

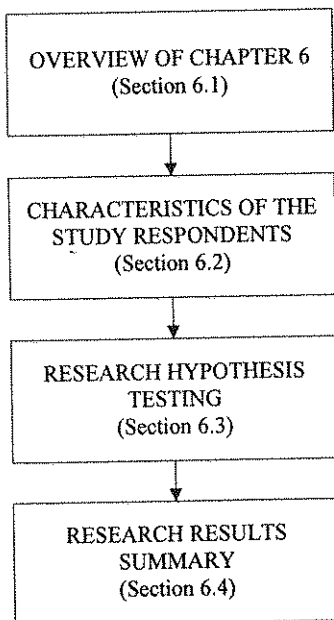
6 DATA ANALYSIS AND RESULTS

Chapter five tested and examined the reliability and validity of the data. This chapter tests the hypotheses and research questions described in chapter three and then summarises the research findings.

6.1 Overview of Chapter 6

This chapter consists of three sections, as illustrated in figure 6.1. The first section discusses the characteristics of the study respondents. The discussion moves to the testing of research hypotheses and questions. In the last section the research findings from testings the research hypotheses and questions are summarised.

Figure 6.1 Outline of chapter 6



6.2 Characteristics of the Study Respondents

This section analyses the respondents data based on the three main respondents characteristics: industry where their organisations operate, characteristics of the CRM system implemented, and personal characteristics of respondents.

6.2.1 Characteristics of Organisations Participated in This Study

A demographic summary of the sample obtained in this study is shown in table 6.1 and table 6.2.

Table 6.1 Frequency table of the respondents by industry

Industry	Total responses
Agriculture, Forestry and Fishing	2
Mining	2
Manufacturing	18
Electricity, Gas and Water Supply	2
Construction	10
Wholesale Trade	9
Retail Trade	9
Accommodation, Cafes and Restaurants	0
Transport and Storage	5
Communication Service	10
Finance and Insurance	12
Property and Business Services	6
Government Administration and Defence	2
Education	2
Health and Community Services	6
Cultural and Recreational Services	1
Personal and Other Services	4
	101

Respondents were coded accordingly to industry type using the major categories provided under the ANZSIC (Australian and New Zealand Standard Industrial Classification) coding system. The largest group (18 percent) of respondents is involved in manufacturing industry. The other three larger groups of respondents operate in finance and insurance (12 percent), construction (10 percent), and communication services (10 percent). All other industry categories contain less than 10 percent of respondents.

Table 6.2 Frequency table of the respondents' profile

		No. of respondents	Percentage
1	Nature of Business: - Public Sector - Private Sector	5 96	5.0 95.0
2	Number of Employee - 1 to 19 - 20 to 199 - 200 or more - Not answered	4 30 66 1	4.0 29.7 65.3 1.0
3	Annual Revenue in A\$ - Less than 50 M - Between 50 M and 99 M - Between 100 M and 499 M - Above 500 M - Not answered	15 21 30 33 2	14.9 20.8 29.7 32.7 2.0
4	First begin using CRM system - 2004-2005 - 2002-2003 - 2000-2001 - Before 2000 - Not answered	23 15 19 41 3	22.8 14.9 18.8 40.6 3.0
5	Number of Employees using the CRM system: - 1 to 9 - 10 to 49 - 50 to 99 - 100 to 199 - 200 or more	25 27 23 5 19	24.8 26.7 22.8 5.0 18.8
6	Position in Organisation - Non Management - Junior Management - Middle Management - Senior Management - Chief Executive Officer/Managing Director	6 2 24 62 7	5.9 2.0 23.8 61.4 6.9
7	Years in Organisation - less than 1 - 1 to 2 - 3 to 4 - 5 or more	8 22 22 49	7.9 21.8 21.8 48.5
8	Age - less than 25 - 25 to 44 - 45 or more - Not answered	4 57 37 3	4.0 56.4 36.6 3.0

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7	Years in Organisation - less than 1 - 1 to 2 - 3 to 4 - 5 or more	8 22 22 49	7.9 21.8 21.8 48.5
8	Age - less than 25 - 25 to 44 - 45 or more - Not answered	4 57 37 3	4.0 56.4 36.6 3.0

From a total of 101 respondents, 96 respondents are from the private sector and five respondents are from government sector or controlled-by-government sector. Almost 65 percent of respondents have 200 or more full time equivalent employees (FTE). Many (63 percent) of respondents have an annual revenue in 2004 of above A\$100 million. The majority (59 percent) of respondents first began using CRM before the year of 2002, with almost 74 percent of respondents having less than 100 employees using the CRM system. The majority (61 percent) of respondents is in senior management positions, with almost 70 percent of respondents have been working in the organisation for more than three years, and 56 percent of respondents are between 24 to 44 years old.

6.2.2 CRM Satisfaction of Organisations Participated in This Study

Table 6.3 CRM satisfaction survey results

Questionnaire Score	Frequency	Percent
1	3	3.0
2	9	8.9
3	17	16.8
4	20	19.8
5	28	27.7
6	17	16.8
7	3	3.0

Table 6.3 shows that less than half (48 percent) of organisations participated in this study are satisfied with their CRM performance, with score above 4 – the midpoint, on the 7-point Likert-type scale. Almost 20 percent are neither satisfied nor dissatisfied (scores equal to 4), and 29 percent are not satisfied with their CRM performance (scores below 4).

6.3 Research Issues and Hypotheses Testing

After data satisfied the requirements for measurement model fit, constructs validity and reliability, the next step is to test the research hypotheses and questions described in chapter three. These research hypotheses and questions are tested using path analysis and multiple regressions in AMOS SEM program version 5.0 and hierarchical multiple regressions in SPSS version 13.0. In SEM, samples of 101 are considered as medium sample size and with this sample size, the statistical stability obtained from AMOS could not be achieved if the model is a complex model, for example, with more than 20 parameters (Kline, 1998).

6.3.1 Hypothesis Testing for Research Issues no. 1 and 2

R₁: Is organisational culture associated with CRM system implementation outcomes?

H_{1.1}: Among four organisational culture types, Adhocracy culture has the highest degree of positive association with CRM system implementation outcomes

In this section, CRM outcome variable, composed of the four balanced scorecard outcome variables (Financial, Customer, Process and People outcomes), is regressed against the organisational culture types. CRM outcome variable is used as the dependent variable, and Clan culture, Adhocracy culture, Hierarchy culture and Market culture variables serve as the predictor variables. Figure 6.2 shows the unstandardised parameter estimates for hypothesis_{1.1}.

Figure 6.2 Unstandardised parameter estimates for hypothesis_{1,1}

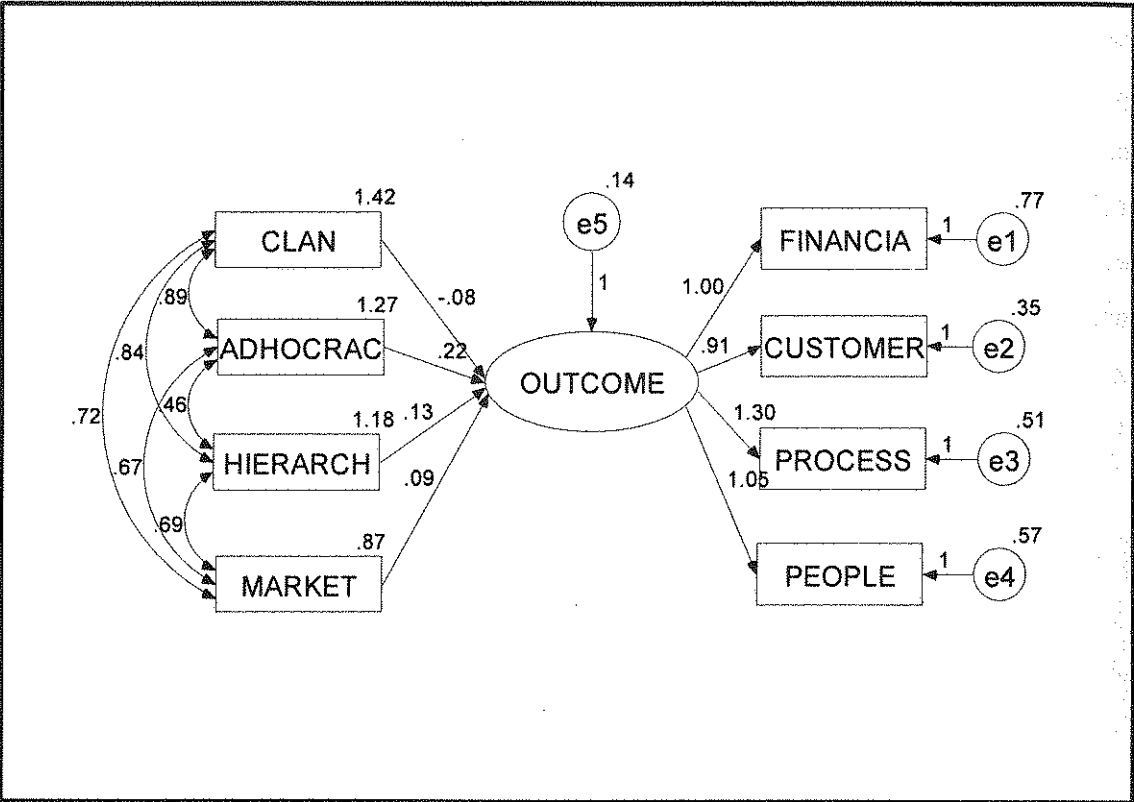


Table 6.4 Model fit summary for hypothesis_{1,1}

Indices	Model fit summary	Model level of fit	Good level of fit criteria
CMIN	19.178		
DF	14		
P	0.158	> 0.05	≥ 0.05
GFI	0.957	> 0.90	≥ 0.90
RMSEA	0.061	< 0.10	≤ 0.10
CFI	0.983	> 0.90	≥ 0.90
TLI	0.965	$0.90 < \text{TLI} < 1$	$0.90 \leq \text{TLI} \leq 1$

Table 6.4 shows that all indices are within the good level of fit. The left side of figure 6.2 shows that covariances between the predictor variables range from a low of 0.46 for ADHOCRACY culture and HIERARCHY culture to a high of 0.89 for CLAN culture and ADHOCRACY culture. Covariances are the product of their correlations and their respective standard deviations. Above each of the rectangles are the variances of each predictor variable. The variances of predictor variables range from a low of 0.87 for MARKET culture to a high of 1.42 for CLAN culture. The arrows that link the predictor

or independent variables to the dependent variable are the unstandardised regression coefficients or B coefficients. This unstandardised regression coefficient represents the amount of change in dependent variable per single unit change in the predictor variable. The unstandardised regression coefficients are -0.08 for CLAN culture, 0.22 for ADHOCRACY culture, 0.13 for HIERARCHY culture, and 0.09 for MARKET culture. These results suggest that for every single unit of increase in CLAN culture, CRM OUTCOME decreases on average by 0.08 units. For every single unit of increase in ADHOCRACY culture, CRM OUTCOME increases on average by 0.22 units. For every single unit of increase in HIERARCHY culture, CRM OUTCOME increases on average by 0.13 units. For every single unit of increase in MARKET culture, CRM OUTCOME increases on average by 0.09 units. Finally, the estimate of the error variance is 0.14.

On the right side of figure 6.2, the arrows that link the latent variables of CRM OUTCOME to the observed variables are unstandardised regression weights, for example, for FINANCIAL is 1. Above each of circle is the estimate of variance. For example, for FINANCIAL, the variance of error term 1 (ϵ_1) is estimated to be 0.77.

Figure 6.3 Standardised parameter estimates for hypothesis_{1,1}

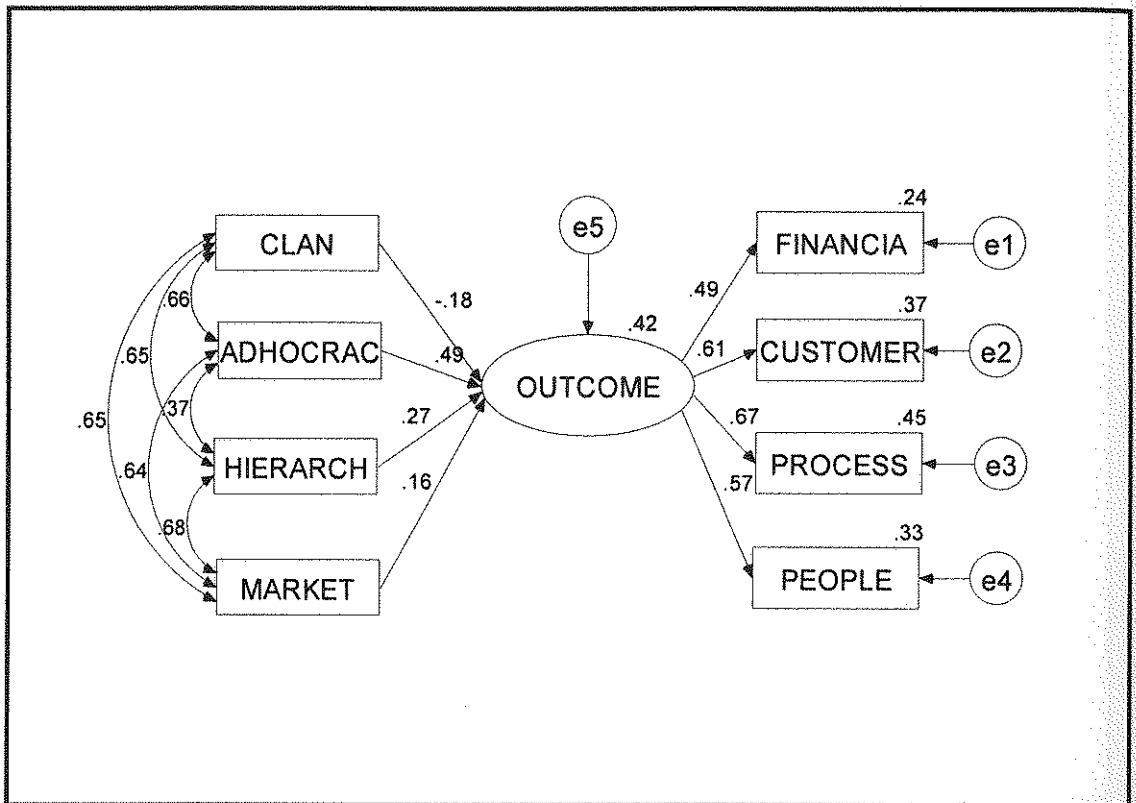


Figure 6.3 shows the standardised parameter estimates for hypothesis_{1,1}. On the left side, it shows that the correlations between the predictor variables range from a low of 0.37 for ADHOCRACY culture and HIERARCHY culture to a high of 0.68 for HIERARCHY culture and MARKET culture. The arrows that link the predictor or independent variables to the dependent variable are the standardised regression coefficients or beta values. The standardised regression coefficients are -0.18 for CLAN culture, 0.49 for ADHOCRACY culture, 0.27 for HIERARCHY culture, and 0.16 for MARKET culture. These standardised regression weights indicate the number of standard deviations change in the dependent variable for each standard deviation change in the independent variables. For one additional standard deviation change in CLAN culture, CRM OUTCOME is predicted to decrease by 0.18 of a standard deviation. For one additional standard deviation change in ADHOCRACY culture, CRM OUTCOME is predicted to increase by 0.49 of a standard deviation. For one additional standard deviation change in HIERARCHY culture, CRM OUTCOME is predicted to increase by 0.27 of a standard deviation. For one additional standard deviation change in MARKET culture, CRM OUTCOME is predicted to increase by 0.16 of a standard deviation. Finally, the R² value of 0.42 indicates that 42 percent of the variation in

FINANCIAL, CUSTOMER, PROCESS and PEOPLE outcomes, that form CRM OUTCOME, is explained by these four culture types.

