CHAPTER 4

DATA ANALYSIS RESULTS

4.1 Introduction

This chapter analyzes the demographics of the respondents, covering gender, age, education, and length employment. The chapter then explains the EFA results for each variable. Following this, it assesses the reliability of each variable based on Cronbach's alpha. The descriptive analysis results are also presented. Finally, the chapter presents the hypotheses testing results.

4.2 Data Screening

As mentioned in Chapter 3, the questionnaires were delivered personally to the selected respondents, i.e., employees of four Pesantren Darunnajah branches in Indonesia. The questionnaires were distributed from early November 2021 to December 2021 to 600 respondents (see Table 4.1). The completed questionnaires were collected after two weeks. A total of 556 (93%) questionnaires were returned. There were 229 respondents from the Jakarta branch, 195 respondents from the West Java branch, 99 respondents from the Banten branch, and 31 respondents from the outside Java branch.

Table 4.1: Number of Returned Questionnaires by Branch

No.	Darunnajah Branch	Number of Respondents
1.	Jakarta	229
2.	West Java	195
3.	Banten	99
4.	Outside Java	31
	Total Respondents	556

4.3 Demographic Profile

Table 4.2 summarizes the demographic profile of the 556 respondents. Around 50 percent (n = 283) of the employees were male and 49.10 percent (n = 273) were female. In terms of age, most of the respondents were young, as they were largely from the under 20 years old (24.63%) and 21–30 years old (37.05%) age groups. The subsequent age groups gradually became smaller, with only 1.26 percent (n = 7) of the sample in the ≥ 61 years old age group. In terms of education, the respondents were largely split between secondary education (44.06%) and bachelor's (47.3%). Forty-one respondents had a master's degree, while only seven have a doctorate. In terms of employment length, almost half of the respondents (49.82%) have worked for less than five years at Darunnajah, while only one respondent have worked for more than 41 years at the *Pesantren*. The second largest category was 6–10 years (16.55%), followed by 11–15 years (11.69%).

Table 4.2: Demographic Profile

Characteristic	Frequency (n)	%
Gender		
Male	283	50.90
Female	273	49.10
Age (years old)		
< 20	137	24.64
21-30	206	37.05
31-40	90	16.29
41-50	72	12.95
51-60	44	7.91
61 and above	7	1.26
Education		
Senior High School	245	44.06
Bachelor's Degree	263	47.30
Master	41	7.37
PhD	7	1.26
Length of Employment		
5 ≤ years	276	49.82
6-10 years	92	16.55
11-15 years	65	11.69
16-20 years	42	7.37
21-25 years	31	5.58
26-30 years	21	3.78
31-35 years	21	3.78
36-40 years	7	1.26
41≥ years	1	0.18

4.4 Analysis of Assumptions

Prior to testing the hypotheses, several statistical assumptions were tested. The assumptions included multicollinearity, outliers, normality, linearity, and homoscedasticity. The following section provide detailed explanation for each assumption.

4.4.1 Multicollinearity

Multicollinearity must be addressed in multivariate analysis. Multicollinearity occurs when an independent variable is highly correlated with a set of other independent variables. Highly correlated means that two distinct variables are measuring the same construct, causing redundancy (Kline, 2011). The simplest way to detect multicollinearity is through a correlation matrix of the independent variables. A correlation of ≥ 0.90 indicates substantial collinearity (Hair et al., 2010). Table 4.3 shows that the correlation between the independent variables was < 0.90, which means that the multicollinearity assumption was not violated.

Table 4.3: Descriptive Statistics and Correlation Matrix

Variable	Mean	Standard deviation	CL	TL	AL	JS
CL	3.6327	0.39914				
TL	3.7960	0.45941	0.404**			
AL	3.6369	0.50588	0.093*	0.264**		
JS	3.6805	0.41176	0.425**	0.840**	0.324**	

Note: CL = Charismatic Leadership; TL = Transformational Leadership; AL = Autocratic Leadership; JS = Job Satisfaction; * = $p<0.05$; ** = $p<0.01$

Another method to assess multicollinearity is by estimating tolerance and variance inflation factor (VIF) (Pallant, 2011; Hair et al., 2010). Tolerance is the variability of a predictor variable that is not explained by other predictors. Tolerance should not be less than 0.10, while VIF should not exceed 10 to indicate the absence of

multicollinearity (Pallant, 2016). Table 4.4 shows that the tolerance values for all independent variables ranged between 0.273 to 0.892, which are higher than 0.10. The largest VIF was 3.657, which is less than 10. These results provide additional evidence that multicollinearity was not an issue.

Table 4.4: Multicollinearity Assessment based on VIF and Tolerance

(Constant)	Tolerance	VIF
Charismatic Leadership	0.809	1.235
Transformational Leadership	0.291	3.436
Autocratic Leadership	0.892	1.121
Job Satisfaction	0.273	3.657

4.4.2 Outliers

Pallant (2011) explained that outliers can be detected using a scatterplot. Outliers are cases where a standardized residual (as shown in the scatterplot) is > 3.3 or < –3.3 (Tabachnick & Fidell, 2007). Figure 4.1 illustrates the scatterplot of the standardized residuals against standardized predicted values of the independent variables. The values were between 3.3 and -3.3, suggesting that there were no outliers.

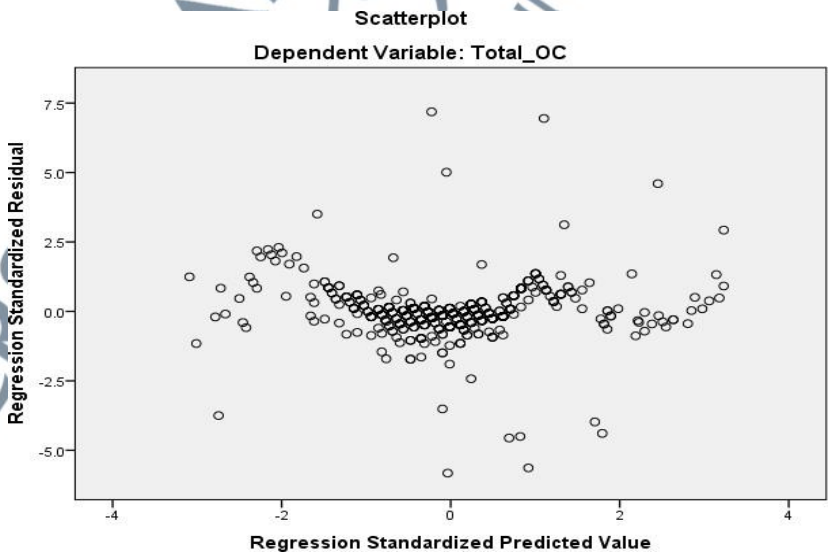

Figure 4.1: Scatterplot

4.4.3 Normality

To satisfy the assumption of data normality, kurtosis and skewness were computed. Skewness and kurtosis are used to assess whether data are normally distributed. Skewness is a measure of symmetry. If the data are distributed equally to the left and right of the center point, then it is symmetric. Kurtosis is a measure of peakedness or flatness of the data.

The rule of thumb for normality test, as suggested by Kline (1998), is a skewness of < 3 and a kurtosis of < 10. The focus here is on kurtosis because multivariate kurtosis could significantly affect the variance and covariance tests (Byrne, 2010). If the standardized kurtosis index value is 3, then the data is considered normally distributed (Byrne, 2010). Table 4.5 shows that the skewness and kurtosis values are within the accepted level.

