Empirical Investigation of Accounting-Marketing Integration in UK Financial Services Organisations: Dimensions, Antecedents and Strategic Marketing Evidence

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ABSTRACT

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by

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Superior organisational performance has been associated to interfunctional integration. On this premise, marketing's relationship with other departments has received increasing empirical attention since the early 1980's. Amongst others, several of these studies have flagged the innovation and new product development impact of such relationships, towards overall organisational performance.

Though largely ignored in the empirical examination of dyadic relationships with marketing, advocates of accounting-marketing integration suggest strategic marketing potency in this interface. Quantitatively based, this study, aiming to contribute to filling a research void, explored accounting-marketing integration. Justified by identified gaps in literature, this exploratory study, illuminated the dimensions, antecedents and strategic marketing nature of the accounting-marketing integration.

Harmonizing broad and specific interface literature, a composite conceptualisation of integration was adopted in this study. Literature on integration antecedents was tapped largely from diverse interfunctional dyads, given empirical accounting-marketing dyad void. Completing the tripartite research themes, this study combined

accounting-marketing interface, marketing and strategic theoretical foundations to define its strategic marketing premise.

Utilising data from Financial Services Organisations, the conceptualised framework was tested. At 162 responses (75 dyads) after missing data analysis, this study achieved a response rate of 27.34%. To examine conceptualised relationships, the study employed robust statistical tools. To confirm reliability and validity of factors, SPSS was used for the former and latter (EFA) while AMOS 7 was used for the latter (Confirmatory Factor Analyses – CFA). Overall structural equation models (SEM) were examined through path analysis. Goodness-of-Fit estimates suggest satisfactory model validity. Most proposed research hypotheses were supported and achieved explained variance by proposed antecedents was acceptable.

The findings from this study highlighted the importance of conceptualised integration dimensions. While the strategic marketing evidence reinforced this dimensional importance, differential dimensional significance across the strategic marketing stages was however captured.

Overall, empirical evidence largely resonated with theoretical norms concerning antecedents of integration. Additional to broad domain integration literature conformity, findings also highlighted accounting-marketing dyad specificities. Comparative evidence evaluation along the two conceptualised dependent variable models flagged another set of differential evidences. Combined, these differential facts reflect task connectivity pertinence in interfunctional integration.

Critically, the explored dyad is characterised by strong cultural walls and ‘keep to your territory’ behaviour, circumstances that trigger and sustain tension in the interfunctional relationship. Following closer examination of this fact, a further critical evidence of accounting-marketing interface, based on the data for this study,

emerged: organisations mitigate the tension consequences, towards goal-driven interfunctional optimisation, through a cross-functional bridge (CFB) mechanism.

The conclusion to this study highlighted the emergent empirical summations. Additional to pinpointing the theoretical and managerial implications of the study, further research directions are also flagged. Essentially, this study underlined the theoretical importance of cross-functional bridge in interfunctional relations. Though, theoretically, the cross-functional bridge is not new, this study, additional to reinforcing theoretical premise importance, outlined cross-functional bridge insights that are critical to dyadic and industry contexts explored, and which may also be transported to other contexts. In the explored contexts, this study also offered insights that are of managerial relevance. A number of other critical insights of theoretical and managerial utility are also flagged in this study.

To conclude the thesis, the limitations to the study are highlighted, while also flagging avenues for future research.

Table of Contents

Abstract....i
List of Tables....x
List of Figures....xii
List of Acronyms....xiii
List of Appendices....xv

1 Introduction: Purpose, Objectives and Importance of the Research 1
1.1 Introduction....1
1.2 Integrating the Accounting and Marketing Functions: Importance and Need....3
1.3 The Objectives of the Study....12
1.4 Conclusion to the Chapter and Arrangement of the Thesis....15
1.4.1 The Summary of other Chapters in the Thesis....15

2 The Accounting/Marketing Interface: Problems & Conceptualisation of Integration....18
2.1 Introduction to the Chapter....18
2.2 The Concept of Interface....19
2.3 Problems at the Accounting/Marketing Interface....21
2.4 What is Integration?....24
2.4.1 Integration as Interaction....26
2.4.2 Integration as Collaboration....27
2.4.3 Composite Integration (Interaction + Collaboration) 28
2.4.4 Evaluation of Various Definitions of Integration & Conceptualisation of Integration for this Thesis....29
2.5 The Drivers of Integration....33
2.5.1 Social System Philosophy/Skills, Resources and Capabilities Differences....33
2.5.2 Customer Awareness, Consciousness and Quality Standards....34
2.5.3 Contingency Theory Philosophy/Environmental Dynamics....35
2.5.4 The Drive for Shareholder's Value/Marketing Orientation 36
2.6 Conclusion to Part A....38
2.7 Introduction to Part B....41
2.8 Accounting and Marketing Information Exchange....42
2.9 Accounting and Marketing Transactional Flow....43
2.9.1 Accounting Information for Marketing 45
2.9.2 Marketing Information For Accounting 48
2.10 How to best integrate Accounting and Marketing....50
2.10.1 Information Sharing (InfoS)....51
2.10.2 Unified Effort (UniE)....53
2.10.3 Involvement (Inv)....56
2.11 Conclusion to Part B....58

3 The Antecedents of Accounting/Marketing Integration....60
3.1 Introduction....60
3.2 Justification of Antecedent Mix....63
3.3 Communication Gap (COMMGAP)....69
3.4 Organisational Factors 72
3.4.1 Formalisation (FORMPS)....74
3.4.2 Management Dimensions....76
3.4.2.1 Management Support of Integration (MANSFINT)....79
3.4.2.2 Management's Encouragement of Risk-Taking Behaviour (RISKBEH) 80

3.4.2.3 Reward System (REWARD)....81
3.4.2.4 Decentralisation (DCENT)....82
3.4.2.5 Role flexibility (ROFLEX)....84
3.5 Culture & Orientation Differences (CODIFF)....87
3.6 Non-Departmental Proximity (NONDEPPROX)....89
3.7 Participation (EMPPASMS)....92
3.8 Justifying Grounding of Antecedents on R&D/Marketing Integration Literature....93
3.9 Conclusion to Chapter 3....95

4 Strategic Marketing and Accounting/Marketing Integration....98
4.1 Introduction....98
4.2 The Synergy of Accounting-Marketing Integration – Why this Focus?.99
4.3 What would AM-Synergy mean for Organisational Performance?....101
4.4 Measuring Integration at the strategic Marketing Stages....103
4.4.1 The Conceptualisation of the Strategic Marketing Process for this Study....105
4.4.2 The Stages of Strategic Marketing Management....109
4.4.2.1 Strategic Marketing Analysis....110
4.4.2.2 Strategic Marketing Planning....111
4.4.2.3 Strategic Marketing Implementation....112
4.4.2.4 Strategic Marketing Control and Evaluation....112
4.5 Accounting-Marketing Integration during the Strategic Marketing Process – The Antecedents....114
4.5.1 Introduction....114
4.5.2 Antecedents of Strategic Marketing Process Integration between Accounting and Marketing....114
4.6 Conclusion to Chapter 4....115

5 The Conceptual Framework and Hypotheses....117
5.1 Introduction....117
5.2 Previous Frameworks / Models for the Study of CFIn and Relevance to this Study....117
5.3 The Framework for this Study....120
5.4 Rationale for the Framework for the Study of AMI....123
5.5 Explaining the Framework & Statement of Hypotheses....126
5.5.1 Statement of Hypotheses for Figure 5.1 (Part A)....128
5.5.1.1 Communication Gap (COMMGAP)....128
5.5.1.2 Formalisation (FORM)....129
5.5.1.3 Management Support for Integration (MANSFINT)....130
5.5.1.4 Management's Encouragement of Risk-Taking Behaviour (RISKBEH) 131
5.5.1.5 Reward System (REWARD)....131
5.5.1.6 Decentralisation (DCENT)....133
5.5.1.7 Role Flexibility (ROFLEX)....135
5.5.1.8 Culture & orientation Differences (CODIFF)....136
5.5.1.9 Non-Departmental Proximity (NONDEPPROX)....138
5.5.1.10 Participation (EMPPASMS)....140
5.5.2 Statement of Hypotheses for Figure 5.1 (Part B)....140
5.5.2.1 Integration at the Strategic Marketing Stages....141
5.5.2.1.1 The Dimensions of Integration at the Strategic Marketing Stages....141
5.5.2.2 The Statement of the Hypotheses....144
5.6 Conclusion to the Chapter....148

6 Research Methodology....150
6.1 Introduction....151

6.2 The Research Design....152
6.3 Methodological Approach and Assumptions....153
6.3.1 Research Paradigms and Assumptions....153
6.3.1.1 The Positivism Paradigm....154
6.3.1.2 The Critical Theory Paradigm....155
6.3.1.3 The Constructivism Paradigm....156
6.3.1.4 The Realism Paradigm....156
6.3.2 The Methodological Approach....159
6.3.2.1 Why Positivism for this Research?....159
6.4 The Research Setting....161
6.4.1 The Industry Sampling....162
6.5 Quantitative Research Method....163
6.6 Rationale for Use of Quantitative Approach....164
6.7 Data Collection Metrics for the Thesis....167
6.8 The Quantitative Metrics for this Study....168
6.9 The Quantitative Instrument....168
6.9.1 The Research Instrument....168
6.9.1.1 Measurement of Dependent (Endogenous) Variables....169
6.9.1.2 Degrees of Integration....170
6.9.1.2.1 Degree of Involvement (DINV)....170
6.9.1.2.2 Degree of Unified Effort (DUE)....170
6.9.1.2.3 Degree of Mutual Information Sharing (DMIS)....170
6.9.1.3 Integration during the Strategic Marketing Process....171
6.9.2 Measurement of Independent (Exogenous) Variables....172
6.9.2.1 Communication gap (COMMGAP)....172
6.9.2.2 Formalisation (FORMPS)....172
6.9.2.3 Culture and orientation differences (CODIFF) 173
6.9.2.4 Management Support of Integration (MANSFINT)....173
6.9.2.5 Encouragement of risk taking behaviour (RISKBEH)....173
6.9.2.6 Decentralisation (DCENT) 173
6.9.2.7 Participation (PART)....174
6.9.2.8 Reward (REWARD) 174
6.9.2.9 Role Flexibility (ROFLEX) 174
6.9.2.10 Non-departmental proximity (NONDEPPROX) 174
6.9.3 Pretesting the Questionnaire....177
6.9.4 Sampling of Respondents for Pilot Testing (Interviews and Questionnaire) and Actual Survey....179
6.10 The Actual Survey....180
6.10.1 Enhancing Response Rate: Further Steps Taken....182
6.10.1.1 Further Technique Used to Improve Response Rate....182
6.10.1.2 Overall Response Rate and Reasons for Low Response....183
6.10.2 Further Interviews....185
6.11 Demographics of Participating Firms and Respondents....187
6.11.1 Why the Financial Services Industry?....187
6.12 Analysing the Data – the Metrics....190
6.12.1 Introduction....190
6.12.1.1 Structural Model for the Study....190
6.12.1.2 Examining Emergent Data....192
6.12.2 Screening Data for Analyses....193
6.12.2.1 The Data Distribution....193
6.12.2.1.1 Validation of Measures....194
6.12.2.1.1.a Internal and External Validity....195
6.12.2.1.1.b Content Validity....197
6.12.2.1.1.c Construct Validity....197
6.12.2.1.1.d Correlation Analyses Tests....198
6.12.2.1.2 Factor Analysis....200
6.12.2.1.2.a Introduction....200
6.12.2.1.2.b Steps in the Factor Analysis....201

6.12.2.1.2.c Justification and Nature of Factor Analysis.....202
6.12.2.1.2.d Exploratory Factor Analysis Technique.....203
6.12.2.1.2.e Factor Rotation.....204
6.13 Conclusion to the Chapter.....205

7 Data Analysis 1: Assessment of Measures And Measurement Model.....207
7.1 Introduction.....207
7.2 Scales Reliability and Validation.....208
7.2.1 Reliability Statistics of Measures.....208
7.2.1.1 Dependent Variables.....209
7.2.1.1.1 The Degree of Achieved Integration 209
7.2.1.1.2 The Achieved Integration at Strategic Marketing Stages…210
7.2.1.2 Independent Variables.....213
7.3 Descriptive Statistics for the Measures.....217
7.3.1 Dependent Variables: Achieved Integration.....217
7.3.1.1 Measures of Information Sharing: Descriptive Finding.....217
7.3.1.2 Measures of Unified Effort: Descriptive Finding.....219
7.3.1.3 Measures of Involvement: Descriptive Finding.....220
7.3.2 Dependent Variables: Achieved Integration at Strategic Marketing Stages.....221
7.3.2.1 Measures of Integration at SMAS: Descriptive Finding.....221
7.3.2.2 Measures of Integration at SMPS: Descriptive Finding.....222
7.3.2.3 Measures of Integration at SMIS: Descriptive Finding.....224
7.3.2.4 Measures of Integration at SMCS: Descriptive Finding.....225
7.3.3 Independent Variables: the Antecedents of Integration.....226
7.3.3.1 Measures of Communication Gaps: Descriptive Finding.....226
7.3.3.2 Measures of Formalisation: Descriptive Finding.....227
7.3.3.3 Measures of Culture and Orientation Differences: Descriptive Finding228
7.3.3.4 Measures of Management Support of Integration: Descriptive Finding229
7.3.3.5 Measures of Risk Taking Encouragement: Descriptive Finding.....230
7.3.3.6 Measures of Decision Making Authority (Decentralisation): Descriptive Finding.....231
7.3.3.7 Measures of Joint Rewards: Descriptive Finding.....232
7.3.3.8 Measures of Role Flexibility: Descriptive Finding.....233
7.3.3.9 Measures of Non-Departmental Proximity: Descriptive Finding.....234
7.3.3.10 Measures of Participation: Descriptive Finding.....235
7.4 The Structural Equation Model.....236
7.5 Exploratory Factor Analysis.....236
7.6 Principal Axis Factoring and Scale Construction.....236
7.6.1 Preliminary Measurement Scale Examination.....237
7.7 Preliminary Construct Examination Results.....238
7.7.1 Dependent Variables.....238
7.7.1.1 Degree of Achieved Integration.....238
7.7.1.2 Achieved Integration at the Strategic Marketing Stages.....239
7.7.2 Independent Variables.....240
7.8 Factor Extraction.....241
7.9 Exploratory Factor Analyses of Dependent Variables.....242
7.9.1 Principal Axis Factoring of the Dimensions of Achieved Integration.....242
7.9.1.1 Degree of Involvement (DINV).....244
7.9.1.2 Degree of Unified Effort (DUE).....245
7.9.1.3 Degree of Information Sharing (DMIS).....245
7.9.2 Principal Axis Factoring of the Stages of Strategic Marketing Process 246
7.9.2.1 Strategic Marketing Analysis Stage (SMAS).....247
7.9.2.2 Strategic Marketing Planning Stage (SMPS).....247
7.9.2.3 Strategic Marketing Implementation Stage (SMIS) 248
7.9.2.4 Strategic Marketing Control Stage (SMCS).....249
7.10 Exploratory Factor Analyses of Independent Variables 250