On the right side of figure 6.3, the arrows that link the latent variables to the observed variables are standardised regression weights or factor loadings, for example, factor loadings for FINANCIAL is 0.49. Above each of the rectangles is the square multiple correlations (SMCs) or the square of the variable’s standardised loading. For example, it is estimated that the predictor of FINANCIAL explains 24 percent of its variance.

Table 6.5 Regression weights for hypothesis_{1,1}

			Estimate	S.E.	C.R.	P
OUTCOMES	<---	CLAN	-.076	.071	-1.064	.287
OUTCOMES	<---	ADHOCRACY	.219	.080	2.720	.007
OUTCOMES	<---	HIERARCHY	.126	.077	1.645	.100
OUTCOMES	<---	MARKET	.088	.091	.961	.336

The regression weights in table 6.5 displays:

- The unstandardised regression coefficients in the ‘Estimate’ column
- Standard errors in the ‘S.E.’ column
- t-values in the ‘C.R.’ (Critical Ratio) column
- ‘P’ values for statistical significance

Table 6.5 shows that the regression coefficient is statistically significant at the 0.05 level for ADHOCRACY culture. The results reveal significant relationship between Adhocracy culture and CRM system implementation outcomes. Thus, hypothesis_{1,1} is supported.

H_{1,2}: External culture orientation has a higher degree of positive association with CRM system implementation outcomes than Internal culture orientation

In this section, CRM outcome variable, composed of the four balanced scorecard outcome variables (Financial, Customer, Process and People outcome), is used as the dependent variable and External and Internal culture orientation variables serve as the predictor variables for the regression model. Figure 6.4 shows the unstandardised parameter estimates for hypothesis_{1,2}.

Figure 6.4 Unstandardised parameter estimates for hypothesis_{1,2}

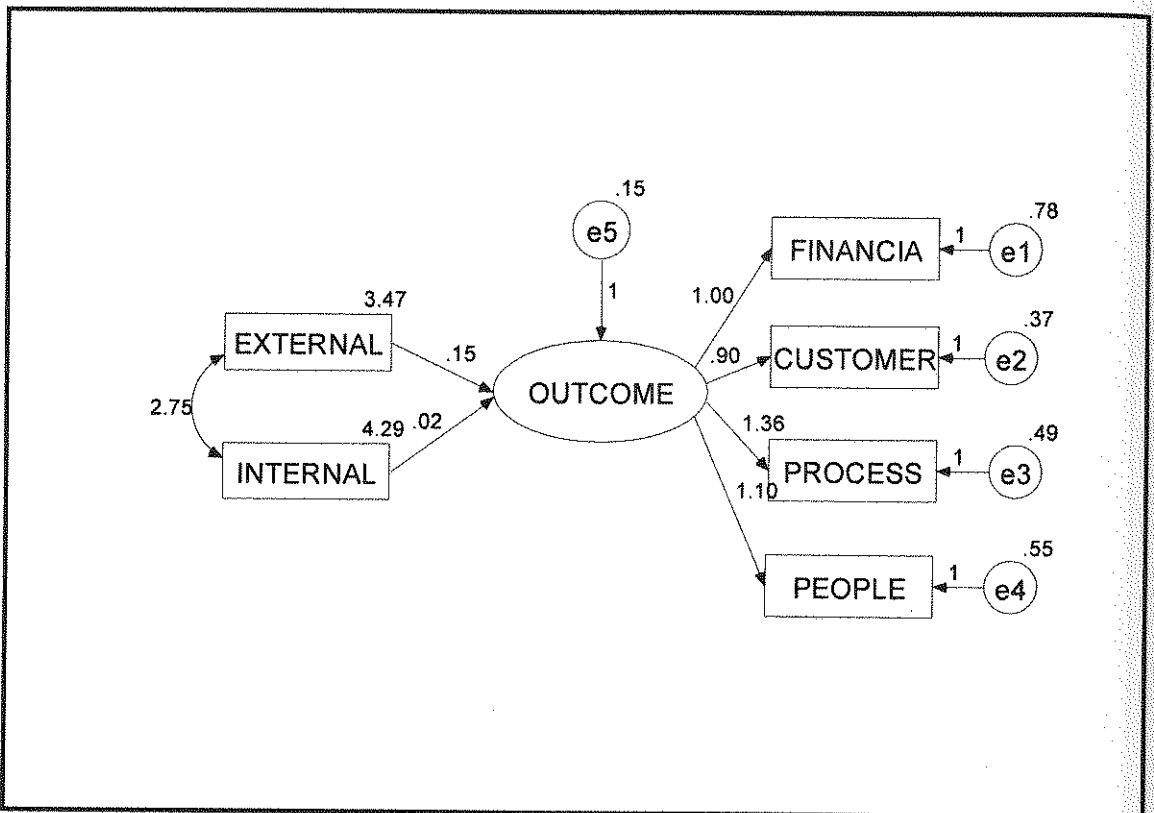


Table 6.6 Model fit summary for hypothesis_{1,2}

Indices	Model fit summary	Model level of fit	Good level of fit criteria
CMIN	9.376		
DF	8		
P	0.312	> 0.05	≥ 0.05
GFI	0.971	> 0.90	≥ 0.90
RMSEA	0.041	< 0.10	≤ 0.10
CFI	0.991	> 0.90	≥ 0.90
TLI	0.983	0.90 < TLI < 1	0.90 ≤ TLI ≤ 1

Table 6.6 shows that all indices are within the good level of fit. Figure 6.4 shows that the covariance between EXTERNAL and INTERNAL culture orientations is 2.75. The variance of EXTERNAL culture orientation is 3.47 and the variance of INTERNAL culture orientation is 4.29. The unstandardised regression coefficients are 0.15 for EXTERNAL culture orientation and 0.02 for INTERNAL culture orientation. These results suggest that for every single unit of increase in EXTERNAL culture orientation, CRM OUTCOME increases on average by 0.15 units and for every single unit of

increase in INTERNAL culture orientation, CRM OUTCOME increase on average by 0.02 units. Finally, the estimate of the error variance is 0.15.

Figure 6.5 Standardised parameter estimates for hypothesis_{1,2}

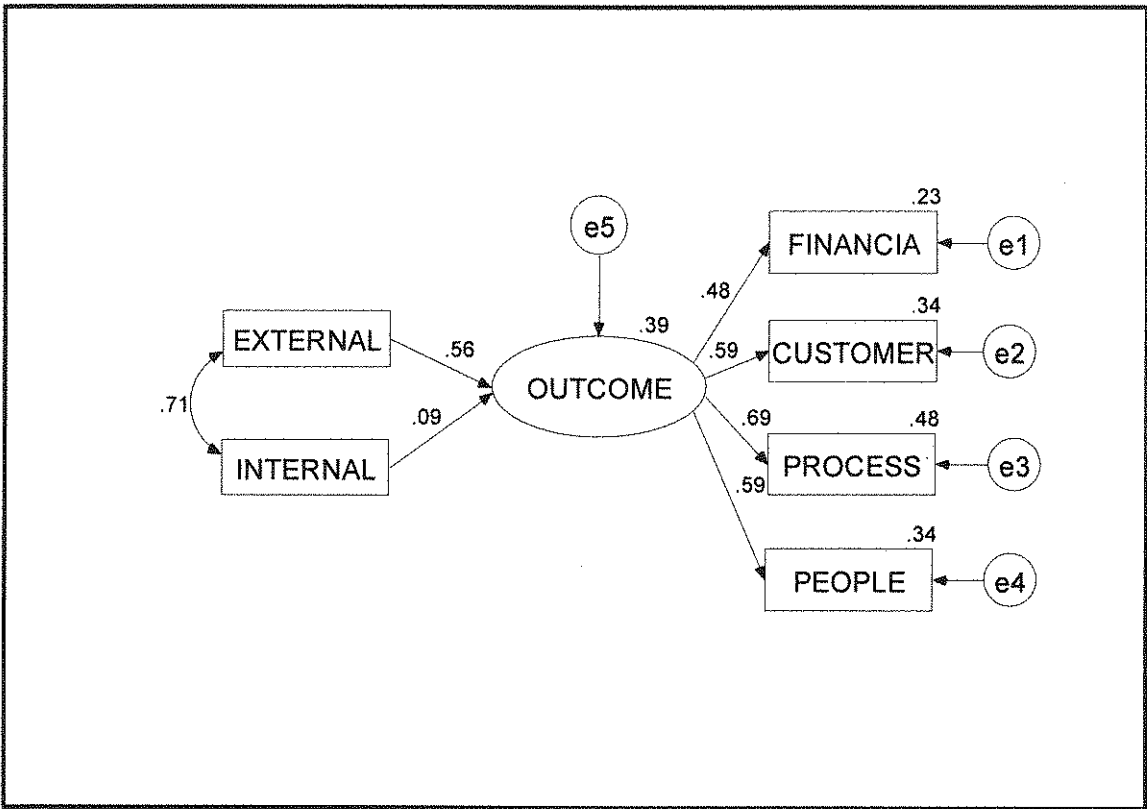


Figure 6.5 shows the standardised parameter estimates for hypothesis_{1,2}. It shows the coefficient correlation between the predictor variables is 0.71. The standardised regression coefficients are 0.56 for EXTERNAL culture orientation and 0.09 for INTERNAL culture orientation. For one additional standard deviation change in EXTERNAL culture orientation, CRM OUTCOME is predicted to increase by 0.56 of a standard deviation. For one additional standard deviation change in INTERNAL culture orientation, CRM OUTCOME is predicted to increase by 0.09 of a standard deviation. Finally, the R^2 value of 0.39 indicates that 39 percent of the variation in CRM OUTCOME is explained by EXTERNAL and INTERNAL culture orientations.

Table 6.7 Regression weights for hypothesis_{1,2}

			Estimate	S.E.	C.R.	P
OUTCOME	<---	EXTERNAL	.147	.049	3.019	.003
OUTCOME	<---	INTERNAL	.020	.035	.587	.557

From table 6.7, the regression coefficient is statistically significant at the 0.05 level for EXTERNAL culture orientation. The results reveal significant relationship between External culture orientation and CRM system implementation outcomes. Thus, hypothesis_{1,2} is supported.

H_{1,3}: Flexible culture orientation has a higher degree of positive association with CRM system implementation outcomes than Control culture orientation

In this section, CRM outcome variable, composed of the four balanced scorecard outcome variables (Financial, Customer, Process and People outcome), is used as the dependent variable and Flexible and Control culture orientation variables serve as the predictor variables for the regression model. Figure 6.6 shows the unstandardised parameter estimates for hypothesis_{1,3}.

Figure 6.6 Unstandardised parameter estimates for hypothesis_{1,3}

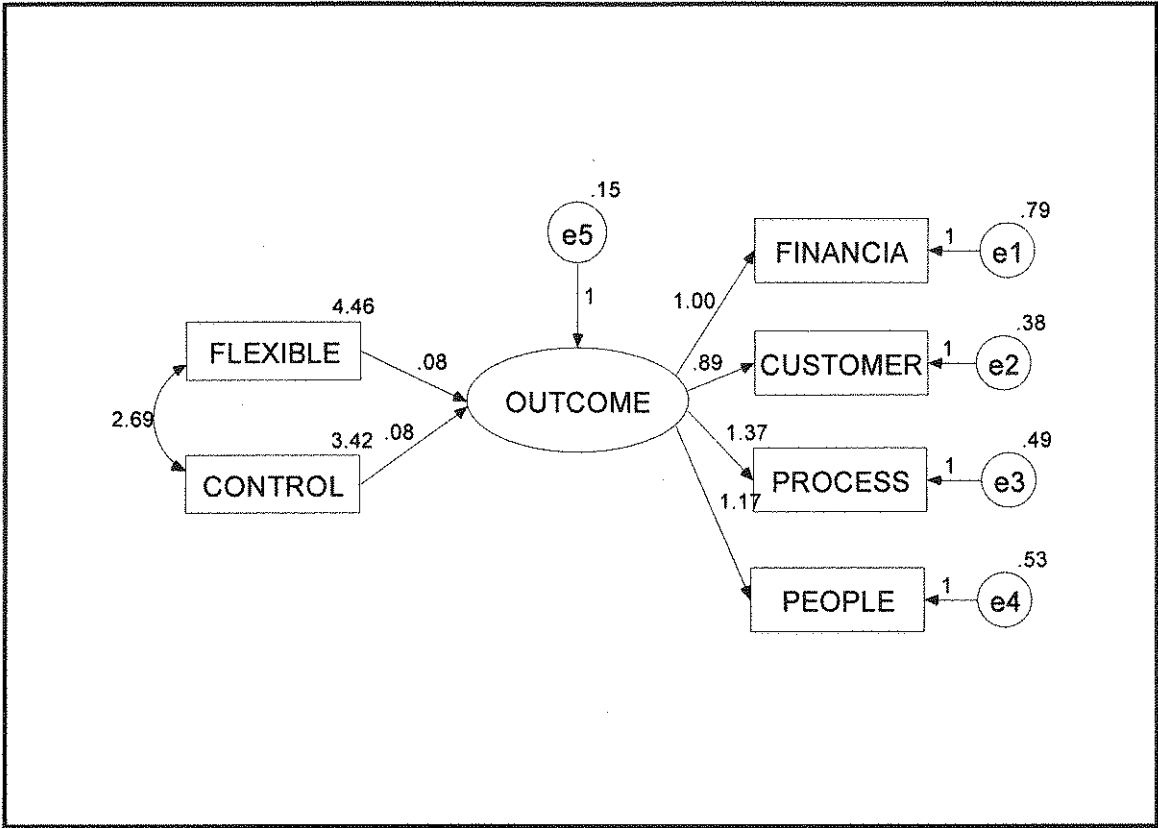


Table 6.8 Model fit summary for hypothesis_{1,3}

Indices	Model fit summary	Model level of fit	Good level of fit criteria
CMIN	6.924		
DF	8		
P	0.545	> 0.05	≥ 0.05
GFI	0.977	> 0.90	≥ 0.90
RMSEA	0.000	< 0.10	≤ 0.10
CFI	1.000	> 0.90	≥ 0.90
TLI	1.014	> 1	$0.90 \leq TLI \leq 1$

Table 6.8 shows that all indices are within the good level of fit although TLI is slightly above 1. Figure 6.6 shows that the covariance between FLEXIBLE and CONTROL culture orientations is 2.69. The variance of FLEXIBLE culture orientation is 4.46 and the variance of CONTROL culture orientation is 3.42. The unstandardised regression coefficients are 0.08 for FLEXIBLE culture orientation and 0.08 for CONTROL culture orientation. For every single unit of increase in FLEXIBLE culture orientation, CRM OUTCOME increases on average by 0.08 units and for every single unit of increase in

CONTROL culture orientation, CRM OUTCOME increases on average by 0.08 units. Finally, the estimate of the error variance is 0.15.

