CHAPTER 3

Research Methodology

3.1 Introduction

This chapter outlined the research methodology used for this study. It describes the analytical framework and model from which the study is adopted and the research instrument, the sampling procedure, data collection and analytical techniques used throughout this study. This study was conducted through a case study method that only involved certain segment of the Malaysian Army ie from the soldiers that is currently serving in combat units and doesn't involve soldiers who are currently serving in combat support and logistics units. The information's that was needed in this study primary aimed at the level of job satisfaction among the first year soldiers.

Sakaran (2003) states that research methodology as an organized, systematic, critical, scientific enquiry or investigation into a specific problem, undertaken with the objective of finding answers or solutions. Zikmund (2003) defines research as a systematic and objective process of gathering, recording and analyzing data for aid in making business decisions. One type of research ie basic or pure research is intended to expand the limit of knowledge or to verify the acceptability of a given theory. On the other hand, applied research is conducted when a decision must be made about specific real life problem.

Zikmund (2003) also describes the research objective as the purpose of the research and expressed in measurable terms. Thus, this study has the following objectives:

3.1.1 Analyses factors such as relationship with peers, superior subordinate relationship, organizational climate or environment and economy reward have an influence on job satisfaction on the first year soldier.

3.1.2 Examine any correlation between job satisfaction and job performance.

In order to achieve the two objectives, an exploratory study is applied. Hypothesis is a proposition that is empirically testable (Zikmund, 2003). It is empirical statement concerned with the relationship among variables. Additionally, it is an unproven proposition that tentatively explains certain facts or phenomena and normally in a declarative format.

On other hand, the exploratory study conducted when not much is known about the situation in hand or no information is available on how similar problems or research issues have been solved in the past (Sakaran, 2003). Thus, exploratory study serves the purpose to clarify ambiguous problems. This type of study is usually performed with the hope that subsequent research will be undertaken to provide more conclusive evidence.

The focus group method is chosen because there has been no prior research on similar problem before. Oppenheim (2000) mention that focus group is about developing ideas and understanding on how people think and feel about a certain topic. Thus, the purpose is not to collect data but rather to

collect ideas and improve the conceptualization of the research problem. The researchers are hopeful that the ideas collected could form a good basis for future proposition.

According to Cooper and Schindler (2003) exploration is particularly useful when the area of investigation is new or so vague that researchers need to do an exploration just to learn something about the issue in hand.

3.2   Research Location

Due to certain limitations, this study was conducted among the first year soldiers who served in units located in Port Dickson and Terendak Camp, Malacca. Units that involved are 17 Royal Malay Regiment Para and 2nd Royal Armored Regiment.

3.3   Dimension of Job Satisfaction

Based on the analytical framework and models from P.J.D. Deebtg, H.Thierry (1984) and Barnowe, Mangione and Quinn (1972), this study uses four job factors as the independent variable: superior-subordinate relationship, relationship with peers, economic rewards and organization climate/environment. The dependent variable is job satisfaction.

3.3.1 Superior-Subordinate Relationship.

This variable gauges the respondent's satisfaction with formal structures of the organization and the extent of their acceptance of the formal structure.

3.3.2 Relationship with Peers.

This variable measures respondent's satisfaction from interacting as a team and as a social unit and whether they enjoyed working with the people within the organization.

3.3.3 Economic Rewards.

This variable gauges the respondent's job satisfaction from the economic rewards gain from the job.

3.3.4 Organization Climate/Environment.

This variable measures the respondent's job satisfaction with working conditions, the facilities available and the current policies practices by the Army.

3.4 Types and Sources of Data

This section discusses the data collection techniques employed in this study. According to Berenson et al. (2004) identifying and collecting data is very critical to the success of the study. If biases, ambiguities or other types of error flaw the data being collected, even most sophisticated tool will not be able either primary or secondary. In this study, the researcher used both primary and secondary data for both objectives. However, due to the nature and purpose of this study, the most appropriate data source is primary data which can be collected through survey and questionnaire in order to show the direct relationship between independent variables and dependence variable.