7.10.1 Communication Gap (COMMGAP)....251
7.10.2 Formalisation (FORMPS)....252
7.10.3 Culture and Orientation Differences (CODIFF)....252
7.10.4 Management Support of Integration (MANSFINT)....253
7.10.5 Encouragement of Risk Taking Behaviour (RISKTBEH)....254
7.10.6 Decentralisation (DCENT)....255
7.10.7 Joint Reward System (REWARD)....256
7.10.7.1 Reward – Monetary Dimension (REWARDM)....256
7.10.7.2 Reward Performance Dimension (REWARDP)....257
7.10.8 Role Flexibility (ROFLEX)....258
7.10.9 Non-Departmental Proximity (NONDEPPROX)....260
7.10.10 Participation (EMPPASMS)....261
7.11 Conclusions on the Exploratory Construct Validity....262
7.12 Confirmatory Factor Analysis (CFA)....263
7.12.1 Introduction....263
7.12.2 Data Screening before Measurement Validation (CFA)....266
7.13 Assessment of the Measurement Model for Exogenous and Endogenous Variables....267
7.13.1 Justifying Goodness-Of-Fit Measures Reported....267
7.13.2 The Measurement Validation Results....269
7.13.2.1 Measurement Model Validity of Dependent Variables....271
7.13.2.1.1 The Degree of Achieved Integration....271
7.13.2.1.2 The Achieved Integration at the Strategic Marketing Stages....274
7.13.2.2 Measurement Model Validity of Independent Variables....277
7.14 Conclusion to the Chapter....282

8 Data Analysis 2: Assessment of Structural Model & Discussion of Findings....284
8.1 Introduction....284
8.2 Analytical Steps and Structural Models....284
8.3 Reliability of Measures....287
8.4 The Relationship between Predictors and Outcomes – Correlation....287
8.5 Factor Analyses – The Dependent and Independent Variables....287
8.6 The Multivariable Regression – The Results....288
8.7 The Determinants of the Achieved Degree of Integration....298
8.7.1 The Dimensions of Achieved Integration....298
8.7.2 The Achieved Integration during the Strategic Marketing Process....299
8.7.3 The Dimensions of Integration across the Strategic Marketing Stages....299
8.8 Summary of Hypotheses....300
8.9 Explaining the Overall Structural Model....305
8.10 Specification and Discussion of Hypotheses....308
8.10.1 Discussion of Hypotheses – Achieved Integration....309
8.10.1.1 Communication Gap and Achieved Integration....310
8.10.1.1.1 Introduction....310
8.10.1.1.2 Communication Gap and Achieved Integration....311
8.10.1.2 Formalisation and Achieved Integration....313
8.10.1.2.1 Introduction....313
8.10.1.2.2 Formalisation and Achieved Integration....313
8.10.1.3 Management Support of Integration and Achieved Integration....314
8.10.1.3.1 Introduction....314
8.10.1.3.2 Management Support of Integration and Achieved Integration....315
8.10.1.4 Encouragement of Risk-Taking Behaviour and Achieved Integration. .316
8.10.1.4.1 Introduction....316
8.10.1.4.2 Encouragement of Risk-Taking behaviour and Achieved Integration....317

8.10.1.5 Joint Rewards and Achieved Integration....318
8.10.1.5.1 Introduction....318
8.10.1.5.2 Joint Rewards and Achieved Integration....318
8.10.1.6 Decentralisation of Decision Making Authority and Achieved Integration 320
8.10.1.6.1 Introduction 320
8.10.1.6.2 Decentralisation of Decision Making Authority and Achieved Integration 320
8.10.1.7 Role Flexibility and Achieved Integration....321
8.10.1.7.1 Introduction....321
8.10.1.8 Culture and Orientation Differences and Achieved Integration....324
8.10.1.8.1 Introduction....324
8.10.1.8.2 Culture and Orientation Differences and Achieved Integration....324
8.10.1.9 Non-Departmental Proximity and Achieved Integration....326
8.10.1.9.1 Introduction 326
8.10.1.9.2 Non-Departmental Proximity and Achieved Integration....326
8.10.1.10 Employee Participation and Achieved Integration....328
8.10.1.10.1 Introduction 328
8.10.1.10.2 Employee Participation and Achieved Integration....328
8.10.2 Discussion of Hypotheses – Achieved Integration at the Strategic Marketing Stages 329
8.10.2.1 Communication Gap and Achieved Integration at the Strategic Marketing Stages....331
8.10.2.2 Formalisation and Achieved Integration at the Strategic Marketing Stages 332
8.10.2.3 Management Support and Achieved Integration at the Strategic Marketing Stages....333
8.10.2.4 Encouragement of Risk-Taking Behaviour and Achieved Integration at the Strategic Marketing Stages....334
8.10.2.5 Joint Rewards and Achieved Integration at the Strategic Marketing Stages....335
8.10.2.6 Decentralisation of Decision Making Authority and Achieved Integration at the Strategic Marketing Stages....336
8.10.2.7 Role Flexibility and Achieved Integration during the Strategic Marketing Stages....337
8.10.2.8 Culture and Orientation Differences and Achieved Integration at the Strategic Marketing Stages....338
8.10.2.9 Non-Departmental Proximity and achieved Integration at the Strategic Marketing Stages....338
8.10.2.10 Employee Participation and Achieved Integration at the Strategic Marketing Stages....339
8.10.3 Accounting Vis A Vis Marketing Regression Results....340
8.10.3.1 The Achieved Integration....340
8.10.3.2 The Achieved Integration at the Strategic Marketing Stages....341
8.11 The Results from the Open-Ended Questions....343
8.11.1 Barriers to Accounting – Marketing Integration....343
8.11.2 Critical Lessons from failed Strategic Marketing Plans....346
8.12 Further Interviews: Motivations and Results....347
8.12.1 Further Interview Motivation....347
8.12.2 The Interview Focus....348
8.12.3 The Cross-Functional Bridge (CFB) Findings....349
8.13 Cross-Functional Bridge in the Accounting – Marketing Interface....349
8.13.1 Motivating Reasons for the Use of CFB....350
8.13.2 Structure of CFB and Role of Facilitator....351
8.13.3 Benefits of CFB....354
8.13.3.1 Psychological benefits....354
8.13.3.2 Financial Benefits 355
8.14 Conclusion to the Chapter....357

9 Conclusions, Contributions, Study Limitations and Future Research....359
9.1 Introduction to the Chapter....359
9.2 Conclusions of the Study....359
9.2.1 Extent of accounting-marketing integration....360
9.2.2 Communication Gap....361
9.2.3 Management support....362
9.2.4 Culture and Orientation Differences....363
9.2.5 Joint Employee Reward....363
9.2.6 Formalisation....364
9.2.7 Decentralisation of Decision Making Authority....364
9.2.8 Encouragement of Risk-Taking Behaviour....364
9.2.9 Role Flexibility....365
9.2.10 Non-Departmental Proximity....365
9.2.11 Employee Participation....366
9.3 Implications of the Study....366
9.3.1 Theoretical Implications....366
9.3.2 Managerial Implications....375
9.4 Limitations of the Study....381
9.5 Directions for Future Research....383
9.6 Conclusions to the Chapter....389

LIST OF TABLES

Table 1.1: Quotations/Statements Justifying the Research....10
Table 2.1: Critical Factors that limit the development of an effective integration between the accounting and marketing functions was adapted from (Harrison, 1979)....22
Table 2.2: The Conceptualisation of Integration in Previous Research....26
Table 2.3: Integrative and Segmentalistic Organisations (Joergensen, 1998)....35
Table 2.4: The Drivers of Integration....37
Table 2.5: Decisions made in hotels....44
Table 2.6: Functional Interfaces between Marketing and various functional areas (Lim & Reid, 1992, p. 160)....44
Table 2.7: Adapted from Ratnatunga & Hooley (1988). The application of Management Accounting Techniques to Marketing....45
Table 2.8: Areas of information exchange and support between the marketing and accounting departments....48
Table 3.1: The Antecedents of Cross-functional Integration....62
Table 3.2: The Antecedents of Cross-functional Integration – the empirical facts....64
Table 3.3: The Antecedents of Cross-functional Integration – the empirical facts Part 2: Empirical evidence – The Parry & Song, and Song & Parry School of thoughts. 65
Table 3.4: The measurement of communication factors: The measurement scales adopted in some of the studies....71
Table 3.5: Organisational Characteristics that enhance Cooperation (Gupta & Wilemon [1988])....73
Table 3.6: Some statistics of previous studies on the selected organisational variables that impact on Cross-Functional Integration....73
Table 3.7: The measurement of formalisation: The measurement scales adopted in some of the studies 74
Table 3.8: The Impact of Formalisation on Cross-Functional Integration....75
Table 3.9: Selected previous studies and comments on the selected management climate variables to be investigated in this study....77
Table 3.10: The measurement of management factors: The measurement scales adopted in some of the studies....78

Table 3.11: Empirical and Conceptual comments on the influence of Knowledge gap on integration. .86
Table 3.12: Some vital statistics of previous studies/conceptual definitions on the selected departmental factors/variables.....89
Table 3.13: Some vital statistics of previous studies (including conceptual) on the influence of physical proximity on achieved integration study.....92
Table 4.1: List of authors and researchers and comments on AMI - SMM.....100
Table 5.1: Selected Frameworks/models configuration for previous studies into CFIn.....120
Table 5.2: Summary of Hypotheses for Figure 5.1 Part A.....147
Table 5.3: Summary of Hypotheses for Figure 5.1 Part B.....147
Table 6.1: The characteristics of Positivism.....155
Table 6.2: Justifications for the use of positivism.....160
Table 6.3: A selection of investigations into CFIn and the research methodologies used in them.....166
Table 6.4: The criteria for evaluation of social research.....167
Table 6.5: The Research Instrument for the Study of Accounting/Marketing Integration.....175
Table 6.6: Response Rates - Previous Studies of Cross-Functional Relationship.....185
Table 6.7: Growth in International Financial Markets in the UK.....188
Table 6.8: Industry Sector representation in the Total Population and the Response Sample.....189
Table 6.9: Demographic profiles of respondents.....189
Table 7.1: Construct Measurement: Dependent Variables – Achieved Integration.....210
Table 7.2: Explanation of Acronyms (used in Table 7.1 among others).....211
Table 7.3: Construct Measurement: Independent Variables – Antecedents of Integration.....214
Table 7.4: Explanation of Acronyms in Table 6.11.....216
Table 7.5: Measures of Information Sharing.....218
Table 7.6: Measures of Unified Effort.....220
Table 7.7: Measures of Involvement.....221
Table 7.8: Measures of Strategic Marketing Analysis Stage.....222
Table 7.9: Measures of Strategic Marketing Planning Stage.....224
Table 7.10: Measures of Strategic Marketing Implementation Stage.....225
Table 7.11: Measures of Strategic Marketing Control & Evaluation Stage.....226
Table 7.12: Measures of Communication Gaps.....227
Table 7.13: Measures of Formalisation.....228
Table 7.14: Measures of Culture and Orientation Differences.....229
Table 7.15: Measures of Management's Support of Integration.....230
Table 7.16: Measures of Encouragement of Risk Taking Behaviour.....231
Table 7.17: Measures of Decentralisation.....232
Table 7.18: Measures of Joint Reward.....233
Table 7.19: Measures of Role Flexibility.....234
Table 7.20: Measures of Non-Departmental Proximity.....235
Table 7.21: Measures of Participation.....235
Table 7.22: Principal Axis Factoring Analysis of the Degree of Achieved Integration- Preliminary Evidence.....238
Table 7.23: Principal Axis Factoring Analysis of the Degree of Achieved Integration.....244
Table 7.24: Principal Axis Factoring Analysis of Achieved Degree of Integration at Strategic Marketing Analysis Stage.....247
Table 7.25: Principal Axis Factoring Analysis of Achieved Degree of Integration at Strategic Marketing Planning Stage.....248
Table 7.26: Principal Axis Factoring Analysis of Achieved Degree of Integration at Strategic Marketing Implementation Stage.....249
Table 7.27: Principal Axis Factoring Analysis of Achieved Degree of Integration at Strategic Marketing Control Stages.....250
Table 7.28: Principal Axis Factoring Analysis of Communication Gap.....251
Table 7.29: Principal Axis Factoring Analysis of Formalisation.....252
Table 7.30: Principal Axis Factoring Analysis of Culture and Orientation Differences.....253
Table 7.31: Principal Axis Factoring Analysis of Management Support of Integration.....254
Table 7.32: Principal Axis Factoring Analysis of Encouragement of Risk Taking Behaviour.....255
Table 7.33: Principal Axis Factoring Analysis of Decentralisation.....256
Table 7.34: Principal Axis Factoring Analysis of Reward.....257
Table 7.35: Principal Axis Factoring Analysis of Role Flexibility.....259
Table 7.36: Principal Axis Factoring Analysis of Non-Departmental Proximity.....261
Table 7.37: Principal Axis Factoring Analysis of Participation.....262