Figure 6.7 Standardised parameter estimates for hypothesis_{1,3}

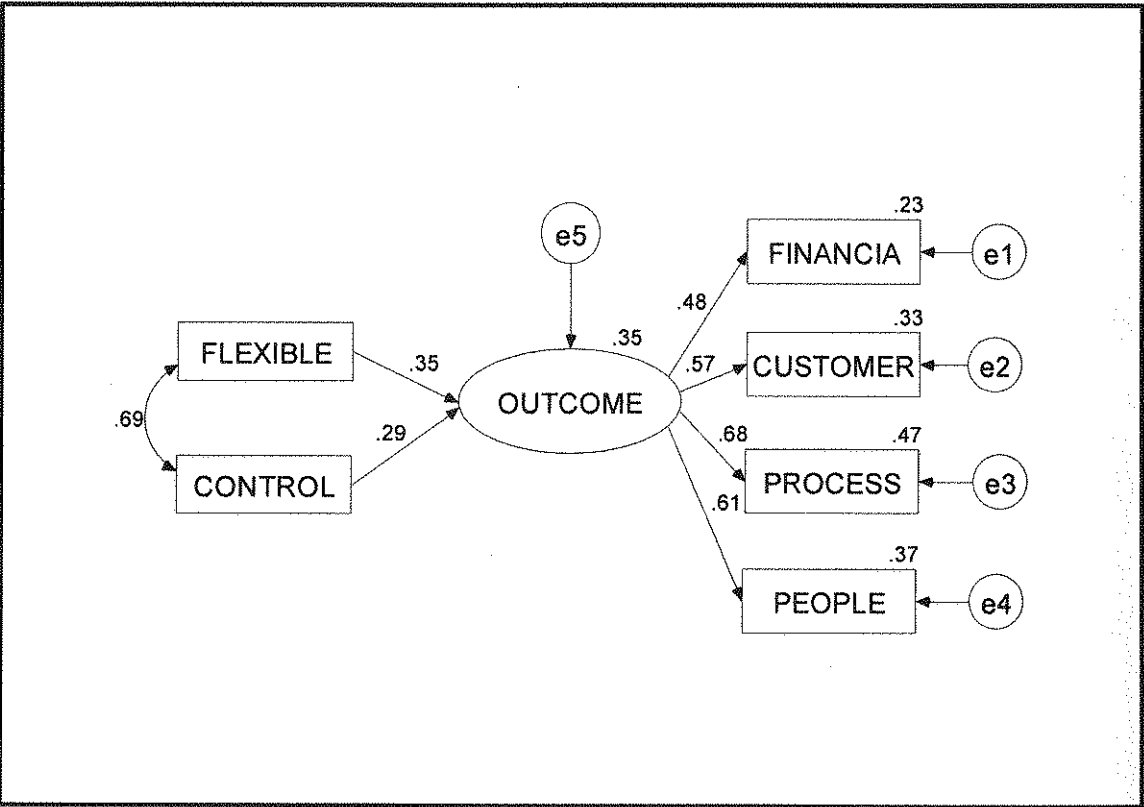


Figure 6.7 shows the standardised parameter estimates for hypothesis_{1,3}. It shows the coefficient correlations between FLEXIBLE and CONTROL culture orientations are 0.69. The beta values are 0.35 for FLEXIBLE culture orientation and 0.29 for CONTROL culture orientation. For one additional standard deviation change in FLEXIBLE culture orientation, CRM OUTCOME is predicted to increase by 0.35 of a standard deviation. For one additional standard deviation change in CONTROL culture orientation, CRM OUTCOME is predicted to increase by 0.29 of a standard deviation. Finally, the R^2 value of 0.35 indicates that 35 percent of the variation in CRM OUTCOME is explained by FLEXIBLE and CONTROL culture orientations.

Table 6.9 Regression weights for hypothesis_{1,3}

			Estimate	S.E.	C.R.	P
OUTCOME	<---	FLEXIBLE	.081	.037	2.188	.029
OUTCOME	<---	CONTROL	.076	.041	1.874	.061

From table 6.9, the regression coefficient is statistically significant at the 0.05 level for FLEXIBLE culture orientation. The results reveal a significant relationship between Flexible culture orientation and CRM system implementation outcomes. Thus, hypothesis_{1.3} is supported.

R₂: Do the innovative characteristics of the CRM system and the environmental/market conditions in which organisations operate moderate the association between organisational culture and CRM system implementation outcomes?

In this section, each moderator variable (perceived ease of use, technical compatibility, competitive intensity and market turbulence) that may moderate the strength of the relationship between organisational culture and CRM system implementation outcomes is examined.

H_{2.1}: The higher the degree of perceived ease of using the CRM system, the weaker is the association between organisational culture and CRM system implementation outcomes

Table 6.10 Model summary for Ease of use as a quasi moderator between organisational culture types and CRM outcomes

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.530(a)	.281	.251	.56970	.281	9.387	4	96	.000
2	.552(b)	.304	.268	.56337	.023	3.172	1	95	.078
3	.572(c)	.327	.260	.56628	.022	.756	4	91	.556

a Predictors: (Constant), MARKET, ADHOCRACY, HIERARCHY, CLAN
b Predictors: (Constant), MARKET, ADHOCRACY, HIERARCHY, CLAN, EASY
c Predictors: (Constant), MARKET, ADHOCRACY, HIERARCHY, CLAN, EASY, EASYADHO, EASYHIER, EASYCLAN, EASYMARK

Table 6.10 shows the hierarchical multiple regression results for perceived ease of use (EASY) treated as both predictor (model 2) and moderator (model 3) or a quasi moderator between organisational culture types and CRM outcomes. CLAN, ADHOCRACY, HIERARCHY, and MARKET culture were entered in the first step and explained about 28.10 percent of the variance in CRM OUTCOME. EASY was entered

second and explained a further 2.30 percent of the variance. EASYCLAN (the interaction effect of EASY and CLAN), EASYADHO (the interaction effect of EASY and ADHOCRACY), EASYHIER (the interaction effect of EASY and HIERARCHY) and EASYMARK (the interaction effect of EASY and MARKET) variables were entered third and explained another 2.20 percent. Although there are increases in R^2 between the three models, they are not statistically significant at the 0.05 level.

Table 6.11 Model summary for Ease of use as a pure moderator between organisational culture types and CRM outcomes

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.530(a)	.281	.251	.56970	.281	9.387	4	96	.000
2	.572(b)	.327	.260	.56628	.046	1.233	5	91	.300

a Predictors: (Constant), MARKET, ADHOCRACY, HIERARCHY, CLAN

b Predictors: (Constant), MARKET, ADHOCRACY, HIERARCHY, CLAN, EASY, EASYADHO, EASYHIER, EASYCLAN, EASYMARK

Table 6.11 shows the hierarchical multiple regression results for perceived ease of use (EASY) treated as a pure moderator (model 2) between organisational culture types and CRM outcomes. CLAN, ADHOCRACY, HIERARCHY, and MARKET culture were entered in the first step and explained about 28.10 percent of the variance in CRM OUTCOME. EASY, EASYCLAN, EASYADHO, EASYHIER, and EASYMARK variables were entered second and explained another 4.60 percent. Although there is an increase in R^2 between the two models, it is not statistically significant at the 0.05 level.

Table 6.12 Model summary for Ease of use as a quasi moderator between External and Internal culture orientations and CRM outcomes

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.513(a)	.264	.249	.57069	.264	17.542	2	98	.000
2	.539(b)	.291	.269	.56299	.027	3.701	1	97	.057
3	.553(c)	.306	.269	.56286	.015	1.022	2	95	.364

a Predictors: (Constant), EXTERNAL, INTERNAL

b Predictors: (Constant), EXTERNAL, INTERNAL, EASY

c Predictors: (Constant), EXTERNAL, INTERNAL, EASY, EASYEXTE, EASYINTE

Table 6.12 shows the hierarchical multiple regression results for perceived ease of use (EASY) treated as both predictor (model 2) and moderator (model 3) or a quasi moderator between organisational culture orientations and CRM outcomes. EXTERNAL and INTERNAL culture orientations were entered in the first step and explained about 26.4 percent of the variance in CRM OUTCOME. EASY was entered second and explained a further 2.7 percent of the variance. EASYEXTE (the interaction effect of EASY and EXTERNAL) and EASYINTE (the interaction effect of EASY and INTERNAL) variables were entered third and explained another 1.5 percent. Although there are increases in R^2 between the three models, they are not statistically significant at the 0.05 level.

Table 6.13 Model summary for Ease of use as a pure moderator between External and Internal culture orientations and CRM outcomes

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.513(a)	.264	.249	.57069	.264	17.542	2	98	.000
2	.553(b)	.306	.269	.56286	.042	1.916	3	95	.132

a Predictors: (Constant), EXTERNAL, INTERNAL
b Predictors: (Constant), EXTERNAL, INTERNAL, EASY, EASYEXTE, EASYINTE

Table 6.13 shows the hierarchical multiple regression results for perceived ease of use (EASY) treated as a pure moderator (model 2) between organisational culture orientations and CRM outcomes. EXTERNAL and INTERNAL culture orientations were entered in the first step and explained about 26.40 percent of the variance in CRM OUTCOME. EASY, EASYEXTE and EASYINTE variables were entered second and explained another 4.20 percent. Although there is an increase in R^2 between the two models, it is not statistically significant at the 0.05 level.

Table 6.14 Model summary for Ease of use as a quasi moderator between Flexible and Control culture orientations and CRM outcomes

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.489(a)	.239	.223	.58016	.239	15.388	2	98	.000
2	.505(b)	.255	.231	.57715	.016	2.025	1	97	.158
3	.518(c)	.269	.230	.57761	.014	.924	2	95	.401

a Predictors: (Constant), CONTROL, FLEXIBLE

b Predictors: (Constant), CONTROL, FLEXIBLE, EASY

c Predictors: (Constant), CONTROL, FLEXIBLE, EASY, EASYFLEX, EASYCONT

Table 6.14 shows the hierarchical multiple regression results for perceived ease of use variable (EASY) treated as both predictor (model 2) and moderator (model 3) or a quasi moderator between organisational culture orientations and CRM outcomes. FLEXIBLE and CONTROL culture orientations were entered in the first step and explained about 23.90 percent of the variance in CRM OUTCOME. EASY was entered second and explained a further 1.60 percent of the variance. EASYFLEX (the interaction effect of EASY and FLEXIBLE) and EASYCONT (the interaction effect of EASY and CONTROL) variables were entered third and explained another 1.40 percent. Although there are increases in R^2 between the three models, they are not statistically significant at the 0.05 level.

Table 6.15 Model summary for Ease of use as a pure moderator between Flexible and Control culture orientations and CRM outcomes

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.489(a)	.239	.223	.58016	.239	15.388	2	98	.000
2	.518(b)	.269	.230	.57761	.030	1.290	3	95	.283

a. Predictors: (Constant), CONTROL, FLEXIBLE

b. Predictors: (Constant), CONTROL, FLEXIBLE, EASY, EASYFLEX, EASYCONT

Table 6.15 shows the hierarchical multiple regression results for perceived ease of use variable (EASY) treated as a pure moderator (model 2) between organisational culture orientations and CRM outcomes. FLEXIBLE and CONTROL culture orientations were entered in the first step and explained about 23.90 percent of the variance in CRM OUTCOME. EASY, EASYFLEX and EASYCONT variables were entered second and

explained another 3 percent. Although there is an increase in R^2 between the two models, it is not statistically significant at the 0.05 level.

From the above results, hypothesis_{2.1} is not supported. Thus, the perceived ease of using the CRM system is not a moderator of the strength of the relationship between organisational culture and CRM system implementation outcomes.

H_{2.2}: The higher the degree of the compatibility of CRM system with existing systems, the weaker is the association between organisational culture and CRM system implementation outcomes

Table 6.16 Model summary for Technical Compatibility as a quasi moderator between organisational culture types and CRM outcomes

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.530(a)	.281	.251	.56970	.281	9.387	4	96	.000
2	.533(b)	.284	.246	.57152	.003	.392	1	95	.533
3	.558(c)	.311	.243	.57289	.027	.887	4	91	.475

a Predictors: (Constant), MARKET, ADHOCRACY, HIERARCHY, CLAN

b Predictors: (Constant), MARKET, ADHOCRACY, HIERARCHY, CLAN, COMPAT

c Predictors: (Constant), MARKET, ADHOCRACY, HIERARCHY, CLAN, COMPAT, COMPCLAN, COMPADHO, COMPHIER, COMPMARK

Table 6.16 shows the hierarchical multiple regression results for technical compatibility (COMPAT) treated as both predictor and moderator between organisational culture types and CRM outcomes. CLAN, ADHOCRACY, HIERARCHY and MARKET culture were entered in the first step and explained about 28.10 percent of the variance in CRM OUTCOME. COMPAT was entered second and explained a further 0.30 percent of the variance. COMPCLAN (the interaction effect of COMPAT and CLAN), COMPADHO (the interaction effect of COMPAT and ADHOCRACY), COMPHIER (the interaction effect of COMPAT and HIERARCHY) and COMPMARK (the interaction effect of COMPAT and MARKET) variables were entered third and explained another 2.70 percent. Although there are increases in R^2 between the three models, they are not statistically significant at the 0.05 level.

