

MEJAR ASLI BIN OSMAN

MBA

2020

**THE APPLICATION OF SUPPLY
CHAIN MANAGEMNET BEST
PRACTICES TO ENSURE
CONTINUOUS SUPPLY CHAIN
OF OFFICERS FOR
MALAYSIAN ARMED FORCES**

MEJAR ASLI BIN OSMAN

**MASTER of BUSINESS
ADMINISTRATION
(SUPPLY CHAIN & LOGISTICS)
NATIONAL DEFENCE
UNIVERSITY OF MALAYSIA**

**NATIONAL DEFENCE
UNIVERSITY OF MALAYSIA**

2020

Project Submission Pro-Forma

Name: **MEJAR ASLI BIN OSMAN**

Student Matrix Number: **3191169**

I wish the project paper to be considered for:

MASTER of BUSINESS ADMINISTRATION (SUPPLY CHAIN & LOGISTICS)

I have checked that my modules meet the requirements of the above award.

I confirm that I have included in my dissertation:

- An abstract of the work completed.
- A declaration of my contribution to the work and its suitability for the degree.
- A table of contents.
- A list of figures and tables (if applicable).
- A glossary of terms (where appropriate).
- A clear statement of my project objectives.
- A full reference list.

I am willing for my marked project paper to be used for staff training purposes.

Signed: **ASLI BIN OSMAN**

Date: **23 June 2020**



**NATIONAL DEFENCE UNIVERSITY of MALAYSIA
(UNIVERSITI PERTAHANAN NASIONAL MALAYSIA)**

**THE APPLICATION OF SUPPLY CHAIN MANAGEMENT BEST
PRACTICES TO ENSURE CONTINUOUS SUPPLY OF OFFICERS FOR
MALAYSIAN ARMED FORCES**

MEJAR ASLI BIN OSMAN

STUDENT MATRIX NUMBER: 3191169

Supervisor: Lieutenant Colonel Kamarulzaman bin Haji Lamin (Retired)

A Project Paper Submitted for the Degree:
Master of Business Administration (Supply Chain & Logistics)

National Defence University of Malaysia
June 2020

ABSTRACT

The integration of human resources management (HRM) and supply chain management (SCM) will be a strategic approach to derive organization towards globalization. Both management concepts required a dynamic process with effective resources within the organization and external entities collaboration as a structured team to ensure the continuity of mutual support and lifecycle achieve. The main concern on the implementation of HRM and SCM is to retain the expert employees for a maximum period to carry the organization mission and goals. The continued supply the potential human resource in the organization is important factor to running the organizational operation with a high performance and increased the satisfaction to the customers. In Malaysian Armed forces (MAF), the continuous of supply Officer's is a crucial element to ensure the safety and security level of Malaysia land, sea and aerospace are maintaining high peak. The several approaches have been taken to fulfil the critical appointment especially in military operation area by conduct recruitment through graduate scheme and cadets training. The Military Training Academy (MTA) was established to develop training cadets program until commission as a MAF Officer's and deploy for military operational tasking. Therefore, the HRM and SCM approaches have been considered to ensure the supply Officer's in MAF is continuity. The MTA responsibility is to ensure the Cadet Officer's retention rate is high and develop training program to produce quality Officer's in MAF. The collaboration with MAF as a stakeholder and National Defence University (NDUM) as shareholder in developing attractive training program was the factor of retention and attraction among the Cadet Officer's to stay until commissioning. The HRM practices was using as indicator to measuring the level of supply Officer's (Attraction and retention) including, training and development, benefit and compensation, communication, socialization and organization commitment. The ability of organization to increased HRM capabilities will encourage SCM to develop valuable inter-firm relationships and to create knowledge-sharing. The qualitative and quantitative method was using in developing the tools to measure supply Officer's in MTA. The result shows the moderate relationship between Supply Officer's and HRM factors which benefit and compensation have a high correlation with supply officer's, follow by training and development and socialization. However, this study identifies the most significant factor of Supply Officer's in MTA are Training and Development and Benefit and Compensation. As the military organization, the training and development is a main concern in developing the military characteristic and ethos with attractive salary and allowance along the study among the Cadet Officer's. Both factors were significant with attraction and retention of the Cadet Officer's to stay in MTA until finished their and become a quality MAF Officer's.