Table 7.38: The Reliability and Analyses Results of Dependent and Independent Variables.....262
Table 7.39: Description and thresholds of goodness-of-fit indices used in the assessment of measurement & structural models.....265
Table 7.40: Unidimensionality of Constructs.....271
Table 7.41: Degree of Integration: Inter-Construct Implied Correlation.....274
Table 7.42: Inter-Variables Correlation for all Strategic Marketing Stages – Pooled Sample.....277
Table 8.1: Summary of Statistical Steps Taken in the Data Analysis.....286
Table 8.2: Inter-Constructs Correlation For both Achieved Integration Equations – Pooled Sample. .291
Table 8.3: Collinearity Diagnostics For both Achieved Integration Equations – Pooled Sample.....291
Table 8.4: Inter-Constructs Correlation For both Achieved Integration Equations – Marketing Sample 291
Table 8.5: Collinearity Diagnostics For both Achieved Integration Equations – Marketing Sample…291
Table 8.6: Inter-Constructs Correlation For both Achieved Integration Equations – Accounting Sample 292
Table 8.7: Collinearity Diagnostics For both Achieved Integration Equations – Accounting Sample. 292
Table 8.8: Multivariable Regression: Coefficients & Significance Level: Achieved Degrees of Integration – The Dimensions of Integration.....292
Table 8.9: Multivariable Regression: Coefficients & Significance Level: Achieved Degrees of Integration – The Achieved Integration @ the Strategic Marketing Stages.....293
Table 8.10: Multivariable Regression: Coefficients & Significance Level for the two spectrums of Regression Equations - (Marketing Sample).....295
Table 8.11: Multivariable Regression: Coefficients & Significance Level for the two spectrums of Regression Equations - (Accounting Sample).....296
Table 8.12: Construct T-Test Values and Significance levels for Independent Variables in relation to Achieved Integration Equations(DV) – Pooled Sample.....297
Table 8.13: Summary of Hypotheses Testing: Statistics for all three Samples.....301
Table 8.14: Summary of Hypotheses Testing: Statistics for all three Samples.....302
Table 8.15: Structural model fit statistics for all models.....308
Table 8.16: Descriptive Statistics: Culture differences between Accounting and Marketing.....325
Table 8.17: Physical Distance between Accounting and Marketing Departments – Pooled Responses 328
Table 8.18: Barriers to Accounting–Marketing Integration – Open Ended Question Evidence.....345
Table 8.19: Lessons learned from failed Strategic marketing Plans.....346
Table 8.20: Descriptive Statistics: Culture differences between Accounting and Marketing.....347
Table 8.21: Descriptive Statistics: Role Flexibility between Accounting and Marketing.....351
Table 8.22: Descriptive Statistics: ROFLEX - A & M relationship towards strategic marketing.....357
Table 9.1: Respondents' perception of Dimensions of Integration during the Strategic Marketing Stages 361

LIST OF FIGURES

Figure 2.1: The Concept of Interface.....21
Figure 2.2: Framework of marketing's integration with other departments illustrating the interaction, collaboration and composite perspectives. (Kahn & Mentzer, 1998).....28
Figure 2.3: A Model of Interdepartmental Integration (Composite Integration) by Kahn (1996), showing the distinctive mediums of "Interaction" and "Collaboration".....29
Figure 2.4: Integration viewed as a sub-set of collaboration. Source: Jassawalla, & Sashittal (1998).. .29
Figure 2.5: The Problems of the Accounting - Marketing Interface and Background of the Conceptualisation of Integration for the Study.....39
Figure 2.6: The Dimensions of Integration.....59
Figure 3.1: The framework for exploring the antecedents of Accounting - Marketing Integration.....96
Figure 4.1: The Framework for exploring antecedents of AMI during the Strategic Marketing Process. 116
Figure 5.1: The Research Framework for the Study of Accounting-Marketing Integration.....122
Figure 6.1: The Research Chronology: Chapters and Context.....150
Figure 6.2: Four Categories of Scientific Paradigms and Their Elements.....158
Figure 6.3: Structural Equation Modeling: Antecedents of Achieved Integration.....191
Figure 6.4: Structural Equation Modelling: Antecedents of Achieved Accounting-Marketing Integration at the strategic marketing stages.....191

Figure 6.5: Overview of the steps in a factor analysis for this study. Adapted from Rietveld & Van Hout (1993, p. 291).....201
Figure 8.1: Regression Coefficients and significance levels of the influence of Organisational Factors, Communication Factors and Departmental Factors on the Achieved Degree of Accounting – Marketing.....303
Figure 8.2: Regression Coefficients and significance levels of the influence of Organisational Factors, Communication Factors and Departmental Factors on the Achieved Degree of Accounting – Marketing Integration During the Strategic Marketing Process.....304
Figure 8.3: The Accounting –Marketing dyad Bridge.....353

LIST OF ACRONYMS

Accounting-Marketing Integration	AMI
Adjusted Goodness-of-Fit Index	AGFI
Achieved Integration At Strategic Marketing Analysis Stage	AI@SMAS
Achieved Integration At Strategic Marketing Planning Stage	AI@SMPS
Achieved Integration At Strategic Marketing Implementation Stage	AI@SMIS
Achieved Integration At Strategic Marketing Control Stage	AI@SMCS
American Marketing Association	AMA
Analysis of MOment Structure	AMOS7
Business Partner Model	BPM
Chi-Square Goodness-of-Fit Test	χ^2
Communication Gap (**CG**)	COMMGAP
Communication Problems	CP
Comparative Fit Index	CFI
Confirmatory Factor Analysis	CFA
Cronbach's Alpha	α
Cross-Functional Bridge	CFB
Cross-Functional Cooperation	CFC
Cross-Functional Integration	CFIn
Cross-Functional Relationships	CFR
Culture And Orientation Differences (**COD**)	CODIFF
Customer Profitability Analysis	CPA
Decentralisation Of Decision Making Authority (**DC**)	DCENT
Degree of Information Sharing	DMIS
Degree of Unified Effort	DUE
Degree of Involvement	DINV
Degree of Achieved Total Integration	DINTTOT
Employee Participation Across Strategic Marketing Stages (**PA**)	EMPPASMS
Employee Reward Monetary Dimension (**RM**)	REWARDM
Employee Reward Performance Dimension (**RP**)	REWARDP
Encouragement of Risk-Taking Behaviour (**RI**)	RISKTBEH
Exploratory Factor Analysis	EFA
Failure to see The Big Picture	FSBP
Formalisation (Formalised Procedures and Structures) (**FO**)	FORMPS
Goodness-of-Fit Index	GFI
Incremental Fit Index	IFI
Information Sharing	InfoS
Involvement	Inv
Joint Reward	REWARD
Kaiser-Meyer-Olkin Measure of Sampling Adequacy	KMO
Lack of Cross Technical Knowledge Background	LCTKB
Management Barriers	MB
Management Support of Integration (**MS**)	MANSFINT
Market Segment Profitability Analysis	MSPA
Maximum Likelihood Estimation	MLE

Missing Value Analysis	MVA
Modification Index	MI
Multivariate Analysis of Variance	MANOVA
Need for Better Strategic Marketing Direction	NSMD
Need for Effective Integration Between Departments	NEID
Need for Financial Brevity	NIFB
Need to Intensify Project Feasibility Checks	NIFC
Non-Departmental Proximity (**NDP**)	NONDEPPROX
Non-Normed Fit Index	NNFI
Normed Fit Index	NFI
Organisational Barriers	OB
Parsimonious Normed Fit Index	PNFI
Parsimony Comparative Fit Index	PCFI
Parsimony Ratio	PRATIO
Participative Decision Making	PDM
Physical Proximity	PHYPROX
Preliminary Exploratory Factor Analysis	PEFA
Principal Axis Factoring Analysis	PAF
Response Rate	RR
Return on Investment	ROI
Role Flexibility (**RF**)	ROFLEX
Root Mean Squared Error of Approximation	RMSEA
Squared Multiple Correlation	R^2
Standardized Root Mean Square Residual	SRMR
Statistical Package for Social Sciences	SPSS
Strategic Management Accounting	SMA
Strategic Marketing Analysis	SMA
Strategic Marketing Analysis Stage	SMAS
Strategic Marketing Control	SMC
Strategic Marketing Control Stage	SMCS
Strategic Marketing Implementation	SMI
Strategic Marketing Implementation Stage	SMIS
Strategic Marketing Management	SMM
Strategic Marketing Planning	SMP
Strategic Marketing Planning Stage	SMPS
Structural Equation Modeling	SEM
Suitable Marketing Strategy	SMS
Sustainable Competitive Advantage	SCA
The Chartered Institute of Marketing	CIM
The Resource-Based View of Firm	RBV
UK Trade and Investment	UKTI
Unified Effort	UniE
Variance Inflation Factor	VIF

LIST OF APPENDICES

Appendix 1: Letter for Pilot-testing of Questionnaire....363
Appendix 2: Appreciation letter to Pilot-testing participants....364
Appendix 3: Letter to solicit participation in the Survey....365
Appendix 4: Nomination form....366
Appendix 5: Cover Letter sent along with Questionnaires....367
Appendix 6: First Reminder Letter....368
Appendix 7: Sample of Questionnaire for Survey....369
Appendix 8: Sample of Questionnaire for Survey....377
Appendix 9: Sample of Reminder letter Nr. 2....385
Appendix 10: Sample of Questions for follow-up interview....386
Appendix 11: Justification for the use of EFA....387

1 Introduction: Purpose, Objectives and Importance of the Research

Brief synopsis of Chapter One

This chapter introduces this research. It basically explains the importance of this study, commencing with a theoretical justification of cross-functional integration for corporate success. It also highlights the 'all-inclusive' marketing view towards the corporate success target. Accounting/marketing integration being the premise of this study, this chapters also flags literature on the strategic marketing synergies potency of effective accounting/marketing integration. To conclude this chapter, the research objectives and research questions are also specified. Also, a summary of other chapters in the thesis is presented in this chapter.

1.1 Introduction

Marketing concept is that managerial orientation which recognises that success primarily depends upon identifying changing customer wants and developing products and services that match these better than those of competitors (Doyle, 1987; see also Wilson & Fook, 1990; Wilson & Gilligan, 1997; Siu & Wilson, 1998).

'Exchange is the defining concept underlying marketing' (Kotler, 1984, p. 4) and it is driven by the need to 'satisfy individual and organisational objectives' (Marketing News, 1985, p. 1). Consequently, organisations must use marketing well (Kotler & Levy 1969, p. 15).

In the marketing concept lens, the customer is central and organisations meet objectives by discovering and staying in touch with, and satisfying their customers needs (Graham, 1993). To achieve this marketing concept focus, organisations must embrace the all-inclusive view of marketing (Kotler & Levy (op. cit.)). While this approach is critical, its efficacy hinges largely on its utility in combating environmental complexities. A prominent theme explaining why managing and achieving organisational targets have become extremely difficult nowadays is complexity (Größler *et al*, 2006). Typical complexity factors include, amongst others, increased intra-industry competition, substitution between industries, changed

expectations of customers and other stakeholders (op. cit.). Such complexities "have increased dramatically over the last years" (Größler *et al*, p. 254), causing increase in the problems of making effective decisions and of designing sound policies within organisations (Dörner, 1996; Rabin, 1998; Größler *et al*, 2006).

Consequentially, this ever increasing complexity urges organisations to respond wisely towards boosting economic performance and survival in the marketplace. Insights from team psychology and marketing literatures congruently flag the utility of cross-functional integration in effectively managing highlighted complexities and enabling organisational performance (e.g., Parry & Song, 1993; Mollenkopf *et al*, 2000; Xie *et al*, 2003; Perks & Riihela, 2004; Song & Thieme, 2006; Chimhanzi, 2004), a rationality that seems obvious, given functional inputs benefits. Utilising the functional inputs, organisations boost their chances of making wiser decisions.

Conscious of its utility, "businesses in general and functional areas of business such as marketing, accounting, finance and production have continued to recognise the need to speed up the pace of integration across functional business areas" (Stephens & Archambault, 1998, p. 31). Interfunctional integration is critical for integration of decision making (Ittner & Larcker, 1997), hence increasing attention in business and management literature (Stephens & Archambault, 1998; Ittner & Larcker, 1997). Critically, to achieve better interdependence, departments must integrate and cooperate towards satisfying customers and extendedly enhance organisational performance. To effectively manage environmental complexities of the organisation, it is pertinent that the departments, as repositories of vital functional knowledge, engage in dissemination and usage of such, but also display esprit de corps behaviours that sustains goal congruity. Olson *et al* (2001) note that overall

functional interdependence will be optimised, if departments engage in information sharing, feedback, and coordination of activities and decisions across functions.

Given the tripartite rationality that integrative decision making is critical for a marketing concept approach for meeting the needs of the contemporary marketplace, one that can be sustained through interfunctional integration, and the 'all-inclusive view of marketing, business and management literature has highlighted the central role of marketing. Understandably thus, increasing effort has been invested in exploring marketing's integration with other functional silos since the 1980's.

Substantial literature on interfunctional integration between marketing and other departments exists, but not on accounting-marketing integration (AMI). Though increasing, the advocacy of strategic marketing synergies as outcome of accounting-marketing integration remains normative, conceptual and anecdotal. Unfortunately, despite importance (see Section 1.2), AMI is largely empirically unexplored .

Accounting and Finance have been used interchangeably in literature. In this study, Accounting is used to include both.