Table 6.17 Model summary for Technical Compatibility as a pure moderator between organisational culture types and CRM outcomes

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.530(a)	.281	.251	.56970	.281	9.387	4	96	.000
2	.558(b)	.311	.243	.57289	.030	.787	5	91	.562

a Predictors: (Constant), MARKET, ADHOCRACY, HIERARCHY, CLAN

b Predictors: (Constant), MARKET, ADHOCRACY, HIERARCHY, CLAN, COMPAT, COMPCLAN, COMPADHO, COMPHIER, COMPMARK

Table 6.17 shows the hierarchical multiple regression results for technical compatibility (COMPAT) treated as a pure moderator between organisational culture types and CRM outcomes. CLAN, ADHOCRACY, HIERARCHY and MARKET were entered in the first step and explained about 28.10 percent of the variance in OUTCOME. COMPAT, COMPCLAN, COMPADHO, COMPHIE and COMPMARK variables were entered second and explained another 3 percent. Although there is an increase in R^2 between the two models, it is not statistically significant at the 0.05 level.

Table 6.18 Model summary for Technical Compatibility as a quasi moderator between External and Internal culture orientations and CRM outcomes

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.513(a)	.264	.249	.57069	.264	17.542	2	98	.000
2	.515(b)	.265	.243	.57298	.002	.220	1	97	.640
3	.531(c)	.282	.244	.57243	.017	1.093	2	95	.340

a Predictors: (Constant), EXTERNAL, INTERNAL

b Predictors: (Constant), EXTERNAL, INTERNAL, COMPAT

c Predictors: (Constant), EXTERNAL, INTERNAL, COMPAT, COMPEXTE, COMPINTE

Table 6.18 shows the hierarchical multiple regression results for technical compatibility (COMPAT) treated as both predictor and moderator between organisational culture orientations and CRM outcomes. EXTERNAL and INTERNAL were entered in the first step and explained about 26.40 percent of the variance in CRM OUTCOME. COMPAT was entered second and explained a further 0.20 percent of the variance. COMPEXTE (the interaction effect of COMPAT and EXTERNAL) and COMPINTE (the interaction effect of COMPAT and INTERNAL) variables were entered third and

explained another 1.70 percent. Although there are increases in R^2 between the three models, they are not statistically significant at the 0.05 level.

Table 6.19 Model summary for Technical Compatibility as a pure moderator between External and Internal culture orientations and CRM outcomes

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.513(a)	.264	.249	.57069	.264	17.542	2	98	.000
2	.531(b)	.282	.244	.57243	.018	.802	3	95	.496

a Predictors: (Constant), EXTERNAL, INTERNAL

b Predictors: (Constant), EXTERNAL, INTERNAL, COMPAT, COMPEXTE, COMPINTE

Table 6.19 shows the hierarchical multiple regression results for technical compatibility (COMPAT) treated as a pure moderator between organisational culture orientations and CRM outcomes. EXTERNAL and INTERNAL were entered in the first step and explained about 26.40 percent of the variance in OUTCOME. COMPAT, COMPEXTE and COMPINTE variables were entered second and explained another 1.80 percent. Although there is an increase in R^2 between the two models, it is not statistically significant at the 0.05 level.

Table 6.20 Model summary for Technical Compatibility as a quasi moderator between Flexible and Control culture orientations and CRM outcomes

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.489(a)	.239	.223	.58016	.239	15.388	2	98	.000
2	.492(b)	.242	.219	.58193	.003	.407	1	97	.525
3	.501(c)	.251	.212	.58448	.009	.577	2	95	.563

a Predictors: (Constant), CONTROL, FLEXIBLE

b Predictors: (Constant), CONTROL, FLEXIBLE, COMPAT

c Predictors: (Constant), CONTROL, FLEXIBLE, COMPAT, COMPCONT, COMPFLEX

Table 6.20 shows the hierarchical multiple regression results for technical compatibility (COMPAT) treated as both predictor and moderator between organisational culture orientations and CRM outcomes. FLEXIBLE and CONTROL were entered in the first step and explained about 23.90 percent of the variance in CRM OUTCOME. COMPAT was entered second and explained a further 0.30 percent of the variance. COMPFLEX (the interaction effect of COMPAT and FLEXIBLE) and COMPCONT (the interaction

effect of COMPAT and CONTROL) variables were entered third and explained another 0.90 percent. Although there are increases in R^2 between the three models, they are not statistically significant at the 0.05 level.

Table 6.21 Model summary for Technical Compatibility as a pure moderator between Flexible and Control culture orientations and CRM outcomes

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.489(a)	.239	.223	.58016	.239	15.388	2	98	.000
2	.501(b)	.251	.212	.58448	.012	.519	3	95	.670

a Predictors: (Constant), CONTROL, FLEXIBLE

b Predictors: (Constant), CONTROL, FLEXIBLE, COMPAT, COMPCONT, COMPFLEX

Table 6.21 shows the hierarchical multiple regression results for technical compatibility (COMPAT) treated as a pure moderator between organisational culture orientations and CRM outcomes. CONTROL and FLEXIBLE were entered in the first step and explained about 23.9 percent of the variance in OUTCOME. COMPAT, COMPFLEX and COMPCONT variables were entered second and explained another 1.2 percent. Although there is an increase in R^2 between the two models, it is not statistically significant at the 0.05 level.

In summary, from the above results, hypothesis_{2.2} is not supported. Thus, the compatibility of the CRM system with existing systems is not a moderator of the strength of the relationship between organisational culture and CRM system implementation outcomes.

H_{2.3}: The greater the extent of competitive intensity, the stronger is the association between organisational culture and CRM system implementation outcomes

Table 6.22 Model summary for Competitive Intensity as a quasi moderator between organisational culture types and CRM outcomes

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.530(a)	.281	.251	.56970	.281	9.387	4	96	.000
2	.538(b)	.290	.253	.56919	.009	1.174	1	95	.281
3	.558(c)	.312	.244	.57261	.022	.717	4	91	.583

a Predictors: (Constant), MARKET, ADHOCRACY, HIERARCHY, CLAN
b Predictors: (Constant), MARKET, ADHOCRACY, HIERARCHY, CLAN, COMPET
c Predictors: (Constant), MARKET, ADHOCRACY, HIERARCHY, CLAN, COMPET, COMPEADH, COMPEHIE, COMPECLA, COMPEMAR

Table 6.22 shows the hierarchical multiple regression results for competitive intensity (COMPET) treated as both predictor and moderator between organisational culture types and CRM outcomes. CLAN, ADHOCRACY, HIERARCHY and MARKET culture were entered in the first step and explained about 28.10 percent of the variance in OUTCOME. COMPET was entered second and explained a further of 0.90 percent of the variance. COMPECLA (the interaction effect of COMPET and CLAN), COMPEADH (the interaction effect of COMPET and ADHOCRACY), COMPEHIE (the interaction effect of COMPET and HIERARCHY) and COMPEMAR (the interaction effect of COMPET and MARKET) variables were entered third and explained another 2.20 percent. Although there are increases in R² between the three models, they are not statistically significant at the 0.05 level.

Table 6.23 Model summary for Competitive Intensity as a pure moderator between organisational culture types and CRM outcomes

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.530(a)	.281	.251	.56970	.281	9.387	4	96	.000
2	.558(b)	.312	.244	.57261	.030	.805	5	91	.549

a Predictors: (Constant), MARKET, ADHOCRACY, HIERARCHY, CLAN
b Predictors: (Constant), MARKET, ADHOCRACY, HIERARCHY, CLAN, COMPET, COMPEADH, COMPEHIE, COMPECLA, COMPEMAR

Table 6.23 shows the hierarchical multiple regression results for competitive intensity (COMPET) treated as a pure moderator between organisational culture types and CRM outcomes. CLAN, ADHOCRACY, HIERARCHY and MARKET culture were entered in the first step and explained about 28.1 percent of the variance in CRM OUTCOME. COMPET, COMPECLA, COMPEADH, COMPEHIE and COMPEMAR variables were entered second and explained another 3 percent. Although there is an increase in R^2 between the two models, it is not statistically significant at the 0.05 level.

Table 6.24 Model summary for Competitive Intensity as a quasi moderator between External and Internal culture orientations and CRM outcomes

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.513(a)	.264	.249	.57069	.264	17.542	2	98	.000
2	.519(b)	.270	.247	.57128	.006	.798	1	97	.374
3	.534(c)	.286	.248	.57090	.016	1.065	2	95	.349

a Predictors: (Constant), EXTERNAL, INTERNAL

b Predictors: (Constant), EXTERNAL, INTERNAL, COMPET

c Predictors: (Constant), EXTERNAL, INTERNAL, COMPET, COMPETEX, COMPETIN

Table 6.24 shows the hierarchical multiple regression results for competitive intensity (COMPET) treated as both predictor and moderator between organisational culture orientations and CRM outcomes. EXTERNAL and INTERNAL culture orientations were entered in the first step and explained about 26.40 percent of the variance in OUTCOME. COMPET was entered second and explained a further of 0.60 percent of the variance. COMPETEX (the interaction effect of COMPET and EXTERNAL) and COMPETIN (the interaction effect of COMPET and INTERNAL) variables were entered third and explained another 1.60 percent. Although there are increases in R^2 between the three models, they are not statistically significant at the 0.05 level.

Table 6.25 Model summary for Competitive Intensity as a pure moderator between External and Internal culture orientations and CRM outcomes

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.513(a)	.264	.249	.57069	.264	17.542	2	98	.000
2	.534(b)	.286	.248	.57090	.022	.976	3	95	.407

a Predictors: (Constant), EXTERNAL, INTERNAL

b Predictors: (Constant), EXTERNAL, INTERNAL, COMPET, COMPETEX, COMPETIN

Table 6.25 shows the hierarchical multiple regression results for competitive intensity (COMPET) treated as a pure moderator between organisational culture orientations and CRM outcomes. EXTERNAL and INTERNAL culture orientations were entered in the first step and explained about 26.40 percent of the variance in CRM OUTCOME. COMPET, COMPETEX and COMPETIN variables were entered second and explained another 2.20 percent. Although there is an increase in R^2 between the two models, it is not statistically significant at the 0.05 level.

Table 6.26 Model summary for Competitive Intensity as a quasi moderator between Control and Flexible culture orientations and CRM outcomes

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.489(a)	.239	.223	.58016	.239	15.388	2	98	.000
2	.495(b)	.245	.222	.58068	.006	.826	1	97	.366
3	.515(c)	.265	.227	.57901	.020	1.280	2	95	.283

a Predictors: (Constant), CONTROL, FLEXIBLE

b Predictors: (Constant), CONTROL, FLEXIBLE, COMPET

c Predictors: (Constant), CONTROL, FLEXIBLE, COMPET, COMPECON, COMPEFLE

Table 6.26 shows the hierarchical multiple regression results for competitive intensity (COMPET) treated as both predictor and moderator between organisational culture orientations and CRM outcomes. FLEXIBLE and CONTROL culture orientations were entered in the first step and explained about 23.9 percent of the variance in OUTCOME. COMPET was entered second and explained a further of 0.60 percent of the variance. COMPEFLE (the interaction effect of COMPET and FLEXIBLE) and COMPECON (the interaction effect of COMPET and CONTROL) variables were entered third and explained another 2 percent. Although there are increases in R^2 between the three models, they are not statistically significant at the 0.05 level.

Table 6.27 Model summary for Competitive Intensity as a pure moderator between Control and Flexible culture orientations and CRM outcomes

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.489(a)	.239	.223	.58016	.239	15.388	2	98	.000
2	.515(b)	.265	.227	.57901	.026	1.130	3	95	.341

a Predictors: (Constant), CONTROL, FLEXIBLE

b Predictors: (Constant), CONTROL, FLEXIBLE, COMPET, COMPECON, COMPEFLE

Table 6.27 shows the hierarchical multiple regression results for competitive intensity (COMPET) treated as a pure moderator between organisational culture types and CRM outcomes. FLEXIBLE and CONTROL culture orientations were entered in the first step and explained about 23.90 percent of the variance in CRM OUTCOME. COMPET, COMPECON and COMPEFLE variables were entered second and explained another 2.60 percent. Although there is an increase in R^2 between the two models, it is not statistically significant at the 0.05 level.

In summary, from the above results, hypothesis_{2.3} is not supported. Thus, the competitive intensity is not a moderator of the strength of the relationship between organisational culture and CRM system implementation outcomes.

H_{2.4}: The greater the extent of market turbulence, the stronger is the association between organisational culture and CRM system implementation outcomes

Table 6.28 Model summary for Market Turbulence as a quasi moderator between organisational culture types and CRM outcomes

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.530(a)	.281	.251	.56970	.281	9.387	4	96	.000
2	.552(b)	.305	.268	.56330	.023	3.194	1	95	.077
3	.608(c)	.369	.307	.54804	.065	2.341	4	91	.061

a Predictors: (Constant), MARKET, ADHOCRACY, HIERARCHY, CLAN

b Predictors: (Constant), MARKET, ADHOCRACY, HIERARCHY, CLAN, TURBUL

c Predictors: (Constant), MARKET, ADHOCRACY, HIERARCHY, CLAN, TURBUL, TURBHIER, TURBCLAN, TURBADHO, TURBMARK

Table 6.28 shows the hierarchical multiple regression results for market turbulence (TURBUL) treated as both predictor and moderator between organisational culture

types and CRM outcomes. CLAN, ADHOCRACY, HIERARCHY, and MARKET culture were entered in the first step and explained about 28.10 percent of the variance in CRM OUTCOME. TURBUL was entered second and explained a further 2.30 percent of the variance. TURBCLAN (the interaction effect of TURBUL and CLAN), TURBADHO (the interaction effect of TURBUL and ADHOCRACY), TURBHIER (the interaction effect of TURBUL and HIERARCHY), and TURBMARK (the interaction effect of TURBUL and MARKET) variables were entered third and explained another 6.50 percent. Although there are increases in R^2 between the three models, they are not statistically significant at the 0.05 level.

Table 6.29 Model summary for Market Turbulence as a pure moderator between organisational culture types and CRM outcomes

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.530(a)	.281	.251	.56970	.281	9.387	4	96	.000
2	.608(b)	.369	.307	.54804	.088	2.548	5	91	.033

a Predictors: (Constant), MARKET, ADHOCRACY, HIERARCHY, CLAN
b Predictors: (Constant), MARKET, ADHOCRACY, HIERARCHY, CLAN, TURBUL, TURBHIER, TURBCLAN, TURBADHO, TURBMARK

Table 6.29 shows the hierarchical multiple regression results for market turbulence (TURBUL) treated as a pure moderator between organisational culture types and CRM outcomes. CLAN, ADHOCRACY, HIERARCHY and MARKET culture were entered in the first step and explained about 28.10 percent of the variance in OUTCOME. TURBUL, TURBCLAN, TURBADHO, TURBHIER, and TURBMAR variables were entered second and explained another 8.80 percent. There is a statistically significant increase in R^2 between the two models at the 0.05 level.

