squared dimension loadings on the respective second order construct, while the calculation of composite reliability (CR) of the respective second order construct is based on the total loadings squared divided by the sum of total error variance and total loadings squared (cf. Amin, Ramayah, Aldakhil, & Kaswuri, 2016). These calculations were done separately because SmartPLS does not provide accurate AVE and CR parameters for convergent validity of second order constructs. Accordingly, along with first order constructs/dimensions, average variance extracted and composite

reliability measures for psychological capital (AVE = 0.81, CR = 0.94), work engagement (AVE = 0.71, CR = 0.88), and work happiness (AVE = 0.79, CR = 0.92) establish convergent validity of higher order constructs of this study as well.

**Table 4.7: Reliability and convergent validity assessment of study constructs**

Construct	Dimension (1st Order)	Item	Loading	Cronbach Alpha ( $\alpha$ )	CR	AVE
Intention to Stay	-	IS3	0.741	0.736	0.845	0.646
	-	IS5	0.810			
	-	IS6	0.856			
Psychological Capital	SE	-	0.908	0.906	0.928	0.810
	HP	-	0.931			
	RS	-	0.883			
	OP	-	0.878			
	SE	SE1	0.803			
		SE2	0.860			
		SE3	0.863			
		SE4	0.821			
		SE5	0.757			
		SE6	0.846			
	HP	HP1	0.729			
		HP2	0.837			
		HP3	0.811			
		HP4	0.782			
		HP5	0.845			
		HP6	0.754			
	RS	RS1	0.612			
		RS2	0.830			
	RS3	0.747				
	RS4	0.591				
	RS5	0.838				
	RS6	0.765				
OP	OP1	0.754				
	OP2	0.764				
	OP3	0.851				
	OP4	0.775				
	OP6	0.594				
Work Engagement	VG	-	0.840	0.599	0.788	0.556
	DC	-	0.880			
	AB	-	0.807			
	VG	VG1	0.848			
		VG2	0.716			

Construct	Dimension (1st Order)	Item	Loading	Cronbach Alpha ( $\alpha$ )	CR	AVE
		VG3	0.661			
	DC	DC1	0.813	0.724	0.845	0.645
		DC2	0.805			
		DC3	0.791			
	AB	AB1	0.818	0.603	0.790	0.562
		AB2	0.814			
		AB3	0.594			
Work Happiness	WM	-	0.907	-	0.921	0.795
	WP	-	0.909			
	WE	-	0.858			
	WM	WM1	0.743	0.887	0.914	0.642
		WM2	0.836			
		WM3	0.859			
		WM4	0.831			
		WM5	0.827			
		WM6	0.698			
	WP	WP1	0.758	0.814	0.866	0.519
		WP2	0.675			
		WP3	0.667			
		WP4	0.680			
		WP5	0.772			
		WP6	0.764			
	WE	WE1	0.697	0.777	0.849	0.531
		WE2	0.707			
		WE3	0.662			
		WE4	0.817			
		WE5	0.749			

Note. CR is composite reliability and AVE is average variance extracted. SE (Self-efficacy), HP (Hope), RS (Resiliency), and OP (Optimism) represent the dimensions of reflective higher-order construct, Psychological Capital. VG (Vigor), DC (Dedication), and AB (Absorption) represent the dimensions of reflective higher-order construct, Work Engagement. WM (Work of Meaning), WP (Work of Pleasure), and WE (Work of Engagement) represent the dimensions of reflective higher-order construct, Work Happiness. Due to poor convergence, items IS1, IS2, and IS4 from measurement scale of intention to stay are deleted. Item OP5 of optimism scale of Psychological Capital and item WE6 of work of engagement scale of Work Happiness are also deleted due to the same non-convergence reasons.

#### 4.7.1.2 Discriminant validity

Discriminant validity denotes the degree of distinction between constructs of a research model. It is an essential measure to establish the discrete uniqueness of all theorized variables separately. On the contrary, poor discriminant validity shows

overlapping between variables. As a result, a structural model analysis without established discriminant validity of the variables might lead to dubious results and so the results inferred might be meaningless.

There are three separately recommended measures to establish discriminant validity in PLS-SEM, including cross-loadings criteria, Fornell-Larcker criteria (Fornell & Larcker, 1981), and hetrotrait-monotrait ratio of correlations (HTMT: Henseler, Ringle, & Sarstedt, 2015). Although three of the variables of this study are higher order constructs, reflective-reflective Type-I constructs are considered unique variables reflected (in contrast to formed by distinct dimensions in a formative measurement model) by conceptually and statistically related dimensions. Thus, as convergent validity of reflective-reflective Type-I hierarchical variables of this study has been established in the previous section, these are treated as unique variables inclusive of their respective dimensions in discriminant validity analysis of the model.

Hence, there are four main variables in this study, which are included in discriminant validity analysis. All three above mentioned measures are applied to establish discriminant validity of the constructs in this study. This is because cross loadings and Fornell-Larcker are traditionally important criterions of discriminant validity, while hetrotrait-monotrait ratio of correlations (HTMT) is a relatively new but preferred measure of discriminant validity in PLS-SEM analysis (Hair, Risher, Sarstedt, & Ringle, 2019). As shown in Table 4.8, Table 4.9, Table 4.10 discriminant validity of the variables is established as per all three discriminant validity measures.

First, as per cross loadings criteria (see Table 4.7), all three items of intention to stay, all twenty-three items of psychological capital, all nine items of work engagement, and all seventeen items of work happiness loaded above and beyond other variables on their respective constructs. It justifies that survey items of all four variables of the study



measure their respective constructs distinctly and so establish the discriminant validity based on cross loadings criteria.

**Table 4.8: Discriminant validity based on cross-loadings criteria**

Items	IntStay	PsyCap	WE.	WH
IS3	<b>0.741</b>	0.244	0.243	0.255
IS5	<b>0.81</b>	0.209	0.293	0.301
IS6	<b>0.856</b>	0.35	0.367	0.478
SE1	0.194	<b>0.735</b>	0.341	0.494
SE2	0.255	<b>0.797</b>	0.42	0.517
SE3	0.27	<b>0.793</b>	0.397	0.507
SE4	0.196	<b>0.745</b>	0.41	0.454
SE5	0.153	<b>0.657</b>	0.35	0.444
SE6	0.227	<b>0.763</b>	0.402	0.508
HP1	0.262	<b>0.715</b>	0.352	0.535
HP2	0.304	<b>0.784</b>	0.443	0.585
HP3	0.221	<b>0.757</b>	0.366	0.493
HP4	0.25	<b>0.711</b>	0.371	0.456
HP5	0.218	<b>0.789</b>	0.41	0.522
HP6	0.138	<b>0.672</b>	0.344	0.361
RS1	0.14	<b>0.476</b>	0.17	0.222
RS2	0.242	<b>0.78</b>	0.359	0.475
RS3	0.146	<b>0.591</b>	0.236	0.377
RS4	0.065	<b>0.441</b>	0.074	0.174
RS5	0.331	<b>0.743</b>	0.418	0.522
RS6	0.365	<b>0.764</b>	0.447	0.578
OP1	0.303	<b>0.615</b>	0.399	0.415
OP2	0.326	<b>0.674</b>	0.386	0.475
OP3	0.353	<b>0.798</b>	0.433	0.566
OP4	0.281	<b>0.685</b>	0.346	0.513
OP6	0.206	<b>0.483</b>	0.23	0.357
VG1	0.238	0.378	<b>0.757</b>	0.466
VG2	0.112	0.331	<b>0.552</b>	0.266
VG3	0.198	0.351	<b>0.544</b>	0.444
DC1	0.368	0.372	<b>0.729</b>	0.524

