

CHAPTER 4 - RESEARCH RESULTS

4.0 Chapter Overview

This chapter presents the results of the research and comprises few sections such as and data analysis technique, analysis of measures, testing of hypotheses, descriptive analysis about research data and research results summary. Descriptive statistics outlines the demographic of respondent include gender, age group, position and level of education. Research results including hypotheses testing results using correlation and regression analysis also presented in this chapter.

4.1 Data Analysis Techniques

A total of 320 distributed questionnaires yielded 280 returns for a response rate of 88% percent. The self and peer-report versions of the survey were similarly numbered for pairing of received responses. After removing incomplete questionnaires and ones with missing peer-reports, 260 complete useable pairs of responses (81% effective response rate) were available for analysis. The data collected was analyzed using Statistical Package for Social Sciences (SPSS) version 16.00. The score for negatively phrases items were reverse-coded before analysis.

Frequency analysis was performed to detect any missing values and to develop the profile of respondents' demographic. Descriptive analysis was conducted to identify the mean, standard deviation for each variable. The mean obtained was able to illustrate the central tendency for every measures variable and standard deviation indicates the

dispersion of data. In measuring the relationship among variables, correlation analysis was performed. According to Correlation Matrix, the coefficient correlation can be positive or negative values, which indicates positive or negative linear relationship between two variables.

Subsequently, multiple regression analysis was executed to investigate the hypothesis of H1-H6. Through regression analysis, the influence of Independent Variables (Affective Commitment, Job Self-Efficacy, Job Characteristics and Work Engagement) on Dependent Variable (job performance) was analyzed. In addition, the mediating role of OCB was also determined using the Baron and Kenny's method.

4.2 Factor Analysis

All research constructs were adapted from past researchers that have proven high in reliability and validity, and been tested thoroughly and was tested in Malaysian context, thus factor analysis was not performed for these construct. The construct validity used original scales and remained in its original form (Malek, 2008; Johari et al., 2010; Johari, 2010; Johari et al., 2012; Panatik, 2010; Hassan and Ahmad, 2011; Othman and Mohd. Nasurdin, 2011; Suan and Mohd. Nasurdin, 2011).

4.3 Test of Normality

Preliminary data analysis was performed to obtain the descriptive statistics on demographic profile of respondent and each variable. According to Coakes, the distribution of the data is exactly normal if the values for skewness and kurtosis are zero

(Coakes et al., 2010). However, according to Hair et al., 1998 if values for skewness range between -2 to 2 and for kurtosis ranges between -3 to 3, then the normality is assumed.

Based on the descriptive analysis results, the distributions of variables (affective commitment, self-efficacy, job characteristics, OCB and job performance) are in normal distribution. However, value of kurtosis for work engagement is beyond recommended level. Summary of skewness and kurtosis is shown in Table 4.1. Therefore, assumption were made that the underlying distribution of scores in the sample drawn from population and all variables except work engagement in this study did not have any departure from normality.

Table 4.1: Distribution of Variable Data

Descriptive Statistics

	N	Mean	Skewness		Kurtosis	
	Statistic	Statistic	Statistic	Std. Error	Statistic	Std. Error
Affective Commitment	260	6.0645	-1.387	.151	2.737	.301
Self-Efficacy	260	5.8487	-1.167	.151	1.557	.301
Job Characteristics	260	5.3007	-.349	.151	-.241	.301
Work Engagement	260	5.9215	.010	.151	4.248	.301
OCB	260	5.8041	-.490	.151	1.248	.301
Job Performance	260	6.0725	-.221	.151	-.234	.301
Valid N (listwise)	260					

4.4 Results of Reliability Test

In measuring the internal consistency of all variables, test of reliability was conducted for each scale. According to De Vellis (2003), the Cronbach alpha coefficient of the scale should be above 0.70, which also in line with Pallant (2005) guidelines that stated a minimum reliability (Cronbach's Alpha) of 0.70 would be an acceptable level. In this study, the Cronbach Alpha coefficient all variable, namely affective commitment, self efficacy, job characteristics, work engagement, OCB and job performance are all beyond the recommended level of 0.7. All the Cronbach Alpha coefficients are summarized in Table 4.2. Therefore the results in all of the variables suggest a fair level of internal consistency in the responses and acceptable level of consistency for further analysis.