Table 6.30 Regression results for Market Turbulence as a pure moderator between organisational culture types and CRM outcomes

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.831	.354		7.999	.000
	CLAN	-.073	.078	-.133	-.935	.352
	ADHOCRACY	.231	.076	.398	3.039	.003
	HIERARCHY	.132	.081	.219	1.626	.107
	MARKET	.092	.100	.131	.919	.360
2	(Constant)	-.369	1.184		-.311	.756
	CLAN	-.103	.237	-.187	-.434	.666
	ADHOCRACY	.401	.282	.689	1.422	.159
	HIERARCHY	.034	.217	.057	.158	.875
	MARKET	.566	.278	.804	2.035	.045
	TURBUL	.803	.275	1.673	2.924	.004
	TURBCLAN	-.005	.057	-.063	-.082	.935
	TURBADHO	-.044	.064	-.640	-.688	.493
	TURBMARK	-.117	.071	-1.602	-1.654	.102
	TURBHIER	.038	.050	.504	.761	.448

Dependent Variable: OUTCOME

From table 6.30, although the increase in R^2 from model 1 to model 2 is statistically significant (see table 6.29), the interaction effects between TURBUL and each culture type are not statistically significant at the 0.05 level.

Table 6.31 Model summary for Market Turbulence as a quasi moderator between External and Internal culture orientations and CRM outcomes

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.513(a)	.264	.249	.57069	.264	17.542	2	98	.000
2	.534(b)	.286	.263	.56502	.022	2.980	1	97	.087
3	.572(c)	.327	.292	.55402	.042	2.945	2	95	.057

a Predictors: (Constant), EXTERNAL, INTERNAL

b Predictors: (Constant), EXTERNAL, INTERNAL, TURBUL

c Predictors: (Constant), EXTERNAL, INTERNAL, TURBUL, TURBINTE, TURBEXTE

Table 6.31 shows the hierarchical multiple regression results for market turbulence (TURBUL) treated as both predictor and moderator between organisational culture types and CRM outcomes. EXTERNAL and INTERNAL culture orientations were entered in the first step and explained about 26.40 percent of the variance in CRM OUTCOME. TURBUL was entered second and explained a further 2.20 percent of the

variance. TURBEXTE (the interaction effect of TURBUL and EXTERNAL) and TURBINTE (the interaction effect of TURBUL and INTERNAL) variables were entered third and explained another 4.20 percent. Although there are increases in R^2 between the three models, there are not statistically significant at the 0.05 level.

Table 6.32 Model summary for Market Turbulence as a pure moderator between External and Internal culture orientations and CRM outcomes

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.513(a)	.264	.249	.57069	.264	17.542	2	98	.000
2	.572(b)	.327	.292	.55402	.064	2.996	3	95	.035

a Predictors: (Constant), EXTERNAL, INTERNAL
b Predictors: (Constant), EXTERNAL, INTERNAL, TURBUL, TURBEXTE, TURBINTE

Table 6.32 shows the hierarchical multiple regression results for market turbulence (TURBUL) treated as a pure moderator between EXTERNAL and INTERNAL culture orientations and CRM outcomes. EXTERNAL and INTERNAL were entered in the first step and explained about 26.40 percent of the variance in OUTCOME. TURBUL, TURBEXTE and TURBINTE variables were entered second and explained another 6.40 percent. There is a statistically significant increase in R^2 between the two models at the 0.05 level.

Table 6.33 Regression results for Market Turbulence as a pure moderator between External and Internal culture orientations and CRM outcomes

Model		Unstandardised Coefficients		Standardised Coefficients	t	Sig.
		B	Std. Error	Beta		
1	(Constant)	2.873	.341		8.423	.000
	EXTERNAL	.161	.043	.459	3.716	.000
	INTERNAL	.023	.039	.073	.592	.555
2	(Constant)	.411	1.063		.386	.700
	EXTERNAL	.417	.124	1.185	3.350	.001
	INTERNAL	-.036	.093	-.114	-.390	.698
	TURBUL	.634	.254	1.321	2.494	.014
	TURBEXTE	-.066	.030	-1.814	-2.207	.030
	TURBINTE	.016	.024	.409	.662	.510

Dependent Variable: OUTCOME

From table 6.33, in model 2, the unstandardised regression coefficients TURBEXTE and TURBINTE are -0.066 and 0.016. Beta values for TURBEXTE and TURBINTE are -1.814 and 0.409. The beta values for TURBEXTE is significant at $p < 0.05$. Thus, the interaction between market turbulence and External culture orientation purely moderates the strength of the association between External culture orientation and CRM outcomes. The negative sign of TURBEXTE shows that the interaction effects between market turbulence and External culture orientation lessen the CRM outcomes. This suggests that organisations operating in very turbulent markets have greater needs to be externally-oriented to achieve better CRM system implementation outcomes. The greater the extent of market turbulence, the stronger is the association between organisational culture, in particular External culture orientation, and CRM system implementation outcomes. Thus, hypothesis_{2,4} is partially supported.

Table 6.34 Model summary for Market Turbulence as a quasi moderator between Flexible and Control culture orientations and CRM outcomes

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.489(a)	.239	.223	.58016	.239	15.388	2	98	.000
2	.515(b)	.265	.243	.57300	.026	3.465	1	97	.066
3	.533(c)	.284	.246	.57163	.019	1.234	2	95	.296

a Predictors: (Constant), CONTROL, FLEXIBLE

b Predictors: (Constant), CONTROL, FLEXIBLE, TURBUL

c Predictors: (Constant), CONTROL, FLEXIBLE, TURBUL, TURBCONT, TURBFLEX

Table 6.34 shows the hierarchical multiple regression results for market turbulence (TURBUL) treated as both predictor and moderator between organisational culture types and CRM outcomes. FLEXIBLE and CONTROL culture orientations were entered in the first step and explained about 23.90 percent of the variance in CRM OUTCOME. TURBUL was entered second and explained a further 2.60 percent of the variance. TURBFLEX (the interaction effect of TURBUL and FLEXIBLE) and TURBCONT (the interaction effect of TURBUL and CONTROL) variables were entered third and explained another 1.90 percent. Although there are increases in R^2 between the three models, there are not statistically significant at the 0.05 level.

Table 6.35 Model summary for Market Turbulence as a pure moderator between Flexible and Control culture orientations and CRM outcomes

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.489(a)	.239	.223	.58016	.239	15.388	2	98	.000
2	.533(b)	.284	.246	.57163	.045	1.983	3	95	.122

a Predictors: (Constant), CONTROL, FLEXIBLE

b Predictors: (Constant), CONTROL, FLEXIBLE, TURBUL, TURBCONT, TURBFLEX

Table 6.35 shows the hierarchical multiple regression results for market turbulence treated as a pure moderator between FLEXIBLE and CONTROL culture orientations and CRM outcomes. FLEXIBLE and CONTROL were entered in the first step and explained about 23.90 percent of the variance in OUTCOME. TURBUL, TURBFLEX and TURBCONT variables were entered second and explained another 4.50 percent. Although there is an increase in R^2 between the two models, it is not statistically significant at the 0.05 level.

In summary, from the above results, market turbulence purely moderates the association between organisational culture, in particular External culture orientation, and CRM system implementation outcomes.

6.3.2 Statistical Analysis for Research Issues no. 3 and 4

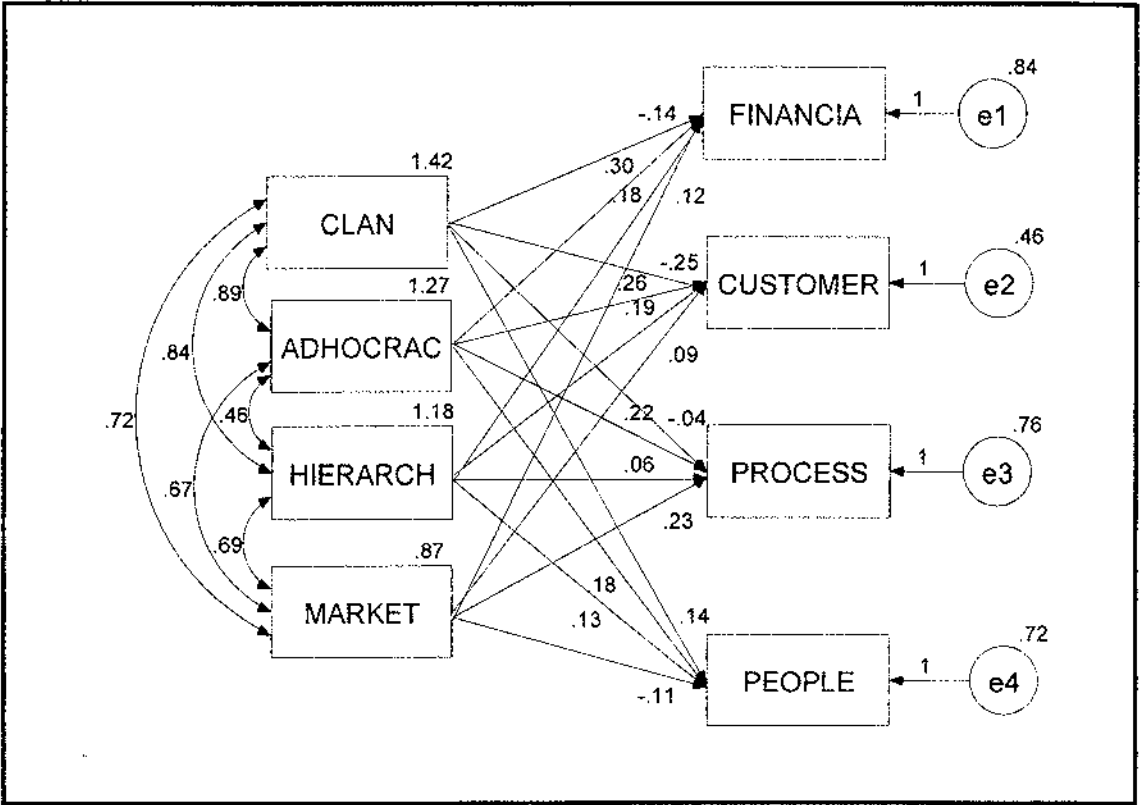
R₃: What are the associations between organisational culture and different types of CRM system implementation outcomes?

R_{3.1}: What are the associations between organisational culture types and Financial/Customer/Process/People-related outcomes of CRM system implementations?

In this section, each type of CRM outcome is regressed against the organisational culture types. For example, the FINANCIAL outcome is used as the dependent variable and CLAN culture, ADHOCRACHY culture, HIERARCHY culture and MARKET culture serve as the predictor variables for the first regression model. For the three remaining types of CRM outcomes, a model with identical predictor variables is

formulated. Figure 6.8 shows the unstandardised parameter estimates for research question_{3,1}.

Figure 6.8 Unstandardised parameter estimates for research question_{3,1}



For CRM FINANCIAL outcome as the dependent variable, the unstandardised regression coefficients are -0.14 for CLAN culture, 0.30 for ADHOCRACY culture, 0.18 for HIERARCHY culture, and 0.12 for MARKET culture. These results suggest that for every single unit of increase in CLAN culture, CRM FINANCIAL outcome decreases on average by 0.14 units, for every single unit of increase in ADHOCRACY culture, CRM FINANCIAL outcome increases on average by 0.30 units, For every single unit of increase in HIERARCHY culture, CRM FINANCIAL outcome increases on average by 0.18 units, and for every single unit of increase in MARKET culture, CRM FINANCIAL outcome increases on average by 0.12 units. Finally, the estimate of the error variance is 0.84.

For CRM CUSTOMER outcome as the dependent variable, the unstandardised regression coefficients are -0.25 for CLAN culture, 0.26 for ADHOCRACY culture, 0.19 for HIERARCHY culture, and 0.09 for MARKET culture. These results suggest

that for every single unit of increase in CLAN culture, CRM CUSTOMER outcome decreases on average by 0.25 units, for every single unit of increase in ADHOCRACY culture, CRM CUSTOMER outcome increases on average by 0.26 units, for every single unit of increase in HIERARCHY culture, CRM CUSTOMER outcome increases on average by 0.19 units, and for every single unit of increase in MARKET culture, CRM CUSTOMER outcome increases on average by 0.09 units. Finally, the estimate of the error variance is 0.46.

For CRM PROCESS outcome as the dependent variable, the unstandardised regression coefficients are -0.04 for CLAN culture, 0.22 for ADHOCRACY culture, 0.06 for HIERARCHY culture, and 0.23 for MARKET culture. These results suggest that for every single unit of increase in CLAN culture, CRM PROCESS outcome decreases on average by 0.04 units, for every single unit of increase in ADHOCRACY culture, CRM PROCESS outcome increases on average by 0.22 units, for every single unit of increase in HIERARCHY culture, CRM PROCESS outcome increases on average by 0.06 units, and for every single unit of increase in MARKET culture, CRM PROCESS outcome increases on average by 0.23 units. Finally, the estimate of the error variance is 0.76.

For CRM PEOPLE outcome as the dependent variable, the unstandardised regression coefficients are 0.14 for CLAN culture, 0.18 for ADHOCRACY culture, 0.13 for HIERARCHY culture, and -0.11 for MARKET culture. These results suggest that for every single unit of increase in CLAN culture, CRM PEOPLE outcome increases on average by 0.14 units, for every single unit of increase in ADHOCRACY culture, CRM PEOPLE outcome increases on average by 0.18 units, for every single unit of increase in HIERARCHY culture, CRM PEOPLE outcome decreases on average by 0.13 units, and for every single unit of increase in MARKET culture, CRM PEOPLE outcome decreases on average by 0.11 units. Finally, the estimate of the error variance is 0.72.

