

CHAPTER 4

RESEARCH RESULTS

4.1 RELIABILITY ANALYSIS

Table 4.1 Calculation of Cronbach Alpha for each of the dimension of statistic

Dimension	Mean	Std. Dev.	Max	Min	Cronbach Alpha
Organization Characteristics	5.5782	4.9194	5.9294	5.3497	0.9031
Intervention Characteristics	5.2458	5.8602	5.8	3.4646	0.7068
Institutionalization Process	5.2271	7.3216	5.5969	4.2246	0.8556
Indicators of Institutionalization	5.1421	9.9487	5.6453	4.5596	0.9272

The result indicates that the Cronbach's alpha for all dimension are more than 0.7. According to Sekaran (2000), the closer the reliability coefficient gets to 1.0, the better. Thus, it can be concluded that the internal consistency reliability of the measures used in this study can be considered to be good.

4.2 FREQUENCY ANALYSIS

4.2.1 Characteristics of respondents

Position in organisation

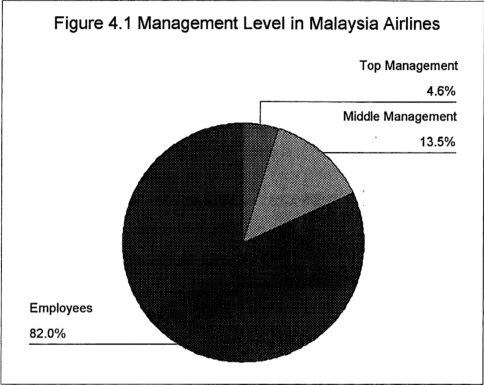
As shown in Table 4.2, the result revealed that the total numbers of respondent were 327 and there were 27 positions in this study.

Table 4.2 Position in the Organisation

Position	Frequency	Percent
1 Manager	12	3.7
2 Superitendent	1	.3
3 Foreman	7	2.1
4 License Aircraft Maintenance Engineer	13	4.0
5 Supervisor	24	7.3
6 Technician	10	3.1
7 Production Planner	3	.9
8 Senior Aircraft Mechanic	10	3.1
9 Asst. Production Planner	4	1.2
10 Officer	42	12.8
11 Machinist	13	4.0
12 Aircraft Mechanic	23	7.0
13 Store Keeper	5	1.5
14 Maintenance Assistant	6	1.8
15 Painter	11	3.4
16 Clerk	17	5.2
17 Driver	4	1.2
18 Controller	15	4.6
19 Executive	21	6.4
20 Administrative	1	.3
21 Senior Officer	28	8.6
22 Secretary	1	.3
23 Ground Operator	2	.6
24 Agent	30	9.2
25 Asst. G.M.	3	.9
26 Pricing Analyst	10	3.1
27 Seat Inventory Analyst	11	3.4
Total	327	100.0

In order to have a better understanding in later analysis, these various positions were then segregated into three main groups namely employees, middle management and top management.

Figure 4.1 shows the segregation result.



As shown in Figure 4.1, majority of the respondents were employees, which is eighty two percent from the total respondent, followed by middle management (13.5%) and top management (4.6%).

Table 4.3 Demographic Statistics

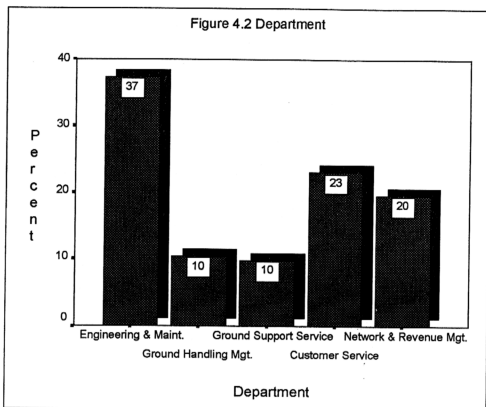
	Frequency	Percentage
Department		
Engineering and Maintenance	122	37.3
Ground Handling Management	34	10.4
Ground Support Services	32	9.8
Customer Service	75	22.9
Network Revenue Management	64	19.6
Total	327	100
Sex		
Male	257	78.6
Female	70	21.4
Total	327	100
Tenure		
Less than 1 year	7	2.1
1 – 5 years	74	22.6
6 – 10 years	151	46.2
11 – 20 years	70	21.4
More than 20 years	25	7.6
Total	327	100

Department

As survey has shown, Engineering and Maintenance Department comprised the largest respondent (37%), followed by Customer Service Department (23%).

20% of the total population comes from Network and Revenue Management while the rest of the population belongs to Ground Handling Management Department and Ground Support Service Department (10% each).

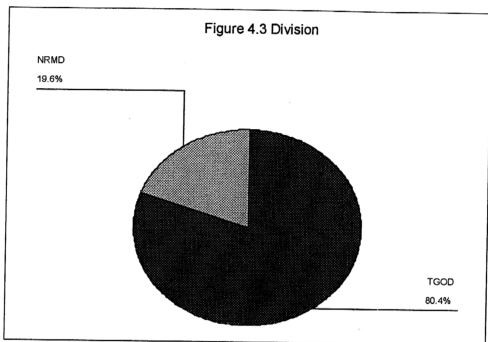
Details population for each department shown in Figure 4.2.



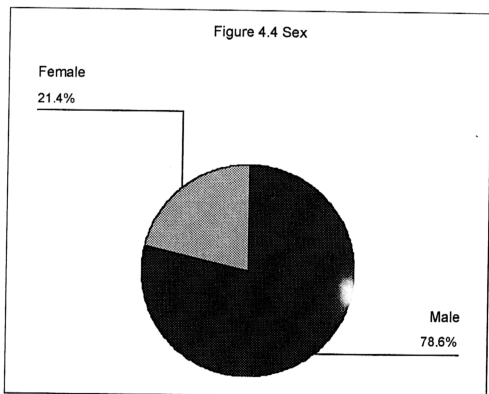
From the above department, Engineering and Maintenance Department, Ground Handling Management Department, Ground Support Service Department and Customer Service Department belongs to Technical Ground Operation Division (TGOD).

The other division is Network Revenue Management Division (NRMD). Details percentage for each division shown in Figure 4.3.

As revealed in Figure 4.3, this study is mainly focused on two divisions in Malaysia Airlines namely Technical Ground Operation Division (TGOD) and Network Revenue Management Division (NMRD).

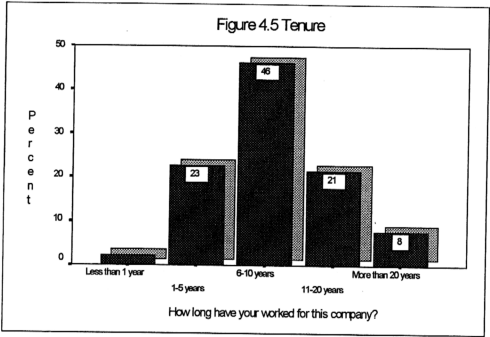


Sex



As shown in Figure 4.4, of the 327 questionnaire respondents 78.6 per cent (257) were male respondents and 21.4 per cent (70) female respondents.

Tenure



According to Figure 4.5, about 46% of the respondents have been worked with Malaysia Airlines for six to ten years. Majority of them (75%) worked with this company for more than six years.

4.2. 2 Means Score

Appendix shows a detailed SPSS results of mean score analysis.

4.2.2.1 Organisation Characteristics

Table 4.4 Means Score Result – Organisation Characteristics

	N	Minimum	Maximum	Mean
Q1. Congruence 1	327	2	7	5.93
Q6. Unionization 2	326	1	7	5.35

The result revealed that the minimum mean score for Organization Characteristics was 5.35 that is statement on unionization and the maximum mean score was 5.93 that is statement on congruence.

4.2.2.2 Intervention Characteristics

Table 4.5 Means Score Result – Intervention Characteristics

	N	Minimum	Maximum	Mean
Q8. Goal Specificity 2	325	1	7	4.06
Q14. Internal Support 2	326	1	7	3.47

It is obviously shows that the minimum mean score was 3.47 that is statement on internal support, followed by 4.06 that is statement on goal specificity. The rest of the variables were within 5.36 to 5.80. Therefore, from this result the statement on the internal support should be analysed more details in the next section. The statement on the goal specificity might also need to have a further analysis.

4.2.2.3 Institutionalization Process

Table 4.6 Means Score Result – Institutionalization Process

	N	Minimum	Maximum	Mean
Q22. Reward Allocation 2	327	1	7	4.23
Q26. Sensing and Calibration 2	327	1	7	4.94

The result for Institutionalization Process indicates that the mean score of the statement on reward allocation was relatively low (4.23) compared to the other variables mean score. This followed by the statement on sensing and calibration (4.94). Thus, it might be interesting to have a deep analysis on the reward allocation issues in the next analysis.