3.4.1 Secondary Data

A source is secondary if one organization or individual has compiled the data to be used by another organization or individual (Brensen et al. 2004). Sekaran (2003) explains that a secondary data research normally aim at collecting descriptive information to support decision making. Amongst the sources for secondary data are encyclopedias, textbooks, magazine, newspaper articles, statistical bulletins, and reports of earlier researches (Cooper and Shindler, 2003).

In this particular study, the main sources of secondary data are from the various publications, annual report produce by Human Resource Department Army Headquarters, Army Provost Marshall and Army Inspectorate General Department. Those materials are in form of hardcopy. In addition, this researcher also explores the information gathered from online database provided in the University Malaya electronic library to search for relevant information's.

3.4.2 Primary Data

Zikmund (2003) explains that data is gathered and assembled specifically for the research project at hand. According to Cooper and Schindler (2003), primary data are sought for their proximity to the truth and control over error. Cooper and Schindler (2003) further explain that the primary sources are original works of research or raw data without interpretation or pronouncements that represent an official opinion or position. Included amongst the primary data sources are memos,

letters, complete interviews, surveys and census. This type of data is always the most authoritative because the information has not been filtered or interpreted by a second party.

In achieving the objectives, the researcher employs focus group method to collect primary data. Focus group can be defined as a two way communication initiated by the researcher to obtain information from a participant (Cooper and Schindler 2003). Generally the researcher controls the topic and pattern of discussion.

As the research involves variables and dimensions that are of a qualitative value, a descriptive design would be relevant to this research. Two methods have been used, qualitative and quantitative. In view of unknown examination and limited literatures to guide the present research in understanding the factors that may lead to job satisfaction among the first year soldier, a qualitative interviews by the focus group (15 soldiers) have been conducted as the aid for understanding the factors and helping in designing the questionnaires. According to Zikmund (2003), the focus group interview has become so popular that many research agencies consider to one of the exploratory tool. Focus group allows people to discuss their true feelings, anxieties and frustrations and to express the depth of their convictions in their own words.

Focus group has a long history with their use in social sciences going back to the 1920's (Morgan, 1997). In World War 2, they are widely used to assess the effects of propaganda and training materials

for troops and the factors affecting the productivity of work groups. After the war, largely due to neglect in favor of other methodologies, focus groups ceased to be used in the social sciences for 30 years. From 1970's, they're used mainly in the sphere of market research and only late 1980's did they come to be developed systematically as a qualitative research methodology in social sciences (Morgan, 1997). Now, they're widely used in anthropology, communication, education, marketing, political science, psychology, nursing and public health (Aldridge and Rowley, 1998; Bogue et al. 1999; Chung, 1997; Clarke and Proctor, 1999; Curran et al. 1998; Eraut, 1995; Farrell, 1999; Freeman, 1998; Gergen et al. 1999; Higgins, 1999; Holmes and Kwan, 1999; Jinks and Daniels, 1999; Lucas and Lloyd, 1999; Remmen, 1998; Robinsons, 1999; Strickland, 1999; Threlfall, 1999).

In the case of this research, there were a number of reasons for opting for a focus group. First, there was some limited literature on the past research. Second, focus group is relatively cheap, convenient and efficient way of reaching a large number of people already belong to a group as in the case of first year soldiers who are serving in the units. It is thus, relatively easy to generate substantial amounts of data on precisely the topic of interest. Third, focus group is appropriate where the interest of the researcher and participants are compatible which was true up to a point in this case. Furthermore, the recommendations made by the focus group were realistic and measured. Fourth, Morgan (1997) defines focus group as:

…..a research technique that collects data through group interaction on a topic determine by the researcher. In essence it is the researcher's interest that provides the focus, whereas the data themselves come from the group interaction. In this way Morgan (1997) draws attention to the distinction between the focus and the group, wherein interaction would appear to provide a good vehicle for exploring and elucidating the nature and cause of dissatisfaction.