Items	IntStay	PsyCap	WE.	WH
DC2	0.208	0.403	<b>0.7</b>	0.396
DC3	0.278	0.425	<b>0.69</b>	0.44
AB1	0.326	0.301	<b>0.698</b>	0.406
AB2	0.272	0.244	<b>0.622</b>	0.357
AB3	0.206	0.143	<b>0.47</b>	0.217
WM1	0.356	0.474	0.453	<b>0.633</b>
WM2	0.376	0.514	0.42	<b>0.726</b>
WM3	0.352	0.58	0.575	<b>0.804</b>
WM4	0.385	0.458	0.477	<b>0.742</b>
WM5	0.325	0.566	0.539	<b>0.752</b>
WM6	0.361	0.439	0.405	<b>0.688</b>
WP1	0.231	0.421	0.481	<b>0.734</b>
WP2	0.201	0.4	0.35	<b>0.583</b>
WP3	0.219	0.343	0.225	<b>0.583</b>
WP4	0.268	0.341	0.353	<b>0.569</b>
WP5	0.39	0.531	0.5	<b>0.743</b>
WP6	0.272	0.444	0.402	<b>0.684</b>
WE1	0.239	0.369	0.309	<b>0.601</b>
WE2	0.276	0.433	0.364	<b>0.645</b>
WE3	0.185	0.31	0.282	<b>0.537</b>
WE4	0.352	0.499	0.395	<b>0.712</b>
WE5	0.307	0.404	0.389	<b>0.613</b>

Note: All items loaded higher on their respective constructs. IntStay is Intention to Stay. PsyCap is Psychological Capital. WE is Work Engagement. WH is Work Happiness.

Secondly, according to Fornell-Larcker criteria (see Table 4.9), square root of average variance extracted (SQRT-AVE) of all four variables, shown in bold on the diagonal, is higher than the shared variance between variables, which is the suggested criteria of this discriminant validity standard (Hair, Sarstedt, & Ringle, 2019). However, it is important to mention that AVE values of second order constructs (i.e., psychological capital, work engagement, and work happiness), used for square root in Table 4.9, are the ones which

are separately calculated and reported in convergent validity section. Based on this result, Fornell-Larcker criteria also establishes discriminant validity of the study variables.

**Table 4.9: Discriminant validity based on Fornell-Larcker criteria**

	<b>IntStay</b>	<b>PsyCap</b>	<b>WE</b>	<b>WH</b>
<b>IntStay</b>	<b>0.804</b>			
<b>PsyCap</b>	0.345	<b>0.90</b>		
<b>WE</b>	0.385	0.514	<b>0.843</b>	
<b>WH</b>	0.452	0.667	0.615	<b>0.892</b>

Note. Square Root of Average Variance Extracted (SQRT-AVE) is shown in bold on the diagonal line, whereas other entries stand for the squared correlations between variables. IntStay is Intention to Stay. PsyCap is Psychological Capital. WE is Work Engagement. WH is Work Happiness.

Finally, as shown in Table 4.10, even according to the lower limit hetrotrait-monotrait ratio of correlations criteria ( $HTMT_{0.85}$ ), all HTMT ratios are less than 0.85 with maximum value of 0.693 between work engagement and work happiness. So, just like cross loadings and Fornell-Larcker measures, HTMT criteria also establishes the discriminant validity of study constructs.

**Table 4.10: Discriminant validity based on Hetrotrait-Monotrait Ratio of Correlations (HTMT) Criteria**

	<b>IntStay</b>	<b>PsyCap</b>	<b>WE</b>	<b>WH</b>
<b>IntStay</b>				
<b>PsyCap</b>	0.392			
<b>WE</b>	0.475	0.57		
<b>WH</b>	0.514	0.70	0.693	

Note. Values represent HTMT ratio of correlations (Less than  $HTMT_{0.85}$ ). IntStay is Intention to Stay. PsyCap is Psychological Capital. WE is Work Engagement. WH is Work Happiness.

Therefore, based on convergent and discriminant validity results obtained through measurement model analysis, it is established that data sample of current study confirms the measurement theory and factor structure of the constructs as theorized in the study.

#### **4.7.2 Testing for Common Method Variance (CMV)**

The current study applied a survey based single-source and cross-sectional data collection method. This type of study design is prone to have hidden method bias (Podsakoff et al., 2003) and should be analyzed and reported appropriately (Gefen, Rigdon, & Straub, 2011). There are multiple statistical procedures to test for potential common method variance in a study sample due to method bias. However, the current study used Herman's single factor test to analyze the prevalence of common method variance in the collected sample of the study. Despite the criticism on its usefulness (e.g., Schwarz, Rizzuto, Carraher-Wolverton, Roldán, & Barrera-Barrera, 2017); Tehseen, Ramayah, & Sajilan, 2017), this post hoc statistical analysis is recommended by recent methodology literature as one of the effective and acceptable ways to detect common method variance in a study (cf. Babin, Griffin, & Hair, 2016; Fuller, Simmering, Atinc, Atinc, & Babin, 2016; Hair et al., 2017). Moreover, Herman's single factor test is the most common statistical analysis used even in very recent primary empirical studies in detection of common method variance (e.g., Carmona-Halty, Salanova, Llorens, & Schaufeli, 2019; Terho & Jalkala, 2017).

##### **4.7.2.1 Herman's Single Factor Test**

In addressing common method variance, one of the methods identified was Herman's single factor test. Application of Herman's single factor test is appropriate in the current study as it can detect common method variance if any. It is actually an unrotated principal component exploratory factor analysis performed in SPSS on all the observed variables or items of all latent variables. This procedure produces a set of factors having eigenvalue

above one. These extracted factors explain total variance found. Though there is no a set rule of thumb, if first extracted factor accounts for more than 50% variance, it indicates the presence of common method variance in collected data (cf. Fuller et al., 2016). However, as is clear from Table 4.11, first factor extracted from the unrotated principal component analysis of this study sample accounts for only 34.6%, which is considerably less than 50%. Therefore, it is established that common method variance is not a problem in this study.

**Table 4.11: Herman's Single-Factor Test**

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	17.996	34.608	34.608	17.996	34.608	34.608
2	3.692	7.100	41.708	3.692	7.100	41.708
3	2.200	4.232	45.940	2.200	4.232	45.940
4	1.862	3.581	49.521	1.862	3.581	49.521
5	1.646	3.165	52.686	1.646	3.165	52.686
6	1.422	2.735	55.420	1.422	2.735	55.420
7	1.193	2.295	57.715	1.193	2.295	57.715
8	1.134	2.180	59.895	1.134	2.180	59.895
9	1.060	2.038	61.933	1.060	2.038	61.933
10	1.008	1.938	63.871	1.008	1.938	<b>63.871</b>

Extraction Method: Unrotated Principal Component Analysis.

#### 4.8 Assessment of control variables

Keeping in mind the nature of job of the population of interest of this study, rank of the respondent, length of service, type of pilot, family background, and upbringing background are considered as potential covariates in this study. The reason to choose these individual characteristics as control variables is the possibility of these variables in explaining pilots' intention to stay in the Royale Malaysian Air Force. For example, if a

pilot feels that his/her rank does not match with perceived rank according to his/her experience and/or professional capability, it might affect the decision to stay. Similarly, it is likely that length of service, pilot type, and family and upbringing backgrounds of a pilot might affect his/her decision to stay. Therefore, following Felipe, Roldán, & Leal-Rodríguez, (2016), an extra set of potential confounders was added as control variables into the baseline theorized study model. A comparison of total variance accounted for ( $R^2$  values), as represented in Table 4.12, reveals that difference in total variance accounted for in both the models is negligible (0.004) and all potential covariates are found non-significant. As a result, it is established that all five identified potential covariates do not significantly add value in the explanation of intention to stay and can be dropped to keep only the baseline model for further structural model analysis to test hypothesized relationships of the study. This is congruent with the most relevant literature especially dealing with the issue of control variables (e.g; Bernerth & Aguinis, 2016; Spector & Brannick, 2011). In addition, important PLS-SEM literature also suggests to drop insignificant control variables because keeping them might unnecessarily increase model complexity and affect results (Hair, Ringle, & Sarstedt, 2013)

**Table 4.12: Assessment of control variables**

	B	t-value	$R^2$ ,1	$R^2$ ,2	$R^2$ Change	Status
<b>Impact of Control Variables on IntStay</b>			0.224	0.228	0.004	
Rank→IntStay	-0.007	0.067				Not Sig.
Service Length→IntStay	0.038	0.364				Not Sig.
Pilot Type→IntStay	0.053	1.061				Not Sig.
Fam. Background→IntStay	-0.033	0.680				Not Sig.
Upbringing→IntStay	0.039	0.739				Not Sig.