4.2.2.4 Indicators of Institutionalization

Table 4.7 Means Score Result – Indicators of Institutionalization

	N	Minimum	Maximum	Mean
Q28. Knowledge 2	327	2	7	4.56

The result for the Indicators of Institutionalization shows that the mean score of the statement on knowledge was the lowest (4.56) as compared to the other variables. It is important for any organisation to have knowledgeable members in implementing organisation change. Therefore, this particular variable need to be analysed more in the next section.

4.2.2.5 Divisional Performance

According to the result for the mean score of Divisional Performance is between 5.83 and 5.31. Thus, there is no much different among each variable.

4.3 CORRELATION ANALYSIS

A Person product-moment correlation coefficient describes the relationship between two continuous variables (Coakes & Steed, 2001). In this research, Bivariate Pearson product-moment correlation (two-tailed test) was used to test the causal relationship between independent variables and dependent variable.

This bivariate correlation analysis indicates the strength $[r]$ between the two variable measures on an interval scale. Besides indicates the strength, the Pearson's correlation coefficient also allows us to assess the direction of the relationship between two phenomena.

This procedure yields a single number that can have an absolute value of 0.0 to 1.0. The closer the absolute value is to 1.0 the stronger the relationship, the closer the absolute to 0.0 the weaker the relationship. The Pearson's Correlation Coefficient can also be negative or positive. The sign of the coefficient has nothing to do with the strength of association. A -0.75 is just as strong as a $+0.75$. A -0.90 is much stronger than A $+0.45$. The sign indicates the direction in which the variables change in relation to one another.

A negative sign suggests that an upward change in one variable be accompanied by a downward change in the other variable or vice versa.

A positive sign means that an upward change in one variable is accompanied by an upward change in the other variable.

Appendix shows a detailed SPSS results of correlation analysis.

Analysis Result

The result of the correlation analysis revealed that all the variables have a positive relationship with each other except for the statement on goal specificity, internal support and sensing and calibration.

These three questions have a negative correlation with most of the variables. The negative correlation means that there was a negative relationship between these three questions and other variables.

The test of significance showed that all the variables were significant at $p<0.01$ and $p<0.05$ with each other except for the statement on internal support and sensing and calibration. There were a few variables that were not significant with these statements.

Table 4.8 Correlation Analysis Result – Relationship between Knowledge and Performance

		Q29. Performance
Q28. Knowledge 2	Pearson Correlation	.799
	Sig (2-tailed)	.000
	N	327

As showed in Table 4.8, there was a significant strong positive correlation exists between statement on knowledge and performance ($r=0.799$, $p=0.00$). This means that there is a positive relationship between employees' knowledge and how well they perform the new ways of working.

Table 4.9 Correlation Analysis Result – Relationship between Internal Support and Personal Development

		Q29. Personal Development
Q14. Internal Support 2	Pearson Correlation	-.112
	Sig (2-tailed)	.044
	N	326

On the other hand, the data revealed that there was a significant weak negative correlation exists between statement on internal support and personal development ($r=-0.112$, $p=0.044$). Statements on the internal support refer to whether the external consultant brings expertise on organisational design and trains members to implement the design. While statements on personal development refer to whether the respondents feel they have benefited from the new knowledge imparted and they are able to apply it in their work. This means that there was a negative relationship between an external consultant that supposed to brings expertise on organizational design and trains members to implement the design and employees' personal development.

4.4 REGRESSION ANALYSIS

Multiple regression is an extension of Bivariate Correlation. The result of regression is an equation that represents the best prediction of a dependent variable from several independent variables. Regression analysis is used when independent variables are correlated with one another and with the dependent variable (Coakes & Steed, 2001).

There are three major regression models – namely, standard or simultaneous regression, hierarchical regression and stepwise regression. These models differ in two ways: first, in the treatment of overlapping variability due to correlation of the independent variables, and second, in terms of the order entry of the independent variables into the equation. In stepwise regression, the number of independent variables entered and order of entry are determined by statistical criteria generated by the stepwise procedure (Coakes & Steed, 2001).

Summary of the interpretation of hypotheses by using the Stepwise Regression

Multiple regression analysis is utilised to test the hypotheses. Although dummy variables (nominal variables coded 0, 1) may be used, all other variables must be interval or ratio.

Example: $Y = B_0 + B_1X_1 + B_2X_2 + \dots + B_nX_n$

Where: B_0 = a constant value of Y when all the X values are zero

B_i = The slope of the regression surface or the response surface. The B represents the regression coefficient associated with each X_i .

The regression coefficients are stated either in raw scores units of the actual X values or standardized coefficients. In either case, the value of the regression coefficients states the amount the Y varies with each unit change of the associated X variable when the effects of all other X variables are being held constant.

When the regression equation are standardized, they are called beta weights (B), and their values indicate the relative importance of the associated X values, particularly when the predictors are unrelated.

Adjusted R square is adjusted to reflect the model's goodness of fit for the population. The net effect is to make it comparable to other R square from equations with different number of independent variables.

The test statistic for ANOVA is the F ratio. If the null hypothesis is true, there should be no difference between the populations and the ratio should be close to zero.

The column 'BETA' gives the regression coefficients expressed in standardized form. When these are used, the regression Y intercept is zero. Standardized coefficients are useful when the variables are measured on different scales. The beta coefficients also show the relative contribution of the independent variables to the explanatory power of this equation. On the other hand, standard error is a measure of the sampling variability of each regression coefficients.

The column headed 't' measures the statistical significance of each of the regression coefficients. Again, compare these to the table value of t values using degrees of freedom for one independent variable. If all the regression coefficients are judged to be significantly, then they are both individually and jointly statistically significant.

The higher the values of R square the greater the explanatory power of the regression equation. And therefore, the better the prediction of the dependent variable.

The coefficient r indicates the strength of relationship between two variables. When these variables are jointly regressed against the dependent variable in an effort to explain the variance in it, the individual correlation get collapse

into what is called a multiple r or multiple correlation. The square of r , R^2 as is commonly known, is the amount of variance explained in the dependent variable by predictors. Such analysis, where more than one predictor variable is jointly regressed against the criterion variable, it is known as multiple regression analysis. When the R^2 value, the F statistic and its significance level are known, the results can be interpreted (Sekaran, 2000).

Lastly, collinearity of multicollinearity is the situation where two or more of the independent variables are highly correlated and it can have damaging effects on multiple regression. VIF is a variable inflation factor index, where large values of VIF, that is when VIF is greater than 10.0, it suggests a collinearity or multicollinearity problem. On the other hand, a high tolerance figure means an absence of multicollinearity.

To test hypothesis 1 to 5, step wise regression analyses was run.

The detailed result of stepwise regression analysis shows in Appendix.

Hypothesis 1: Knowledge

A positive relation is expected between organisation members to have knowledge to perform the new ways of working and organisation characteristics, intervention characteristics and institutionalization process.

Table 4.10 Stepwise Regression Analysis Result for Hypothesis 1

Model Summary							
Model	R	R Square	Adjusted R Square	Change Statistics			
				F Change	df1	df2	Sig. F Change
10	.830 ^j	.688	.678	5.209	1	313	.023

j. Predictors: (Constant), Q4.Stability of Environment and Technology 2 , Q8.Goal Specificity 2, Q16.Sponsorship 2, Q26.Sensing and Calibration 2, Q3.Stability of Environment and Technology 1, Q1.Congruence 1, Q21.Reward Allocation 1, Q10.Programmability 2, Q13.Internal Support 1, Q12.Level of Change Target 2

ANOVA ^k						
Model		Sum of Squares	df	Mean Square	F	Sig.
10	Regression	562.810	10	56.281	69.129	.000 ^j
	Residual	254.829	313	.814		
	Total	817.639	323			

j. Predictors: (Constant), Q4.Stability of Environment and Technology 2 , Q8.Goal Specificity 2, Q16.Sponsorship 2, Q26.Sensing and Calibration 2, Q3.Stability of Environment and Technology 1, Q1.Congruence 1, Q21.Reward Allocation 1, Q10.Programmability 2, Q13.Internal Support 1, Q12.Level of Change Target 2

k. Dependent Variable: Q28. Organization members have knowledge to perform the QCC.

Coefficients^a

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
		B	Std. Error	Beta			Tolerance	VIF
10	(Constant)	-1.212	.533		-2.3	.024		
	Q4.Stability of Environment and Technology 2	.477	.095	.286	5.01	.000	.305	3.283
	Q8.Goal Specificity 2	-.233	.039	-.228	-6.0	.000	.686	1.458
	Q16.Sponsorship 2	.278	.067	.211	4.15	.000	.383	2.609
	Q26.Sensing and Calibration 2	.189	.049	.156	3.86	.000	.606	1.650
	Q3.Stability of Environment and Technology 1	.321	.083	.220	3.86	.000	.307	3.262
	Q1.Congruence 1	-.334	.091	-.182	-3.7	.000	.402	2.488
	Q21.Reward Allocation 1	.200	.072	.105	2.76	.006	.685	1.459
	Q10.Program mability 2	.150	.065	.089	2.32	.021	.683	1.464
	Q13.Internal Support 1	-.185	.066	-.128	-2.8	.005	.480	2.082
	Q12.Level of Change Target 2	.155	.068	.099	2.28	.023	.532	1.880

a. Dependent Variable: Q28. Organization members have knowledge to perform the QCC.