1.2 Integrating the Accounting and Marketing Functions: Importance and Need

The importance of the accounting-marketing dyad has been stressed as far back as the 1950's (see, *inter alia*, Schiff, 1959; Schiff & Mellman, 1962; Goodman, 1970; Sizer, 1975; Harrison, 1979; Bancroft & Wilson, 1979). In recent years, this importance has gained increasing recognition (e.g., Downie, 1997; Wilson, 2000; de Ruyter & Wetzels, 2000; Roslender & Hart, 2002a, 2002b, & 2003; Zinkhan & Verbrugge, 2000; Hyman & Mathur, 2005; Barker, 2008; Roslender & Wilson, 2008).

Combined, early and recent supporters argue that effective accounting-marketing integration would yield strategy marketing synergies for the organization. The link

between marketing and finance (Accounting used here) becomes critical as firms increasingly focus on enhancing economic value (Zinkhan & Verbrugge (2000). Effective accounting/marketing integration has immense benefits for the organization (see Harrison, 1979; Downie, 1997; Stephen & Archambault, 1998; Wilson 2000; de Ruyter & Wetzels, 2000; Roslender & Hart, 2000 & 2003; *inter alia*). Advocating for integration, Krohmer *et al* (2002), cited in Cadogan *et al* (2005, p. 520), note that, "careful management of marketing's interactions with other functional areas, such as manufacturing, [...], and finance, can help firms become more adaptive, effective and efficient". Tapping on this decision making logic, scholars (e.g., de Ruyter & Wetzels, 2000; Roslender & Hart, 2000 & 2003) suggest strategic marketing potency, given effective integration between accounting and marketing departments (henceforth, accounting and marketing). Further reinforcements of the strategic marketing utility of accounting-marketing integration have been advanced.

Strong advocates of accounting-marketing integration, Roslender and Hart (2002) argue that better alignment of this dyadic relationship is critical for the practice of core economic concept, one whose sustainability is maintained through attainment of a suitable strategic marketing formula. If accounting and marketing are well aligned (op. cit), it would enable better customer and competitor data collection, analysis and dissemination (use), for achieving the right marketing focus, paving the way (Porter 1985) for firms not only to successfully attract customers to their offerings, but perhaps more significantly, to command premium prices for them. Accounting and Marketing integration would (Wilson, 2000; Roslender & Hart, 2002 & 2003) enable better marketing mix decisions of product, price, place (distribution), and promotion, and also (Booms & Bitner, 1981) service-related marketing mix.

Reinforcing de Ruyter and Wetzels (2000), Roslender & Hart (2002) also argue that AMI enables value-based management (Stewart, 1994; Stern *et al*, 1995; Mouristen, 1998), i.e., optimisation of returns on investment. As Roslender and Hart (2002a, 2002b, & 2003) conceptualized, integrating accounting and marketing insights is a weapon for responding to the market, the space where advantage is competed for, and, hopefully secured and sustained. This view connects with Moss (1986) and de Ruyter and Wetzels (2000) who argue that effective marketing and finance integration enables the concern for return on investment (ROI). Marketing/Finance integration is instrumental to profitability and maximization of customer and shareholder value (de Ruyter & Wetzels, 2000). To boost value-based-management (Black *et al*, 1998[1]), organisations must embrace interfunctional integration and Accounting/Marketing integration is one step in that direction.

Extending the competitive viewpoint, Downie (1997) notes that market intelligence is a key determinant of an organisation's competitive prospects (see also Haywood, 1993), and accounting and marketing are repositories of such intelligence. Through effective integration, accounting and marketing, exploiting their repository market place knowledge, can ensure effective marketing policies, towards enabling and sustaining the organisation's competitive prospects.

The centre-piece of the 'marketing concept' is profitability through customer focus. The customer is the 'soul and substance' of marketing (Downie, 1997) and the satisfaction of customer needs is paramount to success in the management of service (Downie, 1997; Lewis & Chambers, 1989), a condition that is also valid for tangible product organisations, this study argues. Harmonising this foundation with the 'all-inclusive marketing' lens (Kotler & Levy, 1969, p. 15), Downie (1997) argues for

[1] "Value-Based-Management aligns strategies, policies, performance, measures, rewards, organization, processes, people, and systems to deliver increased shareholder value."

accounting-marketing integration. Essentially, to achieve such market orientation (Downie, 1997) effective marketing decisions must be made. Achieving customer satisfaction at a profit requires customer-focus-led economically justified investments. Thus, such customer-focus-led investments must reflect economic viability, one that does not just guarantee adequate value to the targeted customer, but at a profit for the firm. This profit element is fundamental to organisation's survival, and it generates a reservoir to sustain customer focus continuity.

To optimize strategic marketing synergies, organisations must not only develop marketing programmes, but also prioritise attribute offering, price determination, and price maintenance decisions. Threading further the part of Roslender and Hart (2000), Stephen and Archambault (1998, p. 33)[2] add that "integration of a marketing database and accounting data of target-costing and activity based costing with targeted marketing responses" is very essential for achieving such optimization goal. There exists a huge inter-dependency between accounting and marketing and their integration is beneficial to pricing decisions[3] (Downie, 1997).

Flagging the importance of planning in the search for effective marketing decisions, Downie (1997), examining the use of accounting information in hotel marketing decisions, stressed that planning and future oriented decisions are the prominent focus of decision making. Justifying a 'holistic approach' for AMI, she argues that diverse marketing decisions are made in the search for customer satisfaction (e.g. the levels of discounts to be offered, the type of menu, staff uniform, etc). Responsibility for making such decisions is not confined to the marketing

[2] "Marketing and Accounting must develop many instances of information sharing and collaborative decision making. It is time for both marketing and accounting to proactively develop a relationship and integrate their respective functions. Decision making throughout the internal and external network will be enhanced if it is based on a highly interactive interface between accounting and marketing."

[3] For example, in pricing decisions, the price charged must be attractive and acceptable to the customer (using marketing information), and sufficient to generate an acceptable profit for the firm (using accounting information) – Downie (1997).

manager, rather Accounting, Marketing, Operations and Personnel are all directly involved (op. cit). Thus, for effective marketing decisions, Accounting and Marketing must integrate.

Using the phrase 'accounting for strategic positioning'[4], Roslender (1995, 1996), supported by Roslender & Hart (2002a+b and 2003), emphasize AMI relevance. A purposeful[5] exchange of information[6] and general integration in the dyad would enable immense market intelligence, or 'intangible asset' (Grant, 1996), for articulating and executing marketing strategy.

Advancing the background in Foster and Gupta (1994), Roslender & Hart, one of the major advocates for strategic management accounting (SMA)[7], using the phrase 'accounting for the market' to emphasise AMI pertinence, argued in 2002 for strategic management concept that aims at integrating management accounting and marketing. Doing this, they argue, is essential, to ensure an externally oriented focus directed specifically on the market. Much attention should be paid to the (management) of accounting/marketing dyad (Roslender & Hart, 2002 & 2003; Foster & Gupta, 1994). Critical elements in this external orientation are target costing (see, inter alia, Roslender & Hart, 2002 & 2003), attribute costing (see Bromwich & Bhimani, 1994; Roslender & Hart, 2003) and brand management (see, inter alia, de Ruyter & Wetzels, 2000; Roslender & Hart, 2002a+b, & 2003).

Thus, accounting-marketing integration is important for enhancing competitive prospects. As literature suggests, it is a sine-qua-non for ensuring effective marketing policies, and extendedly the profitability concern of the marketing concept, amongst

[4] This entailed accounting techniques of activity accounting (activity-based costing, customer profitability analysis, direct product profitability, activity-based budgeting, and activity mapping), as well as backflush costing, strategic cost analysis, quality costing, and throughput costing – Roslender & Hart (2002a).

[5] Purposeful is conceptualised as timely, understandable and accurate.

[6] See chapter 2, for nature of information exchange between accounting and marketing.

[7] SMA is conceptualized to integrate insights from management accounting and marketing management (see Wilson, 1995; Roslender & Hart, 2002a; Roslender & Hart, 2003).

others. It is logical to integrate accounting and marketing functions, for (Kahn & Mentzer, 1998) firms that are integrated can expect to provide higher levels of customer service, at lower costs, as well as create more satisfied customers and increase profit over the long term.

There is need to integrate accounting and marketing. Contemporary organisations seeking to survive in today's highly competitive market must have a sound formula for understanding their market environments, for this (Joergensen, 1998) is vital to enhancing competitiveness. Market environment knowledge (Haywood, 1993) is crucial because it enables organisations stay informed about competitive features in the market, customer behavioural and response patterns, and emerging market place realities. The 'holistic view' of organisation (Downie, 1997), of which interfunctional integration plays a crucial role, is critical to achieving these targets. Exploiting the management inputs of 'unity of purpose' and 'goal congruity' (Xie *et al*, 2003) of such holistic approach, organisations would leverage on accounting/marketing integration. If accounting and marketing integrate, this would enable the machinery for fulfilling the management target of seeing groups function as holistic entities rather than as group of individuals with own agendas. Accounting and marketing integration would essentially enable organisations achieve up-to-date market environment awareness; assess resources at their disposal, as well as understand and manage their competitive prospects.

On this holistic logic, organisational behaviour researches have demonstrated how shared goals integration inputs positively link to organisational performance (Xie *et al*, 2003; Locke & Latham, 1990; O'Leary-Kelly *et al*, 1994), and new product success (Ginn & Rubenstein, 1986). Shared goals are particularly crucial in functional interdependence (see Olsen, 1978; Ruekert & Walker, 1987; Xie *et al*, 2003) since

each member controls contingencies that are vital for the others' task performance. Accounting and marketing control contingencies vital to each other's role execution, and effective integration between them would enable unity of purpose in their role performance and goal congruity in the pursuit of overall organisational marketing plans, a key to organisational success.

Beyond the 'holistic approach', 'all-inclusive marketing', and value-based management arguments, Table 1.1 justifies further the study of Accounting-Marketing integration. Given above rationale, and the need to fully exploit accounting/marketing dyad synergies, organisations must essentially understand how to achieve effective integration; hence Table 1.1 includes also further AMI and CFIn research directions.

There is a catalog of support for accounting-marketing integration. Through AMI organisations can enhance their ability to make 'right' strategic management decisions, promote 'timely' decisions, enabling thus identification and exploitation of market opportunities. Accounting is a critical source of intelligence for marketing decisions (Downie (1997), which when complimented with marketing intelligence would enable better marketing decisions. Organisations must therefore integrate Accounting and Marketing and exploit each department's market intelligence to economically pursue the strategic marketing goals and boost competitive power, towards ensuring customer and other value dimensions.

Table 1.1: Quotations/Statements Justifying the Research

Research Theme	Quotations and Comments	References
Need for AMI	"A traditional lack of co-operation and understanding between marketing and finance continues to exist in some organisations."	Trebuss, 1976, p. 30
	Stressing the importance of salient data to efficient marketing, Wilson (2000) emphasised that the Acctg/mktg interface is not well-developed. Field & Gabhart (1971) referred to them 'as non-integrated as cats and dogs.'	Wilson, 2000, p. 14
	Roslender & Hart (2000) argue for strategic management concept which focuses on integrating management accounting and marketing in an attempt to formulate an approach that is externally oriented and focuses specifically on the market, the space where firms vie to secure and sustain competitive advantage.	Roslender & Hart, 2002, p. 1
	Marketing management and management accounting are fundamental to key management decision making against a market place. Accounting and marketing need to cooperate to enable sounder decision making.	Simmonds, 1970
	"There is great need for the generation of quantitative information related to marketing. It is therefore of prime importance that marketing and financial managers coordinate, cooperate and communicate effectively. Thus, the financial implication of various marketing strategies must be carefully considered."	Chadwick & Ratnatunga, 1983, p. 12
Need to explore the antecedents of CFI	There should be further investigations that could reveal the relationships between variations in achieved integration and elements of organizational structure.	Song & Parry, 1992:110 Leenders & Wierenga, 2002, p. 314
	Song & Parry (1993) suggests a broader investigation of decision making processes in other functional areas as a way of verifying or refuting the confusing picture of their findings.	Song & Parry, 1993
	Harrison (1979) suggests an ineffective AMI in organisations and calls for research efforts to explore the factors that account for the circumstance (p.475).	Harrison, 1979, p. 475
Need for a comprehensive framework in exploring CFI	"A comprehensive theoretical framework is needed to enhance our understanding of how marketing relates to different functional groups, and guide future research." "Additional research into the relationship between environmental dynamism and inter-functional cooperation is also warranted."	Maltz, 1997, p. 96
	Maltz (1997) stresses the views of (Senge, 1990; Slater & Narver, 1995) on the need to look into the link between CFI and long-term activities such as developing a market orientation or a learning organisation.	Maltz, 1997, p. 96
Need to explore the benefits of CFI	"There is much scope for research on the interface of marketing and management accounting."	Bancroft & Wilson, 1979, p. 28
Research gap in the area of AMI	"There is little conceptual and empirical work that explicitly addresses the phenomenon of lateral CFRs. Not much is known about the relationship between marketing and finance departments."	de Ruyter & Wetzels, 2000
	"More research is needed on other organisational factors that have an effect on the level of integration in companies such as specific individuals, leadership styles, planning procedures and other factors related to organisational structure in general."	Leenders & Wierenga, 2002, p. 314

However, despite highlighted importance of this dyad and the need to integrate, ineffective accounting/marketing integration has been reported (see, *inter alia*, Foster & Gupta, 1994; Downie, 1997; de Ruyter & Wetzels, 2000; Zinkhan & Verbrugge, 2000; Wilson, 2000; Roslender & Hart, 2002a & 2003).

Commenting on the state of integration between accounting and marketing, Downie (1997, p. 307) states:

> "An overview of literature of the interface suggests that while it is imperative for Accounting and Marketing to work together for the success of an organization, it does not yet occur in practice."

While Wilson (2000, p. 3) writes:

> "More recently, letters to the Editor of The Times have suggested that this gap is still present."