….well suited for problems involving clarification of perspective….(and) obtaining a better understanding of the results of more quantitative analyses based on formal survey research. As in most qualitative interviewing, the purpose of focus group is to:

….Obtain depth and detail from individuals…to let people spark off one another, suggesting dimensions and nuances of the original problem that any one individual may not have thought of. Sometimes a totally different understanding of a problem emerges (Rubin and Rubin, 1995).

In this way, it hoped that the use of a focus group would serve to shed light on complex issues and behaviors. Moreover, the formal survey had concentrated narrowly on what Rubin and Rubin (1995) term as topical rather than cultural issues; it sought a narrative of particular events and processes. For example, is your current job providing you an opportunity to use your knowledge? The response to such question is often inconsistent and illogical leaving staff baffled as how best to address the issue and overcome it. The focus group

allowed for the exploration of cultural issues (Rubin and Rubin, 1995) that is soldier's norms, values, expectation, assumptions and their shared understanding of events and processes. Thus, it was possible to establish what was important to them and their shared impressions and interpretation of events. Finally, Morgan (1997) suggests that:

….the simplest test for determining whether focus group are appropriate for a research project is to ask how actively and easily the participants would discuss the topic of interest.

As explained by Cooper and Schindler (2003), the greatest advantage of this type of interview as compared to other methods, for instance telephone interview is the depth information and details that can be secured. Additionally, Gorden (1975) explains that interviewing is the most valuable when the researcher is interested in knowing people's belief, attitudes, values and knowledge or any subjective orientations or mental content. Furthermore, this method allows lengthy and complex question to be asked and is suitable when the number of respondents is small.

In the exploratory study to investigate the switching behaviors, face to face semi structured interview was adopted. According to Sekaran (2003), there are two types of interview i.e. structured and unstructured. Structured interviews are conducted when it is known at the outset what information is needed. Unstructured interview refer to when the interviewer does not enter the interview session with a planned sequence of questions to be asked of the respondents. The

structured interviews have the disadvantages of being fairly rigid and unlikely to reveal insights of the respondents answer or perception (Zakiah, 2002). On the other hand, unstructured interviews have the advantages of gaining more in depth information's (Fontana and Frey, 1998).

The semi structured interview falls between the structured and unstructured interviews (Zakiah, 2002). This approach is less formal than the structured interviews but can generate both qualitative and analyzable data. It still allows open ended questions whereby the interviewer probe into respondents reasoning and understanding. In view of time management and preparation in term of content and sequence of the interview, semi structured interview format was adopted.

Before the researcher begins the session, the respondents were briefed on the objectives of the study and the contributions that the respondents could provide for the future benefit of the Army. Two session was conducted which lasted one hour for each session. The session the focus group was given a brief on the overall objectives and then completed a de-briefing questionnaire seeking their views on perspectives. All points' inclusive positives and negatives were noted for making recommendations.

3.5   Result from Focus Group

The semi structured interview is aimed at exploring the possible causes, opinions, views and perceptions of the respondents on their level of

job satisfaction. This followed by the discussion on the contents in which the researcher extracted a series of themes from the various topics discussed. There are four themes that were gathered from this outcome which will later as a basis for developing questionnaire. Those themes are relationship between subordinate-superiors, relationship between peers, organizational climate or environment and economy rewards.

Themes	Summary of Topics
1. Relationship between Subordinate-Superior	The level of understanding in term of difficulties in carrying out duties.
	Equally distribution of works.
	Effective communication bottom-up.
	Good and fair decision making process.
	The acceptance of feedbacks or opinion.
	Any leadership qualities portray by them.
2. Relationship with peers	Effective communication about career.
	Unable to discuss about job satisfaction. No cooperation among each others.
	The level of closeness and friendship.
	The esprit de corps among them.
3. Economy rewards	Sufficient and good pay scheme.
	Insufficient of service benefits.
	The level of career promotions.
	Sufficient avenues for career development.
4.Organization Climate/Environment	The leadership style.

	Good facilities and infrastructure.
	The level of effectiveness in executing instructions and policies.
	Good working environment.

