CHAPTER 3

RESEARCH METHODOLOGY

3.0   Chapter Overview

This chapter will discuss the research model, research design as well as the methodology adopted to conduct the research. Theoretical framework and the development of hypotheses of this study will also discussed, including the research instrument and measures, sampling design, data collection procedures and followed by data analysis techniques used in the study.

3.1   Theoretical Framework

Based on the theories, literature review and discussion in Chapters Two, a theoretical framework is proposed for this research. In general, a research framework has been proposed combining several theoretical concepts and job satisfaction scale which include the Herzberg's Motivator-Hygiene Theory (Herzberg, 1959), Adams' Equity Theory (Adam's, 1960), Vroom's Expectancy Theory (Vroom's, 1964), and Job Characteristics Model (Hackman and Oldham, 1975), Job Satisfaction Survey (JSS) (Spector, 1985), Job Descriptive Index (JDI) (Smith et al., 1969), Job Diagnostic Survey (JDS) (Hackman & Oldham, 1980), MOAQ-JSS (Cammann et al., 1979), Level of Job Satisfaction Survey (LJSS) (Dantzker's, 1993) and Dubai Job Satisfaction Survey (DJSS) (Abdulla, 2009).

In general, the research framework was adopted from Abdulla (2009). This framework suggested that demographic factors and environmental factors such as salary and incentives (SI), supervision (SUP), public perception (PP), promotion opportunity (PO), organizational policy and strategy (OPS), relationship with co-workers (RWC), professional development (PD), nature of work (NOW), communication (COM), job stress (JS), and performance appraisal (PA) are the factors that influence employee job satisfaction. At the same time, another one additional variables have been proposed in this study which is called implementation of COP/NKRA programs derived from the study by Ercikti (2008) and Ercikti et al. (2011).

The research framework, as shown in Figure 3.1 was proposed in this study include environmental factors, demographic factors and implementation COP/ NKRA programs as an independent variables, general job satisfaction as a mediating variable and job performance as a dependent variable.
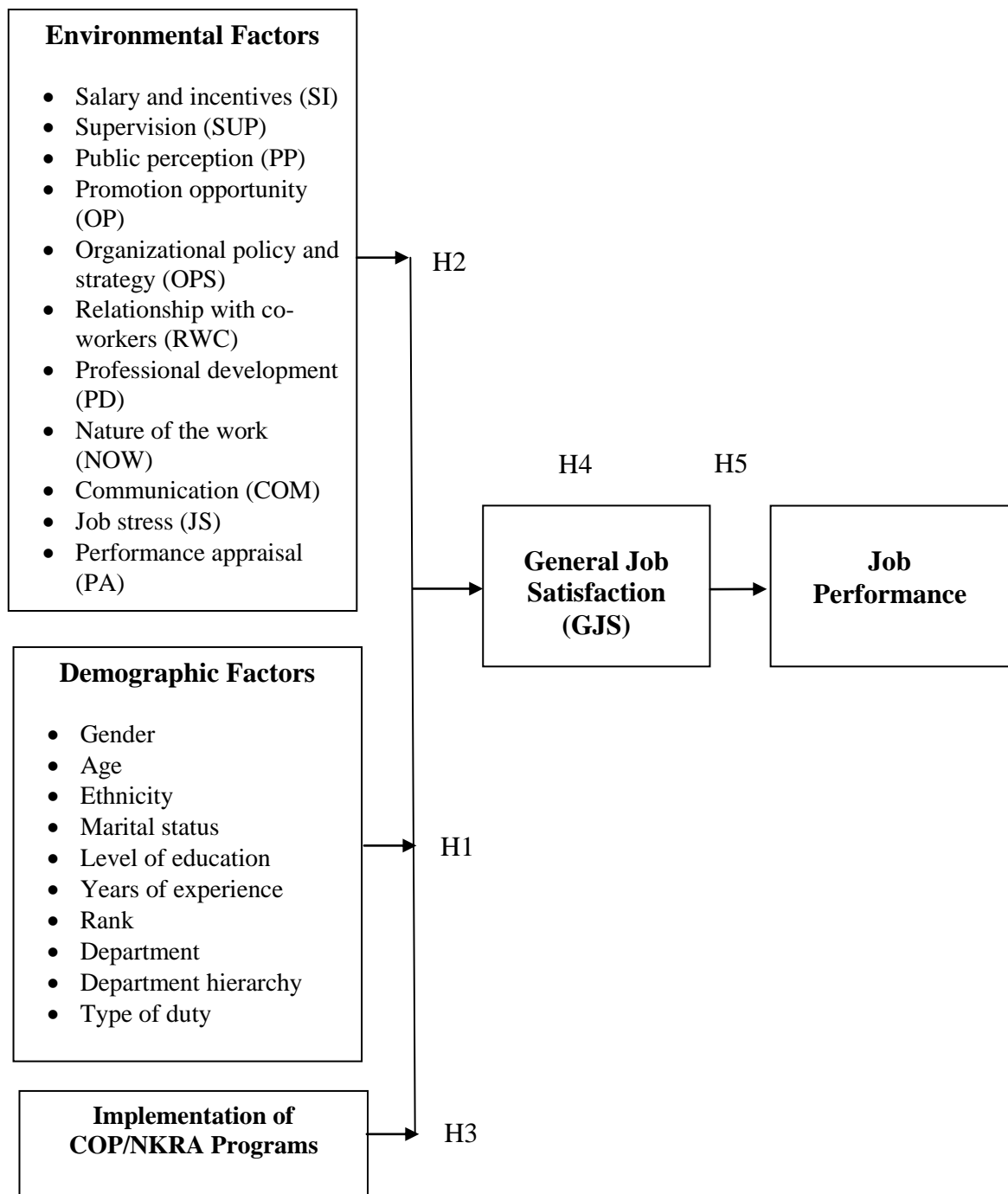
Environmental Factors