Note: IntStay is Intention to Stay.  $R^2$  ,1 is the total variance accounted for the endogenous variable without identified covariates.  $R^2$  ,2 is the total variance caused in the endogenous variable including identified covariates.  $R^2$  Change is the total variance caused by the identified covariates.

#### 4.9 Structural Model Analysis

Similar to the measurement model analysis, SmartPLS 3 is used to test the structural path model of the current study. The structural path modeling enables a researcher to simultaneously test a set of hypothesized relationships (theorized paths) in a study. Furthermore, it facilitates researchers to overcome the limitations of Baron and Kenny's (1986) stepwise approach in conducting mediation analysis, because this piecemeal approach is identified as one of the main reasons in publication problems of empirical studies (Green, Tonidandel, & Cortina, 2016). The proposed research model of this study is complex in ways that I) it has two intervening (mediating) variables explaining the impact of distal predictor on the criterion, II) total number of observed variables (items) measuring all four main study variables is more than fifty. So, SmartPLS is used because PLS structural equation models particularly help researchers in comprehensively analyzing complex research models having intervening and/or conditional factors with relatively more observed variables measuring latent constructs (Richter et al., 2016).

Following PLS-SEM literature (e.g., Hair et al., 2017; Hair, Ringle, & Sarstedt, 2011; Sarstedt & Cheah, 2019) two step approach is executed in structural model analysis because there are three hierarchical constructs in the model of this study. In doing so, at the first stage, latent variable scores for all first order dimensions of the higher order constructs psychological capital, work engagement, and work happiness and for the unidimensional construct intention to stay were saved in a new data file. While in the second stage, a new structural model was created in SmartPLS with latent variable scores. For structural model analysis, PLS algorithm and bootstrapping procedures were performed to obtain results. More specifically, PLS bootstrapping procedure was performed based on the bias-corrected and accelerated (BCa) 1000 subsamples with complete bootstrapping, two-tailed, and 0.05 significance level selections. For robustness of structural model analysis results, not only statistical significance (t-value, p-value, and

bootstrapped 95% confidence intervals) but substantive significance through effect sizes ( $f^2$ ) of the path coefficients is also reported.

Moreover, total variance accounted for the endogenous variables (also called coefficient of determination- $R^2$ ) is also reported, because it shows the explanatory power of exogenous variables of the research model. Threshold values for statistical significance are set to  $t$ -value  $> 1.96$  and  $p$ -value  $< 0.05$ . Following relevant literature (Cohen, 1988, 1992; Hair, Hult, et al., 2017), effect sizes are determined small (0.02), medium (0.15), and large (0.35), whereas  $R^2$  values are appraised as small (0.0196), medium (0.1304), and large (0.2592). Results of the structural model analysis are discussed in detail below.

#### 4.9.1 Structural Model Assessment

Assessment on structural model for this study is to test the causal relationship between psychological capital and intention to stay through two mediating variables namely, work engagement and work happiness simultaneously. The  $R^2$  values (coefficient of determination) and Beta values (path coefficient) were regarded as the parameters in which used to determine on how well the data supported the hypothesized relationship (Hair et al., 2014). A bootstrapping process with 1000 interactions was performed to generate  $t$ -values and standard errors to confirm the statistical (Hair et al., 2014, 2011).

The basic purpose of this study is to explain intention to stay of Royal Malaysian Air Force pilots. Figure 4.3: Structural model with  $R^2$  and path coefficient values is the graphical output of structural model analysis in SmartPLS. It shows standardized path coefficients and total variance accounted ( $R^2$ ) for the endogenous variables. Similarly, Figure 4.4: Structural model with path coefficients and bootstrapped  $t$ -values shows the structural model output with path coefficients and bootstrapped  $t$ -values for the significance of these paths. However, Table 4.17 represents a detailed summary of structural model analysis of the current study.



#### 4.9.1.1 Assessment of R2

Assessment of R2 is to determine the predictive accuracy of the model and represents the percentage of variance in the dependent variable as explained by the independent variable in the model (Hair et al., 2010). The results indicate that the proposed model of this study explains 22% ( $R^2 = 0.220$ ) intention to stay of pilots, which is just short of large R2 value criteria mentioned above. However, in the sub-models of work engagement and work happiness, psychological capital of pilots explains 26% work engagement ( $R^2 = 0.266$ ) and 44% work happiness ( $R^2 = 0.443$ ). It indicates that psychological capital is a valuable personal resource for Royal Malaysian Air Force Pilots to engage in their work and feel happy at work. (see Table 4.13)

**Table 4.13: Assessment of R2**

	R Square	R Square Adjusted
Intention To Stay	0.22	0.216
Work Engagement	0.266	0.264
Work Happiness	0.443	0.441