ABSTRAK

Integrasi di antara elemen Pengurusan Sumber Manusia (HRM) dan Pengurusan Rantai Bekalan (SCM) sebagai pendekatan strategic mampu membawa organisasi ke peringkat glogalisasi. Kedua-dua konsep ini memerlukan sebuah proses yang dinamik dengan sumber yang efektif di dalam organisasi mahupun perkongsian sumber dengan entiti luar sebagai sebuah pasukan dalam menentukan kesinambungan proses saling membantu dan kelangsungan organisasi dapat bertahan dan kekal dalam menerajui pasaran tercapai. Sehubungan itu, organisasi seharusnya menitikberatkan pelaksanaan HRM dan SCM dalam usaha menentukan pekerja cemerlang kekal dalam organisasi untuk tempoh yang maksimum. Perbekalan sumber manusia yang berterusan sangat penting agar pengoperasian dapat dilaksanakan dalam meningkatkan prestasi organisasi dan kepuashatian pelanggan. Angkatan Tentera Malaysia (ATM) merupakan sebuah organisasi yang bertanggungjawab menjaga kedaulatan negara dari diceroboh oleh anasir-anasir jahat merangkumi keselamatan di darat, laut dan udara sangat memerlukan perbekalan sumber manusia yang berterusan. Pelbagai langkah telah diambil bagi memastikan semua perjawatan kritikal dapat diisi sebilang masa terutama di kawasan operasi ketenteraan dengan pendekatan perekrutan Pegawai baru termasuk skim graduan dan skim kadet. Akademi Latihan Ketenteraan (ALK) telah ditubuhkan untuk membangunkan program latihan kadet sehingga mereka diatualiahkan sebagai Pegawai ATM dan bersedia diaturgerakkan dan seterusnya melaksanakan tugas ketenteraan. Oleh itu, pendekatan HRM dan SCM perlu diambil perhatian dalam memastikan perbekalan Pegawai (supply officer's) sentiasa berkesinambungan. Menjadi tanggungjawab ALK untuk memastikan nisbah pengekalan Pegawai Kadet di tahap yang tinggi dan membangunkan program latihan yang dinamik dalam usaha melahirkan Pegawai ATM yang berkualiti kelak. kerjasama dengan ATM sebagai pemegang taruh dan Universiti Pertahanan Nasional Malaysia (UPNM) sebagai rakan kongsi dalam membangunkan program latihan yang menarik mampu meningkatkan nisbah pengekalan (retention) dan tarikan (attraction) Pegawai Kadet untuk terus belajar sehingga ditauliahkan. Secara praktikalnya, pendekatan HRM telah diambil untuk mengukur Perbekalan Pegawai (Tarikan dan Pengekalan) yang merangkumi pelbagai faktor termasuk pembangunan latihan, faedah dan penghargaan, komunikasi, hubungan sosial dan komitmen organisasi. Keupayaan organisasi meningkatkan HRM mampu menggerakkan SCM ke arah pembangunan nilai hubungan di antara organisasi dan membina perkongsian pengetahuan. Kaedah kualitatif dan kuantitatif telah digunakan dalam membangunkan alat pengukuran perbekalan Pegawai di ALK. Hasil dapatan kajian menunjukkan hubungan yang sederhana terbentuk di antara Perbekalan Pegawai dan faktor HRM dengan faedah dan penghargaan mempunyai nilai hubungan yang tinggi dan diikuti pembangunan latihan dan hubungan sosial. namun begitu, jika dilihat dari aspek signifikan, di dapati faktor yang paling signifikan dengan Perbekalan Pegawai adalah pembangunan latihan serta faedah dan penghargaan. Kedua-dua faktor ini dilihat mampu menarik minat Pegawai Kadet untuk terus kekal belajar di ALK sehingga ditauliahkan dan diserap sebagai Pegawai yang berkualiti di dalam ATM.