Figure 6.9 Standardised parameter estimates for research question_{3,1}

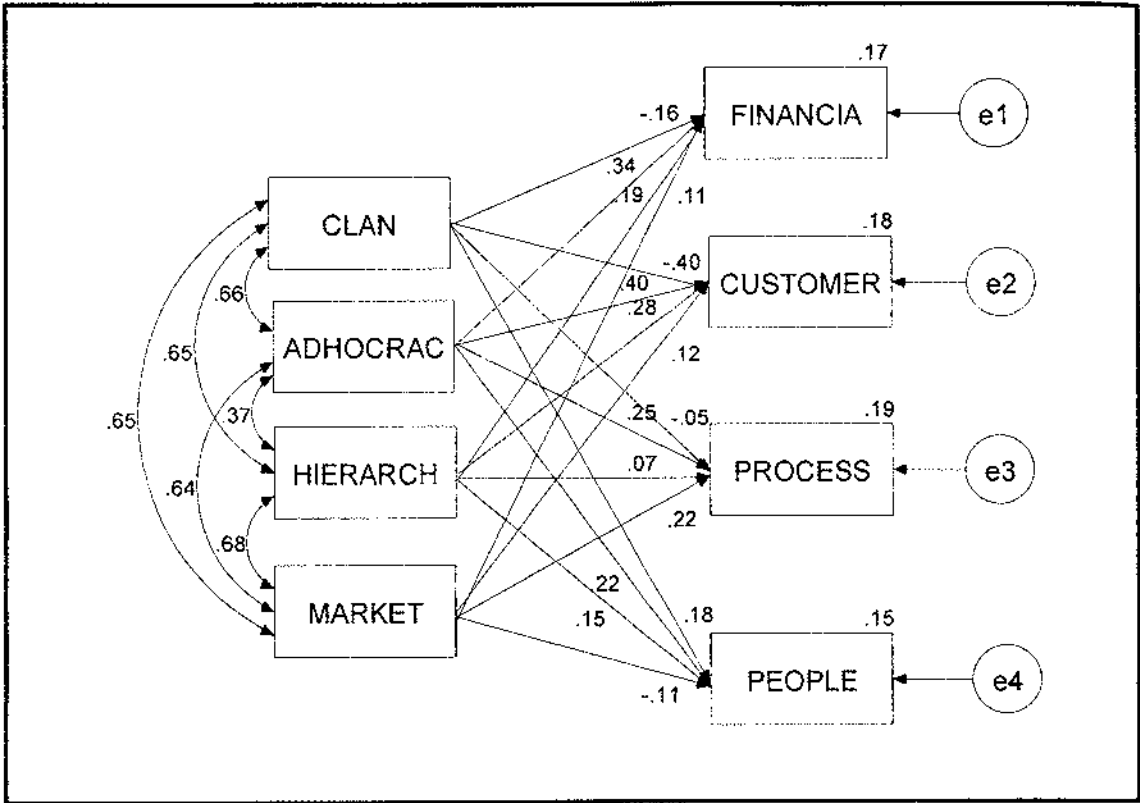


Figure 6.9 shows the standardised parameter estimates for research question_{3,1}. For CRM FINANCIAL outcome as the dependent variable, the standardised regression coefficients are -0.16 for CLAN culture, 0.34 for ADHOCRACY culture, 0.19 for HIERARCHY culture, and 0.11 for MARKET culture. For one additional standard deviation change in CLAN culture, CRM FINANCIAL outcome is predicted to decrease by 0.16 of a standard deviation. For one additional standard deviation change in ADHOCRACY culture, CRM FINANCIAL outcome is predicted to increase by 0.34 of a standard deviation. For one additional standard deviation change in HIERARCHY culture, CRM FINANCIAL outcome is predicted to increase by 0.19 of a standard deviation. For one additional standard deviation change in MARKET culture, CRM FINANCIAL outcome is predicted to increase by 0.11 of a standard deviation. Finally, the R^2 value of 0.17 indicates that 17 percent of the variation in CRM FINANCIAL outcome is explained by these four organisational culture types.

For CRM CUSTOMER outcome as the dependent variable, the standardised regression coefficients are -0.40 for CLAN culture, 0.40 for ADHOCRACY culture, 0.28 for HIERARCHY culture, and 0.12 for MARKET culture. For one additional standard

deviation change in CLAN culture, CRM CUSTOMER outcome is predicted to decrease by 0.40 of a standard deviation. For one additional standard deviation change in ADHOCRACY culture, CRM CUSTOMER outcome is predicted to increase by 0.40 of a standard deviation. For one additional standard deviation change in HIERARCHY culture, CRM CUSTOMER outcome is predicted to increase by 0.28 of a standard deviation. For one additional standard deviation change in MARKET culture, CRM CUSTOMER outcome is predicted to increase by 0.12 of a standard deviation. Finally, the R^2 value of 0.18 indicates that 18 percent of the variation in CRM CUSTOMER outcome is explained by these four organisational culture types.

For CRM PROCESS as the dependent variable, the standardised regression coefficients are -0.05 for CLAN culture, 0.25 for ADHOCRACY culture, 0.07 for HIERARCHY culture, and 0.22 for MARKET culture. For one additional standard deviation change in CLAN culture, CRM PROCESS outcome is predicted to decrease by 0.05 of a standard deviation. For one additional standard deviation change in ADHOCRACY culture, CRM PROCESS outcome is predicted to increase by 0.25 of a standard deviation. For one additional standard deviation change in HIERARCHY culture, CRM PROCESS outcome is predicted to increase by 0.07 of a standard deviation. For one additional standard deviation change in MARKET culture, CRM PROCESS outcome is predicted to increase by 0.22 of a standard deviation. Finally, the R^2 value of 0.19 indicates that 19 percent of the variation in CRM PROCESS outcome is explained by these four organisational culture types.

For CRM PEOPLE outcome as the dependent variable, the standardised regression coefficients are 0.18 for CLAN culture, 0.22 for ADHOCRACY culture, 0.15 for HIERARCHY culture, and -0.11 for MARKET culture. For one additional standard deviation change in CLAN culture, CRM PEOPLE outcome is predicted to increase by 0.18 of a standard deviation. For one additional standard deviation change in ADHOCRACY culture, CRM PEOPLE outcome is predicted to increase by 0.22 of a standard deviation. For one additional standard deviation change in HIERARCHY culture, CRM PEOPLE outcome is predicted to increase by 0.15 of a standard deviation. For one additional standard deviation change in MARKET culture, CRM PEOPLE outcome is predicted to decrease by 0.11 of a standard deviation. Finally, the

R² value of 0.15 indicates that 15 percent of the variation in CRM PEOPLE outcome is explained by these four organisational culture types.

Table 6.36 Regression weights for research question_{3,1}

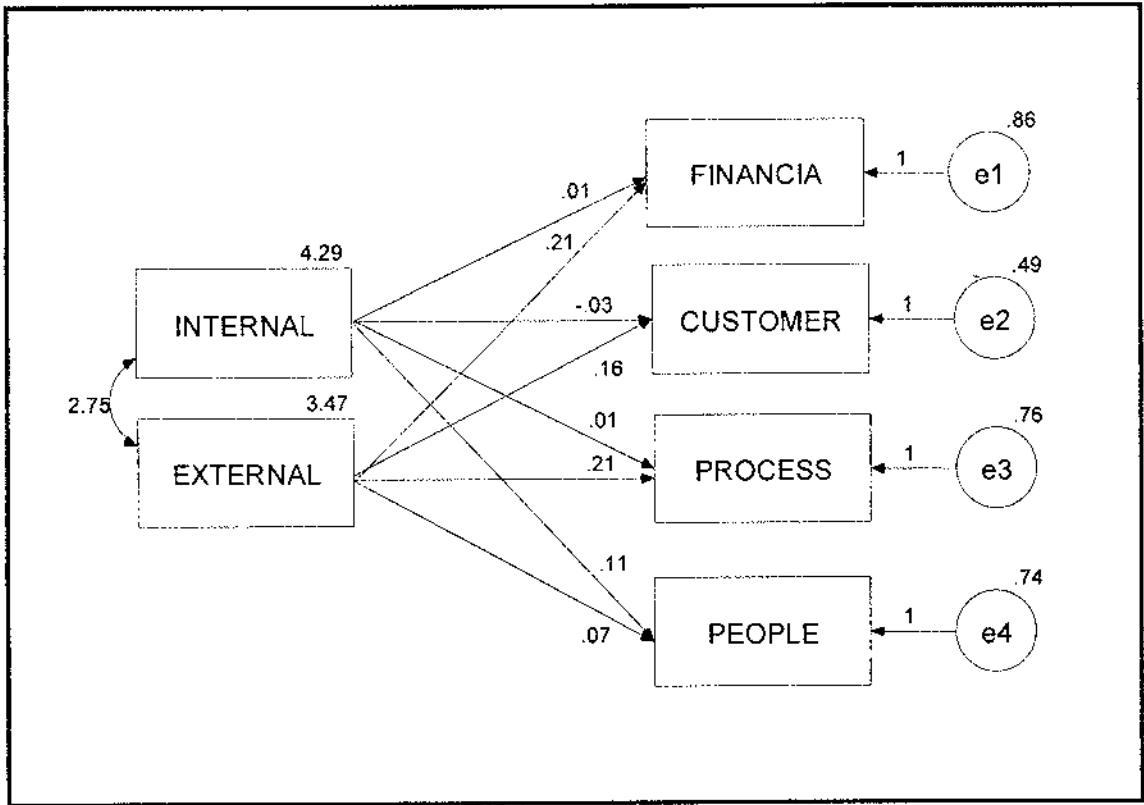
			Estimate	S.E.	C.R.	P
FINANCIAL	<---	CLAN	-.140	.126	-1.105	.269
CUSTOMER	<---	CLAN	-.249	.093	-2.675	.007
PROCESS	<---	CLAN	-.044	.120	-.364	.716
PEOPLE	<---	CLAN	.138	.117	1.184	.237
FINANCIAL	<---	ADHOCRACY	.303	.123	2.457	.014
CUSTOMER	<---	ADHOCRACY	.264	.091	2.911	.004
PROCESS	<---	ADHOCRACY	.215	.117	1.842	.066
PEOPLE	<---	ADHOCRACY	.177	.114	1.555	.120
FINANCIAL	<---	HIERARCHY	.175	.131	1.335	.182
CUSTOMER	<---	HIERARCHY	.194	.097	2.011	.044
PROCESS	<---	HIERARCHY	.063	.124	.503	.615
PEOPLE	<---	HIERARCHY	.127	.122	1.044	.297
FINANCIAL	<---	MARKET	.119	.163	.734	.463
CUSTOMER	<---	MARKET	.093	.120	.779	.436
PROCESS	<---	MARKET	.231	.154	1.499	.134
PEOPLE	<---	MARKET	-.110	.150	-.730	.465

From table 6.36, the unstandardised regression coefficient for CLAN culture is statistically significant for CRM CUSTOMER outcome at the 0.05 level. The unstandardised regression coefficient for ADHOCRACY culture is statistically significant for CRM FINANCIAL and CUSTOMER outcomes. The regression coefficient for HIERARCHY culture is statistically significant for CRM CUSTOMER outcome. Finally, the unstandardised regression coefficients for MARKET culture are not statistically significant for any type of CRM outcomes. In summary, organisational culture is an important factor to achieving CRM system implementation outcomes, although the importance of each type of organisational culture varies with each type of CRM outcome.

R_{3,2}: What are the associations between Internal and External culture orientations and Financial/Customer/Process/People-related outcomes of CRM system implementations?

In this section, each type of CRM outcome is regressed against the organisational culture orientations. For example, the CRM Financial outcome variable is used as the dependent variable and Internal and External culture orientations variables serve as the predictor variables for the first regression model. For the three remaining types of CRM outcomes, a model with identical predictor variables is formulated. Figure 6.10 shows the unstandardised parameter estimates for research question_{3,2} and figure 6.11 shows the standardised parameter estimates for research question_{3,2}.

Figure 6.10 Unstandardised parameter estimates for research question_{3,2}



For CRM FINANCIAL outcome as the dependent variable, the unstandardised regression coefficients are 0.01 for INTERNAL and 0.21 for EXTERNAL culture orientations. These results suggest that for every single unit of increase in INTERNAL culture orientation, CRM FINANCIAL outcome increases on average by 0.01 units. For every single unit of increase in EXTERNAL culture orientation, CRM FINANCIAL

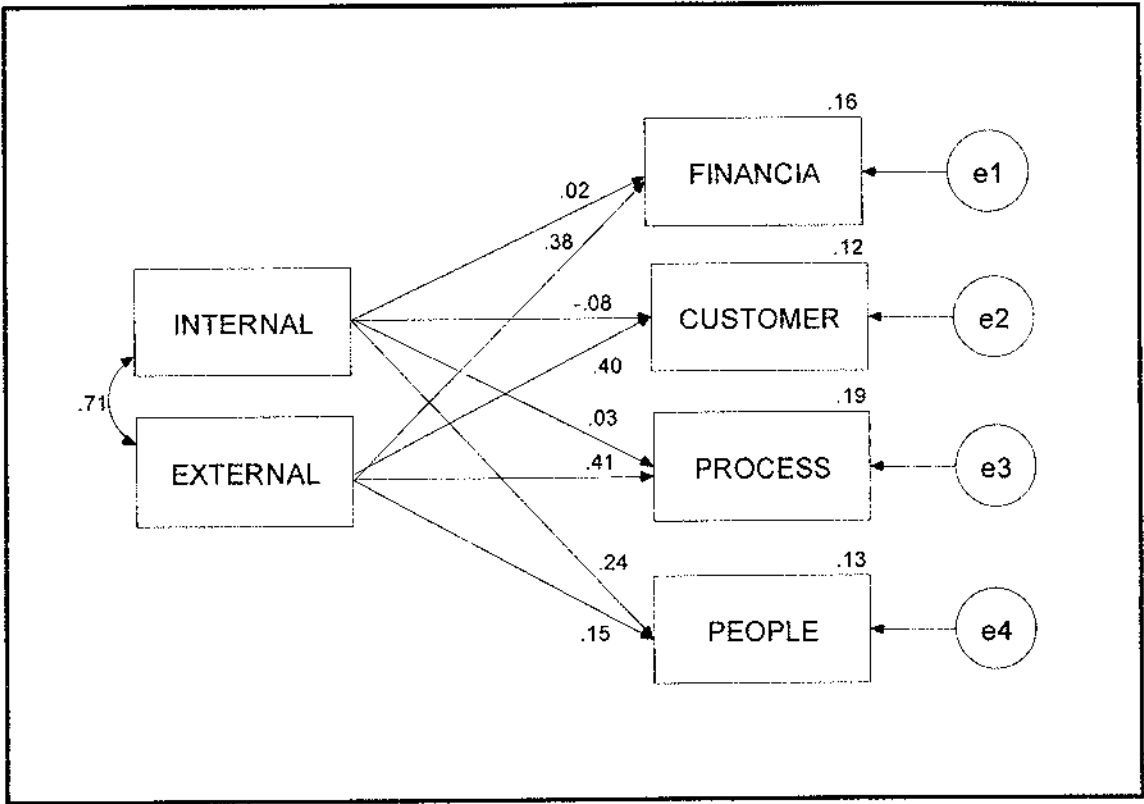
outcome increases on average by 0.21 units. Finally, the estimate of the error variance is 0.86.