The result of stepwise regression showed that all independent variables in the regression equation had low VIF values ranging from 1.458 to 3.283; showing absence of multi-collinearity problem. A common cutoff threshold is VIF

values of 10.0. Any variables with VIF values greater than 10.0 suggest collinearity or multicollinearity problem.

R squared = 0.688, indicating that 68.80% of the variation in the dependent variable is explained by the independent variables.

Since the calculated F value is greater than the critical value ($69.129 > 1.83$) [d.f 10,313; 0.05 critical value of F distribution], we can conclude that there are statistically significant differences between two or more pair of means. The F-ratio of 69.129 at 10 and 313 degree of freedom is statistically significant at the 0.05 level. This means that the estimated functional relationship is not due to chance or random variation. There does appear to be an association between the dependent variable and the independent variables other than random variation in the data (Sekaran, 2000).

The table t value for significant level of 0.05 with 313 degrees of freedom is 1.96. Looking at the column of t values, we note that the ten variables exceed this value and are candidates for inclusion.

Hypothesis 1 is accepted as indicated by the positive and significant coefficients.

Therefore, there is a positive relationship between organisation members to have knowledge to perform the new ways of working and organisation characteristics, intervention characteristics and institutionalization process.

That is, staffs need to know what is expected of them in order for the change program to be instituted (accepted and implemented).

From the equation:

$$Y = B_0 + B_1X_1 + B_2X_2 + \dots + B_nX_n$$

For Hypothesis 1:

$$Y = -1.212 + 0.477Q4 - 0.233Q8 + 0.278Q16 + 0.189Q26 + 0.321Q3 \\ - 0.334Q + 0.200Q21 + 0.150Q10 - 0.185Q13 + 0.155Q12$$

According to the coefficient table, the column beta under *Unstandardized Coefficients*, there were ten independent variables that have predictive strength on "organization members to have knowledge to perform the new ways of working" which is significant at 0.01 and 0.05 level. The highest number in the beta is at 0.477 and 0.321 for statements on stability of environment and technology. The positive beta indicated that in order for the employees to have the knowledge to perform the QCC programme, a stable environment and technology is the most important factor.

Statement on sponsorship appears to be included as the third most important factor influencing "organization members to have knowledge to perform the new ways of working" with beta of 0.189 and followed by the rest of independent variables.

Hypothesis 2: Performance

A positive relation is expected between organisation members actually perform the new ways of working and organisation characteristics, intervention characteristics and institutionalization process.

Table 4.11 Stepwise Regression Analysis Result for Hypothesis 2

Model Summary							
Model	R	R Square	Adjusted R Square	Change Statistics			
				F Change	df1	df2	Sig. F Change
12	.814 ^l	.662	.651	4.738	1	313	.030

l. Predictors: (Constant), Q16.Sponsorship 16, Q3.Stability of Environment and Technology 2, Q8.Goal Specificity 2, Q9.Programmability 1, Q26.Sensing and Calibration 2, Q18.Socialization : Q19.Commitment 1, Q2.Congruence 2 , Q1.Congruence 1, Q21.Reward Allocation 21

ANOVA ^m						
Model		Sum of Squares	df	Mean Square	F	Sig.
12	Regression	403.459	10	40.346	61.352	.000 ^l
	Residual	205.835	313	.658		
	Total	609.293	323			

l. Predictors: (Constant), Q16.Sponsorship 16, Q3.Stability of Environment and Technology 2, Q8.Goal Specificity 2, Q9.Programmability 1, Q26.Sensing and Calibration 2, Q18.Socialization 2, Q19.Commitment 1, Q2.Congruence 2 , Q1.Congruence 1, Q21.Reward Allocation 21

m. Dependent Variable: Q29. I feel a vast majority of the members are performing the new ways of working (as a result of QCC)

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
12	(Constant)	-.083	.465		-.178	.859	
	Q16.Sponsorship 2	.285	.061	.250	4.67	.000	.375
	Q3.Stability of Environment and Technology 2	.252	.074	.200	3.40	.001	.312
	Q8.Goal Specificity 2	-.171	.037	-.193	-4.6	.000	.609
	Q9.Programmability 1	.182	.065	.113	2.79	.006	.657
	Q26.Sensing and Calibration 2	.249	.046	.239	5.45	.000	.563
	Q18.Socialization 2	-.268	.076	-.206	-3.5	.000	.318
	Q19. Commitment 1	.218	.072	.184	3.04	.003	.294
	Q2.Congruence 2	.228	.081	.172	2.83	.005	.292
	Q1.Congruence 1	-.253	.084	-.160	-3.0	.003	.384
	Q21.Reward Allocation 2	.142	.065	.087	2.18	.030	.680
							1.470

a. Dependent Variable: Q29. I feel a vast majority of the members are performing the new ways of (as a result of QCC)

The result of stepwise regression showed that all independent variables in the regression equation had low VIF values ranging from 1.470 to 3.426; showing absence of multi-collinearity problem. A common cutoff threshold is VIF values of 10.0. Any variables with VIF values greater than 10.0 suggest collinearity or multicollinearity problem.

R squared = 0.662, indicating that 66.20% of the variation in the dependent variable is explained by the independent variables.

Since the calculated F value is greater than the critical value ($61.352 > 1.83$) [d.f 10,313; 0.05 critical value of F distribution], we can conclude that there

are statistically significant differences between two or more pair of means. The F-ratio of 61.352 at 10 and 313 degree of freedom is statistically significant at the 0.05 level. This means that the estimated functional relationship is not due to chance or random variation. There does appear to be an association between the dependent variable and the independent variables other than random variation in the data (Sekaran, 2000).

The table t value for significant level of 0.05 with 313 degrees of freedom is 1.96. Looking at the column of t values, we note that there are ten variables exceed this value and are candidates for inclusion.

Hypothesis 2 is accepted as indicated by the positive and significant coefficients.

Therefore, there is a positive relationship between organisation members actually performs the new ways of working and organisation characteristics, intervention characteristics and institutionalization process.

That is, staffs need to perform the new ways of working in order for the change program to be instituted (accepted and implemented).

From the equation:

$$Y = B_0 + B_1X_1 + B_2X_2 + \dots + B_nX_n$$

For Hypothesis 2:

$$Y = -0.083 + 0.285Q_{16} + 0.252Q_3 - 0.171Q_8 + 0.182Q_9 + 0.249Q_{26} \\ - 0.268Q_{18} + 0.218Q_{19} + 0.228Q_2 - 0.253Q_1 + 0.142Q_{21}$$

From to the coefficient table, the column beta under *Unstandardized Coefficients*, there were nine independent variables that have predictive strength on "organization members actually perform the new ways of working" which is significant at 0.01 and 0.05 level. The highest number in the beta is at 0.285 for statement on sponsorship where the respondents were asked to indicate their level of agreement whether the middle managers support the improvement initiatives (QCC). The positive beta indicated that in order for organization members to actually perform the QCC programme, support from the middle managers is the most important factor.

Statement on stability of environment and technology become the second most important factor in determining on "organization members to have knowledge to perform the new ways of working" with beta of 0.252.

Statement on sensing and calibration appears to be included as the third most important factor influencing "organization members to have knowledge to perform the new ways of working" with beta of 0.249 and followed by the rest of independent variables.

Hypothesis 3: Preferences

A positive relation is expected between organisation members' work being facilitated by the new ways of working and organisation characteristics, intervention characteristics and institutionalization process.

Table 4.12 Stepwise Regression Analysis Result for Hypothesis 3

Model Summary

Model	R	R Square	Adjusted R Square	Change Statistics			
				F Change	df1	df2	Sig. F Change
6	.812 ^f	.659	.653	3.962	1	317	.047

f. Predictors: (Constant), Q17.Socialization 1, Q7.Goal Specificity 1, Q26.Sensing and Calibration 2, Q20.Commitment 2, Q2.Congruence 2, Q4.Stability of Environment and Technology 2

ANOVA^g

Model		Sum of Squares	df	Mean Square	F	Sig.
6	Regression	250.001	6	41.667	102.215	.000 ^f
	Residual	129.221	317	.408		
	Total	379.222	323			

f. Predictors: (Constant), Q17.Socialization 1, Q7.Goal Specificity 1, Q26.Sensing and Calibration 2, Q20.Commitment 2, Q2.Congruence 2, Q4.Stability of Environment and Technology 2

g. Dependent Variable: Q31. The new ways of working (as result of QCC) has facilitated my work.

Coefficients^a

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	-.108	.246		-.441	.660		
Q17.Socialization 1	.406	.057	.352	7.15	.000	.443	2.258
Q7.Goal Specificity 1	.180	.049	.171	3.66	.000	.490	2.040
Q26.Sensing and Calibration 2	.164	.036	.199	4.54	.000	.559	1.790
Q20.Commitment 2	.187	.052	.184	3.62	.000	.418	2.393
Q2.Congruence 2	.206	.058	.197	3.58	.000	.353	2.830
Q4.Stability of Environment and Technology 2	-.127	.064	-.112	-2.0	.047	.338	2.955

a. Dependent Variable: Q31. The new ways of working (as result of QCC) has facilitated my work.