Table 4.2: Reliability coefficients for major variables

Variable	Number of Items	Cronbach Alpha
Affective Commitment	12	0.898
Job Self-Efficacy	10	0.825
Job Characteristics	11	0.925
Work Engagement	17	0.795
Organizational Citizenship Behavior	14	0.809
Job Performance	7	0.757

4.5 Analysis and Findings

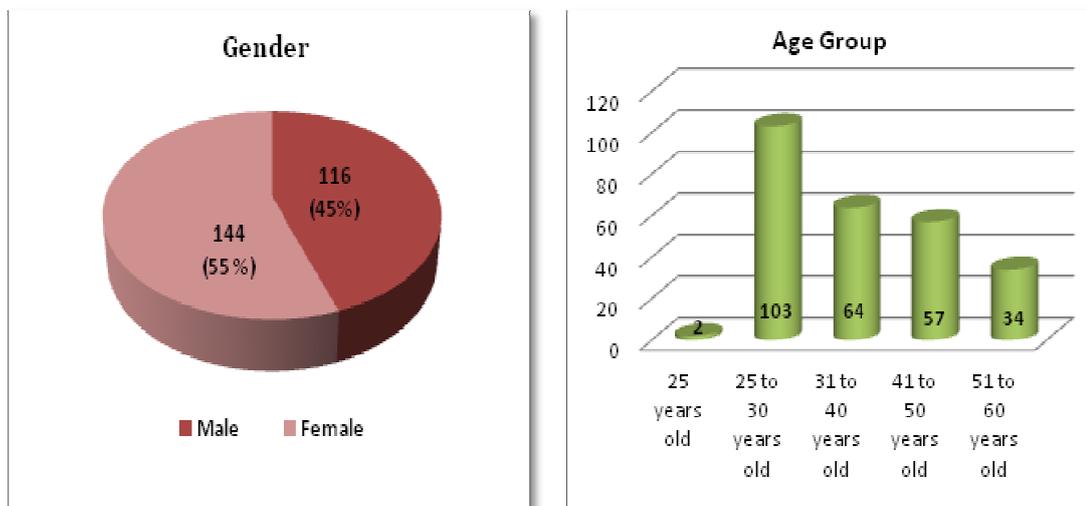
4.5.1 Descriptive Statistics

Descriptive statistics was used to analyze demographic factors such as gender, age group, level of education and job position among respondents.

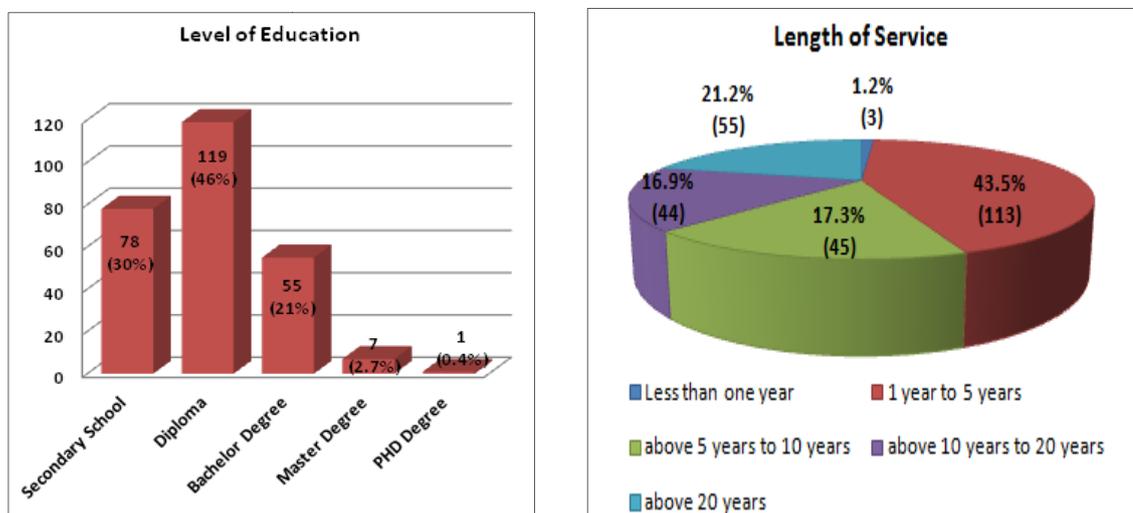
4.5.1.1 Profile of Respondents

(i) Gender and Age Group

Results showed that there are slightly more female respondents compared to male respondents. This reflects the general population with the government sector in which there are more women than men in the workforce. Among this, most of the respondents are fall in the age group of 25 to 30 years old; others are ranging between 31 to 60 years old and only few are less than 25 years old.