Table 4.5: Normality Assessment

	Skewness	**Std. Error**	**Kurtosis**	**Std. Error**
Charismatic	-0.031	0.104	1.206	0.207
Transformational	-0.143	0.104	0.870	0.207
Autocratic	0.020	0.104	0.243	0.207
Job satisfaction	0.225	0.104	1.200	0.207
Commitment	0.459	0.104	1.518	0.207

4.4.4 Linearity and Homoscedasticity

Linearity is the degree of change in the dependent variable that is associated with the independent variable. Homoscedasticity indicates that the dependent variable shows the same levels of variance across a range of independent variables (Hair et al., 2010; Hair et al., 1998; Weinberg & Abramowitz, 2008). Linearity and homoscedasticity are detected by generating an ordinary probability plot of the standardized residual of the dependent constructs (Palant, 2007; Tabachnick & Fidell, 2001). Linearity and

homoscedasticity can also be examined through a scatterplot of the standardized residuals (Pallant, 2011; Tabachnick & Fidell, 2007). Linearity is present when the residuals have a straight-line relationship with the predicted dependent variable scores (Sekaran, 2006). Nonlinearity is present when the overall shape of the scatterplot is curved instead of linear (Sekaran, 2006).

Figure 4.2 indicates that linearity and homoscedasticity were achieved because the residuals have a straight-line relationship with the predicted dependent variable values. In addition, as shown in Figure 4.3, the scatterplot shows that the scores were concentrated in the center along the 0 point (Pallant, 2011).

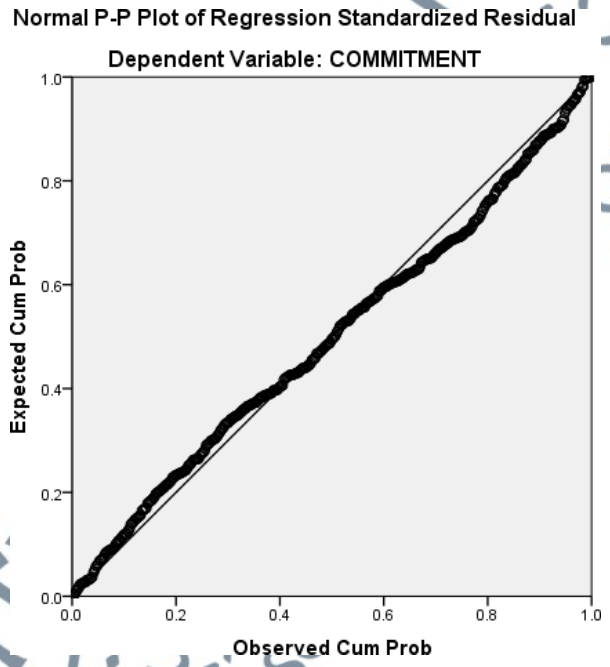

Figure 4.2: Plot of Standardized Residual

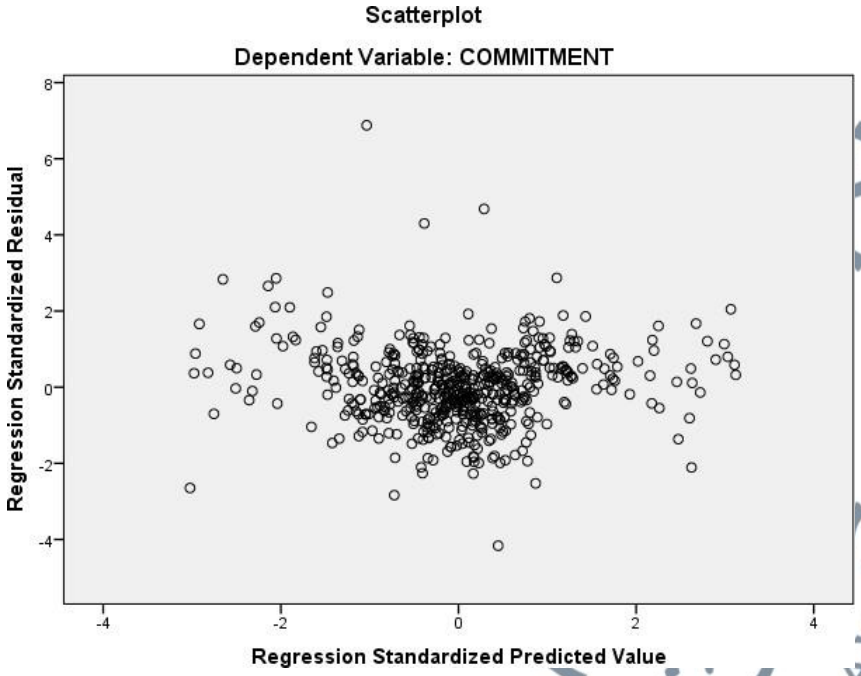

Figure 4.3: Scatterplot of the Standardized Residuals

4.5 Exploratory Factor Analysis (EFA)

An EFA (principal component analysis) with varimax rotation was conducted on the items of charismatic leadership, transformational leadership, autocratic leadership, job satisfaction, and organizational commitment. This was considered an appropriate approach for exploring the interrelationships among a set of items. As explained in Chapter 3, prior to performing principal component analysis, the suitability of data for factor analysis was assessed based on the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy and Bartlett's test of sphericity value. If the results meet the requirement of both assessments, the next step is to determine the number of factors that can be used to best represent the interrelationships among the set of items. Following the determination of the number of factors, they were then rotated using varimax rotation to assess the loading pattern of each item on the factors. The varimax rotation technique was used to obtain simpler and more interpretable factor solutions

(Hair et al., 2006). The following sub-sections provide a detailed discussion on the EFA results.

4.5.1 Charismatic Leadership

As mentioned in Chapter 3, charismatic leadership consists of five dimensions: vision and articulation, personal risk, sensitivity the environment, sensitivity of member needs, and unconventional behavior. The EFA results for each dimension are discussed below.

4.5.1.1 Vision and Articulation

EFA was run to determine the factor structure of the seven items related to vision and articulation. Table 4.6 shows that KMO was .843, which is above the suggested value of .6, and the Bartlett's test of sphericity was significant ($X^2(21) = 1240.5188$, $p < 0.05$). These results show that the data were appropriate for factor analysis.

Table 4.6: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.843
Bartlett's Test of Sphericity	Approx. Chi-Square	1240.518
	df	21
	Sig.	.000

Table 4.7 shows that only one component emerged from the EFA procedure with an eigenvalue of >1.0. The eigenvalue was 3.461. The total variance explained for vision and articulation was 49.447%. The loading for each item was also within the acceptable value of >0.50 (Table 4.8).

Table 4.7: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	3.461	49.447	49.447			
2	.972	13.888	63.335			
3	.716	10.231	73.566			
4	.561	8.017	81.583	3.461	49.447	49.447
5	.481	6.866	88.449			
6	.435	6.220	94.668			
7	.373	5.332	100.000			

Extraction Method: Principal Component Analysis

Table 4.8: Factor Loadings for Vision and Articulation Items

Item	Factor Loading
CL1	.680
CL2	.737
CL3	.776
CL4	.734
CL5	.693
CL6	.691
CL7	.597

Extraction Method: Principal Component Analysis

4.5.1.2 Personal Risk

EFA was run to determine the factor structure of the three items related to personal risk. Table 4.9 shows that KMO was .652, which is above the suggested value of .6, and the Bartlett's test of sphericity was significant ($X^2(3) = 342.558$, $p < 0.05$. These results show that the data were appropriate for factor analysis.