The result of stepwise regression showed that all independent variables in the regression equation had low VIF values ranging from 1.790 to 2.955; showing absence of multi-collinearity problem. A common cutoff threshold is VIF values of 10.0. Any variables with VIF values greater than 10.0 suggest collinearity or multicollinearity problem.

R squared = 0.659, indicating that 65.90% of the variation in the dependent variable is explained by the independent variables.

Since the calculated F value is greater than the critical value ($102.215 > 2.10$) [d.f 6,317; 0.05 critical value of F distribution], we can conclude that there are statistically significant differences between two or more pair of means. The F-ratio of 102.215 at 6 and 317 degree of freedom is statistically significant at the 0.05 level. This means that the estimated functional relationship is not due to chance or random variation. There does appear to be an association.

between the dependent variable and the independent variables other than random variation in the data (Sekaran, 2000).

The table t value for significant level of 0.05 with 317 degrees of freedom is 1.96. Looking at the column of t values, we note that the ten variables exceed this value and are candidates for inclusion.

Hypothesis 3 is accepted as indicated by the positive and significant coefficients.

Therefore, there is a positive relationship between organisation members' work being facilitated by the new ways of working and organization characteristics, intervention characteristics and institutionalization process.

That is, staffs have privately accepted the organisational changes have improved organisation's effectiveness and efficiency.

From the equation:

$$Y = B_0 + B_1X_1 + B_2X_2 + + B_nX_n$$

For Hypothesis 3:

$$Y = - 0.108 + 0.406Q_{17} + 0.180Q_7 + 0.164Q_{26} + 0.187Q_{20} + 0.206Q_2 - 0.127Q_4$$

From the coefficient table, the column beta under *Unstandardized Coefficients*, there were six independent variables that have predictive strength on "organization members' work being facilitated by the new ways of working" which is significant at 0.01 and 0.05 level. The highest number in the beta is at 0.406 for statements on socialization where the respondents were asked to indicate their level of agreement whether there is considerable learning and experimentation on the job. The positive beta indicated that in order for organization members' work being facilitated by the new ways of working, a considerable learning and experimentation on the job is the most important factor.

Statements on congruence become the second most important factor in determining on "organization members' work being facilitated by the new ways of working" with beta of 0.206.

Statements on commitment appears to be included as the third most important factor influencing "organization members' work being facilitated by the new ways of working" with beta of 0.187 and followed by the rest of independent variables.

Hypothesis 4: Value consensus

A positive relation is expected between the promotion of the concept of continuous learning and organisation characteristics, intervention characteristics and institutionalization process.

Table 4.13 Stepwise Regression Analysis Result for Hypothesis 4

Model Summary

Model	R	R Square	Adjusted R Square	Change Statistics			
				F Change	df1	df2	Sig. F Change
8	.708 ^h	.501	.491	5.506	1	317	.020

h. Predictors: (Constant), Q17.Socialization 1, Q9.Programmability 1, Q21.Reward Allocation 1, Q26.Sensing and Calibration 2, Q4.Stability of Environment and Technology 2, Q14.Internal Support 2

ANOVAⁱ

Model		Sum of Squares	df	Mean Square	F	Sig.
8	Regression	102.127	6	17.021	53.025	.000 ^h
	Residual	101.759	317	.321		
	Total	203.886	323			

h. Predictors: (Constant), Q17.Socialization 1, Q9.Programmability 1, Q21.Reward Allocation 1, Q26.Sensing and Calibration 2, Q4.Stability of Environment and Technology 2, Q14.Internal Support 2

i. Dependent Variable: Q37. The change has promoted the concept of continuous learning

Coefficient³

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
8	(Constant)	.909	.290	3.135	.002		
	Q17.Socialization 1	.180	.048	.214	3.789	.000	.496
	Q9.Programmability 1	.182	.042	.196	4.299	.000	.761
	Q21.Reward Allocation 1	.130	.044	.137	2.972	.003	.737
	Q26.Sensing and Calibration 2	.163	.029	.270	5.719	.000	.704
	Q4.Stability of Environment and Technology 2	.135	.047	.162	2.876	.004	.493
	Q14.Internal Support 2	.059	.025	.096	2.346	.020	.940

a. Dependent Variable: Q37. The change has promoted the concept of continuous learning

The result of stepwise regression showed that all independent variables in the regression equation had low VIF values ranging from 1.064 to 2.027; showing absence of multi-collinearity problem. A common cutoff threshold is VIF values of 10.0. Any variables with VIF values greater than 10.0 suggest collinearity or multicollinearity problem.

R squared = 0.501, indicating that 50.10% of the variation in the dependent variable is explained by the independent variables.

Since the calculated F value is greater than the critical value ($53.025 > 2.10$) [d.f 6,317; 0.05 critical value of F distribution], we can conclude that there are statistically significant differences between two or more pair of means. The F-ratio of 53.925 at 6 and 317 degree of freedom is statistically significant at the 0.05 level. This means that the estimated functional relationship is not due to chance or random variation. There does appear to be an association between

the dependent variable and the independent variables other than random variation in the data (Sekaran, 2000).

The table t value for significant level of 0.05 with 317 degrees of freedom is 1.96. Looking at the column of t values, we note that the ten variables exceed this value and are candidates for inclusion.

Hypothesis 4 is accepted as indicated by the positive and significant coefficients.

Therefore, there is a positive relationship between the promotion of the concept of continuous learning and organisation characteristics, intervention characteristics and institutionalization process.

That is, staffs have instilled in them the concept of continuous learning and this has contributed for the change program to be instituted (accepted and implemented).

From the equation:

$$Y = B_0 + B_1X_1 + B_2X_2 + \dots + B_nX_n$$

For Hypothesis 4:

$$Y = 0.909 + 0.180Q17 + 0.182Q9 + 0.130Q21 + 0.163Q26 \\ + 0.135Q4 + 0.059Q14$$

From the coefficient table, the column beta under *Unstandardized Coefficients*, there were six independent variables that have predictive strength on "the promotion of the concept of continuous learning" which is significant at 0.01 and 0.05 level. The highest number in the beta is at 0.182 for statements on programmability where the respondents were asked to indicate their level of agreement whether one of the targets of the improvement initiatives (QCC) is looking into strategic intent, for example reevaluating vision and external relationships, e.g. suppliers, travel agencies. The positive beta indicated that in order to promote the concept of continuous learning, the targets of the improvement initiatives (QCC) is looking into strategic intent is the most important factor.

Statements on socialization become the second most important factor in determining on "the promotion of the concept of continuous learning" with beta of 0.180.

Statements on sensing and calibration appears to be included as the third most important factor influencing "the promotion of the concept of continuous learning" with beta of 0.163 and followed by the rest of independent variables.

Hypothesis 5: Customer Satisfaction

A positive relation is expected between customer satisfaction and organisation characteristics, intervention characteristics, institutionalization process and indicators of institutionalization.

Table 4.14 Stepwise Regression Analysis Result for Hypothesis 5

Model Summary

Model	R	R Square	Adjusted R Square	Change Statistics			
				F Change	df1	df2	Sig. F Change
8	.681 ^h	.464	.451	4.837	1	315	.029

h. Predictors: (Constant), Q26.Sensing and calibration 2, Q6.Unionization 2, Q30.Preferences, Q22.Reward allocation 2, Q24.Diffusion 2, Q35.Value consensus 3, Q3.Stability of environment and technology 1, Q29.Performance

ANOVAⁱ

Model		Sum of Squares	df	Mean Square	F	Sig.
8	Regression	121.323	8	15.165	34.111	.000 ^h
	Residual	140.044	315	.445		
	Total	261.367	323			

h. Predictors: (Constant), Q26.Sensing and calibration 2, Q6.Unionization 2, Q30.Preferences, Q22.Reward allocation 2, Q24.Diffusion 2, Q35.Value consensus 3, Q3.Stability of environment and technology 1, Q29.Performance

i. Dependent Variable: Q49.Customer satisfaction: I am happy because the public appreciates what I do for them.

Coefficients

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.	Collinearity Statistics	
	B	Std. Error	Beta			Tolerance	VIF
(Constant)	1.988	.300		6.618	.000		
Q26.Sensing and calibration 2	.094	.043	.137	2.168	.031	.426	2.345
Q6.Unionization 2	.181	.048	.215	3.769	.000	.523	1.914
Q30.Preferences	.150	.050	.204	3.028	.003	.376	2.659
Q22.Reward allocation 2	.066	.028	.105	2.331	.020	.833	1.200
Q24.Diffusion 2	.143	.056	.158	2.571	.011	.451	2.218
Q35.Value consensus 3	.089	.042	.126	2.116	.035	.482	2.073
Q3.Stability of environment and technology 1	-.129	.050	-.157	-2.59	.010	.464	2.154
Q29.Performace	.096	.044	.146	2.199	.029	.384	2.605

a. Dependent Variable: Q49.Customer satisfaction: I am happy because the public appreciates for them.