ACKNOWLEDGEMENTS

Alhamdulillah, all praise belongs to Allah SWT for the completion of this project paper.

This work has been a product of many people's patience and collective intelligence. First of all, I would like to thank my supervisor, Lt Kol Kamarulzaman bin Haji Lamin (Retired), for his guidance and patience over the past several months in guiding me to the finishing line. Without his assistance and supervision, this project paper would not have been completed. I wish to extend my gratitude to the Dean, faculty members and staff from the Faculty of Defence Studies and Management and Centre for Graduate Studies, also to the Head of the Program, Profesor Madya Rozita binti Husain and Program Coordinator, Mejar Wong Wai Loong for their endless support and assistance throughout the completion of this project paper.

My appreciation is extended to the Military Training Academy especially my Commandant Brig Jen Dato' Haji Saharuddin bin Mansor (TUDM) for the opportunity to pursue my studies in National Defence University Malaysia. In addition, throughout the project paper process, my highest gratitude is also extended to the respondents of my research to my Commanding Officer Lt Kol Zanuddin bin Hussin, all officer at MTA and all my Cadets in Jebat Company. Without their cooperation and support, this project paper would not have been successful. Especially to all my course members, thank you for your cooperation and team work towards completing the journey.

I thank my family who has been patiently supporting and encouraging me for the final completion of this project paper. My utmost love and appreciation also goes to my children, Muhammad Rayyan, Muhammad Muhaimin and Nur Mikayla. I hoped I have inspired them to work their best and reach out for their dreams. To my beloved soul mate, Noraida binti Baharom, your love and emotional support had encouraged and keeps me motivated through thick and thin of my every journey in life, and for that, I love you endlessly.

ACKNOWLEDGEMENT RECEIPT FOR FINAL PROJECT PAPER

This final project paper “**The Application of Supply Chain Management Best Practices to Ensure Continuous Supply of Officers for Malaysian Armed Forces**” produced by **Mejar Asli bin Osman** Matric No **3191169** has been accepted as having fulfilled the partial requirements for the Master of Business Administration (Supply Chain and Logistic).

.....

(Signature of Supervisor)

Lt Kol Kamarulzaman bin Haji Lamin (Retired)

Date:

DECLARATION

I have read and understood the rules on cheating, plagiarism and appropriate referencing as outlined in my handbook and I declare that the work contained in this paper is my own, unless otherwise acknowledged. No substantial part of the work submitted here has also been submitted by me in other assessments for this or previous degree courses, and I acknowledge that if this has been done an appropriate reduction in the mark I might otherwise have received will be made.

Signed candidate: **MEJAR ASLI BIN OSMAN**
(STUDENT MATRIX NUMBER: 3191169)

You are required to justify your submitted Project Paper against the degree definition for which you are registered.

Project definition for my degree:

The project should normally be related to supply chain and logistics environment. It could address many different aspects such as business, administration and management issues. My project relates to this definition in the following way:

1. The project is centred on **SUPPLY CHAIN MANAGEMENT**.
2. This project addresses the aspect of **THE APPLICATION OF SUPPLY CHAIN MANAGEMNET BEST PRACTICES TO ENSURE SONTINUOUS SUPPLY OF OFFICERS FOR MALAYSIAN ARMED FORCES**.
3. The intention of the project is to assist **MILITARY TRAINING ACADEMY – NATIONAL DEFENCE UNIVERSITY OF MALAYSIA**.
4. The recommended improvements in this project are based on **CONCLUSION AND RECOMMENDATION STATED IN CHAPTER 5 OF THIS PROJECT PAPER**.

The above shows the relevance of the work to the degree for which it is submitted.