Table 3.1: Summary of themes for developing questions on job satisfaction

3.6 Data Collection Method

Methods of data collection are determined by types of data needed and pre-set research design (Burns and Bush, 2003) and can be classified based on various types of research design. Survey and observation were adopted for this study because these methods allow the researcher to validate facts, estimates, relationship and predictions as laid down by the research objectives (Hair, et al., 2004). A field survey was conducted to gather information from selected respondents through a self-administer questionnaire. This technique was implemented in this research because it enables the researcher to access the person who can answer general questions, identify potential respondents and can enhance the survey response rate (Hair, et. al, 2004). Secondary data was obtained through journals, theses, publications and Army Human Resource Branch. These data has been analyses and used to support the information gather from primary data. The main data collection was distributed to 170 respondents in those units from 28th May 2009 till 15th June 2009. A total number of 125 responded which generate 73.5% of response rate. According to Descombe (2003), a response rate of 20% to 30% is a common in survey method.

3.7 Questionnaire Design

From the focus groups result and previous literature guide, the researcher will then formulate and design questionnaire to answer the research hypothesis. The results indicated that those four factors are influencing the level of job satisfaction among the first year soldiers. The questionnaire developed consists of:

3.7.1 The research questions will focus on variables that will have a direct influence toward job satisfaction:

3.7.1.1 Is relationship with peers will have a positive influence on job satisfaction?

3.7.1.2 Is relationship between superior-subordinate will have a positive influence on job satisfaction?

3.7.1.3 Is organization climate/environment will influence on job satisfaction?

3.7.1.4 Is economy rewards will influence job satisfaction?

3.7.2 Following the research question above, there are four hypothesis need to verify the relationship among the variables as stated:

3.7.2.1 H1- The greater the relationship with peers will positively influence on job satisfaction on first year soldier.

3.7.2.2 H2- The greater the superior-subordinate relationship will positively influence on job satisfaction on first year soldier.

3.7.2.3 H3- The organization climate/environment will positively influence on job satisfaction on first year soldier.

3.7.2.4 H4- The economic reward will positively influence on job satisfaction on first year soldier.

3.7.3 Relationship with Peers. Items related to this variable were taken from Seashore and Taber (1975) research model. Six items (able to communicate**,** unable to discuss, non-cooperation, friendliness, likeable and different of opinion) was selected and measured on a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree.

3.7.4 Relationship with Superior-Subordinate. Items related to this variable were taken from Seashore and Taber (1975) research model. Six items (sensitive**,** able to provide justice, difficult to communicate, able to decide fairly and equally, doesn't seek views of others and portray leadership qualities) was selected and measured on a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree.

3.7.5 Economic Reward.Items related to this variable were taken from Seashore and Taber (1975) research model. Six items (salary, adequate reward, promotion, self development, non important of salary and attraction from external) was selected and measured on a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree.

3.7.6 Organization Climate/Environment. Items related to this variable were taken from Seashore and Taber (1975) research model. Six items (leadership style**,** conducive environment, different views of

organization mission, agreeable with current policies, effective administration and adequate and good facilities and infrastructure) was selected and measured on a five-point Likert scale ranging from 1 = strongly disagree to 5 = strongly agree.

3.7.7 The last part of this questionnaire involved a series of demographic questions. These items were measured by asking respondent to circle the required answer. It was purposely designed at the last due to the nature of private and describe as academic qualification and race.

3.8   Testing for Validity and Reliability

3.8.1 Face Validity

Pre tests involve two stages in which the first stage is face validity and the second stage is the content validity. According to Sakaran (2003), before using the questionnaires to gather data for decisions or recommendations, the researcher has to conduct pre-tests in order to face validity, whether the questions appear to measure the concept been investigated. Is the question are of particular interest and whether the respondents will find the wording of the items is clear and understandable. A small sample of respondents to be arranged to answer the questionnaire accordingly and the interview conducted is to determine for any confusion or clarification needed.