- Salary and incentives (SI)
- Supervision (SUP)
- Public perception (PP)
- Promotion opportunity (OP)
- Organizational policy and strategy (OPS)
- Relationship with co-workers (RWC)
- Professional development (PD)
- Nature of the work (NOW)
- Communication (COM)
- Job stress (JS)
- Performance appraisal (PA)

H2

Demographic Factors

- Gender
- Age
- Ethnicity
- Marital status
- Level of education
- Years of experience
- Rank
- Department
- Department hierarchy
- Type of duty

H1

Implementation of COP/NKRA Programs

H3

H4   H5

General Job Satisfaction (GJS)

Job Performance

Figure 3.1: Theoretical framework for understanding antecedents and outcomes of employee job satisfaction

3.2   Development of Hypotheses

Based on literature reviews and the above framework, 5 main hypotheses and 23 sub-hypotheses have been developed to examine the relationship between the variables. The followings are the 28 hypotheses:

H1:   There are significant differences/correlations between each of the demographic variables and general job satisfaction (GJS).

    H1a: There is a significant difference in the mean of general job satisfaction between male and female employees.

    H1b: There is a significant correlation between employees' age and general job satisfaction.

    H1c: There is a significant difference in the mean of general job satisfaction between Malay and Non-Malay.

    H1d: There is a significant difference in the means of general job satisfaction between single and married employees.

    H1e: There is a significant difference in the means of general job satisfaction and employees' level of education.

    H1f: There is a significant correlation between employees' years of experience and general job satisfaction.

    H1g: There is a significant difference in the means of general job satisfaction and employees' rank level.

    H1h: There is a significant difference in the means of general job satisfaction and employees work in different department.

    H1i: There is a significant difference in the means of general job satisfaction and employees' work in different organizational hierarchy levels.

    H1j: There is a significant difference in the means of general job satisfaction and employees' type of job duty.

H2:   There are significant relationship between each of the environmental variables and general job satisfaction (GJS).