	Signed	Agree (√)	Disagree (√)
Supervisor: LT KOL KAMARULZAMAN BIN HAJI LAMIN (RETIRED)			

TABLE OF CONTENTS

CONTENTS	PAGE
Project Submission Pro-Forma	i
Title Page	ii
Abstract	ii
Abstrak	iii
Acknowledgements	iv
Acknowledgements Receipt for Final Project Paper	vi
Declaration	vii
Table of Contents	viii-xii
List of Figures	xiii-xiv
List of Tables	xv-xvi
Abbreviations	xvii

CHAPTER 1: INTRODUCTION

1.0	Introduction	1
1.1	Organization Background	3
1.2	Problem Statement	5
1.3	Purpose Statement	6
1.4	Research Objectives	6
1.5	Research Questions	7
1.6	Significant of the Study	7

1.7	Limitation of the Study	8
1.8	Structure of the Study	9
1.8.1	Chapter 1	9
1.8.2	Chapter 2	9
1.8.3	Chapter 3	10
1.8.4	Chapter 4	10
1.8.5	Chapter 5	11
1.9	Conceptual Definitions	11
1.10	Research Model	12
1.11	Research Design	13
1.12	Research Process	13

CHAPTER 2: LITERATURE REVIEW

2.0	Introduction	15
2.1	Development of Continuous Supply Officer's Philosophy	16
2.1.1	HRM Practice	20
2.1.2	HRM Practices to Unify the Supply Chain Components	29
2.2	Conceptual Framework	37
2.2.1	Supply Officer's	37
2.2.2	Training and Development	40
2.2.3	Benefits and Compensation	43
2.2.4	Communication	45
2.2.5	Socialization	47

2.2.6	Organization Commitment	49
2.3	Conceptual Framework	55
2.4	Conclusion	56

CHAPTER 3: RESEARCH METHODOLOGY

3.0	Introduction	58
3.1	Development of Hypothesis	58
3.2	Research Design	61
3.2.1	Research Sampling	61
3.2.2	Population	61
3.2.3	Sampling	61
3.2.4	Limitation of Study	62
3.3	Data Collection Method	62
3.3.1	Detailed Interview	62
3.3.2	Questionnaire Design	64
3.3.3	Pilot Study	68
3.3.4	Actual Studies	74
3.4	Summary Types of Analysis	79
3.5	Conclusion	80

CHAPTER 4: ANALYSIS AND FINDINGS

4.0	Introduction	81
4.1	Profile Demography	82

4.2	Objective 1 - To investigate factors that will influence supply officer's in MTA-NDUM	83
4.2.1	Data Testing: Reliability and Normality Analysis	83
4.2.2	Descriptive Analysis	86
4.2.3	Factor Analysis	90
4.3	Objective 2 - To examine the most significant factors that contribute in supply officers at MTA-UPNM	92
4.3.1.	Correlation Test	93
4.3.2	Regression Analysis	94
4.4	Discussion	99
4.5	Analysis Summary	104
4.6	Conclusion	106

CHAPTER 5: CONCLUSION AND RECOMMENDATION

5.0	Introduction	107
5.1	Conclusion	107
5.2	Recommendation	110
5.2.1	Training and Development	110
5.2.2	Benefit and Compensation	111
5.2.3	Suggestion of Future Research	111

References	112
Appendix A	128
Appendix B	134

LIST OF FIGURES

Figure	Description	Page
Figure 1	MTA Organization Chart	4
Figure 2	Employee Retention Model: Kyndt et. al. (2009)	23
Figure 3	Employee Retention Model: Maqsood et. al. (2015)	26
Figure 4	Employee Retention Model: Mohamed et. al. (2017)	27
Figure 5	Employee Retention Model: Trofimov et. al. (2017)	28
Figure 6	Employee Retention Model: Ahmad et. al. (2018)	29
Figure 7	HRM Practice to Unify SCM	30
Figure 8	HRM Practices Related to Supply Chain Model	32
Figure 9	Integrated Learning Environment and Supply Chain Performance	34
Figure 10	Human Resources Practices towards SCM Performance	35
Figure 11	Role of HRM in SCM	36
Figure 12	Conceptual Framework	56
Figure 13	Research Framework	60
Figure 14	Q-Q Plot for Supply Officer's	85
Figure 15	Q-Q Plot for Training and Development	85
Figure 16	Q-Q Plot for Benefit and Compensation	85
Figure 17	Q-Q Plot for Socialization	85
Figure 18	Q-Q Plot for Communication	86
Figure 19	Q-Q Plot for Affirmative Commitment	86