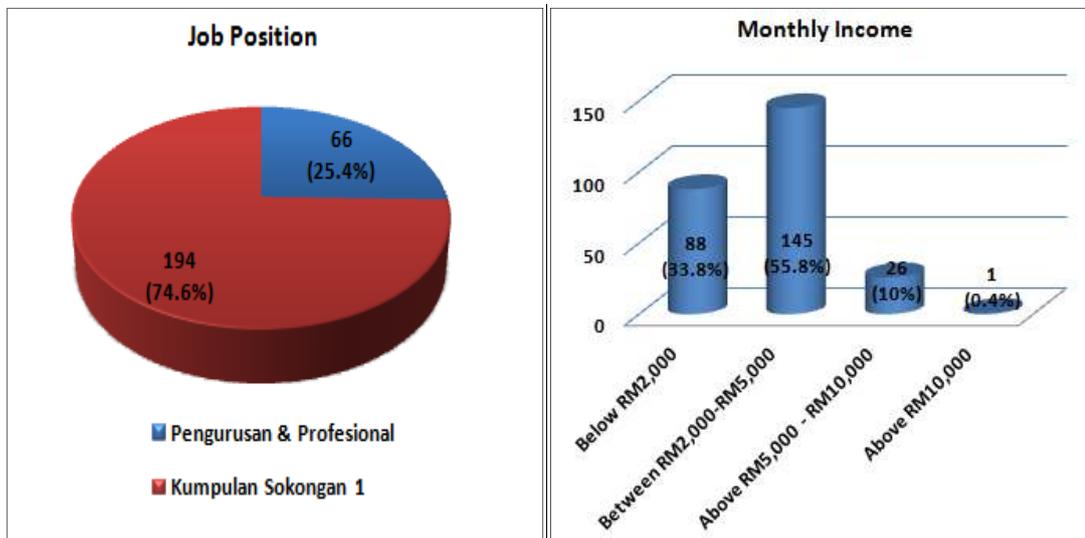


(ii) Education Level and Length of Service



In context of educational level, 46% of respondents held diploma holder, 30% held secondary school certificate, followed by 21% respondent held a bachelor degree. Others held master degree and PHD Degree. In terms of tenure, majority of respondents(43%) had worked at MCC for 1 year to 5 years, followed by 21.2% had served more than 20 years. Others had worked on average above 5 years to 20 years.

(iii) Job Position and Monthly Income



In context of job position, 25.6% of respondents are from Kumpulan Pengurusan dan Professional whereas 74.6% are from Kumpulan Sokongan 1. Out of 260 employees, majority (55.8%) of participant’s monthly income are ranging between RM2,000 to RM5,000 and 34% earned below RM2,000, the rest earned above RM5,000 to above RM10,000.

4.5.2 Correlation Analysis

Pearson correlation analysis was conducted to determine the strength of relationship between independent variables and dependent variable. In this study, independent

variables (X) are affective commitment, self-efficacy, job characteristics and work engagement while the dependent variable (Y) is job performance.

The correlation of 0 indicates no relationship at all, a correlation of 1.0 indicates a perfect positive correlation, and a correlation of -1.0 indicates a perfect negative correlation. In interpreting the value between 0 and 1, different authors suggest different interpretation of coefficient correlation, however according to Cohen (1988, pp.79-81), interpretations of the correlation coefficient are as follows:

r = 0.10 to 0.29	: Small correlation
r = 0.30 to 0.49	: Medium correlation
r = 0.50 to 1.00	: Large/strong correlation

Correlation analysis was conducted to test is there a relationship and its strength among variables. The results for correlation for all variables are depicted in Table 4.3.

Table 4.3: Intercorrelations of Major Variables

	AC	SE	JC	WE	OCB
Affective Commitment (AC)	1				
Job Self-Efficacy (SE)	.617**	1			
Job Characteristics (JC)	.205**	.377**	1		
Work Engagement (WE)	.602**	.535**	.403**	1	
OCB	.120	.094	.264**	.174**	1
Job Performance (JP)	.135*	.168**	.318**	.193**	.625**

As expected on theoretical grounds, all five tested variables (affective commitment, job self-efficacy, job characteristics, work engagement and OCB) correlates positively with job performance. Among five variables, OCB has significant strong relationship with job

performance with correlation coefficient of 0.625. Among all independent variables, self-efficacy has significant strong relationship with affective commitment with correlation coefficient of 0.617. Work engagement also was found to strongly correlates with affective commitment and self-efficacy with correlation coefficient of 0.602 and 0.535 respectively.