The result of stepwise regression showed that all independent variables in the regression equation had low VIF values ranging from 1.200 to 2.659; showing absence of multi-collinearity problem. A common cutoff threshold is VIF values of 10.0. Any variables with VIF values greater than 10.0 suggest collinearity or multicollinearity problem.

R squared = 0.464, indicating that 46.40% of the variation in the dependent variable is explained by the independent variables.

Since the calculated F value is greater than the critical value ($34.111 > 1.94$) [d.f 8,315; 0.05 critical value of F distribution], we can conclude that there are statistically significant differences between two or more pair of means. The F-ratio of 34.111 at 8 and 315 degree of freedom is statistically significant at the

0.05 level. This means that the estimated functional relationship is not due to chance or random variation. There does appear to be an association between the dependent variable and the independent variables other than random variation in the data (Sekaran, 2000).

The table t value for significant level of 0.05 with 315 degrees of freedom is 1.96. Looking at the column of t values, we note that the ten variables exceed this value and are candidates for inclusion.

Hypothesis 5 is accepted as indicated by the positive and significant coefficients.

Therefore, there is a positive relationship between customer satisfaction and organisation characteristics, intervention characteristics, institutionalization process and indicators of institutionalization.

That is, staffs are happy because the public appreciates what they do for them (As a result of QCC program implementation).

From the equation:

$$Y = B_0 + B_1X_1 + B_2X_2 + \dots + B_nX_n$$

For Hypothesis 5:

$$Y = 1.988 + 0.181Q_6 + 0.50Q_{30} + 0.143Q_{24} + 0.096Q_{29} + 0.094Q_{26} + 0.089Q_{35} + 0.066Q_{22} - 0.129Q_3$$

From the coefficient table, the column beta under *Unstandardized Coefficients*, there were eight independent variables that have predictive strength on "customer satisfaction" which is significant at 0.01 and 0.05 level. The highest number in the beta is at 0.181 for statements on unionization where the respondents were asked to indicate their level of agreement whether the diffusion of improvement initiatives (QCC) is easier because changes do not affect union contract such as job design and employee flexibility. The positive beta indicated that in order to have a customer satisfaction, changes should not affect union contract is the most important factor.

Statements on preferences become the second most important factor in determining on "customer satisfaction" with beta of 0.150.

Statements on diffusion appears to be included as the third most important factor influencing "customer satisfaction" with beta of 0.143 and followed by the rest of independent variables.

4.5 T-TEST ANALYSIS

A t-test used to determine whether a set or sets of scores are from the same population. Three main types of t-test may be applied:

- One-sample
- Independent groups
- Repeated measures

The one-sample t-test is used when we have data from a single sample of participants and we wish to know whether the mean of the population from which the sample is drawn.

An independent group t-test is appropriate when different participants have performed in each of the different conditions – in other words, when the participants in one condition are different from the participants in the other condition. This is commonly referred to as a between-subjects design. We wish to determine whether the difference between means for the two sets of scores is significant.

The repeated measures t-test, also referred to as the dependent-samples or paired t-test, are used when we have data from only one group of participants. *In other words, an individual obtains two scores under different levels of the independent variables.* Data that are collected from the same group of participants are also referred to as with-in subjects, because the same subjects performs in both conditions. Studies which employ a pretest-posttest design are commonly analysed by using repeated measures t-test. In this form of design, the same participants obtains a score on the pretest and, after some intervention or manipulation, a score on the posttest. Again, we wish to determine whether the difference between means for the two sets of scores is the same or different (Coakes & Steed, 2001).

Appendix shows a detailed SPSS results of t-test analysis.

Analysis Result

Result of t-test indicated that for the Hypothesis 1 (Knowledge), Hypothesis 2 (Performance), Hypothesis 4 (Value consensus) and Hypothesis 5 (Customer satisfaction), Levene" test have a probability greater than 0.05, we can assume that the population variances were relatively equal. Therefore, we can use the t-value and two-tailed significance for the equal variance estimates to determine whether these sex differences exist (Coakes & Steed, 2001).

The two-tailed significance for Hypothesis 1, Hypothesis 2 and Hypothesis 5 indicated that $p < 0.05$ and thus we can say that there were significant differences between male and female in their perception of statements on knowledge, performance and customer satisfaction.

Inspection of the means suggest that females were stronger on the belief that organisation members have knowledge to perform the QCC (female mean = 4.99, male mean = 4.44). The result also revealed that more females felt that a vast majority of the employees are performing the new ways of working (female mean = 4.97, male mean = 4.54). In term of customer satisfaction, more females (mean = 5.73) than males (mean = 5.35) expressed that they were happy because the public appreciates what they do for them.

However, the two-tailed significance for Hypothesis 4 indicated that $p > 0.05$ and thus we could say that there was no significant difference between male and female in their perception of statement on value consensus.

Result of t-test also showed that for the Hypothesis 3 (Preferences), Levene" test has a probability smaller than 0.05, we can assume that the population variances were not equal. Therefore, we can use the results that do not assume equal variances to determine whether these sex differences exist. The two-tailed significance for Hypothesis 3 indicated that $p > 0.05$ and thus we can say that there was no significant difference between male and female in their perception of statement on preferences.

Table 4.15 T-Test Analysis Result – Group Statistics

	Sex	N	Mean	Std. Deviation	Std. Error Mean
Q28.Knowledge	1 Male	257	4.44	1.54	1.E-01
	2 Female	70	4.99	1.68	.20
Q29.Performance	1 Male	257	4.54	1.33	8.E-02
	2 Female	70	4.97	1.45	.17
Q31.Preferences	1 Male	257	5.36	1.04	6.E-02
	2 Female	70	5.61	1.23	.15
Q37.Value consensus	1 Male	257	5.43	.78	5.E-02
	2 Female	70	5.47	.86	.10
Q49. Customer satisfaction	1 Male	257	5.35	.88	6.E-02
	2 Female	70	5.73	.88	.11

Table 4.16 T-Test Analysis Result – Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means			
		F	Sig.	t	Sig. (2-tailed)	95% Confidence Interval of the Difference	
						Lower	Upper
Q28. Knowledge 2	Equal variances assumed	.000	.991	-2.56	.011	-.96	-.12
	Equal variances not assumed			-2.43	.017	-.98	-.10
Q29. Performance	Equal variances assumed	.550	.459	-2.37	.018	-.79	-.07
	Equal variances not assumed			-2.26	.026	-.82	-.05
Q31. Preferences 2	Equal variances assumed	6.6	.011	-1.73	.085	-.54	.04
	Equal variances not assumed			-1.57	.120	-.57	.07
Q37. Value Consensus 5	Equal variances assumed	.890	.346	-.404	.686	-.25	.17
	Equal variances not assumed			-.381	.704	-.27	.18
Q49. Customer satisfaction	Equal variances assumed	.940	.333	-3.21	.001	-.62	-.15
	Equal variances not assumed			-3.21	.002	-.62	-.15

4.6 ANOVA ANALYSIS

The purpose of this analysis was to observe whether there is any significant difference between group means among the variables. In addition, Tukey HSD post-hoc test will be used to determine where the significance lies.

4.6.2 Position

Hypotheses statement

Table 4.17 ANOVA Analysis Result – Position and Hypotheses statement

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Q28.Knowledge 2	Between Groups	76.100	2	38.050	16.56	.000
	Within Groups	744.487	324	2.298		
	Total	820.587	326			
Q29.Performance	Between Groups	39.317	2	19.658	11.16	.000
	Within Groups	570.910	324	1.762		
	Total	610.226	326			
Q31.Preferences 2	Between Groups	36.536	2	18.268	16.96	.000
	Within Groups	348.901	324	1.077		
	Total	385.437	326			
Q37.Value C Consensus	Between Groups	18.901	2	9.451	16.33	.000
	Within Groups	187.563	324	.579		
	Total	206.465	326			
Q49.Customer satisfaction	Between Groups	9.800	2	4.900	6.293	.002
	Within Groups	252.261	324	.779		
	Total	262.061	326			

Multiple Comparisons

Tukey HSD

Dependent Variable	(I) Position	(J) Position	Mean Difference (I-J)	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Q28.Knowledge 2	1 Top Management	2 Middle Management	.39	.666	-.67	1.45
		3 Employee	1.53*	.000	.59	2.47
	2 Middle Management	1 Top Management	-.39	.666	-1.45	.67
		3 Employee	1.14*	.000	.56	1.72
	3 Employee	1 Top Management	-1.53*	.000	-2.47	-.59
		2 Middle Management	-1.14*	.000	-1.72	-.56
Q29.Performance Management	1 Top Management	2 Middle Management	.53	.377	-.40	1.46
		3 Employee	1.26*	.001	.43	2.08
	2 Middle Management	1 Top Management	-.53	.377	-1.46	.40
		3 Employee	.73*	.002	.22	1.24
	3 Employee	1 Top Management	-1.26*	.001	-2.08	-.43
		2 Middle Management	-.73*	.002	-1.24	-.22
Q31.Preferences 2	1 Top Management	2 Middle Management	.49	.255	-.24	1.22
		3 Employee	1.20*	.000	.56	1.85
	2 Middle Management	1 Top Management	-.49	.255	-1.22	.24
		3 Employee	.71*	.000	.32	1.11
	3 Employee	1 Top Management	-1.20*	.000	-1.85	-.56
		2 Middle Management	-.71*	.000	-1.11	-.32

*. The mean difference is significant at the .05 level.