Figure 20	Q-Q Plot for Continuance Commitment	86
Figure 21	Q-Q Plot for Normative Commitment	86
Figure 22	Supply Officer's Model Regression Equation	100

LIST OF TABLES

Table	Description	Page
Table 1	Current Strength of Cadet Officer's	4
Table 2	The Trend of the Cadet Officer Quit from The MTA	6
Table 3	Conceptual Definition of Variables	11
Table 4	Research Process Summary	13
Table 5	The Factors and Contributing Measures Influencing Retention among The University Student's	24
Table 6	Questionnaire for Employee Retention	39
Table 7	Questionnaire for Training and Development	41
Table 8	Questionnaire for Compensation	44
Table 9	Questionnaire for Communication	46
Table 10	Questionnaire for Socialization	48
Table 11	Questionnaire for Organization Commitment	53
Table 12	Determination of Sample Size	61
Table 13	Interview Session Result	63
Table 14	Questionnaire	65
Table 15	Reliability Test for Pilot Study	69
Table 16	Total Item Reliability Test	70
Table 17	Summary of Analysis	79
Table 18	Distribution of Respondent Profile (N=229)	82
Table 19	Reliability Test	83

Table 20	Normality Analysis	84
Table 21	Descriptive Analysis	87
Table 22	Total Variance Explained by Supply Officer's	91
Table 23	Factor Loading	92
Table 24	Correlation Test	93
Table 25	Model Summary	95
Table 26	ANOVA	95
Table 27	Dependent Variable: Supply Officer's	97
Table 28	Summary Analysis	104

ABBREVIATION

ATMA	-	Akademi Tentera Malaysia
ATM	-	Angkatan Tentera Malaysia
DV	-	Dependent Variable
IV	-	Independent Variable
HR	-	Human Resources
HRM	-	Human Resources Management
MAF	-	Malaysian Armed Forces
MTA	-	Military Training Academy
NDUM	-	National Defence University Malaysia
PAT	-	Panglima Angkatan Tentera
SC	-	Supply Chain
SCM	-	Supply Chain Management
UTM	-	Universiti Teknologi Malaysia

CHAPTER 1

INTRODUCTION

1.0 Introduction

After being well known about the benefits to the crucial competitive by a supply chain that is managed effectively, it seems that people lack of realization that the supply chain are rested on the performances of human capital. In strategically, the human resource management is important elements need to be consideration by the management to configuration and modernized the system of adapts broader organizational strategy and human resource development. The global supply chain concept required a dynamic process which involved a various entity to success with effective communication, team management and continuity of lifecycle innovation to ensure organization achieved the competitive advantage. Therefore, the ability of organization to retain the human resources for a maximum period of time is required to maintain continuous of the supply chain implementation.

'Attraction and retention' alludes to the time span understudies keep on learning at a specific organization. The words are frequently utilized as measurements, estimating the level of understudies who are still in the investigation until they are has finished certain capabilities. Understudy maintenance is hard to decide and frequently gain diverse implications relying upon the setting of the term use. The perplexity of what the

term 'maintenance' signifies originates from the researchers who changed the term in various words undertone. 'Movements' are regularly utilized where 'maintenance' will be progressively suitable since the move alludes just to re-enlistment understudies in successive semesters.