Reinforcing the above ineffective state, but also flagging the research void, guest editors Zinkhan and Verbrugge (2000) in the Journal of Business Research's special issue on the marketing/finance interface encourage marketing and finance scholars to further integrate their disciplines (see also other special issues, e.g., Anderson *et al*, 2004; Franses, 1998; Homburg & Bucerius 2005; Hyman & Mathur, 2005).

Recently (2006), the Journal of Marketing Management's (JMM) call for contributions on promoting improved marketing-accounting synergy not only supports synergistic (potential) contentions about this dyad, but also highlighted state of relationship between the two departments and the evident research gap.

If accounting-marketing integration is ineffective, then invariably the immense benefits for the organisation, as emphasised above, would remain untapped.

These recent mention of the ineffective integration in this dyad reinforce the background emphasised over 38 years ago in Bain (1970) and reinforced in Harrison (1979). Bain (1970, in Wilson, 2000, p. 3) notes:

> "A profit wall has two sides: on one side is the accountant, on the other the marketing man (sic), and their views of the wall may be quite different. I believe that the accountant should go to the other side of the wall to view the problems from there."

Given increasing contention of ineffective AMI, efforts must be geared towards exploring the problem, enhancing understanding of the relationship, enabling better integration, and exploiting the inherent synergies.

Analysing Bain's (1970) comment, it seems right to suggest perception and culture driven behavioural differences as one major feature of accounting-marketing dyad. Beside perception and culture issues, other studies (see, *inter alia*, Harrison, 1979; Mills & Tsamenyi, 2000; Ratnatunga *et al*, 1990; Wilson, 2000) report knowledge gap between accounting and marketing.

Additional to above two factors, CFIn literature suggests further integration antecedents of communication factors (see Gupta *et al*, 1985a; Parry & Song, 1993); management factors and organizational factors (see Gupta *et al*, 1986 & 1987; Parry & Song, 1993; Mollenkopf *et al*, 2000; Dewsnap & Jobber, 2002 & 2004; Chimhanzi, 2004; Leenders & Wierenga, 2002; Perks & Riihela, 2004; Xie *et al*, 2003; Kahn *et al*, 2004; Garrett *et al*, 2006; Song & Thieme, 2006; Le Meunier-FitzHugh & Piercy, 2007; Le Meunier-FitzHugh & Lane, 2009; *inter alia*).

There is lack of understanding of accounting/marketing integration, hence this study. The study objectives are defined in section 1.3.

1.3 The Objectives of the Study

Specifically, this thesis aims to contribute to accounting-marketing integration knowledge. The focus thus, is to enable understanding of the dimensions and factors that predict the level of achieved accounting-marketing integration.

The aim of this study is to explore accounting-marketing integration, its dimensions, antecedents and the strategic marketing evidence in Financial Services Organizations.

Empirically validated, vast CFIn literature, especially in the R&D/Marketing dyad, categorise integration antecedents under:

a) Organizational factors (see, *inter alia*, Gupta, 1984; Gupta *et al*, 1987; Song & Parry, 1993; Parry & Song, 1993; Mollenkopf *et al*, 2000; Leenders & Wierenga, 2002; Garrett *et al*, 2006; Guenzi & Troilo, 2006; Song & Thieme, 2006),

b) Communication factors (see, *inter alia*, Gupta, 1984; Parry & Song, 1993; Mills & Tsamenyi, 2000; Kahn *et al*, 2004),

c) Management factors (see, *inter alia*, Gupta, 1984; Song & Parry, 1993; Parry & song, 1993; Song *et al*, 1997; Mollenkopf *et al*, 2000; Leenders & Wierenga, 2002; Perks & Riihela, 2004; Chimhanzi, 2004; Xie *et al*, 2003; Garrett *et al*, 2006; Le Meunier-FitzHugh & Piercy, 2007),

d) Department culture factors (see, *inter alia*, Gupta *et al*, 1986; Ratnatunga *et al*, 1989 & 1990; Mills & Tsamenyi, 2000; Wilson, 2000),

e) Personnel factors (see, *inter alia*, Song & Parry, 1993; Parry & Song, 1993; Maltz, 1997; Mills & Tsamenyi, 2000; Wilson, 2000; Leenders & Wierenga, 2002; Garrett *et al*, 2006; Guenzi & Troilo, 2006), and

f) Physical proximity (see, *inter alia*, Maltz, 1997; Ratnatunga *et al*, 1989; Leenders & Wierenga, 2002; Xie *et al*, 2003).

No such evidence exists about accounting/marketing integration.

While Section 1.1 elaborated the background to this study, pinpointing the research problem, Section 1.2 outlined the arguments for AMI. Collectively, both sections highlight the huge research gap in the accounting/marketing dyad, one (Roslender & Hart, 2002a; Wilson, 2000) that holds out the prospect of further significant advance,

towards exploiting the marketing potentials of AMI. Given the general lack of understanding of AMI, we are in the dark as to:

a) What are the dimensions of integration?
b) What factors account for the level of achieved integration? and
c) What factors account for the level of achieved integration across the stages of the strategic marketing process?

Accounting/marketing integration deserves attention due to the growing prominence of their potential positive strategic marketing implications (see Section 1.2). This study, therefore, given importance of accounting-marketing integration to achieving 'marketing concept' and 'all-inclusive marketing' objectives, responds to the numerous research calls, and seeks to explore AMI, sensitizing the dimensions, and the antecedents, within (and without) the strategic marketing process. Understanding these dimensions, their magnitude, and the factors that explain their variance, negatively or positively, is critical for better decision making towards profitably satisfying customers' needs.

To fully explore questions 1 to 3, this study uses a comprehensive framework. This approach fits the target of exploring the theoretical backgrounds that supposedly characterise this dyad, as well as the antecedents and strategic marketing premise of the study. Thus, it is dually purposed to test existing theory, while also generating accounting/marketing integration insights.

The aforementioned in mind, the aim is to contribute to narrowing the specified research gaps, and the specific objectives of this thesis are:

a) To advance the current understanding of AMI,
b) To explore the factors that hinder or enable AMI, and
c) To assess the influence of these factors on achieved AMI across the stages of the strategic marketing process.

1.4 Conclusion to the Chapter and Arrangement of the Thesis

This chapter achieved three targets: highlighting research gaps, importance and need for accounting-marketing integration, and specification of the premise (aim) of this study. Towards the goal of empirically pursuing the specified aim and objectives of this study, subsection 1.4.1. specifies the subsequent chapters of this thesis and their contents.

1.4.1 THE SUMMARY OF OTHER CHAPTERS IN THE THESIS

This thesis contains 8 additional chapters, as summarised below:

In chapter two, the literature review for this thesis is commenced, mirroring accounting-marketing integration evidence as well as broad CFIn literature. Following review of accounting-marketing dyad problems, interfunctional integration typology literature, and drivers of integration theory, this chapter justified and contextualised integration for this study.

Chapter three reviews antecedents of integration literature. Combining accounting-marketing and broad CFIn literature, this chapter prioritises 10 antecedents, and flags the framework based on the prioritised antecedents. Specifically, the framework for this study exploits communication, organisational structure, social capital, management climate, procedural justice, and 'Thought World Differences' foundations.

Chapter four, reflecting the strategic marketing element of this study, explains the strategic marketing justification and context of this study. Additional to justifying the strategic marketing perspective, reinforcing the importance highlighted in chapter one, this chapter also explains the strategic marketing integration conceptualisation for this study. Transporting the theoretical foundations in Chapter, this Chapter also specifies the framework for gauging antecedents of strategic marketing integration.

Extending the backgrounds introduced in the previous chapters, chapter 5 presents and explains the full conceptual framework for this study. The placement of this study in the overall CFIn domain is explained by highlighting a number of studies that this thesis feeds on. Given dependent variable duality, the framework for this study has two parts, one reflecting accounting-marketing integration ordinarily, and the other relating to AMI during the strategic marketing process. Also, the hypotheses for the dual dependent models are presented in this chapter.

Chapter 6 explains the methodological design and approach for this study, detailing the paradigmatic position and data collection procedure. In this chapter too, the structural equation models for examining the hypothesised relationships for the dual dependent variables groups are also presented. Further more, this chapter explains the selection and justification of unit of analysis which includes UK financial services companies. Additionally, the theoretical rationale and steps for ensuring internal consistency and construct validity are elaborated in this chapter. Construct validity is checked through exploratory and confirmatory (unidimensionality, convergent and discriminant validities) factor analyses. While the theoretical foundations for these are contained in this chapter, the statistical results are reported in chapter 7.

Advancing the theoretical validity steps launched in preceding chapter, chapter 7 presents the reliability, exploratory and confirmatory results from this study. This chapter also introduces the structural equation modelling mechanisms for this study. The descriptive statistics and reliability results are presented in this chapter. Prior to detailing out the exploratory factor analyses results, the exploratory factor type, and extraction justifications are explained. Following satisfactory exploratory evidence, confirmatory validity evidence, in similar order, given need, is explained. Finally, this

chapter also introduces and justifies the prioritisation in the structural equation modeling, on the basis of data and sample.

Having confirmed parsimony, convergent validity and discriminant validity of all constructs in chapter 7, chapter 8 proceeds to examine the hypothesised relationships. Matching multivariable regression evidence against overall structural equation modelling results, the hypothetical results are stated and discussed for both groups of dependent variables.

Finally, chapter 9 explains the conclusions from the study, explaining also the managerial and theoretical implications of the findings. Following highlighted limitations of the study, this chapter also flags avenues for further research efforts.

2 The Accounting/Marketing Interface: Problems & Conceptualisation of Integration

Brief synopsis of Chapter Two Part A

This part introduces and distinguishes the concepts of interface and integration. Along with these, this part also flags the streams of integration in literature, subsequent to pinpointing impasse issues in the accounting/marketing interface. The drivers of integration are also highlighted in this part. Utilising combined evidence from the above, in alignment with the core focus for this research, a composite integration view is proposed in this part and elaborated in part B.

2.1 Introduction to the Chapter

Chapter one introduced the research problem and highlighted the importance of accounting-marketing integration to contemporary organisations, as well as the need to explore AMI. In doing that, the overall objectives of the research and the relevant research questions were spelt out. Consequently, this chapter introduces the theoretical foundations crucial to the aforementioned purpose, objectives and importance of the research (in chapter one).

Essentially, this chapter explains the concepts of interface and integration as captured in reviewed empirical and conceptual efforts. In this study, as is usually common in the study of CFIn, Interface and Integration are used regularly. To eliminate confusion, a distinction of both concepts is undertaken in this chapter. Firstly, interface is explained, distinguishing it from integration in relation to accounting/marketing relationship.

Subsequently, various integration perspectives, as mirrored in previous studies, and as a prelude to that, the specific problems suggested to characterise AMI, are introduced. That done, to aid the goal of this thesis, the conceptualisation of integration for this thesis is explained. Reinforcing further the need for AMI, the drivers of Cross-functional integration (CFIn) are also explained here.

2.2 The Concept of Interface

According to Brown (1983, p. 1), "interface simply means the meeting grounds where social units come face to face and parties interact. These social units may be groups, departments, or whole organisations, and their contact may be recurrent and well-established or fleeting and episodic. But, there is always some kind of interaction between the parties."

Similarly, Ruekert & Walker (January – 1987) conceptualises interface as the organisational platform where two or more individuals or organisational entities (e.g., work groups, departments, functional areas, or organisations) interact and exchange things of value on regular basis. Such systems (organisational entities) receive inputs from their environment, transform those inputs through processes that are organised according to a system structure and thereby send new outputs into the environment (op. cit.). The focus thus, is pursuing organisational goals and maximising returns from the organisation's resources (seeking better competitive prospects). This thesis considered the organisational entities of accounting and marketing, examining their integration (see section 2.4.4) to ensure marketing decisions for corporate success.

Figure 2.1 depicts the R&D/Marketing interface in a typical organisation, in which case (Gupta, 1984) R&D and Marketing coordinate their efforts to achieve the organisational goal of successfully developing a new product. Since accounting and marketing are the social units considered in this thesis, then the picture shows accounting and marketing representatives (smaller circles) integrate (see Section 2.10) with each other on behalf of their departments (larger circles) within a more or less well defined interface (oval). The parties and their interfaces are embedded in an organisation (triangle), and that organisation is itself embedded within a larger context (rectangle).

Organisational interfaces (op. cit.) bring together parties with common and conflicting interests and with potentials for compatible and incompatible behaviour. To comprehend interface conflict, suggests that one must analyse the interface itself, the parties to that interface, the party representatives, and the larger context (Brown, 1983). These four elements are discussed below.

According to Brown (1983) interface could be defined in terms of shared goals and interdependencies that prompt such departments or groups to continue to interact (see Section 2.5). Typically, shared goals and tasks, social identification, and acceptance of common authorities are organisational circumstances that warrant integration (op. cit.) and accounting/marketing interface may be defined in terms of shared goals and task of ensuring effective strategic marketing management.

The interest of the parties is a key issue. Since, at the interface (Deutsch, 1973; Gupta, 1984) parties have both 'common' and 'conflicting' interests, the importance of the interdependencies to the parties becomes a major influence. Internal characteristics of each party such as leadership style, structure, and professional orientation can influence events at the interface (Brown, 1983). Also, each group's attitudes and feelings about itself and the other group are important (see Alderfer & Smith, 1982; Gupta, 1984).

Representatives (Brown, 1983) at departmental interface occupy boundary roles and often respond to their individual department's, as well as other departments expectations (Adams, 1976). Conflict is typical of social entities relationships (Brown, 1983; Ruekert & Walker, 1987, Crittenden *et al*, 1993; Souder, 1988; Rahim, 2001; Lam & Chin, 2003 & 2005), and bargaining and problem-solving skills are crucial in conflict resolution (Gupta, 1984).

Finally, the organisation in which both groups are embedded provides the interface context. Thus, organisational dynamics like culture, reward system, proximity of parties, and structure provide the channels for emphasizing or de-emphasizing conflicts (see Brown, 1983).