Table 4.9: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.652
Bartlett's Test of Sphericity	Approx. Chi-Square	342.558
	df	3
	.000	.000

Table 4.10 shows that only one component with an eigenvalue of >1.0 emerged from the EFA procedure. The eigenvalue was 1.918. The total variance explained for

personal risk was 63.938%. The loading value for each item was also within the acceptable value, which is >0.50 (Table 4.11).

Table 4.10: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.918	63.938	63.938	1.918	63.938	63.938
2	.650	21.675	85.613			
3	.432	14.387	100.000			

Extraction Method: Principal Component Analysis

Table 4.11: Factor Loadings for Personal Risk

Item	Factor Loading
CL8	.821
CL9	.843
CL10	.730

Extraction Method: Principal Component Analysis

4.5.1.3 Environmental Sensitivity

EFA was run to determine the factor structure of the four items related to environmental sensitivity. Table 4.12 shows that the KMO was .650, which is above the suggested value of .6, and the Bartlett's test of sphericity was significant ($X^2(6) = 306.195$, $p < 0.05$. These results show that the data were appropriate for factor analysis.

Table 4.12: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.650
Bartlett's Test of Sphericity	Approx. Chi-Square	306.195
	df	6
	Sig.	.000

Table 4.13 shows that only one component with an eigenvalue of >1.0 emerged from the EFA procedure. The eigenvalue was 1.931. The total variance explained for environmental sensitivity was 48.276%. The of each item was also within the acceptable value of >0.50 (Table 4.14).

Table 4.13: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.931	48.276	48.276	1.931	48.276	48.276
2	.917	22.928	71.203			
3	.661	16.516	87.719			
4	.491	12.281	100.000			

Extraction Method: Principal Component Analysis

Table 4.14: Factor Loadings for Environmental Sensitivity Items

Item	Factor Loading
CL11	.737
CL12	.765
CL13	.608
CL14	.658

Extraction Method: Principal Component Analysis

4.5.1.4 Sensitivity to Members' Needs

EFA was run to determine the factor structure of the three items related to sensitivity to members' needs. Table 4.15 shows that the KMO was .612, which is above the suggested value of .6, and the Bartlett's test of sphericity was significant (X^2 (3) = 239.238, $p < 0.05$). These results show that the data were appropriate for factor analysis.

Table 4.15: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.612
Bartlett's Test of Sphericity	Approx. Chi-Square	239.138
	df	3
	Sig.	.000

Table 4.16 shows that only one component with an eigenvalue of >1.0 emerged from the EFA procedure. The eigenvalue was 1.751. The total variance explained for sensitivity to members' needs was 58.367%. The loading of each item was within the acceptable value of >0.50 (Table 4.17).

Table 4.16: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.751	58.367	58.367	1.751	58.367	58.367
2	.764	25.453	83.820			
3	.485	16.180	100.000			

Extraction Method: Principal Component Analysis

Table 4.17: Factor Loadings for Items of Sensitivity to Member Needs

Item	Factor Loading
CL15	.814
CL16	.818
CL17	.648

Extraction Method: Principal Component Analysis

4.5.1.5 Unconventional Behavior

EFA was run to determine the factor structure of the three items related to unconventional behavior. Table 4.18 shows that the KMO was .661, which is above the suggested value of .6, and the Bartlett's test of sphericity was significant (X^2 (3) = 270.994, $p < 0.05$). These results show that the data were appropriate for factor analysis.

Table 4.18: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.661
Bartlett's Test of Sphericity	Approx. Chi-Square	270.994
	df	3
	Sig.	.000

Table 4.19 shows that only one component with an eigenvalue of >1.0 emerged from the EFA procedure. The eigenvalue was 1.841. The total variance explained for unconventional behavior was 61.355%. The loading of each item was within the acceptable value of >0.50 (Table 4.20).

Table 4.19: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	1.841	61.355	61.355	1.841	61.355	61.355
2	.636	21.194	82.549			
3	.524	17.451	100.000			

Extraction Method: Principal Component Analysis

Table 4.20: Factor Loadings for Unconventional Behavior Items

Item	Factor Loading
CL18	.805
CL19	.797
CL20	.746

Extraction Method: Principal Component Analysis

4.5.2 Transformational Leadership

Transformational leadership consists of four dimensions of idealized influence, inspirational motivation, intellectual stimulation, and individualized consideration. The EFA results for each dimension are discussed below.

4.5.2.1 Idealized Influence

EFA was run to determine the factor structure of the three items related to idealized influence. Table 4.21 shows that the KMO was .608, which is above the suggested value of .6, and the Bartlett's test of sphericity was significant (X2 (3) = 255.155, $p < 0.05$). These results show that the data were appropriate for factor analysis.

Table 4.21: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.608
Bartlett's Test of Sphericity	Approx. Chi-Square	255.155
	df	3
	Sig.	.000

Table 4.22 shows that only one component with an eigenvalue of >1.0 emerged from the EFA procedure. The eigenvalue was 1.775. The total variance explained for idealized influence construct was 59.155%. The loading of each item was within the acceptable value of >0.50 (Table 4.23).

Table 4.22: Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	**Total**	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**
1	1.775	59.155	59.155	1.775	59.155	59.155
2	.754	25.148	84.303			
3	.471	15.697	100.000			

Extraction Method: Principal Component Analysis

Table 4.23: Factor Loadings for Individualized Influence Items

Item	**Factor Loading**
TA1	.786
TA2	.841
TA3	.671

Extraction Method: Principal Component Analysis

4.5.2.2 Inspirational Motivation

Exploratory Factor Analysis was applied to determine the factor structure of the three items of inspirational motivation. Table 4.24 shows that the KMO was .613, which is above the suggested value of .6, and the Bartlett's test of sphericity was significant (X^2 (3) = 119.852, $p < 0.05$. These results show that the data were appropriate for factor analysis.

Table 4.24: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.613
Bartlett's Test of Sphericity	Approx. Chi-Square	119.852
	df	3
	Sig.	.000

Table 4.25 shows that only one component with an eigenvalue of >1.0 emerged from the EFA procedure. The eigenvalue was 1.559. The total variance explained for Inspirational motivation construct was 51.983%. The loading of each item was within the acceptable value of >0.50 (Table 4.26).

Table 4.25: Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	**Total**	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**
1	1.559	51.983	51.983	1.559	51.983	51.983
2	.770	25.658	77.641			
3	.671	22.359	100.000			

Extraction Method: Principal Component Analysis

Table 4.26: Factor Loadings for Inspirational Motivation Items

Item	**Factor Loading**
TA4	.679
TA5	.727
TA6	.754

Extraction Method: Principal Component Analysis

4.5.2.3 Intellectual Stimulation

EFA was run to determine the factor structure of the three items related to intellectual stimulation. Table 4.27 shows that the KMO was .600, which is above suggested value of .6, and the Bartlett's test of sphericity was significant (X^2 (3) = 139.599, $p < 0.05$). These results show that the data were appropriate for factor analysis.

Table 4.27: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.532
Bartlett's Test of Sphericity	Approx. Chi-Square	139.599
	df	3
	Sig.	.000

Table 4.28 shows that only one component with an eigenvalue of >1.0 emerged from the EFA procedure. The eigenvalue was 1.516. The total variance explained for intellectual stimulation was 50.538%. The loading of each item was within the acceptable value of >0.50 (Table 4.29).