    H2a: There is a significant relationship between salary and incentives, and general job satisfaction.

    H2b: There is a significant relationship between supervision and general job satisfaction.

    H2c: There is a significant relationship between Public perception and general job satisfaction.

    H2d: There is a significant relationship between promotion opportunity and general job satisfaction.

    H2e: There is a significant relationship between organizational policy and strategy, and general job satisfaction.

    H2f: There is a significant relationship between relationship with co-workers and general job satisfaction.

    H2g: There is a significant relationship between professional development and general job satisfaction.

    H2h: There is a significant relationship between nature of the work and general job satisfaction.

    H2i: There is a significant relationship between communication and general job satisfaction.

    H2j: There is a significant relationship between job stress and general job satisfaction.

    H2k: There is a significant relationship between performance appraisal and general job satisfaction.

H3:   There is a significant difference between level of job satisfaction and employee involvement with the NKRA Programs.

H4:   Environmental variables are stronger predictors of GJS than are demographic variables.

    H4a: The ten demographic predictors will significantly explain the variance in employee job satisfaction.

H4b: The eleven environmental predictors will significantly explain the variance in employee job satisfaction.

H5: There is a significant relationship between general job satisfaction and job performance.

3.3 Selection of Measures and Instruments

There are five major constructs in the questionnaire based on the literature review in the previous chapter. The five major constructs used were demographic characteristics, environmental factors, implementation of COP/NKRA programs, general job satisfaction and job performance as employee outcomes. The items in each of the measures were developed based on previous research include Abdulla et al. (2011), Ercikti et al. (2011), Boke and Nalla (2009), Walsh (2003), Goodman and Svyantek's (1999), and Podsakoff and Mackenzie (1994) with the existing job satisfaction scale and well-developed questionnaire such as Job Description Index (JDI) developed by Smith et al. (1969), Job Satisfaction Scale (JSS) by Spector (1985, 1994), MOAQ-JSS by Cammann et al. (1979), Level of Job Satisfaction Scale (LJSS) by Dantzker's (1993) and Dubai Job Satisfaction Scale (DJSS) by Abdulla (2009).

In this study, multi-item scales were developed to measure employee perception of environmental factors towards employee job satisfaction and job performance. Each sub-scale will consisted of three items or more based on the five-point Likert scale ranging from 1 (strongly disagree) to 5 (strongly agree). According to Isaac and Michael (1990), to have a meaningful factor, at least three items should load on each sub-scale factors.

Closed-ended questionnaire were used in this study to collect a data. The questionnaire was divided into four parts:

- Section A: Demographic information consists of 11 items.

- Section B: Environmental factors consist of 60 items.

- Section C: General job satisfaction consists of 8 items.

- Section D: Job performance consists of 15 items.

The questionnaire used in this study was translated directly from English to the Malay language as attached in Appendix A. The translated version was then checked by two language teachers to verify the clarity of the sentences and also to correct any spelling and grammatical mistakes.

3.3.1 Measuring the Environmental Factors (Independent Variable)

The environmental variables consisted of eleven dimensions: salary and incentives, supervision, public perception, promotion opportunity, organizational policy and strategy, relationship with co-workers, professional development, and nature of work, communication and performance appraisal were adopted from the Abdulla (2009) and Abdulla et al. (2011). The original instrument was developed by the researchers to assess the employee job satisfaction within the policing in the Dubai Police Force, UAE. Each sub-scale consisted of three items or more (range 3-10) and the total items are 60 items. Eight of the items were reverse coded (negative items) (i.e. item SI1, SUP2, PO2, OPS1, RWC4, JS1, JS2 and JS3) and the rest are positive items. The instrument used had proven to have good reliability by the author. The internal consistency of coefficient alpha values for DJSS scales ranges from 0.61 to 0.92 and

0.89 for the entire scale. Therefore, DJSS instruments have adequate internal consistency with sub-scales above the conventional standard of ≥ 0.60 (Field, 2005).