3.8.2 Content Validity

Content validity relates to the representative or adequate sampling of the questionnaire content or the theoretical constructs to

be measured (Burns, 1994). The researcher reports the origins or pedigree of each items often based on the literature review. A

further test on contents validity is through a group of experts (Sakaran, 2003). The respective of experts will then examine each item and make judgment on whether each item does measure the theoretical constructs nominated. Lt Kol Mohamad Khairi Yap bin Abdullah from Army Headquarters Human Resource as the expert had examined the questionnaire.

3.9 Respondents

The questionnaires were distributed to a number of first year soldiers and they are required to answer those questionnaires on the spot. A questionnaire should be guided with reasonable samples of respondents of various target population or amongst the close resemble of target population (Cavana, 2001).

3.10 Result

Before the actual survey for the research is executed, a pilot test of 20 sample size is conducted on selected first year soldiers. This test is to ensure the measurement scales and items in the questionnaire are properly design, structured and understood by the potential respondent. The Cronbach alpha values for the various questions are tested to ensure the reliability of the measurement instrument. From the pre-test, the questionnaire is understandable and accepted with minor alteration.

3.11   Actual Survey/Main Data Collection

A six pages questionnaire consisting of four sections and a total of fifty eight questions was developed as the research instrument for data collection. Section one and two focus on the factors that contributed to job satisfaction, section three focuses on the job behavior and section four focus on demographic information's. All questions are based on the five Likert scale which ranges from Strongly Disagree to Strongly Agree. As for section four, it consists of closed ended answer.

3.12   Sample

This research intent to measure the level of job satisfaction among the first year soldiers through focusing of the main factors contributing toward achieving job satisfaction. Therefore it is crucial that this research on those soldiers who just finished as a recruit and in the service for one year. A survey is chosen because it allows for the collection of data accurately and it is participatory where the respondents are able to interact directly. The respondents were grouped together and have to fill on the spot. The research design relates to questionnaire design, sampling design, data collection and data analysis procedures. The flow chart of the research process as per Figure 3.1.
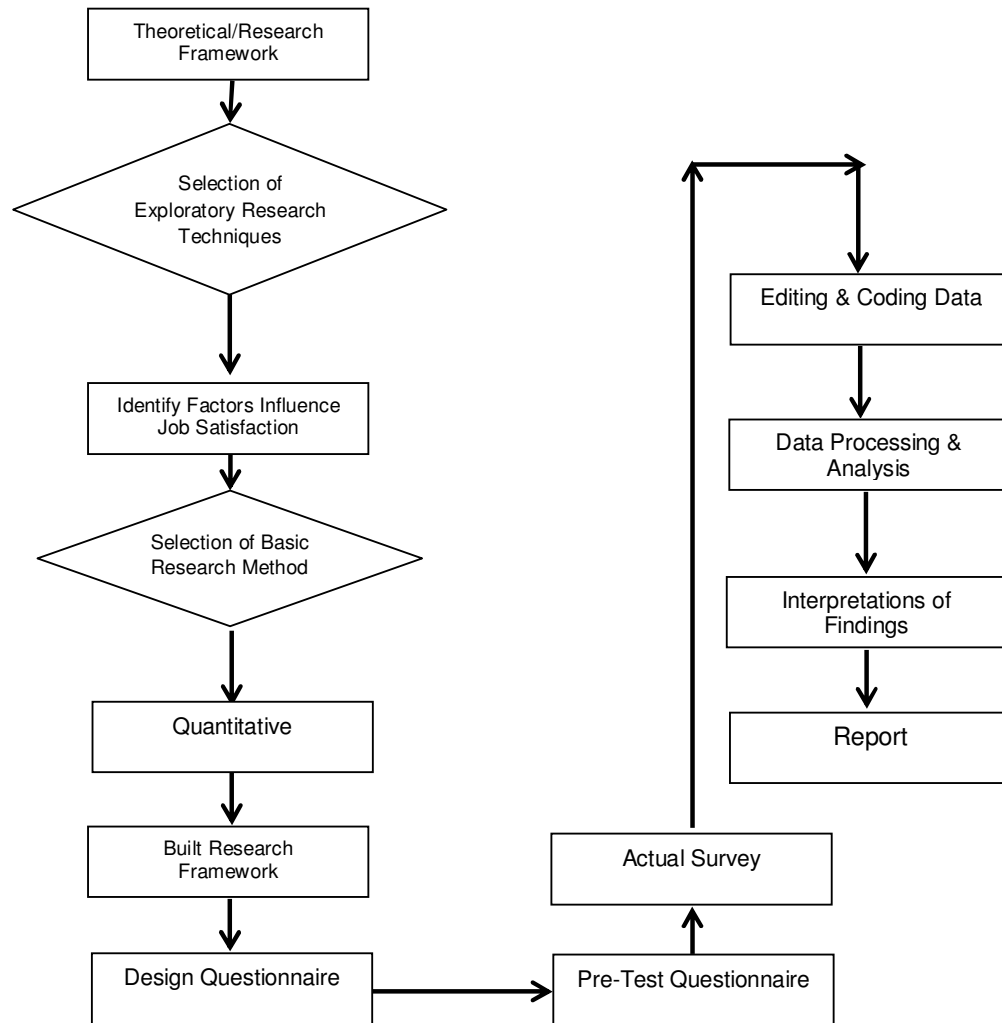
3.13   Data Analysis Techniques