Table 4.28: Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	**Total**	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**
1	1.516	50.538	50.538	1.516	50.538	50.538
2	.937	31.229	81.767			
3	.547	18.233	100.000			

Extraction Method: Principal Component Analysis

Table 4.29: Factor Loadings for Intellectual Stimulation Items

Item	**Factor Loading**
TA7	.507
TA8	.821
TA9	.823

Extraction Method: Principal Component Analysis

4.5.2.4 Individualized Consideration

EFA was run to determine the factor structure of the three items related to individualized consideration. Table 4.30 shows that the KMO was .600, which is above the suggested value of .6, and the Bartlett's test of sphericity was significant (X^2 (3) = 139.599, $p < 0.05$. These results show that the data were appropriate for factor analysis.

Table 4.30: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.623
Bartlett's Test of Sphericity	Approx. Chi-Square	173.6.5
	df	3
	Sig.	.000

Table 4.31 shows that only one component with an eigenvalue of >1.0 emerged from the EFA procedure. The eigenvalue was 1.667. The total variance explained for individualized consideration was 55.569%. The loading of each item was within the acceptable value of >0.50 (Table 4.32).

Table 4.31: Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	**Total**	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**
1	1.667	55.569	55.569	1.667	55.569	55.569
2	.743	24.774	80.344			
3	.590	19.656	100.000			

Extraction Method: Principal Component Analysis

Table 4.32: Factor Loadings for Individualized Consideration Items

Item	**Factor Loading**
TA10	.750
TA11	.792
TA12	.692

Extraction Method: Principal Component Analysis

4.5.3 Autocratic Leadership

Autocratic leadership consists of two dimensions: determine all decisions and emphasize the best performance. The EFA results for each dimension are discussed below.

4.5.3.1 Determine All Decisions

EFA was run to determine the factor structure of the four items related to determine all decisions. One item (LA5) was deleted due to cross-loading. Table 4.33 shows that the KMO was .668, which is above the suggested value of .6, and the Bartlett's test of sphericity was significant (X^2 (6) = 210.350, $p < 0.05$). These results show that the data were appropriate for factor analysis.

Table 4.33: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.668
Bartlett's Test of Sphericity	Approx. Chi-Square	210.350
	df	6
	Sig.	.000

Table 4.34 shows that only one component with an eigenvalue of >1.0 emerged from the EFA procedure. The eigenvalue was 1.805. The total variance explained for determine all decisions was 45.118%. The loading of each item was within the acceptable value of >0.50 (Table 4.35).

Table 4.34: Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	**Total**	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**
1	1.805	45.118	45.118	1.805	45.118	45.118
2	.848	21.197	66.315			
3	.758	18.960	85.275			
4	.589	14.725	100.000			

Extraction Method: Principal Component Analysis

Table 4.35: Factor Loadings for Items of Determine All Decisions

Item	**Factor Loading**
LA1	.663
LA2	.771
LA3	.654
LA4	.586

Extraction Method: Principal Component Analysis

4.5.3.2 Emphasizes the Best Performance

EFA was run to determine the factor structure of the four items related to emphasizes the best performance. Table 4.36 shows that the KMO was .608, which is above the suggested value of .6, and the Bartlett's test of sphericity was significant (X^2

(6) = 246.413, $p < 0.05$). These results show that the data were appropriate for factor analysis.

Table 4.36: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.597
Bartlett's Test of Sphericity	Approx. Chi-Square	246.413
	df	6
	Sig.	.000

Table 4.37 shows that only one component with an eigenvalue of >1.0 emerged from the EFA procedure. The eigenvalue was 1.797. The total variance explained for the emphazies the best performance construct was 44.916%. The loading of each item was within the acceptable value of >0.50 (Table 4.38).

Table 4.37: Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	**Total**	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**
1	1.797	44.916	44.916	1.797	44.916	44.916
2	.986	24.641	69.557			
3	.704	17.607	87.164			
4	.513	12.836	100.000			

Extraction Method: Principal Component Analysis

Table 4.38: Factor Loadings for Items of Emphasize the Best Performance

Item	**Factor Loading**
LA6	.682
LA7	.742
LA8	.707
LA9	.530

Extraction Method: Principal Component Analysis

4.5.4 Organizational Commitment

Organizational commitment consists of three dimensions: affective commitment, continuance commitment, and normative commitment. The EFA results for each dimension are discussed below.

4.5.4.1 Affective Commitment

EFA was run to determine the factor structure of the six items related to affective commitment. Two items (OC1 and OC5) were deleted due to cross-loading. Table 4.39 shows that the KMO was .722, which is above the suggested value of .6, and the Bartlett's test of sphericity was significant (X^2 (6) = 592.688, $p < 0.05$). These results show that the data were appropriate for factor analysis.

Table 4.39: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.722
Bartlett's Test of Sphericity	Approx. Chi-Square	592.688
	df	6
	Sig.	.000

Table 4.40 shows that only one component with an eigenvalue of >1.0 emerged from the EFA procedure. The eigenvalue was 2.257. The total variance explained for affective commitment was 56.414%. The loading of each item was within the acceptable value of >0.50 (Table 4.41).

Table 4.40: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.257	56.414	56.414	2.257	56.414	56.414
2	.934	23.345	79.759			
3	.443	11.068	90.827			
4	.367	9.173	100.000			

Extraction Method: Principal Component Analysis

Table 4.41: Factor Loadings for Affective Commitment Items

Item	Factor Loading
OC2	.566
OC3	.860
OC4	.853
OC6	.810

Extraction Method: Principal Component Analysis

4.5.4.2 Continuance Commitment

EFA was run to determine the factor structure of the six items related to continuance commitment. One item (OC11) was deleted due to cross-loading. Table 4.42 shows that the KMO was .730, which is above the suggested value of .6, and the Bartlett's test of sphericity was significant (X^2 (10) = 306.668, $p < 0.05$). These results show that the data were appropriate for factor analysis.

Table 4.42: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.730
Bartlett's Test of Sphericity	Approx. Chi-Square	306.668
	df	10
	Sig.	.000

Table 4.43 shows that only one component with an eigenvalue of >1.0 emerged from the EFA procedure. The eigenvalue was 2.066. The total variance explained for continuance commitment was 41.323%. The loading of each item was within the acceptable value of >0.50 (Table 4.44).

Table 4.43: Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.066	41.323	41.323	2.066	41.323	41.323
2	.896	17.920	59.243			
3	.751	15.018	74.261			
4	.677	13.538	87.799			
5	.610	12.201	100.000			

Extraction Method: Principal Component Analysis

Table 4.44: Factor Loadings for Continuance Commitment Items

Item	Factor Loading
OC7	.633
OC8	.652
OC9	.699
OC10	.616
OC12	.609

Extraction Method: Principal Component Analysis

4.5.4.3 Normative Commitment

EFA was run to determine the factor structure of the six items related to normative commitment. One item (OC13) was deleted due to cross-loading. Table 4.45 shows that the KMO was .750, which is above the suggested value of .6, and the Bartlett's test of sphericity was significant (X^2 (10) = 373.164, $p < 0.05$). These results show that the data were appropriate for factor analysis.

Table 4.45: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.750
Bartlett's Test of Sphericity	Approx. Chi-Square	373.164
	df	10
	Sig.	.000

Table 4.46 shows that only one component with an eigenvalue of >1.0 emerged from the EFA procedure. The eigenvalue was 2.166. The total variance explained for normative commitment was 43.328%. The loading of each item was within the acceptable value of >0.50 (Table 4.47).