Multiple Comparisons

Tukey HSD

Dependent Variable	(I) Position	(J) Position	Mean Difference (I-J)	Sig.	95% Confidence Interval	
					Lower Bound	Upper Bound
Q37.Value Consensus 5	1 Top Management	2 Middle Management	.72*	.005	.19	1.25
		3 Employee	1.06*	.000	.58	1.53
	2 Middle Management	1 Top Management	-.72*	.005	-1.25	-.19
		3 Employee	.34*	.017	4.85E-02	.63
	3 Employee	1 Top Management	-1.06*	.000	-1.53	-.58
		2 Middle Management	-.34*	.017	-.63	-5.E-02
Q49. Customer Satisfaction	1 Top Management	2 Middle Management	.54	.099	-7.6E-02	1.16
		3 Employee	.77*	.003	.22	1.32
	2 Middle Management	1 Top Management	-.54	.099	-1.16	8.E-02
		3 Employee	.23	.248	-.11	.57
	3 Employee	1 Top Management	-.77*	.003	-1.32	-.22
		2 Middle Management	-.23	.248	-.57	.11

*. The mean difference is significant at the .05 level.

According to the above table, it can be concluded that all the variables were significant at the 0.05 level. Thus, the finding confirmed that all the variables tested differ significantly across position in the organisation.

Result of the post-hoc test indicates that top management has significantly different mean for all the variables than employees. Mean difference indicates that top management has a higher mean by 1.53 for the statement on knowledge, 1.26 for the statement on performance, 1.20 for the statement on preferences Q31, 1.06 for the statement on value consensus and 0.77 for the statement on customer satisfaction.

Top management has also significantly different mean for the statement on value consensus than middle management. Mean difference indicates that top management has a higher mean by 0.72. Thus, top management has a stronger value consensus towards the improvement initiatives than middle management.

Meanwhile middle management has significantly different mean for the statement on knowledge, performance, preferences and value consensus than employees. Mean difference indicates that middle management has a higher mean by 1.14 for the statement on knowledge, 0.73 for the statement on performance, 0.71 for the statement on preferences and 0.34 for the statement on value consensus.

Internal support statement

Table 4.18 ANOVA Analysis Result – Position and Internal Support

ANOVA				
Q14.INTE The external consultant brings expertise on organizational design and trains members to implement the design.				
	df	Mean Square	F	Sig.
Between Groups	2	16.561	10.245	.000
Within Groups	323	1.616		
Total	325			

Multiple Comparisons

Dependent Variable: Q14.INTE The external consultant brings expertise on organizational design and trains members to implement the design.
Tukey HSD

(I) Position	(J) Position	Mean Difference (I-J)	Sig.	95% Confidence Interval	
				Lower Bound	Upper Bound
1 Top Management	2 Middle Management	1.68*	.000	.79	2.58
	3 Employee	1.42*	.000	.63	2.22
2 Middle Management	1 Top Management	-1.68*	.000	-2.58	-.79
	3 Employee	-.26	.419	-.74	.22
3 Employees	1 Top Management	-1.42*	.000	-2.22	-.63
	2 Middle Management	.26	.419	-.22	.74

*. The mean difference is significant at the .05 level.

Internal support was significant at 0.05 level. Thus, internal support differs significantly across position in the organisation.

Result of the post-hoc test indicated that top management has significantly different mean for internal support than middle management and employees. Mean difference indicates that top management has a higher mean by 1.68 compared to middle management and 1.42 higher compared to employees. Thus, top management has a stronger internal support towards the improvement initiatives than middle management and employees.

However, there was no significant different between middle management and employee ($p>0.05$). Thus, there was no significant difference between middle management and employees in their perception of statement on internal support.

4.6.2 Department

Table 4.19 ANOVA Analysis Result – Department and Hypotheses Statement

ANOVA						
		Sum of Squares	df	Mean Square	F	Sig.
Q28.Knowledge 2	Between Groups	210.979	4	52.745	27.860	.000
	Within Groups	609.608	322	1.893		
	Total	820.587	326			
Q29.Performance	Between Groups	178.801	4	44.700	33.363	.000
	Within Groups	431.426	322	1.340		
	Total	610.226	326			
Q31.Preferences 2	Between Groups	80.231	4	20.058	21.161	.000
	Within Groups	305.206	322	.948		
	Total	385.437	326			
Q37.Value Consensus 5	Between Groups	43.087	4	10.772	21.230	.000
	Within Groups	163.378	322	.507		
	Total	206.465	326			
Q49.Customer Satisfaction	Between Groups	60.887	4	15.222	24.364	.000
	Within Groups	201.174	322	.625		
	Total	262.061	326			

According to the above table, it can be concluded that all the variables were significant at the 0.05 level. Thus, the finding confirmed that all the variables tested differ significantly across department in the organisation.

Department and Knowledge

Table 4.20 Post Hoc Test Result – Department and Knowledge

Multiple Comparisons

Dependent Variable: Q28.KNOW Organization members have knowledge to perform the QCC.
Tukey HSD

(I) Department	(J) Department	Mean Difference (I-J)	Sig.	95% Confidence Interval	
				Lower Bound	Upper Bound
1 Engineering & Maintenance	2 Ground Handling Management	.62	.141	-.11	1.34
	3 Ground Support Services	-.67	.102	-1.42	8.E-02
	4 Customer service	5.83E-02	.998	-.49	.61
	5 Network & Revenue Management	-1.87*	.000	-2.45	-1.29
2 Ground Handling Management	1 Engineering & Maint.	-.62	.141	-1.34	.11
	3 Ground Support Services	-1.29*	.001	-2.21	-.36
	4 Customer service	-.56	.284	-1.33	.22
	5 Network & Revenue Management	-2.49*	.000	-3.29	-1.69
3 Ground Support Services	1 Engineering & Maint.	.67	.102	-7.5E-02	1.42
	2 Ground Handling Management	1.29*	.001	.36	2.21
	4 Customer service	.73	.089	-6.4E-02	1.52
	5 Network & Revenue Management	-1.20*	.001	-2.02	-.39
4 Customer Service	1 Engineering & Maint.	-5.83E-02	.998	-.61	.49
	2 Ground Handling Management	.56	.284	-.22	1.33
	3 Ground Support Services	-.73	.089	-1.52	6.E-02
	5 Network & Revenue Management	-1.93*	.000	-2.57	-1.29
5 Network & Revenue Management	1 Engineering & Maint.	1.87*	.000	1.29	2.45
	2 Ground Handling Management	2.49*	.000	1.69	3.29
	3 Ground Support Services	1.20*	.001	.39	2.02
	4 Customer service	1.93*	.000	1.29	2.57

*. The mean difference is significant at the .05 level.

Result of the post-hoc test revealed that Network Revenue Management has significantly different mean for the statement on knowledge than other department. Mean difference indicates that Network Revenue Management has a higher mean by 1.87 compared to Engineering and Maintenance Department, 2.49 (Ground Handling Management Department), 1.20 (Ground Support Services Department) and 1.93 (Customer Service Department).

Meanwhile Ground Support Services has significantly different mean for the statement on knowledge, than Ground Handling Management. Mean difference indicates that Ground Support Services has a higher mean by 1.29 for the statement on knowledge.

Department and Performance

The findings indicated that Network Revenue Management has significantly different mean for the statement on performance than other department. Mean difference indicates that Network Revenue Management has a higher mean by 1.82 compared to Engineering and Maintenance Department, 2.12 higher than Ground Handling Management Department, 1.19 higher mean than Ground Support Services and 1.81 higher compared to Customer Service Department.

The result of the post-hoc test also indicates that Ground Support Services Department has significantly different mean for the statement on performance than Engineering and Maintenance Department and Ground Handling Management Department. Mean difference indicates that Ground Support Services Department has a higher mean by 0.64 compared to Engineering and Maintenance Department and 0.93 higher compared to Ground Handling Management Department.