The questionnaire was analyzed by conducting a pre-test and subsequently it was vetted through pre-analytical processes which included data editing, data coding, error checking and data keying. Statistical Package for Social Science (SPSS) was extensively used to analysis the data. The statistical test such as reliability test (Malhotra 2005) has been used to conduct pre-test in order to measure the reliability and content validity. The factor analysis executed with the intention to test the proposition and to

search for the strongest contributing factor of the variables. Finally, regression test was conducted to determine the relationship among the variables.

3.14 Data Screening

According to Pallant (2001), it is essential for researcher to conduct data screening in order to check the data set for errors. This is due to the fact that there are tendency for making mistake in entering data which could be costly in term of time and money.

3.15 Normality Test

The assumption of normality is pre-requisite for many inferential statistical techniques (Coakes and Steed, 2003). Normal is used to describe a symmetrical, bell-shaped curve, which has the greatest frequency of scores in the middle with smaller frequencies towards the extremes (Gravetter and Walnau, 2000). Pallant (2001) also explains that normality can be assessed to some extent by obtaining skewness and kurtosis values. In addition, a Kolmogrov-Smirnov statistic can also be employed to assess the normality of the distribution scores. The data was found reasonably normal, that the researcher conclude there was no serious violation of the normality. The descriptive statistics summarize the data collected indicating the mean, median, standard deviation and minimum value of demographic. Normality tests are important to determine the kind of test to be carried out for proposition testing. Data normality is determined by using measure of skewness and Kurtosis with univariate test and to confirm with normality graphs in multivariate tests.

3.16 Pearson Correlation Analysis

Pearson correlation analysis regards that two variables are measured on at least interval scales and it determines the extent to which values of both variables are proportional to each other. Correlation coefficient can range between -1.00 to +1.00. The value -1.00 shows that a perfect negative correlation while +1.00 represent a perfect correlation. A value of 0.00 shows a lack of correlation between variables.

3.17 Multiple Regressions

According to Field (2000), correlation can be very useful research tool but it does not mention anything about predictive power of variables. In regressions analysis, a predictive model will be fitted into the data collected and it will be used to predict values of the dependant variable from one or more independent variables. The objective of multiple regression analysis is to predict single dependent variable by a set of independent variable. Both independent and dependent variables shall be interval or ratio and under certain condition, a dummy variable to be used. In this study, a multiple regressions were also conducted after the Pearson correlation technique.

3.18 Conclusion

This chapter begins with a discussion on the philosophical aspects of research methodology. Detail description of data for examples types and source of data as well as definitions of variables used for the secondary study were provided in this chapter. In justifying the methodology framework adopted throughout this study, the research framework, hypothesis

development, sampling design, data collection procedures, research instrument, data analysis techniques and administration of collected data has been performed accordingly and systematically. This justified the methodological framework used by this study. Chapter four will provide a detailed analytical understanding and illustrate the result of all methodologies applied.