Table 4.46: Total Variance Explained

Component	Initial Eigenvalues			Extraction Sums of Squared Loadings		
	Total	% of Variance	Cumulative %	Total	% of Variance	Cumulative %
1	2.166	43.328	43.328	2.166	43.328	43.328
2	.918	18.365	61.693			
3	.725	14.508	76.201			
4	.631	12.622	88.823			
5	.559	11.177	100.000			

Extraction Method: Principal Component Analysis

Table 4.47: Factor Loadings for Normative Commitment Items

Item	Factor Loading
OC14	.530
OC15	.720
OC16	.730
OC17	.748
OC18	.524

Extraction Method: Principal Component Analysis

4.5.5 Job Satisfaction

Job satisfaction consists of nine dimensions: pay, promotion, supervisor, fringe benefit, contingent reward, operating condition, co-worker, nature of work, and communication. The EFA results for each dimension are discussed below.

4.5.5.1 Pay

EFA was run to determine the factor structure of the four items related to pay. One item (JSE4) was deleted due to cross-loading. Table 4.48 shows that the KMO was .693, which is above the suggested value of .6, and the Bartlett's test of sphericity was significant (X^2 (3) = 121.730, $p < 0.05$). These results show that the data were appropriate for factor analysis.

Table 4.48: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.593
Bartlett's Test of Sphericity	Approx. Chi-Square	121.730
	df	3
	Sig.	.000

Table 4.49 shows that only one component with an eigenvalue of >1.0 emerged from the EFA procedure. The eigenvalue was 1.548. The total variance explained for pay was 51.602%. The loading value for each item meet the acceptable value, which is >0.50 (refer to Table 4.50).

Table 4.49: Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	**Total**	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**
1	1.548	51.602	51.602	1.548	51.602	51.602
2	.819	27.301	78.903			
3	.633	21.097	100.000			

Extraction Method: Principal Component Analysis

Table 4.50: Factor Loadings for Pay Items

Item	**Factor Loading**
JSE1	.775
JSE2	.625
JSE3	.747

Extraction Method: Principal Component Analysis

4.5.5.2 Promotion

EFA was run to determine the factor structure of the four items related to promotion. Table 4.51 shows the KMO was .614, which is above the suggested value of .6, and the Bartlett's test of sphericity was significant (X^2 (6) = 128.692, $p < 0.05$). These results show that the data were appropriate for factor analysis.

Table 4.51: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.614
Bartlett's Test of Sphericity	Approx. Chi-Square	128.692
	df	6
	Sig.	.000

Table 4.52 shows that only one component with an eigenvalue of >1.0 emerged from the EFA procedure. The eigenvalue was 1.602. The total variance explained for promotion was 40.049%. The loading of each item was within the acceptable value of >0.50 (Table 4.53).

Table 4.52: Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	**Total**	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**
1	1.602	40.049	40.049	1.602	40.049	40.049
2	.952	23.801	63.849			
3	.780	19.495	83.345			
4	.666	16.655	100.000			

Extraction Method: Principal Component Analysis

Table 4.53: Factor Loadings for Promotion Items

Item	**Factor Loading**
JSE5	.548
JSE6	.703
JSE7	.614
JSE8	.657

Extraction Method: Principal Component Analysis

4.5.5.3 Supervision

EFA was run to determine the factor structure of the four items related to supervision. One item (JSE12) was deleted due to cross-loading. Table 4.54 shows that the KMO was .646, which is above the suggested value of .6, and the Bartlett's test of sphericity was significant (X^2 (3) = 162.069, $p < 0.05$). These results show that the data were appropriate for factor analysis.

Table 4.54: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.646
Bartlett's Test of Sphericity	Approx. Chi-Square	162.069
	df	3
	Sig.	.000

Table 4.55 shows that only one component with an eigenvalue of >1.0 emerged from the EFA procedure. The eigenvalue was 1.576. The total variance explained for supervision was 52.544%. The loading of each item was within the acceptable value of >0.50 (Table 4.56).

Table 4.55: Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	**Total**	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**
1	1.576	52.544	52.544	1.576	52.544	52.544
2	.895	29.824	82.368			
3	.529	17.632	100.000			

Extraction Method: Principal Component Analysis

Table 4.56: Factor Loadings for Supervision Items

Item	**Factor Loading**
JSE9	.785
JSE10	.517
JSE11	.833

Extraction Method: Principal Component Analysis

4.5.5.4 Fringe Benefit

EFA was run to determine the factor structure of the four items related to fringe benefit. Table 4.57 shows that the KMO was .646, which is above the suggested value of .6, and the Bartlett's test of sphericity was significant (X^2 (3) = 162.069, $p < 0.05$). These results show that the data were appropriate for factor analysis.

Table 4.57: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.665
Bartlett's Test of Sphericity	Approx. Chi-Square	167.002
	df	6
	Sig.	.000

Table 4.58 shows that only one component with an eigenvalue of >1.0 emerged from the EFA procedure. The eigenvalue was 1.723. The total variance explained for Fringe Benefit construct was 43.067%. The loading of each item was within the acceptable value of >0.50 (Table 4.59).

Table 4.58: Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	**Total**	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**
1	1.723	43.067	43.067	1.723	43.067	43.067
2	.857	21.418	64.485			
3	.770	19.260	83.745			
4	.650	16.255	100.000			

Extraction Method: Principal Component Analysis

Table 4.59: Factor Loadings for Fringe Benefit Items

Item	**Factor Loading**
JSE13	.544
JSE14	.717
JSE15	.660
JSE16	.691

Extraction Method: Principal Component Analysis

4.5.5.5 Contingent Rewards

EFA was run to determine the factor structure of the four items related to contingent rewards. Table 4.60 shows that the KMO was .627, which is above the suggested value of .6, and the Bartlett's test of sphericity was significant (X^2 (6) = 117.997, $p < 0.05$. These results show that the data were appropriate for factor analysis.

Table 4.60: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.627
Bartlett's Test of Sphericity	Approx. Chi-Square	117.997
	df	6
	Sig.	.000

Table 4.61 shows that only one component with an eigenvalue of >1.0 emerged from the EFA procedure. The eigenvalue was 1.581. The total variance explained for Contingent Rewards construct was 39.536%. The loading of each item was within the acceptable value of >0.50 (Table 4.62).

Table 4.61: Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	**Total**	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**
1	1.581	39.536	39.536	1.581	39.536	39.536
2	.942	23.541	63.077			
3	.792	19.801	82.878			
4	.685	17.122	100.000			

Extraction Method: Principal Component Analysis

Table 4.62: Factor Loadings for Items of Contingent Rewards

Item	**Factor Loading**
JSE17	.434
JSE18	.598
JSE19	.716
JSE20	.723

Extraction Method: Principal Component Analysis

4.5.5.6 Operating Condition

EFA was run to determine the factor structure of four items related to operating condition. Table 4.63 shows that the KMO was .607, which is above the suggested value of .6, and the Bartlett's test of sphericity was significant ($X2\ (6) = 105.034$, $p < 0.05$). These results show that the data were appropriate for factor analysis.

Table 4.63: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.607
Bartlett's Test of Sphericity	Approx. Chi-Square	105.034
	df	6
	Sig.	.0

Table 4.64 shows that only one component with an eigenvalue of >1.0 emerged from the EFA procedure. The eigenvalue was 1.545. The total variance explained for Operating Condition construct was 38.616%. The loading of each item was within the acceptable value of >0.50 (Table 4.65).