This proposition reports discoveries of an intensive report to set up the variables that have prompted the achievement of keeping maintenance in providing appointed officers to Malaysian Armed Forces (MAF) and how such achievement components can be connected in top administration from both associations include in the maintenance procedure incorporate MAF and National Defence University of Malaysia (NDUM@UPNM) human asset and coordination the executives. These factor achievement including programming for cadet officers, peer associations and advancing wellbeing are contemplated and research is made to check whether they demonstrate in keeping maintenance on providing military officers to MAF dependent on NDUM institutional execution. They have come to mirror the general nature of understudy learning and scholarly contribution how very much incorporated understudies are in grounds life and how successfully a grounds convey what understudies expect and need. Seeing the present administration issues, the impact of these achievement factors on keeping maintenance in providing military officers to MAF is a disrupted issue.

The development of the Malaysian Armed Forces (MAF) officer's required the comprehensive approach from the early stage in order to carry the National security duties including international level. The national defence and security is most important

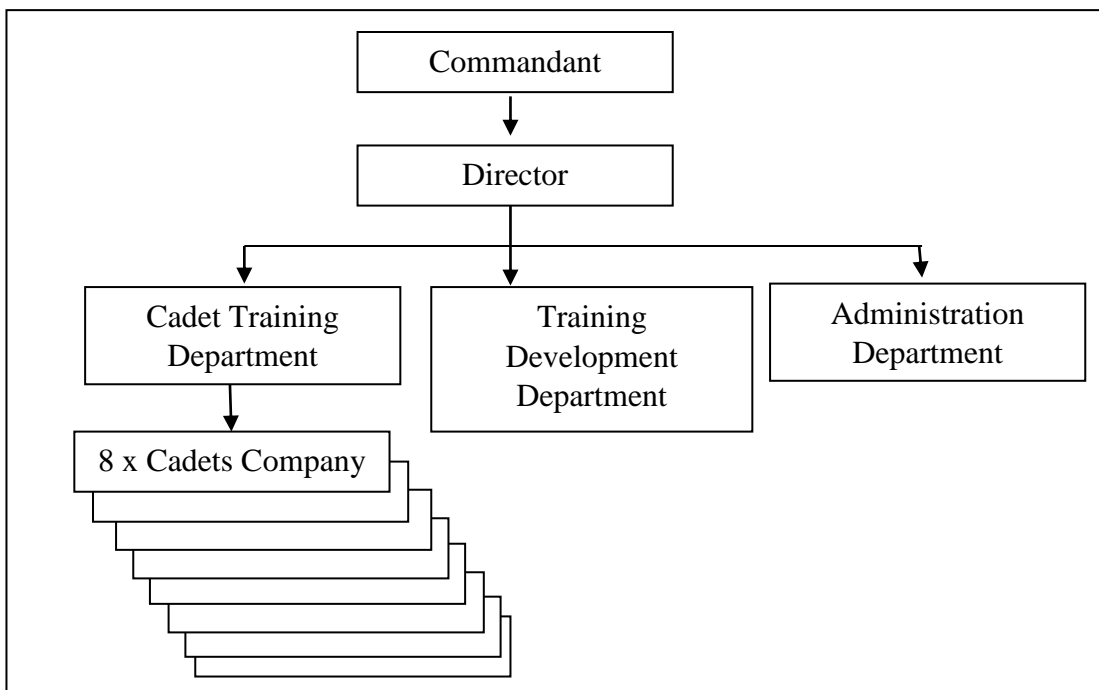
to understand by the MAF officer's to ensure the vision and mission are achieved according to the planning made by the Chief of Armed Forces in his First Speech (Perintah Ulung PAT). Besides, the international defence and security duties including under United Nations and ASEAN was to carry the Malaysian image into the entire world. Therefore, the quality of arm forces officer's is approximately required that need to develop from entering process until produce the Arm Forces officer's.

1.1 Organization Background

The Military Training Academy (MTA) was established since 1995 known as Akademi Tentera Malaysia (ATMA) with 197 Cadet Officers as a first batch was reported to training and studying in various academic courses including engineering, science and technology and management under supervision from University Teknologi Malaysia (UTM). The objectives of the ATMA establishment is to produce graduate military officers with first degree holders and parallel with previous Malaysia Prime Minister's intention, Tun Dr Mahathir, to develop the Malaysian military officer to be more academically wise. In October 2006, the ATMA was upgraded to defence university and supervised by the Ministry of Defence itself and Ministry of Higher Education with namely National Defence University of Malaysia (NDUM). The MTA was established to supervise on the Cadet Officer military training and commissioning as an MAF officer's. The Figure 1 shows the MTA Organization Chart.