3.3.2 Measuring the Implementation of COP/NKRA Programs (Independent Variables)

Implementation of COP/NKRA programs was measure by using one question which were designed on a ordinal scale '1 = never', '2 = sometimes', '3 = frequently', and '4 = always'. This measurement was adopted and modified from Ercikti (2008). An example of this statement is "Does your job involves with the NKRA programs (e.g., Police Omnipresence, High Profile Policing, MPV Stop and Talk, Beat and Patrol in 'hotspots' areas)?"

3.3.3 Measuring the General Job Satisfaction (Mediating Variable)

General job satisfaction was measured by using eight questions comprised a combination of items adopted from Michigan Organizational Assessment Questionnaire Subscale (MOAQ-JSS) (Cammann et al., 1979), Ercikti et al., (2010), Boke & Nalla (2009), Nalla et al. (2011) and Abdulla et al., (2011). Examples of these statements include: "I am satisfied with being a police officer", "If I had the opportunity to go back to the day I decided to become a police officer, I would not choose to become a police officer again" and "Overall, I am satisfied with my job". Total score for all the items will be considered as general job satisfaction. High scores indicate high job satisfaction and low scores indicate low job satisfaction. A total score of the general job satisfaction (GJS) variable was derived by summing the points for each of the eight items. The internal consistency reliability (Cronbach's alpha) for this scale in this study is 0.77.

3.3.4   Measuring the Job Performance (Dependent Variable)

Job performance was used as a dependent variable. Job performance were measured by using two subscales, namely, in-role performance behavior and extra-role performance. The 15-items in-role performance and extra-role performance measure was adopted from Goodman and Svyantek's (1999) and Podsakoff and Mackenzie (1994) consists of 9-items in-role performance and 7-items extra-role performance measures. Employee will rates their performance based on their self-rating. "I perform well in the overall job by carrying out tasks as expected," is an example of an item measuring employees' in-role performance behavior. "I assist others with their duties," is one of the 6 items describing the extra-role performance of employees. For each of the items score will be obtained and sum total of the obtained score will be considered as job performance. The internal consistency reliability (Cronbach's alpha) for in-role performance and extra-role performance reported by Goodman and Svyantek (1999) are 0.90 and 0.88 respectively. The instruments developed by Goodman and Svyantek's (1999) have been widely used in various studies such Ng and Tay (2010). A summary of the list of items and sources used in this study as shown in Table 3.1.

3.4   Research Design

The purpose of this study is a descriptive study to describe factors that influence level of employee job satisfaction among police officers in RMP. This type of research is a correlational study to describing the relationship between the dependent variable with independent variables. A cross-sectional study is employed in this study where data were collecting from sample units made once or one-off. This type is most suitable

especially in investigating the predictive relationship between and among the study variables which is consistent with the purpose of this study.

This questionnaire study is to be conducted under the non-contrived setting (natural environment). The variables are neither controlled nor manipulated. Extent of researcher interference in this study is under minimum level only. The questionnaires were circulated to three department hierarchy level under Kuala Lumpur Police Contingent Headquarters: Contingent level (IPK), District level (IPD) and Police Station level.

Table 3.1: List of items and sources

Variable	Items	Scales	Sources
Demographic characteristics	10	Nominal / Ordinal / Ratio	Abdulla (2009)
Environmental factors (Independent variables)	60	Five-point Likert scale	Abdulla et al. (2011); Spector (1994); Dantzker's (1993); Walsh (2003)
Implementation of COP/NKRA Programs	1	Ordinal	Ercikti (2008)
General Job Satisfaction (GJS) (Mediating variable)	8	Five-point Likert scale	MOAQ-JSS (Cammann et al., 1979); Ercikti et al., (2011); Boke & Nalla (2009); Abdulla et al., (2011)
Job Performance (Dependent variable)	15	Five-point Likert scale	Goodman and Svyantek's (1999); Podsakoff and Mackenzie (1994)

3.5   Sampling Technique

The targeted population of this study was police officers who currently working under Kuala Lumpur Police Contingent administrations comprised three department hierarchy levels: Contingent level (IPK), District level (IPD) and Police Station level (Balai). Therefore, the unit of analysis is individual. According to the Unit Record, Department of Management, IPK Kuala Lumpur, the total number of police personnel under Kuala Lumpur Headquarter is 7,858 which divided into two categories: 622 from senior police officer and 7,236 from rank and files (N = 7,858) (Abdul Wahab, personal communication, July 31, 2011). The distribution of the population according to organizational hierarchy level is presented in Table 3.2.