Table 4.64: Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	**Total**	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**
1	1.545	38.616	38.616	1.545	38.616	38 .616
2	.957	23.933	62.549			
3	.791	19.782	82.331			
4	.707	17.669	100.000			

Extraction Method: Principal Component Analysis

Table 4.65: Factor Loadings for Operating Condition Items

Item	**Factor Loading**
JSE21	.651
JSE22	.588
JSE23	.651
JSE24	.593

Extraction Method: Principal Component Analysis

4.5.5.7 Co-Workers

EFA was run to determine the factor structure of the four items related to Co-Workers. Table 4.66 shows that the KMO was .594, which is above the suggested value of .6, and the Bartlett's test of sphericity was significant (X^2 (6) = 187.099, $p < 0.05$). These results show that the data were appropriate for factor analysis.

Table 4.66: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.594
Bartlett's Test of Sphericity	Approx. Chi-Square	187.099
	df	6
	Sig.	.000

Table 4.67 shows that only one component with an eigenvalue of >1.0 emerged from the EFA procedure. The eigenvalue was 1.684. The total variance explained for Co-Worker construct was 42.102%. The loading of each item was within the acceptable value of >0.50 (Table 4.68).

Table 4.67: Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	**Total**	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**
1	1.684	42.102	42.102	1.684	42.102	42.102
2	.928	23.200	65.302			
3	.853	21.336	86.638			
4	.534	13.362	100.000			

Extraction Method: Principal Component Analysis

Table 4.68: Factor Loadings for Coworker Items

Item	**Factor Loading**
JSE25	.449
JSE26	.543
JSE27	.762
JSE28	.779

Extraction Method: Principal Component Analysis

4.5.5.8 Nature of Work

EFA was run to determine the factor structure of the four items related to nature of work. Table 4.69 shows that the KMO was .643, which is above the suggested value of .6, and the Bartlett's test of sphericity was significant (X2 (6) = 154.870, $p < 0.05$). These results show that the data were appropriate for factor analysis.

Table 4.69: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.843
Bartlett's Test of Sphericity	Approx. Chi-Square	154.870
	df	6
	Sig.	.000

Table 4.70 shows that only one component with an eigenvalue of >1.0 emerged from the EFA procedure. The eigenvalue was 1.675. The total variance explained for nature of work was 41.867%. The loading of each item was within the acceptable value of >0.50 (Table 4.71).

Table 4.70: Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	**Total**	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**
1	1.675	41.867	41.867	1.675	41.867	41.867
2	.921	23.032	64.899			
3	.757	18.928	83.827			
4	.647	16.173	100.000			

Extraction Method: Principal Component Analysis

Table 4.71: Factor Loadings for Nature of Work Items

Item	**Factor Loading**
JSE29	.758
JSE30	.483
JSE31	.667
JSE32	.649

Extraction Method: Principal Component Analysis

4.5.5.9 Communication

EFA was run to determine the factor structure of the four items related to communication. Table 4.72 shows that the KMO was .596, which is above the suggested value of .6, and the Bartlett's test of sphericity was significant (X^2 (6) = 136.907, p < 0.05). These results show that the data were appropriate for factor analysis.

Table 4.72: KMO and Bartlett's Test

Kaiser-Meyer-Olkin Measure of Sampling Adequacy.		.596
Bartlett's Test of Sphericity	Approx. Chi-Square	136.907
	df	6
	Sig.	.000

Table 4.73 shows that only one component with an eigenvalue of >1.0 emerged from the EFA procedure. The eigenvalue was 1.602. The total variance explained for Communication construct was 40.042%. The loading of each item was within the acceptable value of >0.50 (Table 4.74).

Table 4.73: Total Variance Explained

	Initial Eigenvalues			Extraction Sums of Squared Loadings		
Component	**Total**	**% of Variance**	**Cumulative %**	**Total**	**% of Variance**	**Cumulative %**
1	1.602	40.042	40.042	1.602	40.042	40.042
2	.941	23.535	63.578			
3	.842	21.053	84.631			
4	.615	15.369	100.000			

Extraction Method: Principal Component Analysis

Table 4.74: Factor Loadings for Communication Items

Item	**Factor Loading**
JSE33	.604
JSE34	.718
JSE35	.414
JSE36	.742

Extraction Method: Principal Component Analysis

4.6 Summary of Exploratory Factor Analysis

Table 4.75: Summary of Exploratory Factor Analysis

Variable	**Number of Original Item**	**Deleted**	**Final Item**
Charismatic Leadership	19	-	19
Transformational Leadership	12	-	12
Autocratic Leadership	9	1	8
Organizational Commitment	18	4	14
Job Satisfaction	36	-	36

4.7 Confirmatory Factor Analysis (CFA)

CFA was conducted to further confirm the causal relationships between the observed variables (items) and the latent variables. This subsection presents a detailed discussion of how the items are linked to their underlying latent construct using CFA techniques. The five latent constructs in this study were placed at one level and analyzed simultaneously to determine the extent to which the model fits the data. If the goodness of fit is adequate and fulfils the discriminant validity requirement, the analysis can proceed to the next stage (structural model) to test the hypotheses.

As shown in Table 4.76, the assessment of fit (overall fit) demonstrates adequate model fit as the requirements of certain fit indices discussed earlier were met ($\chi 2$ /df = 2.80; CFI = 0.89; RMSEA = 0.08). The results indicate that the model had goodness of fit. After assessing the fitness of the measurement model, the validity and reliability of the constructs were computed and summarized in in Table 4.77.

Table 4.76: Fitness Index for the Measurement Model

Name of Category	Name of Index	Index Value
Absolute fit	RMSEA	0.08
Incremental fit	CFI	0.89
Parsimonious fit	Relative χ^2 (CMIN/df)	2.80

Table 4.77: Composite Reliability (CR) and AVE for All Constructs

Construct	Item	Factor Loading	AVE (≥ 0.5)	CR (≥ 0.6)
Commitment	Affective	0.186	0.52	0.87
	Continuance	0.663		
	Normative	0.625		
Transformational	Idealized	0.749	0.55	0.83
	Inspirational	0.739		
	Intellectual	0.862		
	Individualized	0.605		
Charismatic	Vision	0.686	0.65	0.92
	Personal	0.864		
	Environment	0.782		
	Member	0.775		
	Behavior	0.877		

Table 4.77, continued

Construct	Item	Factor Loading	AVE (≥ 0.5)	CR (≥ 0.6)
Autocratic	Decisions	0.810	0.77	0.91
	Performance	0.938		
Job satisfaction	Pay	0.730	0.53	0.85
	Promotion	0.726		
	Supervision	0.628		
	Benefit	0.774		
	Reward	0.803		
	Condition	0.744		
	Co-workers	0.698		
	Work	0.712		
	Communicate	0.650		

Table 4.77 shows the Average Variance Extracted (AVE) and the Composite Reliability (CR) values for all constructs. The AVE ranged between 0.52 and 0.77, which means that all constructs met the requirement for convergent validity. In addition, the CR values for all constructs ranged from 0.83 to 0.92, indicating that all constructs had good reliability.

In the last steps of the measurement model assessment, the discriminant validity of the constructs was estimated to ensure that they were not redundant. The discriminant validity for a construct is achieved if the correlation between the independent variables does not exceed 0.85 (Fornel & Larker, 1981; Awang, 2015). A discriminant validity index summary for all constructs was built to ensure that they were discriminant from each other. The AVE values (in bold) are shown in the discriminant validity index summary table (see Table 4.78).