Table 4.21 Post Hoc Test Result – Department and Performance

Multiple Comparisons

Dependent Variable: Q29.PERF I feel a vast majority of the members are performing the new ways of work (as a result of QCC)

Tukey HSD

(I) Department	(J) Department	Mean Difference (I-J)	Sig.	95% Confidence Interval	
				Lower Bound	Upper Bound
1 Engineering & Maintenance	2 Ground Handling Management	.30	.678	-.32	.91
	3 Ground Support Services	-.64*	.044	-1.26	-1.E-02
	4 Customer service	-1.56E-02	1.000	-.48	.45
	5 Network & Revenue Management	-1.82*	.000	-2.31	-1.34
2 Ground Handling Management	1 Eng. & Maint.	-.30	.678	-.91	.32
	3 Ground Support Services	-.93*	.009	-1.71	-.16
	4 Customer service	-.31	.689	-.96	.34
	5 Network & Revenue Management	-2.12*	.000	-2.79	-1.45
3 Ground Support Services	1 Eng. & Maint.	.64*	.044	1.E-02	1.26
	2 Ground Handling Management	.93*	.009	.16	1.71
	4 Customer service	.62	.081	-5.E-02	1.29
	5 Network & Revenue Management	-1.19*	.000	-1.87	-.50
4 Customer service	1 Eng. & Maint.	1.56E-02	1.000	-.45	.48
	2 Ground Handling Management	.31	.689	-.34	.96
	3 Ground Support Services	-.62	.081	-1.29	4.5E-02
	5 Network & Revenue Management	-1.81*	.000	-2.35	-1.27
5 Network & Revenue Management	1 Eng. & Maint.	1.82*	.000	1.34	2.31
	2 Ground Handling Management	2.12*	.000	1.45	2.79
	3 Ground Support Services	1.19*	.000	.50	1.87
	4 Customer service	1.81*	.000	1.27	2.35

*. The mean difference is significant at the .05 level.

Department and Preferences

Table 4.22 Post Hoc Test Result – Department and Preferences

Multiple Comparisons

Dependent Variable: Q31.PREF The new ways of working (as result of QCC) has facilitated my v
Tukey HSD

(I) Department	(J) Department	Mean Difference (I-J)	Sig.	95% Confidence Interval	
				Lower Bound	Upper Bound
1 Engineering & Maint.	2 Ground Handling Management	8.00E-02	.993	-.43	.60
	3 Ground Support Services	-.57*	.026	-1.10	-.04
	4 Customer service	-.54*	.001	-.93	-.15
	5 Network & Revenue Management	-1.29*	.000	-1.70	-.88
2 Ground Handling Management	1 Eng. & Maint.	-8.00E-02	.993	-.60	.43
	3 Ground Support Services	-.65	.052	-1.30	3.E-03
	4 Customer service	-.62*	.017	-1.17	-.07
	5 Network & Revenue Management	-1.37*	.000	-1.93	-.81
3 Ground Support Services	1 Eng. & Maint.	.57*	.026	4.E-02	1.10
	2 Ground Handling Management	.65	.052	-3.E-03	1.30
	4 Customer service	2.92E-02	1.00	-.53	.59
	5 Network & Revenue Management	-.72*	.006	-1.29	-.14
4 Customer Service	1 Eng. & Maint.	.54*	.001	.15	.93
	2 Ground Handling Management	.62*	.017	7.E-02	1.17
	3 Ground Support Services	-2.92E-02	1.00	-.59	.53
	5 Network & Revenue Management	-.75*	.000	-1.20	-.30
5 Network & Revenue Management	1 Eng. & Maint.	1.29*	.000	.88	1.70
	2 Ground Handling Management	1.37*	.000	.81	1.93
	3 Ground Support Services	.72*	.006	.14	1.29
	4 Customer service	.75*	.000	.30	1.20

*. The mean difference is significant at the .05 level.

Result of the post-hoc test revealed that Network Revenue Management has significantly different mean for the statement on preferences than other departments. Mean difference indicates that Network Revenue Management has a higher mean by 1.29 compared to Engineering and Maintenance Department, 1.37 (Ground Handling Management Department), 0.72 (Ground Support Services Department) and 0.75 (Customer Service Department).

Meanwhile Ground Support Services has significantly different mean for the statement on preferences than Engineering and Maintenance Department. Mean difference indicates that Ground Support Services has a higher mean by 0.57 for the statement on preferences.

Customer Service Department has significantly different mean for the statement on preferences, than Engineering and Maintenance Department and Ground Handling Management Department. Mean difference indicates that Customer Service Department has a higher mean by 0.54 compared to Engineering and Maintenance Department and 0.62 higher compared to Ground Handling Management Department.

Department and Value consensus

Table 4.23 Post Hoc Test Result – Department and Value consensus

Multiple Comparisons

Dependent Variable: Q37.VALU The change has promoted the concept of continuous learning
Tukey HSD

(I) Department	(J) Department	Mean Difference (I-J)	Sig.	95% Confidence Interval	
				Lower Bound	Upper Bound
1 Engineering & Maint.	2 Ground Handling Management	.19	.650	-.19	.57
	3 Ground Support Services	-.31	.179	-.70	7.4E-02
	4 Customer service	-.25	.114	-.54	3.4E-02
	5 Network & Revenue Management	-.92*	.000	-1.22	-.62
2 Ground Handling Management	1 Eng. & Maint.	-.19	.650	-.57	.19
	3 Ground Support Services	-.50*	.035	-.98	-2.E-02
	4 Customer service	-.44*	.024	-.84	-4.E-02
	5 Network & Revenue Management	-1.11*	.000	-1.52	-.70
3 Ground Support Services	1 Eng. & Maint.	.31	.179	-7.E-02	.70
	2 Ground Handling Management	.50*	.035	2.1E-02	.98
	4 Customer service	6.00E-02	.995	-.35	.47
	5 Network & Revenue Management	-.61*	.001	-1.03	-.19
4 Customer service	1 Eng. & Maint.	.25	.114	-3.E-02	.54
	2 Ground Handling Management	.44*	.024	3.8E-02	.84
	3 Ground Support Services	-6.00E-02	.995	-.47	.35
	5 Network & Revenue Management	-.67*	.000	-1.00	-.34
5 Network & Revenue Management	1 Eng. & Maint.	.92*	.000	.62	1.22
	2 Ground Handling Management	1.11*	.000	.70	1.52
	3 Ground Support Services	.61*	.001	.19	1.03
	4 Customer service	.67*	.000	.34	1.00

*. The mean difference is significant at the .05 level.

The findings indicated that Network Revenue Management has significantly different mean for the statement on value consensus than other department. Mean difference indicates that Network Revenue Management has a higher mean by 0.92 compared to Engineering and Maintenance Department, 1.11 higher than Ground Handling Management Department, 0.61 higher mean than Ground Support Services and 0.67 higher compared to Customer Service Department.

The result of the post-hoc test revealed that Ground Support Services Department has significantly different mean for the statement on value consensus than Ground Handling Management Department. Mean difference indicates that Ground Support Services Department has a higher mean by 0.50 compared to Ground Handling Management Department.

The result of the post-hoc test also showed that Customer Service Department has significantly different mean for the statement on value consensus than Ground Handling Management Department. Mean difference indicates that Customer Service Department has a higher mean by 0.44 compared to Ground Handling Management Department.

Department and Customer satisfaction

Table 4.24 Post Hoc Test Result – Department and Customer satisfaction

Multiple Comparisons

Dependent Variable: Q49.SATI Customer satisfaction: I am happy because the public appreciates w them.

Tukey HSD

(I) Department	(J) Department	Mean Difference (I-J)	Sig.	95% Confidence Interval	
				Lower Bound	Upper Bound
1 Engineering & Maint.	2 Ground Handling Management	-.31	.264	-.73	.11
	3 Ground Support Services	-.70*	.000	-1.13	-.27
	4 Customer service	-.36*	.018	-.67	-.05
	5 Network & Revenue Management	-1.17*	.000	-1.50	-.84
2 Ground Handling Management	1 Eng. & Maint.	.31	.264	-.11	.73
	3 Ground Support Services	-.40	.251	-.93	.14
	4 Customer service	-4.98E-02	.998	-.50	.40
	5 Network & Revenue Management	-.86*	.000	-1.32	-.41
3 Ground Support Services	1 Eng. & Maint.	.70*	.000	.27	1.13
	2 Ground Handling Management	.40	.251	-.14	.93
	4 Customer service	.35	.233	-.11	.80
	5 Network & Revenue Management	-.47*	.048	-.94	-.01
4 Customer Service	1 Eng. & Maint.	.36*	.018	4.1E-02	.67
	2 Ground Handling Management	4.98E-02	.998	-.40	.50
	3 Ground Support Services	-.35	.233	-.80	.11
	5 Network & Revenue Management	-.81*	.000	-1.18	-.45
5 Network & Revenue Management	1 Eng. & Maint.	1.17*	.000	.84	1.50
	2 Ground Handling Management	.86*	.000	.41	1.32
	3 Ground Support Services	.47*	.048	1.9E-03	.94
	4 Customer service	.81*	.000	.45	1.18

*. The mean difference is significant at the .05 level.

Result of the post-hoc test showed that Network Revenue Management has significantly different mean for the statement on customer satisfaction than other department. Mean difference indicates that Network Revenue Management has a higher mean by 1.17 compared to Engineering and Maintenance Department, 0.86 (Ground Handling Management Department), 0.47 (Ground Support Services Department) and 0.81 (Customer Service Department).