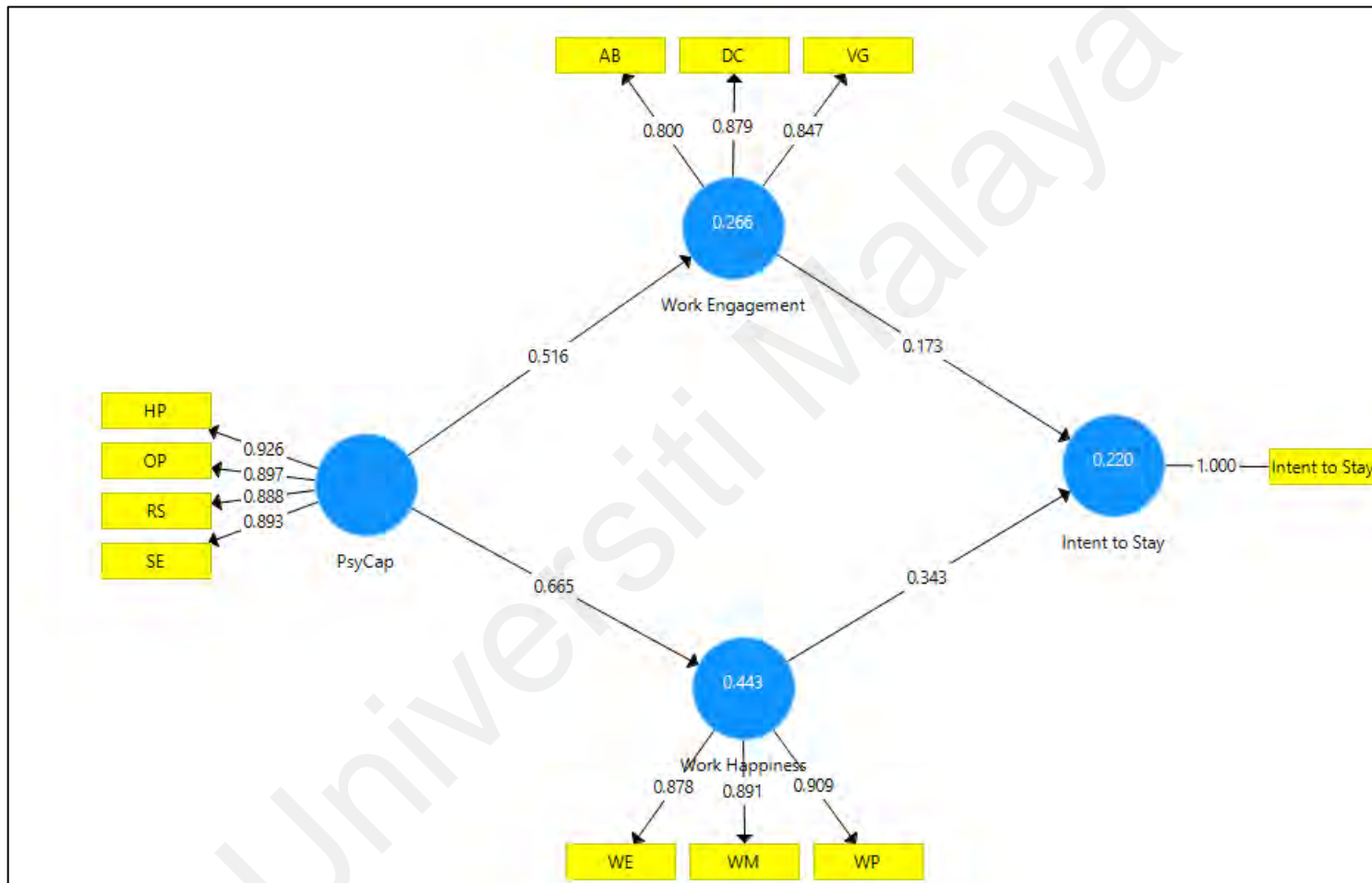


Figure 4.3: Structural model with R<sup>2</sup> and path coefficient values

#### 4.9.1.2 Hypotheses Testing

In determining the hypotheses testing, path coefficients or the Beta value indicate the degree of change in the dependent variables for each independent variable (Hair et al., 2010; Pallant, 2007). As for as hypothesized relationships of the study are concerned, all hypotheses are found significant with varying path explanatory strengths. For instance, the direct relationship between psychological capital and work engagement is found significant (H1:  $\beta = 0.516$ ,  $p < 0.001$ , CI [0.391, 0.601]) and so is supported, the direct relationship between psychological capital and work happiness is found significant (H2:  $\beta = 0.665$ ,  $p < 0.001$ , CI [0.580, 0.734]) and so is supported; the direct relationship between work engagement and intention to stay is found significant (H3:  $\beta = 0.173$ ,  $p < 0.01$ , CI [0.040, 0.286]) and so is supported; and the direct relationship between work happiness and intention to stay is found significant (H4:  $\beta = 0.343$ ,  $p < 0.001$ , CI [0.227, 0.452]) and so is supported. More specifically, the implied meaning of the statistical significance of path coefficients is that one standard deviation change in the predictor is associated with the predicted  $\beta$  -value change in endogenous variable.

As reported in hypotheses results above and in Table 4.17, psychological capital is a large direct predictor of work engagement ( $\beta = 0.516$ ) and work happiness ( $\beta = 0.665$ ) and work happiness is a large direct predictor of intention to stay ( $\beta = 0.343$ ). However, work engagement is relatively a small direct predictor of intention to stay ( $\beta = 0.173$ ).

**Table 4.14: Result of the H1 to H4.**

No	Relationship	$\beta$ value	SE	t-value (p-value)	CI-LL (2.50%)	CI-UL (97.50%)	VIF	f <sup>2</sup>	R <sup>2</sup>	Decision
H1	PsyCap→WE	0.516	0.05	10.39 (<0.001)	0.391	0.601	-	0.363	0.266	Supported
H2	PsyCap→WH	0.665	0.039	17.11 (<0.001)	0.580	0.734	-	0.795	0.443	Supported

H3	WE→IntStay	0.173	0.063	2.76 (0.006)	0.04	0.286	1.591	0.024	0.220	Supported
H4	WH→IntStay	0.343	0.055	6.19 (<0.001)	0.227	0.452	1.591	0.095		Supported

#### 4.9.1.3 Effect Size

Apart obtaining the basic parameters in the assessment of structural model, Hair et al. (2014) recommended that effect size ( $f^2$ ) shall also be reported. Following guideline by Cohen (1988) where it is suggested that 0.02, 0.015 and 0.035 represent small, medium and large effect respectively. As such, the effect sizes ( $f^2$ ) calculated from this study shows that there are two large effect sizes and two falls in the small effect sizes category. The large effect sizes include the effect size of psychological capital on work happiness ( $f^2 = 0.795$ ), followed by second large effect size of psychological capital on work engagement ( $f^2 = 0.363$ ). Whereas, effect size of work engagement ( $f^2 = 0.024$ ) and work happiness ( $f^2 = 0.095$ ) on intention to stay fall in the small category, because these two values fall between 0.02 and 0.15 (Cohen, 1988; Hair et al., 2017). Table 4.15 represents the effect size of this study.

**Table 4.15: Effect size**

	Y1	Y2	Y3	Y4
Intention to Stay (Y1)				
Psychological Capital (Y2)			0.363	0.795
Work Engagement (Y3)	0.024			
Work Happiness (Y4)	0.095			

#### 4.9.1.4 Indirect Relationship (Mediation Analysis)

In the search of mediating analysis, the Preacher and Hayes (2004,2008) approach was adopted to test the mediating effect of work engagement and work happiness between

psychological capital and intention to stay, as described in hypothesis (H5 and H6). Recent literature development within the quantitative methods fraternity, it was advocated that total or direct effects are trivial of concern while examining the mediating models (Hayes & Rockwood, 2016; Memon, Cheah, Ramayah, Ting, & Chuah, 2018; Rucker, Preacher, Tormala, & Petty, 2011) Thus, focus shall be given to the indirect effect.

Similar to direct hypotheses of the study, two indirectly hypothesized relationships are also found significant in the structural model analysis output. First of all, the indirect relationship of psychological capital with intention to stay through work engagement is found significant (H5:  $\beta = 0.090$ ,  $p < 0.05$ , CI [0.022, 0.155]). If the Confidence Interval Bias to have the Lower Limit (LL) and upper Limit (UL) of the mediation result do not straddle a 0 in between indicating that there is mediation (Preacher & Hayes, 2004, 2008). Thus, we can conclude that the mediation effects are statistically significant, as such the mediation hypothesis is supported (see Table 4.16).

Likewise, the indirect relationship of psychological capital with intention to stay through work happiness is also found significant (H6:  $\beta = 0.228$ ,  $p < 0.001$ , CI [0.149, 0.306]), as such this mediation hypothesis is also supported. However, it is clear from the results that, according to the findings of this study, work happiness is a better intervening mechanism for psychological capital of pilots in explaining their intention to stay.

**Table 4.16: Result of the H5 and H6**

No	Relationship	$\beta$ value	SE	t-value (p-value)	CI-LL (2.50%)	CI-UL (97.50%)	Decision
H5	PsyCap→WE→IntStay	0.09	0.033	2.69 (<0.05)	0.022	0.155	Supported
H6	PsyCap→WH→IntStay	0.228	0.039	5.87 (<0.001)	0.149	0.306	Supported