4.5.3 Regression Analysis

A multiple regression analysis was performed to determine the strength and significant of the association between independent variable (affective commitment, job self-efficacy, job characteristics, work engagement) and dependent variable (Job Performance). The result of regression is an equation that represents the best prediction of a dependent variable from several independent variables. It is a useful technique that can be used to analyze the relationship between a single dependent variable and several independent variables (predictor or explanatory) at one time.

The summary of the regression results is depicted in table 4.4 below:

Table 4.4: Results of Regression Analysis

Independent Variable	Job Performance
(Constant)	4.540
Affective Commitment	0.019
Self-Efficacy	0.004
Job Characteristics	0.260*
Work Engagement	0.116
F Value	8.373
R Square	0.116
Adjusted R Square	0.102

*p<0.05

According to regression results, the R^2 value is 0.116 which indicates 11.6% changes in level of employees job performance is explained by four independent variables, namely as affective commitment, job self-efficacy, job characteristics and work engagement. In other words, the remaining 88.4% of job performances among employees in MCC is influence by other unexplained factors. At value of $F = 8.373$, $p\text{-value} = 0.000 < 0.05$, we can conclude that all four independent variables, i.e. affective commitment, job self-efficacy, job characteristics and work engagement have a significant effect on employees job performance. Thus this model is significant and useful to measure the significance of the association between independent variable and dependent variable of the study.

The analysis also shows that out of four predictors, only one predictors was associated to predict level of job performance which is job characteristics ($\beta = 0.168$, $t = 3.894$, $p\text{-value} = 0.000 < 0.05$). However, the relationship between the other three predictors namely as affective commitment, job self-efficacy, work engagement and job performance were not statistically significant predictor of job performance since their $p\text{-value} > 0.05$.

Since the standard coefficients (Beta) are 4.540, the regression equation model is:

$$Y = 4.540 + 0.260X$$

($Y = \text{Job Performance}$, $X = \text{Job Characteristics}$)

Based on the above regression equation, we can predict that if the level of job characteristics increase by one unit, level of job performance will increase by 0.260 units. Thus, we conclude that, among these four independent variables, the most important factors that influence level of job performance is job characteristics.

Therefore, based on regression analysis results, hypotheses testing results for H1 to H6 are shown in Table 4.5 as follows:

Table 4.5: Summary of Hypotheses Testing Results

	Hypotheses	Result
H1	There is a positive relationship between affective commitment and employees' job performance.	Not Supported
H2	There is a positive relationship between job self-efficacy and employees' job performance.	Not Supported
H3	There is a positive relationship between job characteristics and employees' job performance.	Supported
H4	There is a positive relationship between work engagement and employees' job performance.	Not Supported
H5	There is a positive relationship between Organizational Citizenship Behavior and employees' job performance.	Supported

4.5.4 Regression Analysis for Mediator Effects

A series of regression models have been used to test on the mediating role of OCB . According to prescription given by Baron and Kenny (1986), a variable functions as a mediator when it meets the following conditions:

- (i) Variations in level of independent variable (affective commitment, job self-efficacy, job characteristics and work engagement) significantly account for variation in dependent variable (job performance)
- (ii) Variations in levels of independent variable(affective commitment, job self-efficacy, job characteristics and work engagement) significantly account for variations in mediator (OCB)

- (iii) variations in independent variable (affective commitment, job self-efficacy, job characteristics and work engagement) and mediator(OCB) significantly account for variations in dependent variable(Job Performance)
- (iv) If these conditions all hold in the predicted directions, the effect of the independent variable (affective commitment, job self-efficacy, job characteristics and work engagement) on dependent variable (Job Performance) must be less in the third equation that in the second.

Based on three steps of regression analysis results, hypotheses for H6 are shown in Table 4.6 as follows:

Table 4.6: Summary of Hypotheses For Mediating Variable

Hypotheses	
H6	Organizational Citizenship Behavior mediates the relationship between independent variable (affective commitment, job self-efficacy, job characteristics and work engagement) and dependent variable (job performance).
H6a	Organizational Citizenship Behavior mediates the relationship between affective commitment and job performance.
H6b	Organizational Citizenship Behavior mediates the relationship between job self-efficacy and job performance.
H6c	Organizational Citizenship Behavior mediates the relationship between job self-efficacy and job performance.
H6d	Organizational Citizenship Behavior mediates the relationship between job work engagement and job performance.