Table 3.2: Statistics of police personnel strength in Kuala Lumpur Contingent Police for Year 2011

No.	Items	N	Population		Total
			Senior Police Officer (Insp. and above)	Rank and File (Sub-Inspector and below)	
1	Contingent level (IPK)	1	275	2,226	2,501
2	District level (IPD)	5	347	2,066	2,413
3	Police Station level	45	21	2,943	2,944
	Total		622	7,236	7,858

Source: Department of Management, Kuala Lumpur Contingent Police (31/07/2011)

In view of large population in RMP, the convenience sampling technique was used to approach the respondents. According to Fink (1995) convenience sampling, a non-probability sampling, was one of the most commonly used techniques and enabled to obtain quick and timely feedback from targeted respondents. Quota sampling and

probability stratified random sampling were also used to select research respondents for this study. The quota sampling and probability stratified random sampling used in this study were an attempt to represent all department and department hierarchy level involved in this study.

Because of time constraints, the researcher was choose IPK Kuala Lumpur represent for Contingent level, IPD Cheras represent for District level and 3 Police Stations (BP Brickfields, BP Petaling and BP TTDI) represent for station level. Sekaran (2009) states that as a rule of thumb sample sizes between 30 and 500 could be effective and appropriate for most research. The larger the sample, the smaller the sampling error because larger samples approach the size of the population thus are more representative of the population (Salkind, 2006). Based on the sample size decision guidelines given by Sekaran (2009), the sample size for population size (P) 7,800 is (S) 367. Taking into consideration of approximately of non-return rates and any other eventuality this study takes a sample size of 515 (6.55%) with 100 (19.4%) from senior police officer and 415 (80.6%) from rank and file.

3.6   Data Collection Procedures

Primary data was collected through self-administered survey questionnaires. Firstly, permission to conduct the study was obtained from the Head of Department of Management, Kuala Lumpur Police Contingent Headquarters. The questionnaire has a cover letter describing purposes of the study and assuring anonymity and confidentiality, were circulated to three department hierarchy level under Kuala

Lumpur Police Contingent Headquarters: Contingent level (IPK), District level (IPD) and Police Station level through officer in charge at each of the police department.

In each department or unit, an officer was appointed by the Commanding Officer to administer the questionnaire together with a formal memo. All the respondents were given an appropriate time to take the survey. Participation of respondents was based on volunteer basis. It was conducted in the natural environment and during their working hours. The questionnaires start distributed in January to March 2012. The completed questionnaire will be collected next three week after distributed.

Table 3.3: Distribution and Returned Rate of Questionnaires

No.	Department Hierarchy Level	Police Rank Category		Total	Returned Rate
		Senior Police Officer (Insp. and above)	Rank and File (Sub-Inspector and below)		
1	Contingent level (IPK)	70	140	210	187 (89.0%)
2	District level (IPD)	30	155	185	158 (85.4%)
3	Police Station level		120	120	107 (89.2%)
	Total	100	415	515	452 (87.8%)

Table 3.3 showed that a total of 515 questionnaires were distributed and only 452 questionnaires were returned. More specifically, 210 questionnaires were distributed to contingent level (IPK Kuala Lumpur), 185 questionnaires were distributed to district level (IPD Cheras) and 120 questionnaires were distributed to police station level (BP Brickfields, BP Petaling and BP TTDI). A total of 187, 158 and 107 questionnaires were returned from the contingent level, district level and police station level respectively.