The number of Cadet Officer was increased from 200 Cadet Officer to 500 Cadet Officer per intake to accommodate the MAF Officer's strength and achieved the forecasting made by the Army, Navy and Airforce human resources department in various field including infantry, seaman and pilot respectively. The current Cadet Officers strength shows as per Table 1.

Figure 1: MTA Organization Chart



Source: FED (M)/MKS ATM/1006/3/ (PINDAAN 1)2013

Table 1: Current Strength of Cadet Officer's

Company	Tuah	Jebat	Kasturi	Lekir	Nadim	Tun Perak	Tun Teja	Zulu	Total
Strength	124	120	128	111	121	106	103	220	1,157

Source: Parade State Cadet End of 31 December 2019

1.2 Problem Statement

The ultimate in producing the quality officer's, the MAF was established the several approach to ensure the quality officer's can be fulfil the critical appointment through graduate scheme in various field such as medical, religious and specific engineering; and cadets scheme from National Defence University (NDUM) including medical, engineering, science and technology, law and management field. The NDUM is a main resources of the MAF officer's product which fully scholarships given to the student's as a cadet officer including student fees, accommodation, meals, uniform, monthly salary and allowance and military training expenses running by the Military Training Academy (MTA). Besides, a lot of facilities at NDUM and MTA was given to the Cadet Officer to ensure the academic, attribute and attitude can be develop simultaneously and producing the quality military officer's to the MAF.

The complicated process must be follows by each candidate before entering the NDUM as a Cadet Officer including interviews session and foundation year that required the high academic qualification, pass medical test and physical fitness test to ensure the Cadet Officer are fit enough to perform in the military training and academic wise. However, the observation and yearly report shows the trend of the Cadet Officer quit from the MTA is obviously and become phenomenon that gives an impact on the MAF supply chain which is to plan the officer appointment at a critical Corps. Table 2 shows the trend of the Cadet Officer quit from the MTA.

Table 2: The Trend of the Cadet Officer Quit from The MTA

No	Reason	Academic	Discipline	Medical Board	Other	Remarks
1.	2014	158	24	6	50	
2.	2015	17	3	15	10	
3.	2016	27	7	13	8	
4.	2017	6	2	27	2	
5.	2018	15	4	19	3	
TOTAL		223	40	80	73	

Source: MTA Yearly Report 2019

1.3 Purpose Statement

The purpose of this study is to identify the factors influencing Cadet Officer attraction and retention during their training at MTA-NDUM in order to maintain the continuous supply Officer's to the MAF. The quality of Cadet Officer is required to achieve the satisfaction of the shareholder which is MAF in order to deploy the Cadet Officer as a military Officer's to the battlefield or area of operations with full performance.

1.4 Research Objectives

This main objective in this research is to study the factors that influence Cadet Officer's retention in MTA. However, the specific objectives are as follows:

- a. To investigate factors that will influence supply officer's in MTA-NDUM.

- b. To examine the most significant factors that contribute in supply officer's at MTA- NDUM.

1.5 Research Questions

Study also develops research questions in order to comply with the research objective as listed below:

- a. What are the factors that will influence supply officer's in MTA-NDUM?
- b. What are the most significant factors that contribute in supply officer's at MTA-NDUM?

1.6 Significant of the Study

The empirical study on these topics in training institution is matured, but the study at military training is infancy. Through this paper, military training programs provide a cadet officer with significant benefits by receiving a best training facilities as well as financial to ensure the cadet officer will graduate in time with the high score in academic and development their strong personal traits such as self-discipline, leadership and confidence. The program gives students the opportunity to become military personnel with intimate knowledge impart in order to increase their ability to do a working with a military ethos and achieve the readiness to deploy in the battlefield. The