For CRM CUSTOMER outcome as the dependent variable, the unstandardised regression coefficients are -0.03 for INTERNAL and 0.16 for EXTERNAL culture orientations. These results suggest that for every single unit of increase in INTERNAL culture orientation, CRM CUSTOMER outcome decreases on average by 0.03 units. For every single unit of increase in EXTERNAL culture orientation, CRM CUSTOMER outcome increases on average by 0.16 units. Finally, the estimate of the error variance is 0.49.

For CRM PROCESS outcome as the dependent variable, the unstandardised regression coefficients are 0.01 for INTERNAL and 0.21 for EXTERNAL culture orientations. These results suggest that for every single unit of increase in INTERNAL culture orientation, CRM PROCESS outcome increases on average by 0.01 units. For every single unit of increase in EXTERNAL culture orientation, CRM PROCESS outcome increases on average by 0.21 units. Finally, the estimate of the error variance is 0.76.

For CRM PEOPLE outcome as the dependent variable, the unstandardised regression coefficients are 0.11 for INTERNAL and 0.07 for EXTERNAL culture orientations. These results suggest that for every single unit of increase in INTERNAL culture orientation, CRM PEOPLE outcome increases on average by 0.11 units. For every single unit of increase in EXTERNAL culture orientation, CRM PEOPLE outcome increases on average by 0.07 units. Finally, the estimate of the error variance is 0.74.

Figure 6.11 Standardised parameter estimates for research question_{3,2}



For CRM FINANCIAL outcome as the dependent variable, the standardised regression coefficients are 0.02 for INTERNAL and 0.38 for EXTERNAL culture orientation. For one additional standard deviation change in INTERNAL culture orientation, CRM FINANCIAL outcome is predicted to increase by 0.02 of a standard deviation. For one additional standard deviation change in EXTERNAL culture orientation, CRM FINANCIAL outcome is predicted to increase by 0.38 of a standard deviation. Finally, the R^2 value of 0.16 indicates that 16 percent of the variation in CRM FINANCIAL outcome is explained by these culture orientations.

For CRM CUSTOMER outcome as the dependent variable, the standardised regression coefficients are -0.08 for INTERNAL and 0.40 for EXTERNAL culture orientations. For one additional standard deviation change in INTERNAL culture orientation, CRM CUSTOMER outcome is predicted to decrease by 0.08 of a standard deviation. For one additional standard deviation change in EXTERNAL culture orientation, CRM CUSTOMER outcome is predicted to increase by 0.40 of a standard deviation. Finally, the R^2 value of 0.12 indicates that 12 percent of the variation in CRM CUSTOMER outcome is explained by these culture orientations.

For CRM PROCESS outcome as the dependent variable, the standardised regression coefficients are 0.03 for INTERNAL and 0.41 for EXTERNAL culture orientations. For one additional standard deviation change in INTERNAL culture orientation, CRM PROCESS outcome is predicted to increase by 0.03 of a standard deviation. For one additional standard deviation change in EXTERNAL culture orientation, CRM PROCESS outcome is predicted to increase by 0.41 of a standard deviation. Finally, the R^2 value of 0.19 indicates that 19 percent of the variation in CRM PROCESS outcome is explained by these culture orientations.

For CRM PEOPLE outcome as the dependent variable, the standardised regression coefficients are 0.24 for INTERNAL and 0.15 for EXTERNAL culture orientations. For one additional standard deviation change in INTERNAL culture orientation, CRM PEOPLE outcome is predicted to increase by 0.24 of a standard deviation. For one additional standard deviation change in EXTERNAL culture orientation, CRM PEOPLE outcome is predicted to increase by 0.15 of a standard deviation. Finally, the R^2 value of 0.13 indicates that 13 percent of the variation in CRM PEOPLE outcome is explained by these culture orientations.

Table 6.37 Regression weights for research question_{3,2}

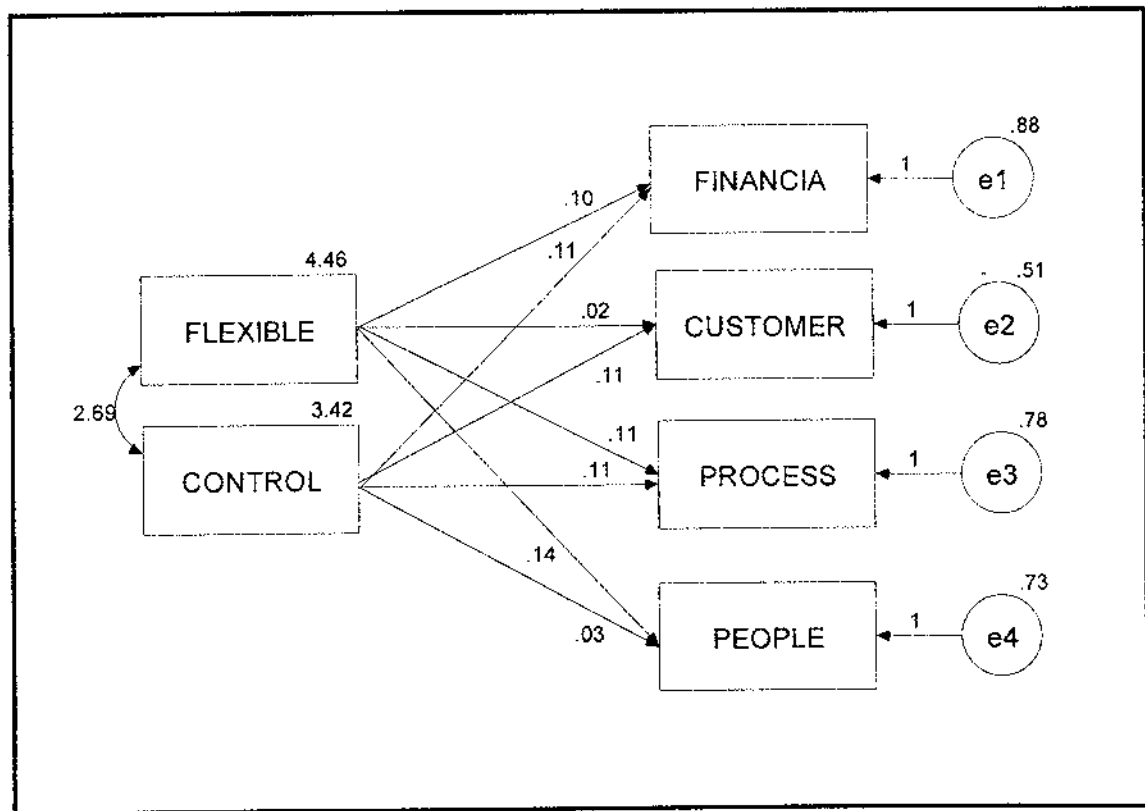
			Estimate	S.E.	T value	P
FINANCIAL	<---	INTERNAL	.011	.064	.169	.866
CUSTOMER	<---	INTERNAL	-.029	.048	-.612	.541
PROCESS	<---	INTERNAL	.014	.060	.233	.816
PEOPLE	<---	INTERNAL	.107	.059	1.811	.070
FINANCIAL	<---	EXTERNAL	.207	.071	2.912	.004
CUSTOMER	<---	EXTERNAL	.161	.054	3.006	.003
PROCESS	<---	EXTERNAL	.211	.067	3.176	.001
PEOPLE	<---	EXTERNAL	.072	.066	1.091	.275

Table 6.37 shows that the regression coefficient for EXTERNAL culture orientation is statistically significant at the 0.05 level for CRM FINANCIAL, CUSTOMER and PROCESS outcomes. Thus, External culture orientation is significantly associated with positive Financial, Customer and Process-related outcomes of CRM system implementations.

R_{3.3}: What are the associations between Flexible and Control culture orientations and Financial/Customer/Process/People-related outcomes of CRM system implementations?

In this section, each type of CRM outcome is regressed against organisational culture orientations. For example, the CRM Financial outcome is used as the dependent variable and Flexible and Control culture orientations serve as the predictor variables for the first regression model. For the three remaining types of CRM outcomes, a model with identical predictor variables is formulated. Figure 6.12 shows the unstandardised parameter estimates for research question_{3.3} and figure 6.13 shows the standardised parameter estimates for research question_{3.3}.

Figure 6.12 Unstandardised parameter estimates for research question_{3.3}



For CRM FINANCIAL outcome as the dependent variable, the unstandardised regression coefficients are 0.10 for FLEXIBLE and 0.11 for CONTROL culture orientations. These results suggest that for every single unit of increase in FLEXIBLE culture orientation, CRM FINANCIAL outcome increases on average by 0.10 units. For every single unit of increase in CONTROL culture orientation, CRM FINANCIAL

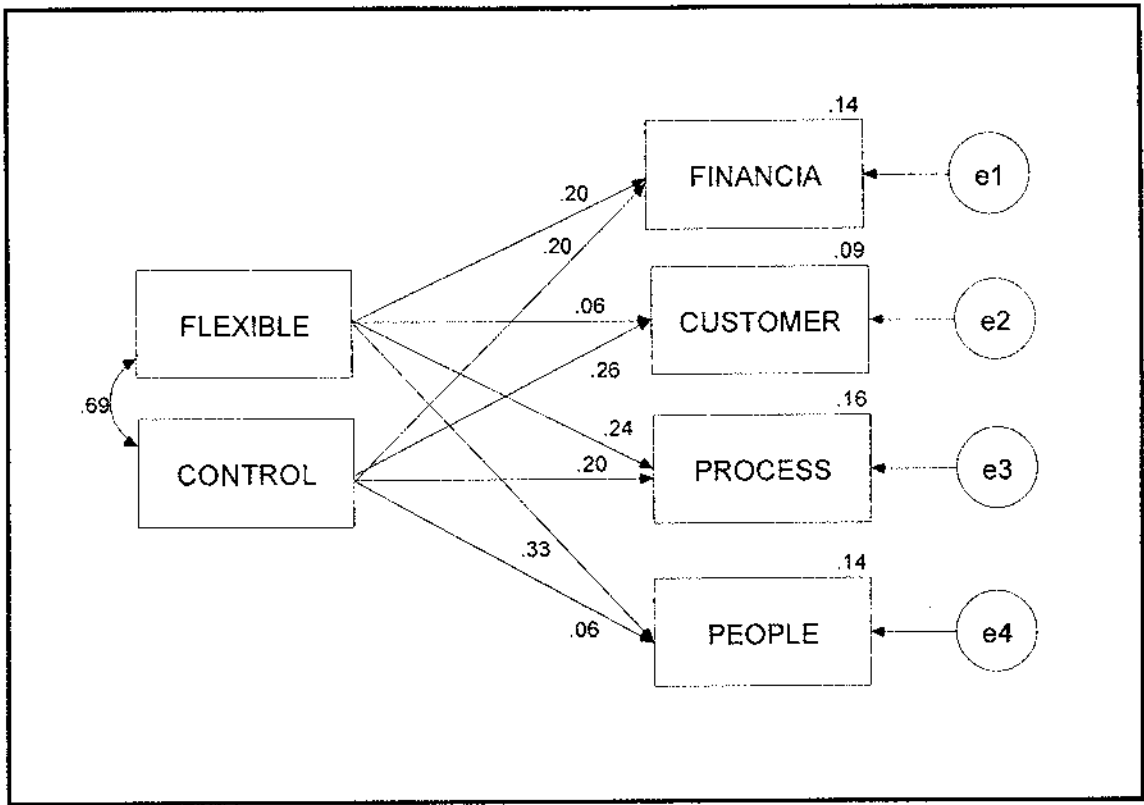
outcome increases on average by 0.11 units. Finally, the estimate of the error variance is 0.88.

For CRM CUSTOMER outcome as the dependent variable, the unstandardised regression coefficients are 0.02 for FLEXIBLE and 0.11 for CONTROL culture orientations. These results suggest that for every single unit of increase in FLEXIBLE culture orientation, CRM CUSTOMER outcome increases on average by 0.02 units. For every single unit of increase in CONTROL culture orientation, CRM CUSTOMER outcome increases on average by 0.11 units. Finally, the estimate of the error variance is 0.51.

For CRM PROCESS outcome as the dependent variable, the unstandardised regression coefficients are 0.11 for FLEXIBLE and 0.11 for CONTROL culture orientations. These results suggest that for every single unit of increase in FLEXIBLE culture orientation, CRM PROCESS outcome increases on average by 0.11 units. For every single unit of increase in CONTROL culture orientation, CRM PROCESS outcome increases on average by 0.11 units. Finally, the estimate of the error variance is 0.78.

For CRM PEOPLE outcome as the dependent variable, the unstandardised regression coefficients are 0.14 for FLEXIBLE and 0.03 for CONTROL culture orientations. These results suggest that for every single unit of increase in FLEXIBLE culture orientation, CRM PEOPLE outcome increases on average by 0.14 units. For every single unit of increase in EXTERNAL culture orientation, CRM PEOPLE outcome increases on average by 0.03 units. Finally, the estimate of the error variance is 0.73.

Figure 6.13 Standardised parameter estimates for research question_{3,3}



For CRM FINANCIAL outcome as the dependent variable, the standardised regression coefficients are 0.20 for FLEXIBLE and 0.20 for CONTROL culture orientations. For one additional standard deviation change in FLEXIBLE culture orientation, CRM FINANCIAL outcome is predicted to increase by 0.20 of a standard deviation. For one additional standard deviation change in CONTROL culture orientation, CRM FINANCIAL outcome is predicted to increase by 0.20 of a standard deviation. Finally, the R^2 value of 0.14 indicates that 14 percent of the variation in FINANCIAL culture orientation is explained by these culture orientations.

For CRM CUSTOMER outcome as the dependent variable, the standardised regression coefficients are 0.06 for FLEXIBLE and 0.26 for CONTROL culture orientations. For one additional standard deviation change in FLEXIBLE culture orientation, CRM CUSTOMER outcome is predicted to increase by 0.06 of a standard deviation. For one additional standard deviation change in CONTROL culture orientation, CRM CUSTOMER outcome is predicted to increase by 0.26 of a standard deviation. Finally, the R^2 value of 0.09 indicates that 9 percent of the variation in CRM CUSTOMER outcome is explained by these culture orientations.

For CRM PROCESS outcome as the dependent variable, the standardised regression coefficients are 0.24 for FLEXIBLE and 0.20 for CONTROL culture orientations. For one additional standard deviation change in FLEXIBLE culture orientation, CRM PROCESS outcome is predicted to increase by 0.24 of a standard deviation. For one additional standard deviation change in CONTROL culture orientation, CRM PROCESS outcome is predicted to increase by 0.20 of a standard deviation. Finally, the R^2 value of 0.16 indicates that 16 percent of the variation in CRM PROCESS outcome is explained by these culture orientations.