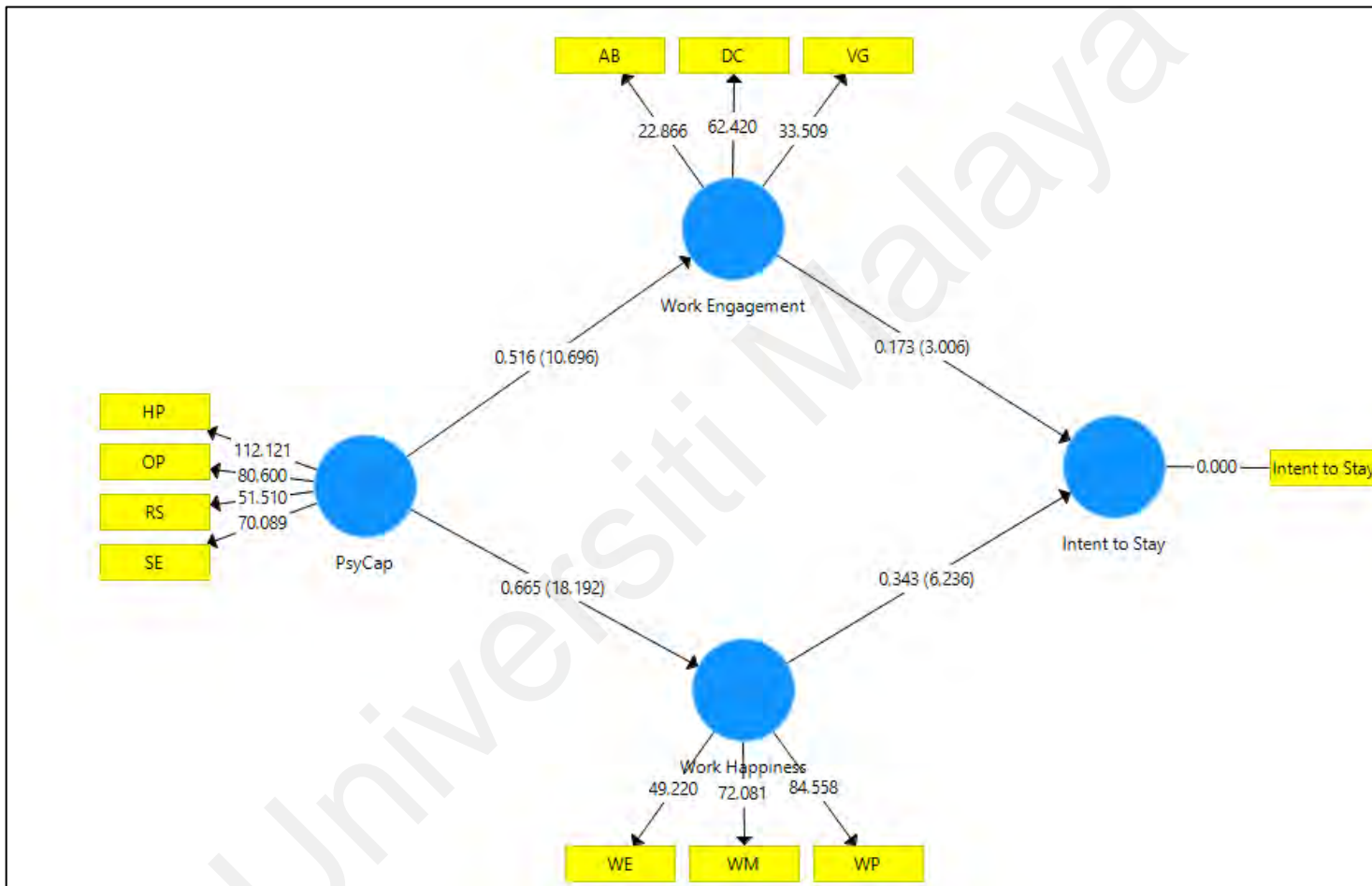


Figure 4.4: Structural model with path coefficients and bootstrapped t-values

**Table 4.17: Results of the hypotheses**

No	Relationship	$\beta$ value	SE	t-value (p-value)	CI-LL (2.50%)	CI-UL (97.50%)	VIF	f <sup>2</sup>	R <sup>2</sup>	Decision
H1	PsyCap→WE	0.516	0.05	10.39 (<0.001)	0.391	0.601	-	0.363	0.266	Supported
H2	PsyCap→WH	0.665	0.039	17.11 (<0.001)	0.580	0.734	-	0.795	0.443	Supported
H3	WE→IntStay	0.173	0.063	2.76 (0.006)	0.04	0.286	1.591	0.024	0.220	Supported
H4	WH→IntStay	0.343	0.055	6.19 (<0.001)	0.227	0.452	1.591	0.095		Supported
H5	PsyCap→WE→IntStay	0.09	0.033	2.69 (<0.05)	0.022	0.155	-	-	-	Supported
H6	PsyCap→WH→IntStay	0.228	0.039	5.87 (<0.001)	0.149	0.306	-	-	-	Supported

Note: Results are the output of 2-Tailed Bias Corrected and Accelerated (BCa) Complete Bootstrapping with 1000 subsamples at the 0.05 significance level. IntStay is Intention to Stay. PsyCap is Psychological Capital. WE is Work Engagement. WH is Work Happiness.

#### **4.10 Discussion of the Survey Findings**

In this section, the findings of the survey are presented in accordance with the underlying research questions. Comparisons are made with related previous research.

##### **Research Question 1: Will psychological capital influence work engagement among pilots in the RMAF?**

In this study, psychological capital has been found to have a positive relationship with work engagement (H1:  $\beta = 0.516$ ,  $p < 0.001$ , CI [0.391, 0.601]). This result is coherent with earlier studies by Karatepe & Talebzadeh, (2016) who studied the effect of psychological capital and work engagement among 200 flight attendants serving the public airlines company in Iran. The results of the study propose that employees with high in psychological capital sense that they are more energetic and committed and are engaged in their work. Self-efficacy, hope, optimism, and resilience have significantly contributed to work engagement, due to the presence of such personal psychological resources which allows the employees to be engaged in their work. This is particularly essential in the RMAF pilots who are serving for the sovereignty and security of the nation. Specifically, the RMAF pilots are the front liners in ensuring the airspace security from any threat-based confrontation or day to day operation of the Air Force. As the nature operation of the Air Force is diverse which mostly involve the usage of aircraft in executing its task, high in psychological capital as personal resources will enhance work engagement cognitive in achieving the assigned task. If such employees have self-confidence and resilience, they are capable of searching other means to achieve their goals and missions, and possess high levels of optimism regarding their success in the future and present job. On top of that, they are more energetic, enthusiastic and more engaged in their work. As advocated by Xanthopoulou et al., (2007), personal resources have a decisive role in employees' work engagement. The finding that psychological capital



promotes work engagement is not only congruent with the tenets of conservation of resources theory (Despoina Xanthopoulou et al., 2007) but also offers more empirical evidence in the relevant studies (e.g., Nigah et al., 2012).

**Research Question 2: Does psychological capital have any relationship with work happiness among the pilots in the RMAF?**

The findings of this study provide psychological capital has been found to have a positive relationship with work happiness (H2:  $\beta = 0.665$ ,  $p < 0.001$ , CI [0.580, 0.734]). This findings is in harmony with the previous study by Culbertson et al. (2010) who found that there was a significant and direct effect between psychological capital and happiness. This study was a longitudinal research using 102 country extension agents from different background at Midwestern country in the United States. The result shows  $\beta$  value = 0.28; and  $p=0.03$ . Hence this finding suggests that a person with high psychological capital will become happier at work.

This finding also is congruent with study conducted by Williams, Kern, & Waters, (2015) Employees who have high psychological capital are positive and optimistic regarding their future aftermaths, are highly confident with their capability in dealing with challenges and have higher levels of resilience. This may result in provision of resources to function well in their task which allows and supports their work happiness.

From the broaden-and-build theory of positive emotions (Fredrickson, 2001), these findings also substantiate the view that broaden and build implementation which increases optimism and positive emotions is also able to heighten work happiness at the same time. Based on this theory, positive spiral created by positive experiences and emotions produces more positive thoughts, feelings and experiences that are useful for well-being and happiness. Regular positive emotions experiences can generate long-term

changes in personal resources of an individual. It will broaden the employees thought even though the employee is at an adverse condition. This finding is also in support of research conducted by Kun & Gadanez, (2019). Similarly, in the RMAF context, where pilots who are filled with high value of psychological capital resources will broaden their thoughts in discharging their duties regardless of the adverse situation and they become happy and positive at work.

**Research Question 3: Does work engagement have any relationship with intention to stay among the pilots in the RMAF?**

The findings of this study show the direct relationship between work engagement and intention to stay is found significance (H3:  $\beta = 0.173$ ,  $p < 0.01$ , CI [0.040, 0.286]) and so is supported the hypotheses H3. This is in support of the previous study by Schaufeli & Bakker, (2004) that advocated engaged employees are likely to have a greater attachment to their organisation and a lower tendency to quit, as such increasing the propensity to stay in their organisation.

According to Mendes & Stander, (2011), engaged employees show an awareness of the organisational context in which they operate, and will work with others to improve their performance within their roles to the advantage of the organisation (Devi, 2009). Highly engaged employees are, therefore, less inclined to leave an organisation. These findings are further advocated by (Basikin, 2007) who claimed that employees who have low engagement levels are more likely to leave an organisation.