Since representatives at departmental interface occupy boundary roles (Brown, 1983) and are characterised by functional specialisation and resource interdependencies (Boyt *et al*, 2005; Holtbrugge, 2005; Jaspers & van den Ende, 2006), they need to ensure efficient internal use of resources by promoting purpose-driven information sharing, collective action and cooperation. Extending Ruekert and Walker's (1987) interface conceptualisation, integrating functional areas must reflect solidarity characterised by amicable information sharing, pursuit of common goals and collaboration, i.e., they must integrate to effectively leverage available resources and enable organisational performance. Existing literature (see Section 2.3) however suggests this integration culture is lacking in the Accounting – Marketing interface.

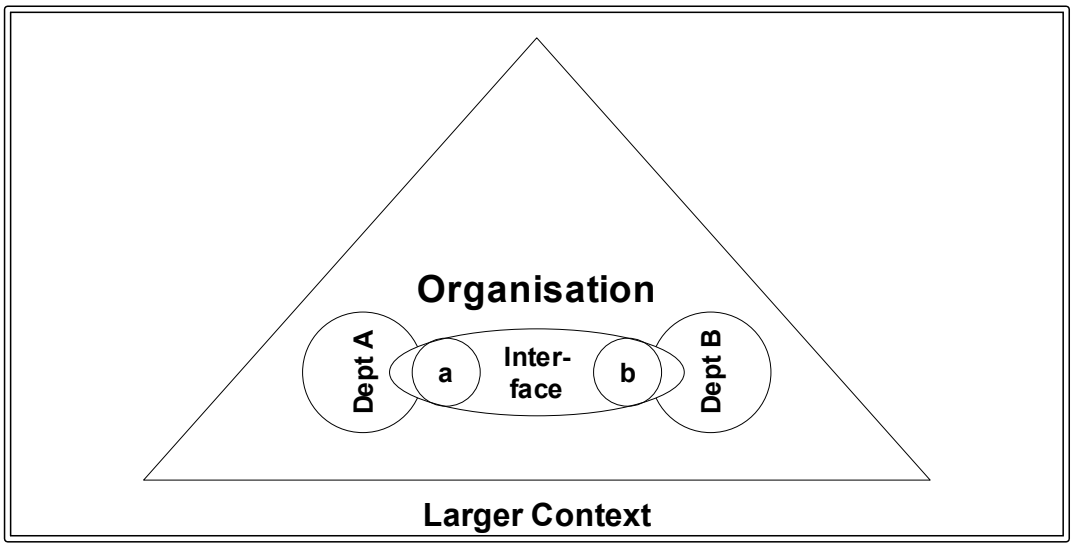


Figure 2.1: The Concept of Interface
Source: Brown (1983). Managing Conflict at Organisational Interface. Reading, M.A: Addison-Wesley, p. 8.

2.3 Problems at the Accounting/Marketing Interface

The characteristic problems of Accounting/Marketing dyad have been highlighted since early 1960's (e.g., Schiff & Mellman, 1962; Goodman, 1970; Sizer, 1975;

Harrison, 1979; and Bancroft & Wilson, 1980). Recent support of continued existence of problems in this interface is found in Foster & Gupta, 1994; Stephen & Archambault, 1998; Wilson, 2000; Roslender & Hart, 2000; 2002a; 2002b; 2003; Bromwich & Bhimani, 1994; Barker, 2008.

Harrison (1979) identified nine factors perceived by marketing representatives (see Table 2.1) to significantly limit the development of an effective interface between the accounting and marketing functions.

Table 2.1: Critical Factors that limit the development of an effective integration between the accounting and marketing functions was adapted from (Harrison, 1979).

Classification of Factors	Definition of factors
Cognitive	- A lack of understanding of marketing principles and concepts generally by accountants. - A lack of understanding of marketing policies, problems and practices of individual companies.
Attitudinal	- A lack of enthusiasm among accountants in searching out informational and analytical requirements of marketing management. - The timeliness of accounting reporting and action. - Inadequacy of accounting interpretation and explanation of financial information and analysis. - Over-emphasis by accountants on cost control. - Production orientation of accountants.
Organisational	- Inadequate informal communication between accountants and marketing decisions makers. - Multiple reporting responsibilities of accounting, leading to priority assignment prejudicial to marketing.

Reviewing Harrison (1979) along with other literature (e.g., Williamson, 1979; Wilson, 1981; Wilson, 1999; Foster & Gupta, 1994; Wilson, 2000; Barker, 2008), the major problems that typify Accounting/Marketing interface include the following:

a) Ineffective integration between the accounting and marketing functions,
b) Failure of accounting to understand the marketing function.
c) Failure of accounting to meet certain information needs of marketing, namely;
    - Lack of effective financial analysis of customers, channels of distribution and salesmen (see Schiff & Mellman, 1962; Foster & Gupta, 1994; Wilson, 1999; Wilson, 2000),
    - An over-emphasis on net-profit based reporting (or the full cost allocation approach) for decision analysis (see Schiff & Mellman, 1962; Foster & Gupta, 1994; Wilson, 1999; Wilson, 2000),

- Inadequate marketing cost classifications (e.g., little distinction made between fixed and variable costs or between controllable and non-controllable costs) (Schiff & Mellman, 1962; Foster & Gupta, 1994; Wilson, 1999 & 2000),
- Inability to meet the needs of marketing planning, e.g., by the non-use of sufficient return-on-investment criteria (see Schiff & Mellman, 1962; Goodman, 1970; Foster & Gupta, 1994; Wilson, 1999; Wilson, 2000),
- Inability to separate reporting obligation of accounting from the service function (see Goodman, 1970; Wilson, 1999; Wilson, 2000),
- Imperfect understanding of the marketing concept (see Goodman, 1970; Harrison, 1979; Foster & Gupta, 1994; Wilson, 1999; Wilson, 2000),
- Lack of minimum acceptable goal criteria (see Goodman, 1970; Wilson, 1999; Wilson, 2000), and
- Disregard of working capital implications (Goodman, 1970; Wilson, 1999 & 2000).

On the above evidence, there are obvious relationship handicaps between accounting and marketing, hence conclusions of ineffective integration seem legitimate. These handicaps picture the typifying problems of this dyad, but also highlight factors that might explain variance in the achieved level of AMI (see The Antecedents of Accounting/Marketing Integration). Given the problems at the dyad, the logical implication is that synergies (Stephen & Archambault, 1998; Wilson, 2000; Roslender & Hart, 2000; 2002 & 2003) remain unexploited.

Elaborating AMI handicaps, Wilson (2000) stresses that accounting's inability to understand and meet the information needs of marketing (see also Foster & Gupta, 1994) was the core of the problems. In his views, accounting has failed to firmly embrace the 'marketing concept'.

Emphasising further the problems that plague accounting/marketing integration, Wilson (op. cit.) stresses failure of the functions to knit a formula for addressing the problems associated with stimulating demand by advertising, selling and pricing in a

way which attracts customers, i.e., marketing cost analysis on those elements are deficient. This failure, he notes, triggers problems in the following dynamics:

a) Determining the objectives of advertising, sales promotion, personal selling (and pricing),
b) Determining the promotion budget,
c) Decisions relating to the allocation of the total marketing effort among varying marketing activities,
d) Assessing the effectiveness of the marketing effort,
e) Identifying the profitable/unprofitable marketing segments,
f) Decisions relating to where and when a change in marketing effort is required,
g) Identifying methods by which segment efficiency may be increased.

Supporting Drury *et al* (1993), Abdel-Kader and Luther (2004), in a Working Paper, empirically suggest that, amongst others, the most significant challenges relating to the timing of management accounting reporting were concerned with: providing accurate and timely information, and improving timeliness of reporting data, thus corroborating evidence of problems in this interface.

Conclusively, literature suggests ineffective accounting/marketing integration, due to specified evident problems. Abdel-Kader & Luther (2004) and Drury *et al* (1993) combined; there are functional-related handicaps, as well as information sharing problems in this dyad. Managing these problems is imperative for effective integration. That said, one would ask: what does integration actually mean? To effectively measure how much integration is achieved in the accounting-marketing relationship across the organisations in this research, an understanding of what characterises integration is necessary, and Section 2.4 (and subsections) aid that goal.

2.4 What is Integration?

In generating the theoretical background for this thesis, extant literature was reviewed and as empirically and conceptually evidenced, there exists diverse CFIn

lenses. "To date, literature has neglected to provide a specific definition, and thus the term remains vague" (Kahn & Mentzer, 1996, p. 6). Given that, the search for a consensus on the definition of integration continues.

Prior to exploring the diverse integration perspectives, this researcher introduces and examines the 'general' definition of integration by Souder & Chakrabarti (1978). According to them, integration means the symbiotic interrelating amongst entities that results in the production of net benefits to those entities. Such net benefits would usually exceed the sum of the net benefits in a non-symbiotic relationship (op. cit.).

'Integration' is the strategic linking (Plakoyiannaki & Tzokas, 2002) of functionally specialised groups while preserving their individual orientations. Eliminating their individual orientations is not the goal, rather, when integrated the parties will willingly collaborate on those strategic decisions and actions that are essential for profitable marketing. Supporting, but also extending Souder & Chakrabarti's (1978) general approach, the researcher flags the need for a lucid contextualisation of 'symbiotic interrelation' for better understanding of 'integration'. Given evidence of critical attitude-based problems (Section 2.3) in the accounting-marketing dyad (see Harrison, 1979; Foster & Gupta, 1994; Wilson, 1999; Wilson, 2000), the researcher argues that, for effective integration towards strategic decisions for profitable marketing (as emphasised in Souder & Chakrabarti, 1978), the individual orientations of integrating functions, may need to be improved or adjusted.

Stated earlier, 'integration' has been variously conceptualised, each reflecting elements and components matching study aim. Literature (see Table 2.2) captures three integration typologies: 'Interaction', 'Collaboration' or 'Composite Integration'.

Table 2.2: The Conceptualisation of Integration in Previous Research

Studies	Integration Spectrums	Representative definition of integration
Ruekert & Walker, 1987-January; Griffen & Hauser, 1992; Lim & Reid, 1992; Moenaert et al., 1994; Galbraith, 1977; Van de Ven & Ferry, 1980; Chimhanzi, 2004; Cadogan et al, 2005.	**Integration as "Interaction"**	Integration is interaction where communication activities like 'meetings' and 'documented information exchange' predicate the relationships between departments.
Lawrence & Lorsch, 1967 & 1986; Schrage, 1990; Kahn & Mentzer, 1998; Clark & Fujimoto, 1991; Souder, 1987; Rolender & Hart, 2003; Dewsnap & Jobber, 2000; Le Meunier FitzHugh & Piercy, 2007; Le Meunier-FitzHugh & Lane, 2009.	**Integration as "Collaboration"**	Integration here is usually referred to as either cooperation or collaboration, and integration of this sort is typified by 'teams' and 'resource sharing'. Collaborative or cooperative view would promote efforts that instil collective goals, mutual respect and team work
Souder, 1977; Kahn, 1996; Gupta et al, 1985a, 1985b, 1986; Song & Parry, 1992 &1993; Parry & Song, 1993 Jassawalla & Sashittal (1998); Kahn & McDonough, (1997); Jaspers & van den Ende, 2006; Souder et al, 1977; Mollenkopf et al, 2000; Xie et al, 2003.	**"Composite Integration" (interaction + Collaboration)**	Interdepartmental integration is a multi-dimensional process that subsumes interaction and collaboration. The integration format in use (interaction or collaboration). Interaction here is characterised as the information exchange element of integration, comprising activities like committee meetings, teleconferencing, memos, exchange of standard documentation, and conference calls. Collaboration here is characterised as the affective and mutual/shared element of integration, corresponding to a willingness to work together, common vision and shared resources to achieve collective goals.

Source: Author. Input generated from previous studies.

2.4.1 INTEGRATION AS INTERACTION

Certain literature characterise integration as interaction process (Interaction), where communication activities like "meetings" and "documented information exchange" predicate the relationships between departments (see, Ruekert & Walker, 1987; Griffen & Hauser, 1992; Lim & Reid, 1992; Moenaert *et al*, 1994). In this view, the marketing manager ascribing to this integration view would favour more meetings, greater written documentation, and "increased information flows are employed to unite departmental" (Kahn & Mentzer, 1996, p. 7) - the focus thus is communication between marketing and other departments. In essence, the marketing manager uses these activities to structure its relationships with other departments through the diffusion of market information. Essentially, interaction prioritises information exchange activities, such as committee meetings, teleconferencing, conference calls, memoranda, and the exchange of standard documentation (Galbraith, 1977; Van de Ven & Ferry, 1980). At the extreme (Ruekert & Walker,

1987), a strict interaction perspective may encourage departments to act independently with fixed contact points (e.g., monthly meetings).[8]

2.4.2 INTEGRATION AS COLLABORATION

Another stream of literature portrays integration as a collaborative process (Collaboration)[9], where "teams" and "resource sharing" typify interfuntional relationships (see Lawrence & Lorsch, 1986; Schrage, 1990; Kahn & Mentzer, 1998; Clark & Fujimoto, 1991; Dewsnap & Jobber, 2000; Le Meunier FitzHugh & Piercy, 2007). The marketing manager ascribing to this integration lens would promote efforts that instil collective goals, mutual respect, and teamwork between departments. Consequently, such a marketing manager prioritises activities that are more effective and relational-based, thereby building esprit- de- corps within the organisation, and encouraging interdepartmental relationships. Through such relationships, an appreciation and affinity for marketing contributions and a market orientation might be realised.

Collaboration is commonly characterised as an effective, volitional, mutual/shared process (cf., Appley & Winder, 1977; Gray, 1985; Schrage, 1990; Sriram *et al*, 1992). Further collaboration advocates defined integration as "a state of high degrees of shared values, mutual goal commitments, and collaborative behaviours" (Souder *et al*, 1977, p. i) and as "the quality or state of collaboration that exists among departments that are required to achieve unity of effort by the demands of the environment" (Lawrence & Lorsch, 1986, p. 11). Collaboration focuses on working together, having mutual understanding, having a common vision, sharing resources and achieving collective goals.