Meanwhile Ground Support Services has significantly different mean for the statement on customer satisfaction, than Engineering and Maintenance Department. Mean difference indicates that Ground Support Services has a higher mean by 0.70.

The result of the post-hoc test also showed that Customer Service Department has significantly different mean for the statement on customer satisfaction than Engineering and Maintenance Department. Mean difference indicates that Customer Service Department has a higher mean by 0.36 compared to Engineering and Maintenance Department.

4.6.3 Tenure

Table 4.25 ANOVA Analysis Result – Tenure and Hypotheses statement

		ANOVA				
		Sum of Squares	df	Mean Square	F	Sig.
Q28.Knowledge 2	Between Groups	47.961	4	11.990	4.997	.001
	Within Groups	772.626	322	2.399		
	Total	820.587	326			
Q29.Performance	Between Groups	47.567	4	11.892	6.805	.000
	Within Groups	562.659	322	1.747		
	Total	610.226	326			
Q31.Preference 2	Between Groups	14.930	4	3.732	3.244	.013
	Within Groups	370.508	322	1.151		
	Total	385.437	326			
Q37.Value Consensus 5	Between Groups	12.399	4	3.100	5.143	.000
	Within Groups	194.066	322	.603		
	Total	206.465	326			
Q49. Customer Satisfaction	Between Groups	5.990	4	1.498	1.883	.113
	Within Groups	256.071	322	.795		
	Total	262.061	326			

After proceeding with ANOVA, the results showed that all the variables were significant at 0.05 level except for Customer satisfaction ($p>0.05$). Thus, all the variables differ significantly across the tenure group except for the statement on customer satisfaction.

Tenure and Knowledge

Table 4.26 Post Hoc Test Result – Tenure and Knowledge

Multiple Comparisons

Dependent Variable: Q28.KNOW Organization members have knowledge to perform the QCC.
Tukey HSD

(I) How long have your worked for this company ?	(J) How long have your worked for this company ?	Mean Difference (I-J)	Sig.	95% Confidence Interval	
				Lower Bound	Upper Bound
1 Less than 1 year	2 1-5 years	-.61	.856	-2.28	1.06
	3 6-10 years	-1.19	.274	-2.82	.45
	4 11-20 years	-1.41	.144	-3.09	.26
	5 More than 20 years	-1.85*	.041	-3.66	-4.E-02
2 1-5 years	1 Less than 1 year	.61	.856	-1.06	2.28
	3 6-10 years	-.58	.067	-1.17	2.4E-02
	4 11-20 years	-.80*	.016	-1.51	-1.E-01
	5 More than 20 years	-1.24*	.005	-2.22	-.26
3 6-10 years	1 Less than 1 year	1.19	.274	-.45	2.82
	2 1-5 years	.58	.067	-2.4E-02	1.17
	4 11-20 years	-.23	.849	-.84	.38
	5 More than 20 years	-.66	.273	-1.58	.25
4 11-20 years	1 Less than 1 year	1.41	.144	-.26	3.09
	2 1-5 years	.80*	.016	9.78E-02	1.51
	3 6-10 years	.23	.849	-.38	.84
	5 More than 20 years	-.44	.745	-1.42	.55
5 More than 20 years	1 Less than 1 year	1.85*	.041	4.46E-02	3.66
	2 1-5 years	1.24*	.005	.26	2.22
	3 6-10 years	.66	.273	-.25	1.58
	4 11-20 years	.44	.745	-.55	1.42

*. The mean difference is significant at the .05 level.

For the statement on knowledge, three groups of means were obtained. One major finding was that employees who work for more than 20 years have significantly higher mean than those who work for less than a year and who do work between 1 to 5 years. Mean difference indicates that employees who work more than 20 years have a higher mean by 1.85 compared to employees who work less than 1 year and 1.24 higher compared to employees who work between 1 to 5 years. Thus, 'More than 20 years' tenure group has more knowledge towards the improvement initiatives than these two tenure group.

The same group of employees (1 to 5 years) also has significantly lower means than those employees who work between 11 to 20 years. Mean difference indicates that employees who work between 11 to 20 years have a higher mean by 0.80 compared to employees who work between 1 to 5 years.

Tenure and Performance

The result indicates that employees who work less than 1 year and employees who work between 1 to 5 years has significantly different mean for the statement on performance than employees who work between 11 to 20 years and employees who work more than 20 years. Mean difference indicates that employees who work between 11 to 20 years have a higher mean by 1.79 compared to employees who work less than 1 year and 0.90 higher compared to employees who work between 1 to 5 years.

Mean difference also revealed that employees who work more than 20 years have a higher mean by 1.83 compared to employees who work less than 1 year and 0.94 higher compared to employees who work between 1 to 5 years.

Table 4.27 Post Hoc Test Result – Tenure and Performance

Multiple Comparisons

Dependent Variable: Q29.PERF I feel a vast majority of the members are performing the new ways working (as a result of QCC)

Tukey HSD

(I) How long have your worked for this company ?	(J) How long have your worked for this company ?	Mean Difference (I-J)	Sig.	95% Confidence Interval	
				Lower Bound	Upper Bound
1 Less than 1 year	2 1-5 years	-.89	.432	-2.32	.54
	3 6-10 years	-1.34	.065	-2.74	5.07E-02
	4 11-20 years	-1.79*	.006	-3.22	-.36
	5 More than 20 years	-1.83*	.010	-3.38	-.29
2 1-5 years	1 Less than 1 year	.89	.432	-.54	2.32
	3 6-10 years	-.45	.111	-.97	5.82E-02
	4 11-20 years	-.90*	.000	-1.50	-.29
	5 More than 20 years	-.94*	.017	-1.78	-.11
3 6-10 years	1 Less than 1 year	1.34	.065	-5.1E-02	2.74
	2 1-5 years	.45	.111	-5.8E-02	.97
	4 11-20 years	-.44	.140	-.96	7.91E-02
	5 More than 20 years	-.49	.422	-1.27	.29
4 11-20 years	1 Less than 1 year	1.79*	.006	.36	3.22
	2 1-5 years	.90*	.000	.29	1.50
	3 6-10 years	.44	.140	-7.9E-02	.96
	5 More than 20 years	-4.86E-02	1.000	-.89	.79
5 More than 20 years	1 Less than 1 year	1.83*	.010	.29	3.38
	2 1-5 years	.94*	.017	.11	1.78
	3 6-10 years	.49	.422	-.29	1.27
	4 11-20 years	4.86E-02	1.000	-.79	.89

*. The mean difference is significant at the .05 level.

Tenure and Value consensus

Table 4.28 Post Hoc Test Result – Tenure and Value consensus

Multiple Comparisons

Dependent Variable: Q37.VALU The change has promoted the concept of continuous learning
Tukey HSD

(I) WORKED How long have your worked for this company ?	(J) WORKED How long have your worked for this company ?	Mean Differenc e (I-J)	Sig.	95% Confidence Interval	
				Lower Bound	Upper Bound
1 Less than 1 year	2 1-5 years	-.33	.816	-1.17	.51
	3 6-10 years	-.59	.289	-1.41	.23
	4 11-20 years	-.76	.100	-1.60	8.23E-02
	5 More than 20 years	-.94*	.036	-1.85	-3.73E-02
2 1-5 years	1 Less than 1 year	.33	.816	-.51	1.17
	3 6-10 years	-.25	.141	-.56	4.60E-02
	4 11-20 years	-.43*	.009	-.78	-7.20E-02
	5 More than 20 years	-.61*	.006	-1.10	-.12
3 6-10 years	1 Less than 1 year	.59	.289	-.23	1.41
	2 1-5 years	.25	.141	-4.60E-02	.56
	4 11-20 years	-.17	.550	-.48	.14
	5 More than 20 years	-.36	.209	-.81	.10
4 11-20 years	1 Less than 1 year	.76	.100	-8.23E-02	1.60
	2 1-5 years	.43*	.009	7.20E-02	.78
	3 6-10 years	.17	.550	-.14	.48
	5 More than 20 years	-.19	.843	-.68	.31
5 More than 20 years	1 Less than 1 year	.94*	.036	3.73E-02	1.85
	2 1-5 years	.61*	.006	.12	1.10
	3 6-10 years	.36	.209	-.10	.81
	4 11-20 years	.19	.843	-.31	.68

*. The mean difference is significant at the .05 level.

For the statement on value consensus, three groups of means were obtained. One major finding was that employees who work for more than 20 years have significantly higher mean than those who work for less than a year and employees whom do work between 1 to 5 years. Mean difference indicates that employees who work more than 20 years have a higher mean by 0.94 compared to employees who work less than 1 year and 0.61 higher compared to employees who work between 1 to 5 years.

The same group of employees (1 to 5 years) also has significantly lower means than employees who work between 11 to 20 years. Mean difference indicates that employees who work between 11 to 20 years have a higher mean by 0.43 compared to employees who work between 1 to 5 years.