3.7   Data Analysis Techniques

The data collected from the surveys were coded and entered into the Statistical Package for the Social Sciences (SPSS), version 18 for statistical calculation and analyses. The data collected was first checked for completeness and proper data entry prior to other analyses. The data were analyzed using both descriptive and correlations statistics. Descriptive statistics in terms of frequencies and percentages were generated from the demographic information on the variables for gender, age, ethnics, academic qualifications, years of experience etc.

Before any inferential statistical analysis could be carried out, firstly, the normality of the survey data was assessed. For this purpose, data skewness and kurtosis were used to examine data normality. According to Hair et al., (1998), the acceptable range for skewness statistics is between ±2.00, whereas for kurtosis statistics is between ±3.00, then the normality is assumed.

Secondly, an exploratory factor analysis using principle component analysis (PCA) with varimax rotation was conducted to explore the factor structure of each scale and confirmatory analyses were used to gauge the psychometric integrity of the measuring scales. Factor analysis basically is a data reduction technique where it used to reduce a large number of variables to a smaller set of underlying factors (Coakes et al., 2010). An exploratory factor analysis summarizes the structure of a set of variables. Factors loadings with eigenvalues of more than 1.0 were retained (Hair et al., 1998) and factors loadings of 0.4 was used as the acceptance level (Field, 2005). Therefore, items loaded below 0.4 were removed from this study.

Then, Cronbach's alpha was used to measure the reliability of each construct in the study. According to Nunnaly (1978), 'Corrected Item-Total Correction' was used to measure convergent validity of each item within a construct. In general, reliability coefficient less than 0.60 are considered poor, those in the range of 0.70 are acceptable and those above 0.80 are considered as good (Cronbach's Alpha; Cronbach, 1946). For this study, researcher set that a minimum requirement Cronbach's alpha is 0.60 were acceptable (Nunally's, 1978). Therefore, if each of the constructs loads with Cronbach's alpha below than 0.6, the constructs/factors will eliminated for further study.

The most important part in a quantitative research format is to provide answers to the research questions and testing the hypotheses. In this study, several statistical analyses such as t-test, analysis of variance, bivariate correlation analysis, multiple regression analyses were used to analyze the direct and indirect relationship of all the variables in the study.

T-test analysis is used to determine whether there is a significant difference between two sets of scores. There are three main types of t-test may be applied such one-sample, independent-samples and repeated-measures. For this study, the independent-samples t-test was appropriate technique when to compare the mean scores of two different groups of respondents. Analysis of variance (ANOVA) was used to compare the means of more than two groups or levels of independent variables (Coakes et al., 2010).

The Pearson product-moment coefficient of correlations was used to report the nature, direction and significant of the relationship between variables (Coakes et al., 2010). Each item was computed to test for the inter-item and item-to-total correlations. The

correlation coefficient has a range of possible values from -1 to +1 where the value specified the perfect positive or negative relationship. Strength of the relationship between variables in the study can be measured follow rules of thumb developed by Saskin (2004). According to Saskin (2004), the correlation coefficient r that is equal or more than 0.70 showed a strong relationship between variables, if r coefficient is between the ranges of 0.30 to 0.69, the relationship is moderate and if r coefficient is less than 0.30, the relationship is considered weak. The sign (+ or -) indicates the directions of the relationship. In this study, the level of significance was set at 5%. All items should have a significant correlation coefficient at the 0.05 level of significant.

Multiple regression analysis was used to test the relationship between one dependent variable and a couple of independent variables (Pallant, 2007). Multiple regressions were based on correlation but it will describe more sophisticated examination of the relationship among a set of variables. The purpose of this analysis is to explore the factors that influence the employees' perception toward job satisfaction in policing organization. Multiple regression analysis also identified each of the independent variables that significant or insignificant to dependent variables. Besides indicating the relationship and significant or insignificant between independent variables and dependent variables, it also shows the result of the predictive power of the determinants.