In addition, the results re-emphasized the fact that work engagement has a negative relationship with turnover intention (Kim, 2017; Schaufeli & Bakker, 2004). It implies that the employees who are more engaged in their work are less likely to leave their organizations. That is, increased work engagement of individual employees assists them

in lessening the possibility of them leaving the organisation deliberately and intentionally in the near future, possibly they would remain in the organisation.

**Research Question 4: Does work happiness have any relationship with intention to stay among pilots in the RMAF?**

This study established the direct relationship between work happiness and intention to stay is found significance (H4:  $\beta = 0.343$ ,  $p < 0.001$ , CI [0.227, 0.452]) and so is supported. This study is in congruent with previous study (Omar & Noordin, 2015). In their study, they found that there is negative relationship between work happiness and intention to leave the organization. Thus, this study implies that work happiness can be an antecedent to understand the behavior of continuing serving the organization by having continuous and consistent intention to stay. The existence of positive emotion while discharging duties, employees become more resilient and increase in their strength to cope with the adverse effect at work. Work happiness will broaden their thoughts to face the unwarranted challenges at work. In line with the theory adopted, the broaden and build theory of positive emotion (Fredrickson, 1998) which encourage individual to become resilient, fight the set back, and raise again for self-development. The creation of upward spiral in the organization derived from positive emotions such as work happiness brings individual to focus on their strength rather than on their problem, in which consequently increasing the level of intention to stay.

The findings of the study also in support of recent study by Al-Ali, Ameen, Isaac, Khalifa, & Shibami, (2019) which found out that job happiness has a significant but negative effect on respondents with regard to turnover intention of employees in UAE oil and gas industry. This implies that happiness or mental well-being has a collective effect on a number of factors that reduces turnover intention.

**Research Question 5: Will work engagement mediates between psychological capital and intention to stay?**

The study found that the indirect relationship of psychological capital with intention to stay through work engagement is found significant (H5:  $\beta = 0.090$ ,  $p < 0.05$ , CI [0.022, 0.155]). The finding is in support to the study conducted by Memon, Salleh, et al., (2017). This study revealed that psychological capital affects intention to stay via work engagement. When psychological capital is significantly associated with work engagement, and work engagement is linked to intention to stay, the mediating role of work engagement between psychological capital and intention to stay is logically acceptable. This infers that employees who are high in psychological capital are highly engaged at work; and as previously discussed, highly engaged employees demonstrate excellent commitment to their current employment. This means that employees who are highly engaged have become well attached to their role performance and are unwilling to leave employers, although they are highly sought after by other companies. These findings suggest that work engagement is the actual mechanism connecting psychological capital and intention to stay of the serving RMAF pilots.

**Research Question 6: Will work happiness mediates between psychological capital and intention to stay?**

This study identified the indirect relationship of psychological capital with intention to stay through work happiness is also found significant (H6:  $\beta = 0.228$ ,  $p < 0.001$ , CI [0.149, 0.306]), as such this mediation hypothesis is also supported. From the study results, it confirmed the mediating role of work happiness between psychological capital and intention to stay. This proved that work happiness is a significant mechanism spreading the effect of psychological capital and intention to stay. When individuals are high in their psychological capital of their values with those organization, they become

more optimism, resilience, and increased in self efficacy towards their job scope in their organization. Hence, it will lead individuals to be happier with an organization. Such an emotional affection and high level of happiness is one of the major reasons to keep employees connected with the organization where they work. Hence, increasing their intention to stay in the same organization.

This finding is also congruent with the previous study by (Al-Ali et al., 2019) that establishing job happiness plays a full mediation role between job satisfaction and turnover intention. This finding also implies that high level of psychological capital through broaden and build of positive emotion will make the employee feel that they will have a great energy, find beauty in some things, the less they think about giving up the present job. As such, this study discovered that psychological capital indirectly influencing intention to stay through work happiness.

#### **4.11 Summary of Main Findings**

The main objective of this study is to determine the relationship between psychological capital and intention to stay through work engagement and work happiness within the military context. Based on the research findings, psychological capital is found to be significantly related to work engagement and work happiness. Work engagement and work happiness are also found to be significantly related with intention to stay. The results also demonstrated that both work engagement and work happiness are found to be significantly mediated the relationship between psychological capital and intention to stay. As shown in Table 4.18, a brief summary from the research hypotheses is provided following the research questions. There are six hypotheses accordingly.

**Table 4.18: Summary of the Findings**

<b>Research Questions and Hypotheses Statements</b>		<b>Result</b>
Research Question 1: Will psychological capital influence work engagement among pilots in the RMAF?		
Hypothesis 1 (H1)	Psychological capital has positive relationship with work engagement	Supported
Research Question 2: Does psychological capital have any relationship with work happiness among the pilots in the RMAF?		
Hypothesis 2 (H2)	Psychological capital has positive relationship with work happiness	Supported
Research Question 3: Does work engagement have any relationship with intention to stay among the pilots in the RMAF?		
Hypothesis 3 (H3)	Work engagement is positively related to intention to stay	Supported
Research Question 4: Does work happiness have any relationship with intention to stay among pilots in the RMAF?		
Hypothesis 4 (H4)	Work happiness is positively related to intention to stay	Supported
Research Question 5: Will work engagement mediates between psychological capital and intention to stay?		
Hypothesis 5 (H5)	Work engagement mediate the relationship between psychological capital and intention to stay.	Supported
Research Question 6: Will work happiness mediates between psychological capital and intention to stay?		
Hypothesis 6 (H6)	Work happiness mediate the relationship between psychological capital and intention to stay.	Supported

#### 4.12 Chapter summary

In summary, this chapter reported a comprehensive set of results drawn from the statistical analysis of the model of psychological capital and intention to stay of the pilots of Royal Malaysian Air Force. This proposed study, is a double mediation model, in which work engagement and work happiness explain the impact of psychological capital on intention to stay as intervening mechanisms. As mediation models are of significant importance in knowledge and theory development, outputs obtained from the statistical analysis of the current study model might also provide invaluable insight for theory and practice, which is discussed in the discussion of the results chapter later. For a recap of the results, however, the analysis of the proposed research model of the current study is conducted through variance based structural equation modeling, with SmartPLS software. Firstly, measurement model analysis established the reliability as well as convergent and discriminant validity of the literature based selected constructs of the study. Second, by performing Herman's single factor test, it was reported that there is evidence of the issue of common method variance. Third, potential covariates were tested for their explanatory power for the phenomenon of interest and reported that identified control variables do not share any variance in the phenomenon of interest. Finally, structural model analysis revealed that all direct and indirect hypothesized relationships of the research model are deemed significant, with every exogeneous variable having unique contribution towards the variance in endogenous variables. However, it is important to note that, according to the data of this study, work happiness is a relatively strong mediating mechanism between psychological capital and intention to stay.

## **CHAPTER 5: CONTRIBUTIONS AND CONCLUSION**

### **5.1 Overview of Chapter 5**

This chapter offers an explanation on theoretical and practical contributions in-lieu with the findings acquired from the data analysis reported in Chapter Four. The discussions in this chapter also provide contribution to body of knowledge which later are linked with managerial insights of this study. This chapter also provides limitations and recommendations for further and future study for the benefits of the military pilots in the Royal Malaysian Air Force context. This chapter ends with a conclusion remark.

### **5.2 The Research Implications**

This study has filled the gap on the psychological effect of pilots serving the RMAF after the promulgation of PMAT 1/2004A and PMAT 3/2010 which requires the extension period of contract of service from thirteen to eighteen years. The compulsory of the extension of service had arguably created the notion whether pilots in their state of mind continue serving the RMAF wilfully or by compulsion. Accordingly, this study is the first research conducted looking into the psychological effect of pilots in the RMAF particularly on the retention strategy. The findings of this study significantly identified positivity plays an important role in retaining pilots and promoting intention to stay. The literature of this research also gives an overview that positivity not only will address turnover issue but also offer positive work outcome such as better performance of the organisation in achieving their vision and mission. More importantly, in the RMAF context, it is rest assured that each flying mission assigned would be accomplished by having sufficient number of pilots who are positive in their work attitude. In addition, as positivity is contagious, it also offers a better working environment which in turn can promote harmony among pilots and other professionals within the RMAF. Thus, creating the RMAF as a harmonious place to work in.