Table 4.78: Discriminant Validity Index Summary

Variable	CL	TL	AL	JS	OC
CL	**0.510**				
TL	0.404**	**0.860**			
AL	0.093*	0.264**	**0.640**		
JS	0.425**	0.840**	0.324**	**0.874**	
OC	0.424**	0.820**	0.291**	0.844**	**0.880**

Notes: CL= Charismatic Leadership; TL = Transformational Leadership; AL = Autocratic Leadership; JS = Job Satisfaction; OC = Organizational Commitment. **= p<0.05, ***=p<0.001

Overall, the discussion in this section provides evidence to support the validity and reliability of the measurement model. The final measurement model had a good fit and satisfied the requirements of several fit indices. Therefore, it is now opportune to test the hypotheses of this study.

4.8 Mean, Standard Deviation, and Correlation between Variables

Table 4.79 shows the mean, standard deviation, and correlation of the research variables. The mean scores ranged from 3.4356 to 3.7960, while the standard deviation from 0.39914 to 0.50588. The mean scores show that all leadership styles were at a high level (see Table 4.80) (Pallant, 2020). The correlation between the variables were positive, ranging from 0.264 to 0.939.

Table 4.79: Descriptive Statistics and Correlation Matrix

Variable	Mean	Standard Deviation	CL	TL	AL	JS	OC
CL	3.6327	0.39914					
TL	3.7960	0.45941	0.404**				
AL	3.6369	0.50588	0.093*	0.264**			
JS	3.6805	0.41176	0.425**	0.840**	0.324**		
OC	3.4356	0.43682	0.424**	0.820**	0.291**	0.939**	

Note: CL = Charismatic Leadership; TL = Transformational Leadership; AL = Autocratic Leadership; JS = Job Satisfaction; OC = Organizational Commitment; * = $p<0.05$; ** = $p<0.01$

Table 4.80: Level of Mean Score

Mean Score	Level
0.01 – 1.68	Low
1.69 – 3.36	Moderate
3.37 – 5.00	High

Source: Pallant (2020)

4.9 Hypotheses Testing

4.9.1 Hypotheses 1–3

Table 4.81: Multiple Regression Results

Dependant Variable	Job Satisfaction	
	(t value)	(β)
Charismatic Leadership	4.275	0.104***
Transformational Leadership	30.601	0.769***
Autocratic Leadership	4.832	0.112***

Note: β = Standardized Coefficients Beta Value; *** = $p < 0.001$

Table 4.81 shows that charismatic leadership ($\beta = 0.104$, $t = 4.275$, $p < 0.001$), transformational leadership ($\beta = 0.769$, $t = 30.601$, $p < 0.001$), and autocratic leadership ($\beta = 0.112$, $t = 4.832$, $p < 0.001$) were positively and significantly related to job satisfaction. Therefore, hypotheses 1–3 were supported. Charismatic, transformational, and autocratic leadership styles were thus positively associated with job satisfaction.

4.9.2 Hypotheses 4–6

Table 4.82: Multiple Regression Results

Dependant Variable	Organizational Commitment	
	(t value)	(β)
Charismatic Leadership	4.318	0.112***
Transformational Leadership	28.012	0.753***
Autocratic Leadership	3.314	0.082***

Note: β = Standardized Coefficients Beta Value; *** = $p < 0.001$

Table 4.82 shows the positive and significant effects of charismatic leadership ($\beta = 0.112$, $t = 4.318$, $p < 0.001$), transformational leadership ($\beta = 0.753$, $t = 28.012$; $p < 0.001$), and autocratic leadership ($\beta = 0.082$, $t = 3.314$, $p < 0.001$) on organizational commitment. Therefore, hypotheses 4–6 were supported. Charismatic, transformational, and autocratic leadership styles were positively associated with organizational commitment.

4.9.3 Hypothesis 7

Table 4.83: Linear Regression Results

Dependant Variable	**(t value)**	**Organizational Commitment (β)**
Job Satisfaction	64.085	0.939***

Note: β = Standardized Coefficients Beta Value; *** = $p < 0.001$

Table 4.83 shows that the effect of job satisfaction on organizational commitment was positive and significant, $\beta = 0.939$, $t = 64.085$, $p < 0.001$. Therefore, hypothesis 7 was supported. Job satisfaction was positively associated with organizational commitment.

4.9.4 Hypothesis 8: Job Satisfaction Mediates between Charismatic Leadership and Organizational Commitment

Table 4.82 shows that charismatic leadership had a positive and significant relationship with organizational commitment. This satisfies the first requirement of Baron and Kenny's (1986) mediation analysis procedure. Charismatic leadership was also positively associated with job satisfaction, satisfying the requirement of the second step of Baron and Kenny's procedure. Finally, the third requirement was also satisfied because of the positive and significant relationship between job satisfaction and organizational commitment. Consequently, job satisfaction could potentially mediate between charismatic leadership and organizational commitment (Baron & Kenny, 1986; Mackinoon, Fairchild & Fritz, 2007).

An additional analysis was conducted to determine whether the mediation effect of job satisfaction between charismatic leadership and organizational commitment was full or partial. Table 4.84 shows that the relationship between charismatic leadership and organizational commitment was positive but not significant (ΔR^2 for Model 2 =

0.001, p > 0.05) when the mediator (job satisfaction) was controlled. This means that job satisfaction fully mediated between charismatic leadership and organizational commitment. This satisfies step 4 of Baron and Kenny's procedure.

Table 4.84: Hierarchical Regression Analysis Results

Predictor		**Organizational Commitment**	
	(β)	**Adjust R^2**	**Δ R^2**
Model 1			
Job satisfaction	0.939	0.881	
Model 2			
Job satisfaction,	0.926		
Charismatic leadership	0.030	0.881	0.001

Note: β = Standardized Coefficients Beta Value; Adjust R^2 = Adjust R Square; Δ R^2 = R Square Change

4.9.5 Hypothesis 9: Job Satisfaction Mediates between Transformational Leadership and Organizational Commitment

Table 4.82 shows that transformational leadership had a positive and significant relationship with organizational commitment. Additionally, transformational leadership was significantly associated with job satisfaction. Job satisfaction was likewise positively and significantly associated with organizational commitment. These results satisfy the requirements of steps 1–3 of Baron and Kenny's mediation analysis procedure. Therefore, job satisfaction could potentially mediate between transformational leadership and organizational commitment (Baron & Kenny, 1986; Mackinoon, Fairchild & Fritz, 2007).

An additional analysis was conducted to determine whether the mediation effect of job satisfaction between charismatic leadership and organizational commitment was full or partial. Table 4.85 shows that the relationship between transformational leadership and organizational commitment was positive and significant (ΔR^2 for Model

2 = 0.003, $p < 0.001$) when the mediator (job satisfaction) was controlled. This means that job satisfaction partially mediated relationship between transformational leadership and organizational commitment. This satisfies step 4 of Baron and Kenny's procedure.

Table 4.85: Hierarchical Regression Analysis Results

Predictor	**Organizational Commitment**		
	(β)	**Adjust R^2**	**Δ R^2**
Model 1			
Job satisfaction	0.939	0.881	
Model 2			
Job satisfaction,	0.850		
Transformational leadership	0.105	0.884	0.003

Note: β = Standardized Coefficients Beta Value; Adjust R^2 = Adjust R Square; Δ R^2 = R Square Change

4.9.6 Hypothesis 10: Job Satisfaction Mediates between Autocratic Leadership and Organizational Commitment

Table 4.82 shows that autocratic leadership had a positive and significant relationship with organizational commitment. Additionally, autocratic leadership was significantly associated with job satisfaction. Job satisfaction was likewise positively and significantly associated with organizational commitment. These results satisfy the requirements of steps 1–3 of Baron and Kenny's mediation analysis procedure. Therefore, job satisfaction could potentially mediate between autocratic leadership and organizational commitment (Baron & Kenny, 1986; Mackinoon, Fairchild & Fritz, 2007).