Only H6c received support from the results of this study. Hence OCB only mediated the effect of job characteristics on job performance. All other mediator analysis were not supported.

Results for mediator analysis are shown in Table 4.7 below:

Table 4.7: Results of regression analysis for mediating role of OCB

	Dependent Variable-Job Performance								
	Step 1			Step 2			Step 3		
	Beta	t	Sig.	Beta	t	Sig.	Beta	t	Sig.
Affective Commitment	.019	.226	.822	.110	1.293	.197	-.045	-.658	.511
Job Self-Efficacy	.004	.054	.957	-.102	-1.277	.203	.063	.989	.324
Job Characteristics	.260	3.894	.000	.231	3.404	.001	.126	2.284	.023
Work Engagement	.116	1.452	.148	.082	1.005	.316	.069	1.060	.290
OCB	-	-	-	-	-	-	.579	11.583	.000
F value	8.373	-	-	6.144	-	-	37.029	-	-
R	.341 ^a	-	-	.296 ^a	-	-	.649 ^a	-	-
R Square	.116	-	-	.088	-	-	.422	-	-

p<0.05

It was hypothesized that Organizational Citizenship Behavior mediates the relationship between independent variable (affective commitment, job self-efficacy, job characteristics and work engagement) and dependent variable (job performance). Table 11 reveals the results of three steps regression analysis for mediating role of OCB. Among four variables, three variables (affective commitment, job self-efficacy and work engagement) have no significant effect on job performance ($p > 0.05$), thus hypothesis 6a, 6b and 6d was not supported and are excluded from the model. Therefore, only job characteristics have significant effect on job performance. The significant relationship between job characteristics and employees job performance decreased from $\beta = .260$ (at $p < 0.05$) in step 1 to $\beta = .1260$ (at $p < 0.01$) at step 3 when OCB was added to the model.

OCB therefore partially mediated the relationship between job characteristics and job performance of employees. Thus, H6c was supported.

4.6 Summary of Research Results

This study attempted to examine the relationship between work attitudinal behaviour namely as affective commitment, job self-efficacy, job characteristics, work engagement and OCB on job performance among government servants in Malaysia, primarily in MCC. In addition, the study also intended to test if OCB mediates the relationship between the abovementioned independent variable and job performance.

Pearson correlation analysis results (see Table 4.3) revealed that there exist small to medium positive correlations between the four independent variables (affective commitment, job self-efficacy, job characteristics and work engagement) on job performance among employees of MCC. As expected on theoretical grounds, these variables were fairly related. However, in order to test the study's hypotheses, regression analysis was employed. As presented in Table 4.5 earlier, regression analysis indicated that only two variables (job characteristics and OCB) significantly influenced job performance. Summary of all hypothesis results are shown in Table 4.8 :

Table 4.8: Summary of all hypotheses results

	Hypotheses	Result
H1	There is a positive relationship between affective commitment and employees' job performance.	Not Supported
H2	There is a positive relationship between job self-efficacy and employees' job performance.	Not Supported

H3	There is a positive relationship between job characteristics and employees' job performance.	Supported
H4	There is a positive relationship between work engagement and employees' job performance.	Not Supported
H5	There is a positive relationship between Organizational Citizenship Behavior and employees' job performance.	Supported
H6	Organizational Citizenship Behavior mediates the relationship between independent variable (affective commitment, job self-efficacy, job characteristics and work engagement) and dependent variable (job performance).	
H6a	Organizational Citizenship Behavior mediates the relationship between affective commitment and job performance.	Not Supported
H6b	Organizational Citizenship Behavior mediates the relationship between job self-efficacy and job performance.	Not Supported
H6c	Organizational Citizenship Behavior mediates the relationship between job self-efficacy and job performance.	Supported
H6d	Organizational Citizenship Behavior mediates the relationship between job work engagement and job performance.	Not Supported

According to regression results, Hypotheses 1, 2, 4 and 6(a), (b) and (d) are not supported by regression analysis. Results revealed that in context of this study, only hypothesis 3, 5 and 6c are supported. In general, results showed among four factors (affective commitment, job self-efficacy, job characteristics and work engagement) only Job Characteristics have significant effect on employees' job performance. OCB was found to partially mediate the relationship between job characteristics and job performance.

4.7 Summary

This chapter explained the results of the research and comprises few sections such as test of normality, reliability analysis, analysis of measures, testing of hypotheses, descriptive analysis about research data and research results summary. Research results including hypotheses testing results using correlation and regression analysis as well as mediating effects of OCB also presented in this chapter.