This study also offers some theoretical and practical implication that could be drawn. This study contributes to the emerging research on positivity, and also enhances the contextual model of its work design, consequently enriching the findings from previous studies in positivity and intention to stay literature. The findings from the present study offer meaningful theoretical and practical insights for managing employees in the current dynamic organisational context especially in the military establishment. Both the theoretical contributions and practical implications are discussed in the following sub chapter.

### **5.2.1 Theoretical Implication**

Findings adds to knowledge and information of theoretical models that is conservation of resources and broaden and build of positive emotion theory models. In this study, significant COR theory in association with psychological capital, work engagement and intention to stay; Likewise, broaden and build theory association with psychological capital, work happiness and intention to stay. Therefore, the current study expands the said theories and used it from a more general view of life to more specific domain of work life. Thus, the study gave contribution to the empirical literature in organisational and positive psychology based from military context.

Second, development and validation of the proposed model. Six hypotheses based on the model were developed and tested empirically. All hypotheses were found statistically significant. Thus, a potential mechanism for the relationship between psychological capital and intention to stay was revealed by showing that work engagement and work happiness have probable mediating roles in the relationship. The findings of the study also contributed to the intention to stay literature and inspire more exploration of feasible means of retention, intention to stay, particularly for military pilots

Third, a few studies conducted on modelling work engagement and work happiness as mediators simultaneously between psychological capital and intention to stay. The empirical evidence established in this study successfully supported the proposed model with double mediation effect on work engagement and happiness. The findings of this study help in bridging the gaps in psychological capital, work engagement and work happiness literatures. This study also offers empirical evidence about the indirect effect of work engagement and work happiness as mediator between the constructs.

Fourth, up to now, there have been few studies on positive emotions or psychological capital among the military members, and studies on positive emotions on or psychological capital among military pilots are even fewer. Hence, it is worthy to conduct research on positive emotions and psychological capital among the RMAF pilots, a distinguished profession which every nation shared its commonality in terms of managing their human resources. The current study makes an empirical contribution by applying broaden and build theory and conservation of resources theory in addressing retention issues in this specific occupation.

Fifth, the researcher also took cognisance on reverse coding issue (Johnson, Kulesa, Cho, & Shavitt, 2005; Wong, Rindfleisch, & Burroughs, 2003) which may impair the quality of this research especially on the response bias which is associated with multi-item scale which are designed to be worded in single direction. In order to counter this issue, psychometricians recommended reverse wording should be implemented on the items (Baumgartner & Steenkamp, 2001; Churchill, 1979). However, according to Johnson et al. (2005), their findings suggested that due to subcultural groups, ethnicity and racial minorities, Malaysian respondents are not recommended to use the Reverse Worded Items (RWI). The effect of bias is more prominent when the foreign scales are

applied in the domestic cultures that differ greatly in term of values, customs, and language.

The researcher in this study has inserted five RWI which are IS1, IS2, OP2, OP5 and RS1. For the RWI, IS1 and IS2 represented the intention to stay items; OP2 and OP5 represented optimism items which is a dimension to psychological capital; and RS1 represented resilience item which is also a dimension to psychological capital. During the process of measurement model exercise, of the five RWIs, three items were deleted as they did not satisfy the loading and AVE threshold criteria (Ramayah et al., 2018). The deleted items were IS1, IS2 and OP5. However, two RWIs were retained to proceed with the structural model analysis.

From the result of this findings, it is suggested that there is inconsistency with the findings by Johnson et. al (2005) and Wong et. al (2003) in the current RMAF context. Although all the five RWI are adapted from the western's scale, two items were retained to show that the two items were reliable and valid. As such, this result can be interpreted in two folds. One perspective is that RMAF pilots who are typically Malaysian differ in their values and customs from the westerners which support the literature by Johnson et. al (2005) and Wong et.al (2003). On the other hand, the alternate perspective, it is strongly suggested that pilots in the RMAF are emerging to adapt or confirm with the western's values, customs and language. This is so as the continuous flying syllabus are adopted from the western countries ever since the RMAF was established in 1958. In addition, most of the systems or aircraft acquired into the RMAF inventory are from the western countries. RMAF pilots also involve in international flights which English is the lingua franca for the aviation fraternity throughout the world. RMAF pilots also attended courses regularly in the western countries for their career progression and continuous flying training. As such, this study gives the theoretical contribution on the notion that the gap

between culture, customs and language between the East Asian countries especially Malaysia and the western countries are getting smaller. Thus, it paves the way of new research in this area.

### **5.2.2 Practical Implications**

The result of the current study indicated that psychological capital is a strong predictor of work engagement and work happiness that increases RMAF pilots' intention to stay. The implications are that RMAF-Human Resources and policy makers must pay a greater attention to psychological capital. This is due to the fact that RMAF pilots are the backbone of the organisation. Without sufficient number of pilots, the organisation could not function well and consequently the smooth running of managing pilots in executing missions will be greatly affected. In addition, without competent and well-trained pilots, the Air Force could not function as desired by the nation. Accordingly, in the positive psychology perspective, the latent role of positivity is highly regarded as an added value since it develops pilot's positive behaviour towards job outcome. With positivity in the work environment, the potential positive activities associated may be useful for the RMAF.

Hence, the RMAF as an organisation that wishes to improve organisational outcome especially in the retaining strategy should focus on the psychological capital of their pilots on the basis that when pilots' psychological capital is high, they would perform better, becomes more resilient, eventually will increase in their work engagement and work happiness, ultimately then will increase in their intention to stay with the RMAF. As such, serving pilots could be retained in the organisation until their compulsory retirement age. Moreover, in this case, pilots not only just to be retained but also retain with desired quality as psychological capital also gives positive work outcome for employees.

As such, remedial action based from previous literatures shall be considered (Luthans & Youssef-Morgan, 2017), positive interventions were practiced within various organisations across the world, spanning across industries including such as manufacturing, franchises, finance, marketing, hospitality, healthcare, shipping, telecommunications, military, aerospace, police, education, sports, oil and gas, government, NGO's and non-profits. For instance, the US Army had made huge investment in enhancing resilience (Seligman & Matthews, 2011). Hence, the empirical evidence provided in this study support the implementation of this positive intervention which is put forward by Luthans & Youssef-Morgan (2017). In the circumstance, similar approach may be adopted into the RMAF. In the consequence, this initiative of introducing the intervention will significantly bring towards direct and indirect practical applications within the RMAF pilot fraternity.

Moreover, with psychological capital in hand, micro training interventions can be implemented to reap the benefits of positivity from the RMAF pilots. Extant researches have shown that psychological capital can be generated through short training interventions, for example in the PsyCap Intervention (PCI) model (Luthans, Luthans, & Avey, 2014; Luthans, Avey, Avolio, & Peterson, 2010). The training managers of the RMAF squadrons can implement such training within couple of hours training intervention that can be in a form of series of exercises and focus group discussions that may positively impact the psychological levels of the RMAF pilots (Kyle, Luthans, & Palmer, 2016). In the course of exercising the training, the hope construct can be fostered by getting the participants to create several means to accomplish the intended goals of the work or military and recognise possible hindrances towards obtaining these goals. Next, feedback obtained by each participant from small discussion teams should direct him/her to create alternative that has never been thought about by them in acquiring the goals and overcoming the obstacles. It is anticipated that the trainees' efficacy towards goal

accomplishment will be enhanced. This process should also lead to more constructive outlooks towards future success, thus reinforcing optimism levels. Lastly, the development of resilience is also present due to the production of multiple pathways to attain the goals. This happens as when the initial pathway is blocked, an individual must create another pathway for him/her to overcome or “bounce back” from the hindrances and becomes more confident (efficacious) and succeed in reaching his/her goals. Experimental studies have revealed that the PCI triggers psychological capital levels to escalate for those who are undergoing the training (compared to control group) both in the work environment (eg. see Luthans et al., 2010; Luthans, Avey, & Paterra, 2008). Therefore, PCI is feasible to be conducted within the RMAF context.