[8] The flow of resources and information between individuals in different departments serves as the primary link between the departments as they carry out their daily activities – Ruekert & Walker, Jr., 1987

[9] Lawrence & Lorsch, (1967, 1986) found that collaboration between departments had a strong effect on performance. Souder (1977, 1987) found that cases of severe disharmony between departments (low levels of collaboration resulted in dramatic failures, whereas harmony between departments (higher levels of collaboration) resulted in significantly more successful projects.

2.4.3 COMPOSITE INTEGRATION (INTERACTION + COLLABORATION)

A third segment of literature associates "information sharing" and "involvement" with interdepartmental integration to suggest a composite view of integration (Composite Integration), where integration subsumes interactive and collaborative processes (Souder, 1977; Gupta *et al*, 1986; Song & Parry, 1993; Parry & Song, 1993; Kahn & Mentzer, 1998; Mollenkopf *et al*, 2000; Chimhanzi, 2004; Jaspers & van den Ende, 2006). The marketing manager ascribing to a composite integration would attempt to balance interaction and collaboration activities (Kahn & Mentzer, 1996). The composite integration view (see Figures 2.2 and 2.3 below) implies a multidimensional perspective of integration (Clark & Fujimoto, 1991; Gupta *et al*, 1985a, 1985b, 1986; Song & Parry, 1993; Chimhanzi 2004).

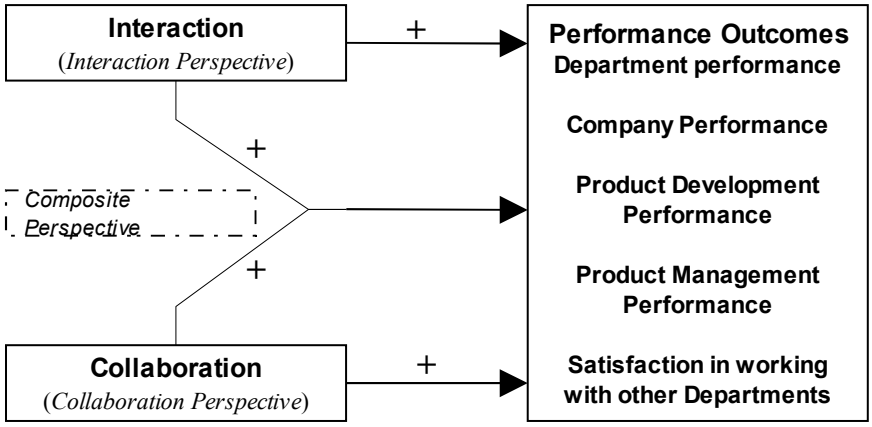


Figure 2.2: Framework of marketing's integration with other departments illustrating the interaction, collaboration and composite perspectives. (Kahn & Mentzer, 1998)

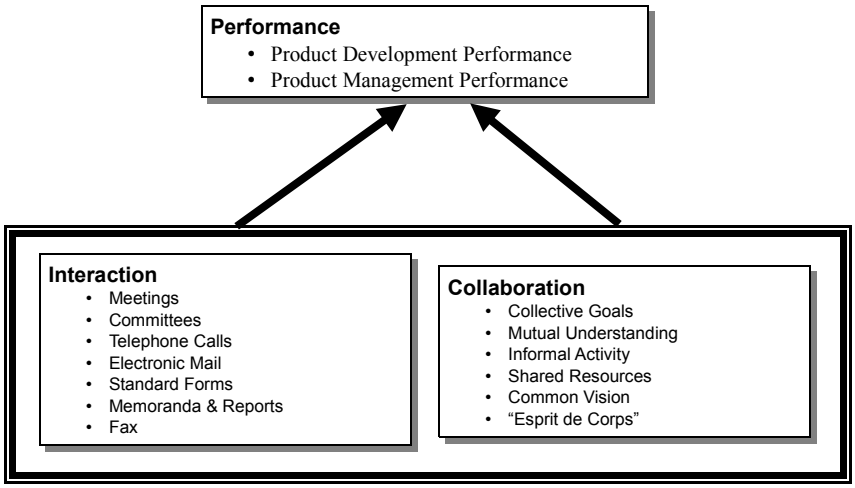


Figure 2.3: A Model of Interdepartmental Integration (Composite Integration) by Kahn (1996), showing the distinctive mediums of "Interaction" and "Collaboration"

Jassawalla and Sashittal (1998) suggest an interesting and extreme case of composite integration (see Figure 2.4). They conceptualise interdepartmental integration as a subset of cross-functional collaboration, whereby cross-functional collaboration includes mindfulness, transparency and the synergistic concerns, and also interdepartmental integration elements of interaction, co-ordination, co-operation and the development of a shared vision.

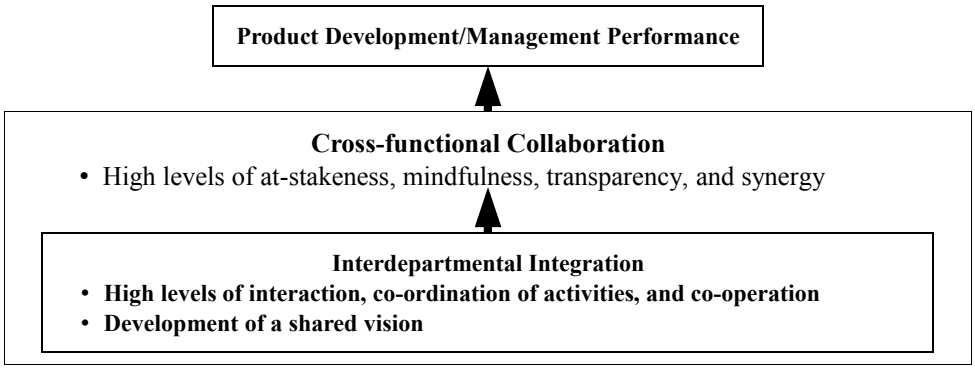


Figure 2.4: Integration viewed as a sub-set of collaboration. Source: Jassawalla, & Sashittal (1998).

2.4.4 EVALUATION OF VARIOUS DEFINITIONS OF INTEGRATION & CONCEPTUALISATION OF INTEGRATION FOR THIS THESIS

Call it Interaction; Collaboration, Composite Integration, or the extreme case (see Figure 2.4) of Cross-Functional Collaboration (Jassawalla & Sashittal, 1998), integration aims primarily to aid efficient and profitable business operations.

Whether interfunctional integration transpires by transmitting through meetings, teleconferencing, conference calls, memoranda (manner of relationship), is secondary. Achieving customer orientation and maximum exploitation of integration synergies towards enhancing organisation's competitive prospects is the priority.

Exploring the chemical processing industry, (Lawrence & Lorsch, 1967) defined integration as "the process of achieving unity of effort among the subsets in the accomplishment of the organisation's task" (cited in Kahn & Mentzer, 1996, p. 8). Similar conceptualisation is found in Roslender & Hart (2000): advocates for strategic accounting to aid strategic marketing, they, in their work (Integrating Management Accounting and Marketing in the pursuit of competitive advantage), see the interface between management accounting and marketing management functions as form of practices forming a continuum of relationships between the two functions, relationships that manifest themselves as patterns of cooperation. They classified these relationships into traditional (based on relatively narrow range of practices), transitional (based on the existence and success of traditional patterns of cooperation) and synergistic (process of a business becoming more synergistic in emphasis). This thesis identifies with and embraces this conceptualisation of integration by Rolsender & Hart (2000), as also reinforced in their subsequent works in 2002 and 2003. The emphasis, however, in this thesis, is the synergistic perspective.

Kohli and Jaworski (1990) defined market orientation in terms of organisational behaviours (e.g., generation of information, dissemination of information, and responsiveness to information). Defining integration, Song and Parry (1992 & 1993) and Gupta *et al* (1985a, 1985b, 1986 and 1987) reinforce these information priorities. Departmental integration, they note, embraces information sharing and involvement, a perspective that is similar to Clark and Fujimoto (1991) who sensitize communication

and teamwork in interfunctional integration. Unfortunately, these empirical works have a common shortcoming: The former group of authors did not clearly distinguish between information sharing and involvement neither did Clark and Fujimoto (1991) empirically delineate the two concepts in their conceptualisation. Instead, both groups of authors merely expressed composite integration on a scale from low to high.

This researcher criticises the highlighted non-demarcation, for such a distinction is crucial for better theoretical conceptualisation on the one hand, and explaining the positive implications of relational assets to vertical relationships, on the other. This distinction[10] is vital to understanding these concepts and in measuring achieved integration. The synergistic focus of this research is best served by the composite integration approach; as this approach generally registers better organisational performance[11] (Ruekert & Walker, 1987; Schrage, 1990). Despite the synergistic emphasis in Jassawalla & Sashittal (1998), this researcher does not support the conceptualisation of interdepartmental integration as a subset of cross-functional collaboration. Tapping on and advancing the background in Song and Parry (1992 & 1993) and Gupta *et al* (1985a, 1985b, 1986 and 1987), this thesis conceptualises integration to include not only information sharing and involvement, but also unified effort (see Section 2.7). With this, the researcher argues that to ensure effective AMI and increase organisation's competitive prospects, a focused scheme of information generation, information dissemination, and responsiveness to information, are critical, but also, such vertical relationships (Jaspers & van den Ende, 2006) must embrace involvement and unified effort. Interaction (knowledge integration – see Sheremata,

[10] 'While "information sharing and involvement" or "communication and teamwork" closely parallel the given definitions of interaction and collaboration, an empirical distinction of the two constructs is lacking' - Kahn & Mentzer (1998).

[11] Ruekert and Walker (1987) found that interaction did not relate to relationship effectiveness across all departments. This suggests that interaction may not have as strong an impact on performance as collaboration may have. Schrage (1990) further suggests that collaboration might have a stronger impact on performance factors than interaction because the mutual sharing of information and resources will be more cost-effective and promote greater goodwill across departments.

2002; Jasper & van den Ende, 2006) is of no value without collaboration (coordination – see Sheremata, 2002; Jasper & van den Ende, 2006) and vice versa.

Essentially, this researcher maintains that involvement and unified efforts are core to teamwork, and thus critical to optimising integration benefits efforts, for the hidden 'people skills' of the participants would aid the interfunctional integration.

Pursuing the goal of exploring AMI, this thesis, following empirical precedence (Song & Parry, 1992 & 1993; Parry & Song, 1993; Gupta *et al*, 1985a, 1985b, 1986 & 1987), explores integration on the low and high continuum.

Failure to embrace the 'marketing concept' or misdirection of marketing effort would trigger costly consequences for contemporary organisations. Strategic alignment is core in ensuring the opposite. Plakoyiannaki & Tzokas (2002)[12] stress strategic alignment and coordination of human resources in defining integration, two foundations that underline need for unified effort and involvement in integration. Consequently, given the above pertinence, this study conceptualises Integration as:

The state of mutual interaction and collaboration among the integrating functions to seek the attainment of organisational goals. For optimum effectiveness, this form of relationship must be characterised by 'information sharing', 'involvement' and 'unified effort'.

These components of integration are further justified and contextualised in pages 50 to 58 and summarised in Figure 2.6.

Before undertaking above step, Section 2.5 presents an overall organisational argument for interfunctional integration.

[12] Most importantly, integration refers to the alignment of strategic components in the organization and the coordination of human resource management activities.

2.5 The Drivers of Integration

Section 1.2 of this thesis justified accounting/marketing integration. This section (2.5) explains overall organisational perspective of the drivers of CFIn in organisations. The pressures of today's highly evolving market environment increase the need for customer orientation. Consequently, organisations must stay abreast and respond to the needs of their customers, i.e., offer adequate customer value for profit. Organisations must earn their customers for as McLeod (in Marketingbusiness, 2001) notes, if you look after your customers, then the profits will look after themselves. Essentially, organisations do not only seek to achieve customer value, but also a number of other stakeholder values. This task makes interfunctional alignment increasingly critical.

Combining social system, customer awareness, contingency, and stakeholders' value theories, Table 2.4, explained in Subsections 2.5.1 to 2.5.4, and supported by the respective boxes, presents organisational arguments for interfunctional integration. The wave of intense competition, customers' service and product quality awareness and expectations and overall economic and social environment of organisations make CFI a "sine qua non" in organisations. The accounting/marketing dyad is one of many dyads in organisations that needs to be integrated to aid this organisational target.

2.5.1 SOCIAL SYSTEM PHILOSOPHY/SKILLS, RESOURCES AND CAPABILITIES DIFFERENCES

Social system members need to interact and cooperate to achieve organisation's broad objectives, as well as specific individual goals. There must be exchange of money, materials, information, technical expertise and other resources for marketing and other personnel to do their jobs (Ruekert & Walker, 1987). Each member is dependent on the performance of others, both for the accomplishment of tasks that serve as inputs or preconditions for their own specialised functions and for ultimate

attainment of common goals. Interdependence (or dual relationship – Jaspers & van den Ende, 2006) is a typical feature of social systems, and since there are huge inter-dependency between accounting and marketing (Downie, 1997), an effective integration between them is a critical factor for effectively pursuing and meeting the tenets of the marketing concept.

2.5.2 CUSTOMER AWARENESS, CONSCIOUSNESS AND QUALITY STANDARDS

> "Societies have become more affluent and selective: as a result, consumers have become more aware of the variety of attributes of products – such as nutrition, safety and reliability (i.e. there is more a need for quality and not just quantity). Consumers are becoming more socially responsible and aware of the effects of their own consumption on the environment and other people and these awaken a higher expectation on integrated marketing" **(Wilson, 2000, p. 11).**

Section 2.3 highlighted accounting's failure to embrace the 'Marketing Concept' as one of many problems plaguing AMI and following the increasing pertinence of market orientation (Downie, 1997), the concept of understanding the customer and market segmentation have become key strategies. Organisations must embrace customer orientation. Central to providing customer value is quality. This pressure to provide customers value for their custom not only requires organizations to measure up to quality demands, but also to pursue quality levels that supersede that of their competitors. Organisations must provide customer's value for money and this researcher maintains that effective AMI would enable this goal.