For CRM PEOPLE outcome as the dependent variable, the standardised regression coefficients are 0.33 for FLEXIBLE and 0.06 for CONTROL culture orientations. For one additional standard deviation change in FLEXIBLE culture orientation, CRM PEOPLE is predicted to increase by 0.33 of a standard deviation. For one additional standard deviation change in CONTROL culture orientation, CRM PEOPLE outcome is predicted to increase by 0.06 of a standard deviation. Finally, the R^2 value of 0.14 indicates that 14 percent of the variation in CRM PEOPLE outcome is explained by these culture orientations.

Table 6.38 Regression weights for research question_{3,3}

			Estimate	S.E.	T value	P
FINANCIAL	<---	FLEXIBLE	.096	.061	1.560	.119
CUSTOMER	<---	FLEXIBLE	.021	.046	.457	.648
PROCESS	<---	FLEXIBLE	.108	.058	1.873	.061
PEOPLE	<---	FLEXIBLE	.143	.056	2.568	.010
FINANCIAL	<---	CONTROL	.111	.070	1.586	.113
CUSTOMER	<---	CONTROL	.105	.053	1.984	.047
PROCESS	<---	CONTROL	.105	.066	1.598	.110
PEOPLE	<---	CONTROL	.029	.064	.450	.653

From table 6.38, the regression coefficient for FLEXIBLE culture orientation is statistically significant at the 0.05 level for CRM PEOPLE outcome and the regression coefficient for CONTROL culture orientation is statistically significant at the 0.05 level for CRM CUSTOMER outcome. Thus, Flexible culture orientation is significantly associated with positive CRM People outcomes and Control culture orientation is significantly associated with positive CRM Customer outcomes.

R₄: What are the associations between the type of CRM initiative being pursued and CRM system implementation outcomes?

R_{4.1}: Is the type of CRM initiative being pursued associated with CRM system implementation outcomes?

In this section, CRM outcome variable, composed of the four balanced scorecard outcome variables (Financial, Customer, Process and People outcomes), is regressed against the type of CRM initiative being pursued. For example, the CRM outcomes variable is used as the dependent variable and Strategic, Operational and Analytical CRM variables serve as the predictor variables for the regression model. Figure 6.14 shows the unstandardised parameter estimates for research question_{4.1} and figure 6.15 shows the unstandardised parameter estimates for research question_{4.1}.

Figure 6.14 Unstandardised parameter estimates for research question_{4.1}

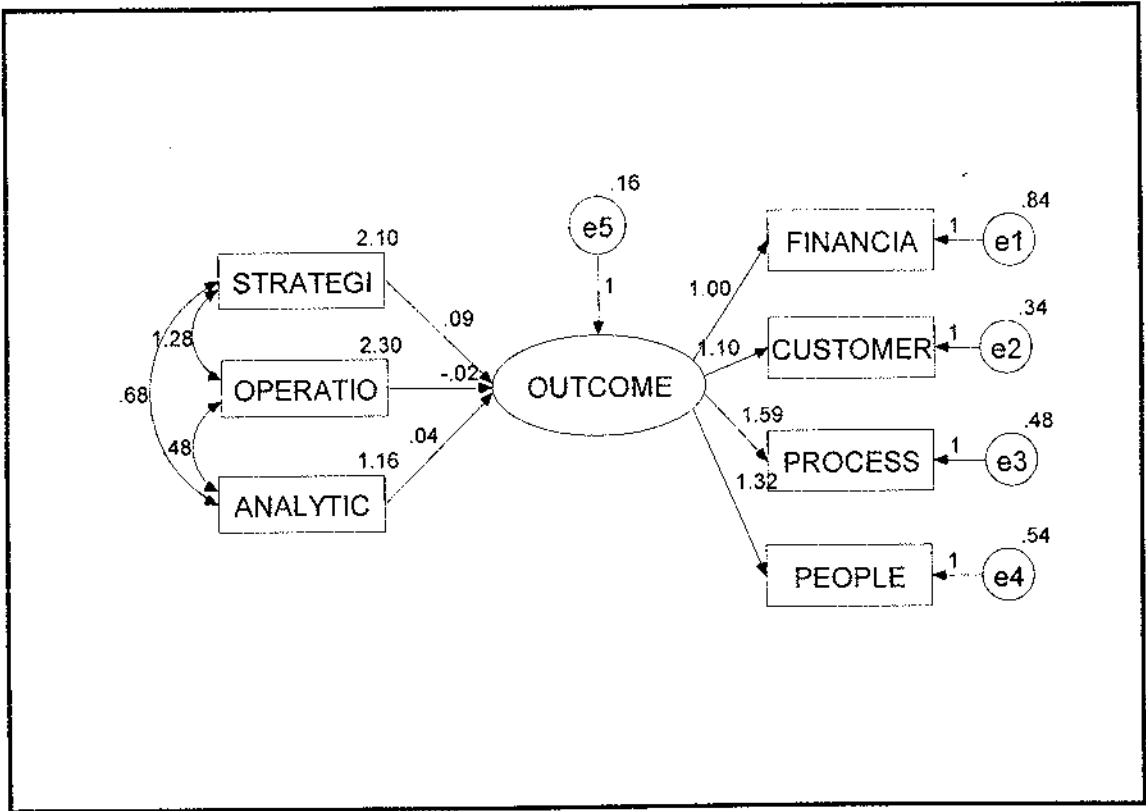


Table 6.39 Model fit summary for research question_{4.1}

Indices	Model fit summary	Model level of fit	Good level of fit criteria
CMIN	14.712		
DF	8		
P	0.196	> 0.05	≥ 0.05
GFI	0.961	> 0.90	≥ 0.90
RMSEA	0.058	< 0.10	≤ 0.10
CFI	0.969	> 0.90	≥ 0.90
TLI	0.942	$0.90 < \text{TLI} < 1$	$0.90 \leq \text{TLI} \leq 1$

Table 6.39 shows that all indices are within the good level of fit. Figure 6.14 shows that covariances between the predictor variables range from a low of 0.48 for ANALYTICAL and OPERATIONAL CRM to a high of 1.28 between STRATEGIC and OPERATIONAL CRM. Variances of the predictor variables range from a low of 1.16 for ANALYTICAL CRM to a high of 2.30 for OPERATIONAL CRM. For CRM OUTCOME, the unstandardised regression coefficients are 0.09 for STRATEGIC, -0.02 for OPERATIONAL, and 0.04 for ANALYTICAL CRM. These results suggest that for every single unit of increase in STRATEGIC CRM, CRM OUTCOME increases on average by 0.09 units. For every single unit of increase in OPERATIONAL CRM, CRM OUTCOME decreases on average by 0.02 units. For every single unit of increase in ANALYTICAL CRM, CRM OUTCOME increases on average by 0.04 units. Finally, the estimate of the error variance is 0.16.

Figure 6.15 Standardised parameter estimates for research question_{4,1}

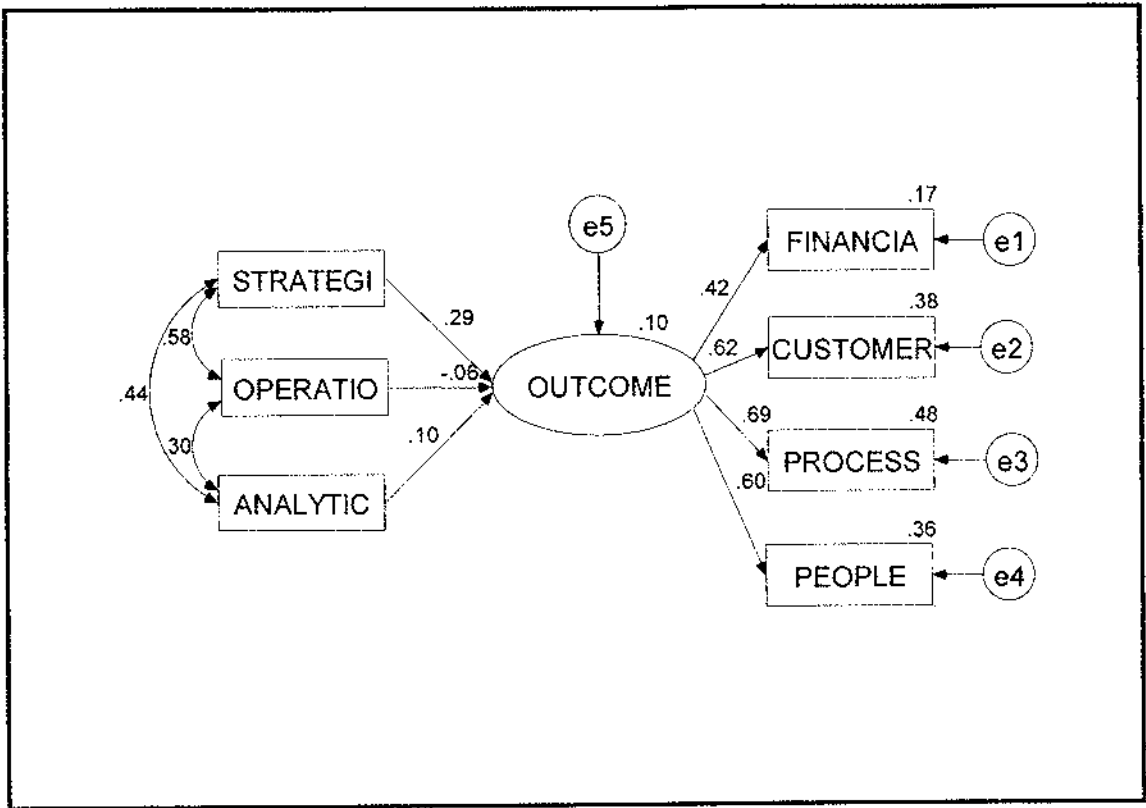


Figure 6.15 shows that correlations between the predictor variables range from a low of 0.30 for OPERATIONAL and ANALYTICAL CRM, to a high of 0.58 for STRATEGIC and OPERATIONAL. For CRM OUTCOME as the dependent variable, the standardised regression coefficients are 0.29 for STRATEGIC, -0.06 for OPERATIONAL, and 0.10 for ANALYTICAL CRM. For one additional standard deviation change in STRATEGIC CRM, CRM OUTCOME is predicted to increase by 0.29 of a standard deviation. For one additional standard deviation change in OPERATIONAL CRM, CRM OUTCOME is predicted to decrease by 0.06 of a standard deviation. For one additional standard deviation change in ANALYTICAL CRM, CRM OUTCOME is predicted to increase by 0.10 of a standard deviation. Finally, the R^2 value of 0.10 indicates that 10 percent of the variation in CRM OUTCOME is explained by these three types of CRM initiative.

Table 6.40 Regression weights for research question_{4,1}

			Estimate	S.E.	C.R.	P
OUTCOME	<---	STRATEGIC	.085	.049	1.740	.082
OUTCOME	<---	OPERATIONAL	-.017	.040	-.441	.659
OUTCOME	<---	ANALYTICAL	.038	.051	.736	.461

Table 6.40 shows that the unstandardised regression coefficients are not statistically significant for any type of CRM initiative at the 0.05 level. Thus, the type of CRM initiative being pursued is not associated with CRM system implementation outcomes. As the type of CRM initiative being pursued is not associated with CRM system implementation outcomes, this research issue/question is not tested further.

6.4 Research Results Summary

Table 6.41 summarises the results of the research hypotheses tests.

Table 6.41 Summary of hypotheses testing results

Research Questions	Research Hypothesis	Results
R₁: Is organisational culture associated with CRM system implementation outcomes?	H _{1,1} : Among four organisational culture types, Adhocracy culture has the highest degree of positive association with good CRM system implementation outcomes	Supported
	H _{1,2} : External culture orientation has a higher degree of positive association with good CRM system implementation outcomes than Internal culture orientation	Supported
	H _{1,3} : Flexible culture orientation has a higher degree of positive association with good CRM system implementation outcomes than Control culture orientation	Supported

Research Questions	Research Hypothesis	Results
R₂: Do the innovative characteristics of the CRM system and the environmental/market conditions in which organisations operate moderate the strength of the relationship between organisational culture and CRM system implementation outcomes?	H _{2.1} : The higher the degree of perceived ease of using the CRM system, the weaker is the association between organisational culture and CRM system implementation outcomes	Rejected
	H _{2.2} : The higher the degree of the compatibility of CRM system with existing systems, the weaker is the association between organisational culture and CRM system implementation outcomes	Rejected
	H _{2.3} : The greater the extent of competitive intensity, the stronger is the association between organisational culture and CRM system implementation outcomes	Rejected
	H _{2.4} : The greater the extent of market turbulence, the stronger is the association between organisational culture and CRM system implementation outcomes	Partially supported. The greater the extent of market turbulence, the stronger is the association between organisational culture, in particular External culture orientation, and CRM system implementation outcomes.

From exploratory analysis, table 6.42 summarises the results in relation to the research questions.

Table 6.42 Summary of research findings

Research Issues & Questions	Research Findings
<p>R₃: What are the associations between organisational culture and different outcomes of CRM system implementation?</p> <p>R_{3.1}: What are the associations between organisational culture types and Financial/Customer/Process/People-related outcomes of CRM system implementations?</p> <p>R_{3.2}: What are the associations between Internal and External culture orientations and Financial/Customer/Process/People-related outcomes of CRM system implementations?</p> <p>R_{3.3}: What are the associations between Flexible and Control culture orientations and Financial/Customer/Process/People-related outcomes of CRM system implementations?</p>	<p>Adhocracy culture has significant positive associations with Financial and Customer-related outcomes of CRM system implementations.</p> <p>Market culture has no significant association with any outcomes of CRM system implementations.</p> <p>Clan culture has a significant negative association with Customer-related outcomes of CRM system implementations</p> <p>Hierarchy culture has a significant positive association with Customer-related outcomes of CRM system implementations</p> <p>External culture orientation has significant positive associations with Financial, Customer and Process-related outcomes of CRM system implementations</p> <p>Flexible culture orientation has a significant positive association with People-related outcomes of CRM system implementations</p> <p>Control culture orientation has a significant positive association with Customer-related outcomes of CRM system implementations</p>

Research Issues & Questions	Research Findings
<p>R₄: What are the associations between the type of CRM initiative being pursued and CRM system implementation outcomes?</p> <p>R_{4.1}: Is the type of CRM initiative being pursued associated with CRM system implementation outcomes?</p> <p>R_{4.2}: In addition to organisational culture, does the type of CRM initiative being pursued predict CRM system implementation outcomes?</p>	<p>The type of CRM initiative being pursued is not significantly associated with CRM system implementation outcomes. Thus, we did not test further this research issue/question.</p>

The contributions and implications of these research findings are discussed in chapter seven.