An additional analysis was conducted to determine whether the mediation effect of job satisfaction between charismatic leadership and organizational commitment was full or partial. Table 4.86 shows that the relationship between autocratic leadership and organizational commitment was positive but not significant (ΔR^2 for Model 2 = 0.000,

$p > 0.05$) when the mediator (job satisfaction) was controlled. This means that job satisfaction fully mediated between autocratic leadership and organizational commitment. This satisfies step 4 of Baron and Kenny's procedure.

Table 4.86: Hierarchical Regression Analysis Results

Predictor	**Organizational Commitment**		
	(β)	**Adjust R^2**	**Δ R^2**
Model 1			
Job satisfaction	0.939	0.881	
Model 2			
Job satisfaction,	0.944		
Autocratic leadership	-0.015	0.881	0.000

Note: β = Standardized Coefficients Beta Value; Adjust R^2 = Adjust R Square; Δ R^2 = R Square Change

4.9.7 Additional Test to Confirm Mediation

The Sobel test (1982) was used to estimate the standard error of the latent variables. Figure 4.4 shows the Sobel test for significance of mediation. The results showed that the indirect effects from charismatic leadership to organizational commitment and from autocratic leadership to organizational commitment were significant. Therefore, job satisfaction mediated the relationship between charismatic leadership and organizational commitment, as well as between autocratic leadership and organizational commitment.

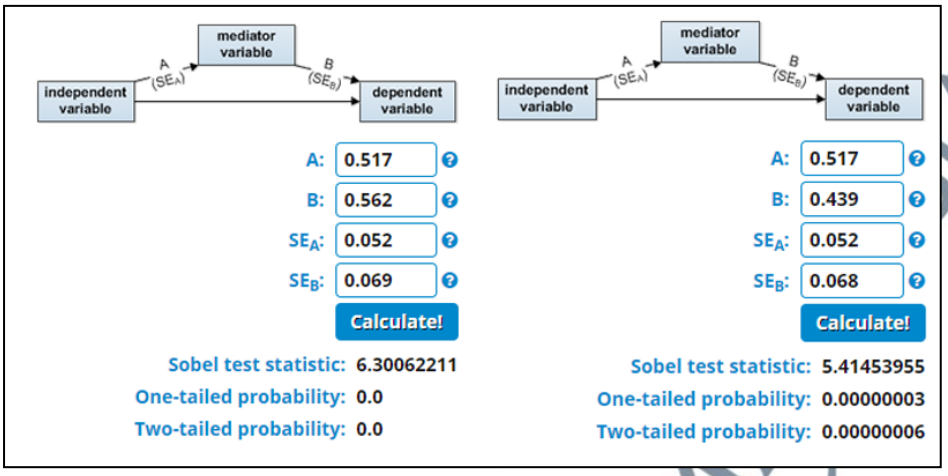

Figure 4.4: Sobel Test Calculator for Significance of Mediation

4.10 Summary of Findings

Table 4.87: Summary of Findings

No.	Hypotheses	Analysis results
H1	Charismatic leadership is positively related to job satisfaction	Supported (Positive and significant)
H2	Transformational leadership is positively related to job satisfaction	Supported (Positive and significant)
H3	Autocratic leadership is positively related to job satisfaction	Supported (Positive and significant)
H4	Charismatic leadership is positively related to organizational commitment	Supported (Positive and significant)
H5	Transformational leadership is positively related to organizational commitment	Supported (Positive and significant)
H6	Autocratic leadership is positively related to organizational commitment	Supported (Positive and significant)
H7	Job satisfaction is positively related to organizational commitment	Supported (Positive and significant)
H8	Job satisfaction mediate the relationship between charismatic leadership and organizational commitment	Supported (full mediation)
H9	Job satisfaction mediate the relationship between transformational leadership and organizational commitment	Supported (partial mediation)
H10	Job satisfaction mediate the relationship between autocratic leadership and organizational commitment	Supported (full mediation)

4.11 Final Research Model

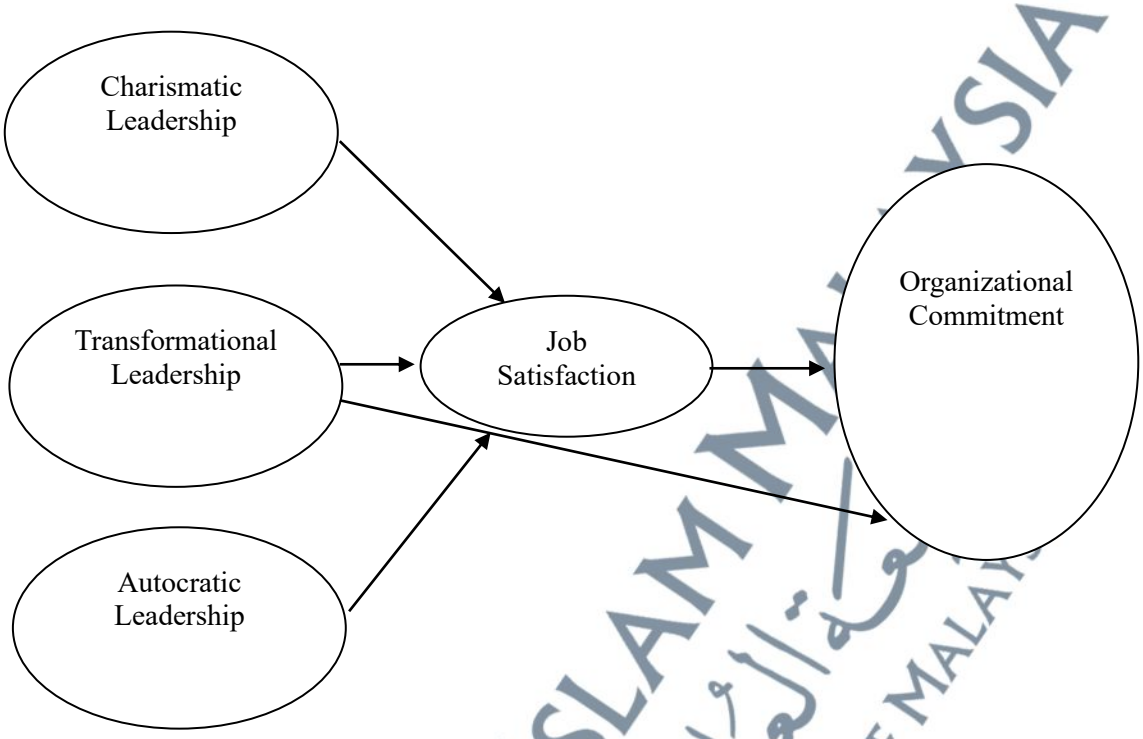

Figure 4.5: Final Research Model

4.12 Chapter Summary

This chapter has presented the results of data analysis in detail. All proposed hypotheses were supported by the research data. Leadership styles (charismatic, transformational, autocratic) significantly influenced job satisfaction and organizational commitment. Job satisfaction was also significantly associated with organizational commitment. In addition, job satisfaction was found to mediate between charismatic, transformational, and autocratic leadership styles with commitment. The next chapter discusses these findings further.