The key to psychological capital’s relevance to the workplace environment is mainly obtained from its openness to development due to comparatively brief and simple training interventions. Due to the very low development cost (mainly for the trainer, trainee time away from job, and minimum training materials) the return on psychological capital development has been indicated to be very high (Luthans, Avey, Avolio, Norman, & Combs, 2006; Luthans, 2015; Youssef & Luthans, 2007).

In addition, from the results of the study, it seems that engagement is a significant mechanism through which psychological capital influences employees’ intention to stay. In this circumstance, it is rightly to say that, in order psychological capital to operate effectively, engagement must also exist among the employees. This can be done by evaluating the level of work engagement of the employees from now and then. As suggested by Gruman and Saks, (2011), “engagement appraisal” can be a main effort and can also be followed with a formal appraisal process. This would assist the top management to identify their employees’ level of engagement and find out the solutions or means to further improve their work engagement level. The cultivation of work

engagement will create a strong emotional attachment between employees and employers, which will result in the permanency of RMAF pilots with their organisation.

From the same perspective of positive psychology intervention, improving happiness and well-being in the context of work can also be implemented (Layous, Chancellor, & Lyubomirsky, 2014; Lyubomirsky, Sheldon, & Schkade, 2005; Seligman, Steen, Park, & Peterson, 2005). These interventions have been applied popularly throughout various type of occupation in view of positive psychology interventions. The results of the interventions empirically are reaching beyond the return of investment (Luthans, et al., 2006; 2015; Youssef & Luthans, 2007). As such, RMAF policy maker on human development shall take the suggestion to suit the current and future policy on the human resource management.

Acknowledging positivity is of great importance for employee to work within the organization, positivity does not merely influence the retention of pilots as suggested in this study, but from the literature, it also gives a better outcome for the organization. Therefore, it can be suggested that to have positive worker especially positive pilots in the RMAF is a wishful thinking. To fulfill this wish, policy makers must be vigilant in choosing which strategy to use. Apart from retaining strategies that has been discussed at length above, selection of pilot candidates who possesses the desired quality of positivity is highly recommended. Candidates who acquired high level of positivity are prone to be successful and contribute in distinction to the military service. As such, the strategy of human resource in establishing positivity among pilots in the RMAF shall start at the recruitment phase. The selection board shall be equipped with sufficient knowledge to adhere this strategy.

### **5.2.3 The Research Limitation**

Notwithstanding of the contribution towards knowledge and practice as discussed in the previous sub chapter, just like any research work, this study also encountered limitations that diligently should be taken into consideration. The limitations are discussed as follows:

#### ***(a) Cross Sectional***

The methodology adopted for this study is drawn from cross sectional survey data in which it impeded the conclusive inferences regarding causal relationship among the study variables. Hence, statement intended to be drawn to justify the causal relationship between the variables need to be exercised with great caution. In particular, this study is exposed to the issue of reverse causality. For instance, it is a challenge to identify whether psychological capital was positively related to work engagement or reverse. Alternatively, it could be work engagement that has the positive relation towards psychological capital. As such, research using the longitudinal design is much more appropriate, in the consequence, it gives better understanding on the research and direction of the relationship. In addition, as this study dealt with human behaviour, longitudinal offers profound insight analysis over period of time.

#### ***(b) Self-Reported Questionnaire***

Data collection for this study was administered by using self-report questionnaire survey. Respondents on this survey are prone to be biased as they may consciously or unconsciously effected by “social desirability” in which they might respond to the survey questionnaires based on their experiences which are socially acceptable or preferred by the community at large (Podsakoff et al., 2003). Contrarywise, the study variables refer to individual perceptions. Hence, it can be claimed that the usage of self-report measures establishes the most logical strategy to examine these constructs.



*(c) Geographical & Nature of Job Factor*

Respondents are stationed in various places within and outside Malaysia. Nature of their job is they are always on the move. Hardly they can be gathered at a specific place within a period time. In the course of data collection, researcher will physically visit the respondents and meet face to face to distribute questionnaires. In the event when respondents were not available during the visit, attempts to coordinate with the respondents were carried out. Under circumstances when respondents were physically unreachable, electronic method was administered (google form). As such, data collection can be costly and time consuming. Close coordination with the human resource department were much recommended to organise meeting for questionnaires distribution. Support from the operational department may also be considered as organisation may permit the researcher to use the available resources to carry out this study. As such cost and time can be mitigated.

### **5.3 Recommendations for Further Research**

*(a) Extension of Research Construct*

The present study led us to claim that psychological capital through work engagement and work happiness influenced the intention to stay among pilots in the RMAF, but it should be noted that for this study the researcher only focused on one particular personal resource that is psychological capital. From this study, it gives the basis of the related model in pursuing exploration to consider other construct to research on retention strategy. As this study is only focused on individual strength which does not involve physical construct such as monetary factor. It would be interesting to see the role of monetary factor in term of rewards and emolument for retaining pilots in the military service. Due to massive development on the aviation industry, airlines seek to employ pilots to fly their aircrafts. In exercising the option, airlines prefer the employ the ready-made pilot who are the military pilots as they are experienced and ready to contribute

rather than recruiting new flight cadets. Despite of positivity construct that is advocated in this study, other factors may give a better understanding of intention to stay among pilots in the RMAF. On the other hand, exploring the impact of different other resources may represent the most interesting avenue of research for retention pilots in the RMAF.

*(b) Extension of Research Context*

The result of this study has been intentionally influenced by the homogeneous nature of sample, which was composed of employee working for a single organisation. Simply, this research is to investigate retention among the RMAF pilots. As such, the target population for this study is only confined within the establishment of the RMAF. In the furtherance, extension of this research on employees operating in different organisations, or other occupational sectors, guarantee the invaluable insights to generalise these results to the entire working populations. As aviation industry in Malaysia is quite established. Both government and private sectors acknowledged the importance of this industry to grow in this country. Within the governmental body, despite being the pioneer, the RMAF was no longer the sole operator in aviation for the government. Newer aviation units were established to satisfy the role and function of respective departments. Within the armed forces, the army and navy have established their own aviation units after relying on the air force expertise for quite a long time. Other nonmilitary government department also establishes their aviation units, this include the police, maritime and fire service department. From the private sectors perspective, within Malaysian aviation fraternity, there are a number of public and private companies operating the air service license (ASL) and air service permit (ASP) issued by Malaysian Aviation Commission (MAVCOM). Thus, the inference that can be drawn from here is the aviation industry plays a very important role for the business and economic growth for Malaysian. Not to mention the supporting elements within the aviation industry such as engineering, logistic support,

flight operation, human resource and others. In the circumstance, this study offers to be adapted and replicated to other agency or organization in a different context.

#### **5.4 Conclusion**

The primary purpose of this study was to test the hypotheses that psychological capital had effects on intention to stay through work engagement and work happiness among pilots in the RMAF. Empirically, this study has shed lights some in affirming that psychological capital had direct effect on work engagement and work happiness. Consequently, affirming work engagement and work happiness had direct effect on intention to stay. This study also affirmed that psychological capital able to increase intention to stay through work engagement and work happiness. As such, work engagement and work happiness had affirmed to become mediator in the relationship between psychological capital and intention to stay in the RMAF context.

Organisations need employees who are psychologically connected to their work (Bakker & Leiter, 2010). This study is in congruent with literatures that support psychological capital through work engagement and work happiness as psychological construct that leads to the benefit the organisation and the employee particularly in retention strategies

In conclusion, the research outcomes have met the research objectives by using cross sectional finding method. The findings of this research and the tested research framework would contribute into theoretical and practical insight for academic literature and the managerial needs. The findings depicted that the RMAF management should offer appropriate action in promoting positivity to their serving pilots.

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