With the dimensions of inter-dependence among functions, for example, that between accounting and marketing (see Section 2.9) there is strong need for closer working relationships amongst the various segments of the business enterprise. This is particularly true of marketing management that must rely on accounting for many important services and vital data regarding marketing operations, and vice versa.

2.5.3 CONTINGENCY[13] THEORY PHILOSOPHY/ENVIRONMENTAL DYNAMICS

According to Van de Ven (1976) a social system can be examined by exploring the interrelationships among its environment, its organisational structure and processes, and its outcomes. The system-structural view suggests contingent relationships among these three system dimensions, and different types of system structures (Ruekert & Walker, 1987) fit better to specific environmental conditions.

Tremendous expansion in modern business scope and complexity, coupled with growing competition, intensify the pertinence for more and better information to assist management in decision making. Based on contingency thinking, if environments are dynamic, organic and integrative organisations (see Table 2.3) should be chosen, given their capability to promote innovative or flexible behaviour (Joergensen, 1998). Dynamic market environment intensifies the need for CFIn. Such organisational practice (see Table 2.3) put the machinery in place for enabling better economic drive.

Table 2.3: Integrative and Segmentalistic Organisations (Joergensen, 1998)

Definitions	Integrative Organisations	Segmentalistic Organisations
Function	Functional Flexibility	Specialisation
Control	Delegation of responsibility	The control located in the top of the organisation
Internal network	Cooperation and communication across the internal organisational boundaries	Little cooperation and communication across internal organisational boundaries
Organising in groups	Organizing in groups are often used	Organizing in groups are used very little
External networks	Cooperation and communication with external actors	Little cooperation and communication with external actors

Contents adapted without modification from Joergensen (1998, p. 9).

[13] Gupta et al (1986):
Various contingency factors giving rise to differences in organisational structure have been summarized by Mintzberg (1979, p. 221). He found that in addition to organisational age, size, and ownership, the most important contingency factors are environmentally related, such as environmental stability, complexity, diversity, and hostility. These environmentally related uncertainties increase the information processing needs of an organisation and control among organisational subunits (Achrol et al, 1983; Galbraith 1977; Galbraith & Nathanson 1978; Khandwalla 1972).

2.5.4 THE DRIVE FOR SHAREHOLDER'S VALUE/MARKETING ORIENTATION

Organisations are under immense pressure to create shareholder's value and given dynamic market environment, the internal units of the organisation must knit their acts together to achieve the external orientation. The marketing concept has displaced product orientation, and introduces customer orientation as its key tenet. Doyle[14] (1994, p. 7) and Wilson (2000) argue that embracing customer orientation is the best way to ensure shareholder's value. Organisations aspiring to create and sustain to competitive advantage and ensure shareholder's value must embrace integration (Jaspers & van den Ende, 2006).

Table 2.4 below adds support to the theoretical arguments explained in Sections 2.5.1 to 2.5.4. In that connection too, boxes a to d, each for the individual theoretical context highlighted in Table 2.4 and sections 2.5.1 to 2.5.4, are used to summarise further organisational arguments for integration.

[14] "Satisfied customers are the source of all profits and shareholder value."

Table 2.4: The Drivers of Integration

Reasons	Social system Philosophy	Contingency theory philosophy	Quality standards and Customer focus	Shareholder's value factor
WHY CROSS-FUNCTIONAL INTEGRATION?	(Ruekert & Walker, Jr. 1987): The dominant meta-theoretical perspective for explaining behaviour within social systems can be classified as the system-structural perspective. Because people in each functional area have distinct skills, resources, and capabilities, they are functionally interdependent (see box. - social systems). Organisations consist of both technical elements and social elements (Laughlin,1987)	(Joergensen, 1998): Dynamic change is a common feature of the present day market place and organisations must come to terms with this phenomenon as it affects its competitive strength. (Lawrence, 1981) "More complex and changing environments require the organisation to be flexible and innovative. This situation, in turn, creates a greater need for people in various functional areas to interact."	The days when demand outweighed supply are long over. Competition has become so intense in the market place and customers have a wider choice frame. Consequently, firms are compelled to embrace marketing concept, intensify their bond and commitment towards customer, and tailor their activities towards guaranteeing commensurate value for the customer's custom. This quality orientation requires CFIn.	(Ameels et al, 2002) "The 'socially responsible business behaviour', as defined by (Rappaport, 1998) integrates the statements of (Pruzan, 1998) that most traditional business thinking is based and dominated by the concept of shareholder accountability." Efficient use of resources enables adequate shareholders' investment return. CFIn enables this. Integration is vital to creating and ensuring competitive advantage (Jaspers & van den Ende, 2006).

Source: Author

An open social system consists of a group of two or more individuals or organisational entities (e.g., work groups, departments, functional areas or organisation) that interact and exchange things of value on a regular basis. Such systems receive input from their environment, transform those inputs through processes that are organised according to a system structure, and thereby send new outputs into the environment (Katz &Kahn 1980).

All social systems have two important characteristics:

- Behaviour among the members of the social system is motivated by both individual and collective interests.
- Independent processes emerge because of the specialization and division of labour.

Social system: **adapted from Ruekert. & Walker, Jr. 1987.**

Box a

"Integrative thinking that actively embraces change is more likely in companies, whose cultures and structures are also integrative, encouraging the treatment of problems as "wholes", considering the wider implications of actions. Such organisations reduce rancorous conflicts and isolation between organisational units; create mechanisms for exchange of information and new ideas across organisational boundaries; ensure that multiple perspectives would be taken into account in decisions and provide coherence and direction to the whole organisation…. There may be differences recognized and even encouraged – an array of different specialities, a diversity of people – but the mechanisms exist for transcending differences and finding common ground"

Contingency theory – (Kanter 1983)

Box b

"Today people expect quality. Quality is your ticket to the market place. One of your best competitive tools is to care about your customers and make them feel important. The better you understand your customers the better you can deliver a value that impacts their behaviour not just their attitude. Do you know which values are most important to each of your customers? Customers value convenience, price, appearance, taste, smells, and many other descriptive words. Customers come back when you get the value 'proposition' right. If things are too crazy to ask customers what they value at the point of sale then we need to find another way to discover these values. Every time you talk to your customers you have an opportunity to learn as much about them as possible. Never pass up the opportunity. Give your loyal customers a service they can talk about and you have made good use of your marketing dollars."

People skills are the key: adapted from Karl Foord's Customer Awareness Series Part 1. Quality Consciousness

Box c

Rappaport (1998) summarises the internal contribution of implementing the shareholder value approach as an improvement of management productivity by facilitating more efficient and effective decision-making. Smith (Vol. XIV) identified 3 features of Value-Based-Management and the third feature gives attention to the fact employees at all levels understand how their activities link to the creation of short and long-term cash flow. (Anonymous, 1998) "In order to maximize shareholder's value, the whole organisation must be involved." CFIn enables creation of shareholder's value. It enables Value-Based-Management. (Black et al., 1998) "Value-Based-Management aligns strategies, policies, performance, measures, rewards, organisation, processes, people, and systems to deliver increased shareholder value."

Shareholder's value: adapted from Ameels, Bruggeman & Scheipers, 2002.

Box d

2.6 Conclusion to Part A

Exploring the concept of interface relative accounting/marketing scenario, this part (see Figure 2.5) has highlighted the peculiar problems suggested to characterise AMI. Exploiting this evidence in alignment with integration theory captured in previous empirical and anecdotal efforts, the conceptualisation of 'Integration' for this thesis is specified.

The nature of issues explored in this chapter was driven by the need to build further support for the background identified in the introduction to the thesis, and launch further issues that are core to the goal of pursuing the overall concern of this research.

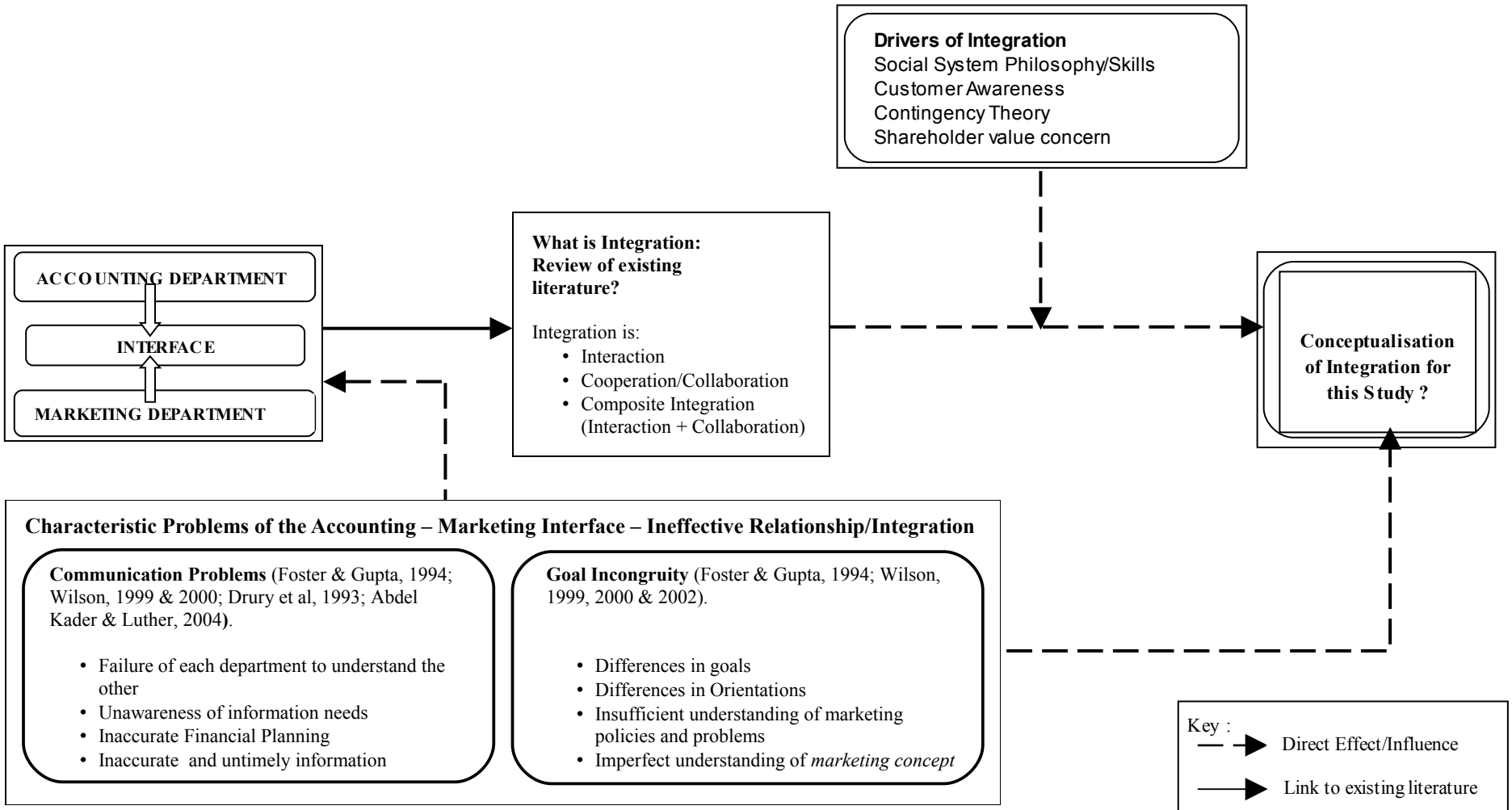


Figure 2.5: The Problems of the Accounting - Marketing Interface and Background of the Conceptualisation of Integration for the Study.
Source: Author.

Pursuing the goals of the 'Marketing Concept' aligns with the theme of drivers of integration. Achieving that goal though, requires effective integration. Evidenced in Section 2.3, communication and information sharing hollows, and attitudinal tensions, in the relationship between these two functions, cause goal incongruity and cross purpose behaviour detrimental to organisational well-being. To maximise this dyad's potentials, these departments must share information effectively but also, according to Knight *et al* (1999) and Shipilov & Danis (2006), remain collective entities with common goals and objectives. Doing these is vital to keeping to the goals of the 'Marketing Concept' and meeting the catalyzing drivers of integration.

Functional specialisation and resource interdependencies increase the need for cross-border coordination (Holtbrugge, 2005). Integration is indeed a means to an end; this end however depends on the effectiveness of the interface (see Figure 2.1 in p. 21) between departments. For effective interface, all integration dimensions are important and must be considered to ensure maximisation of integration synergies.

Given that synergistic logic, this study posits composite integration, one that will enhance broad understanding of integration, enable theory and increase awareness among practitioners. For the composite integration realm in this study, part A (summarised in Figure 2.5) highlighted the concept of interface, the characteristic problems in the accounting/marketing interface, the drivers of integration, as well the integration perspectives in previous studies. Next, part B elaborates the integration conceptualisation for this study.

First, part B highlights the nature of interdependencies reminiscent of accounting-marketing relationship. Subsequently, it explains the fundamental characteristics for purposeful synergies. Specifically, part B suggests that organisations must embrace information sharing, unified effort and involvement to optimise integration synergies.

Brief synopsis of Part B

This part elaborates the integration conceptualisation for this research. It explains also the multidimensional integration approach and distinguishes information sharing as a tool of interaction, and unified effort and involvement as elements of collaboration, and extends in detail the importance of integration in the interface presented in the introduction to this thesis. Given the nature of problems identified to be characteristic of accounting-Marketing integration, a broad conceptualisation of this nature only serves the purpose of addressing the specific problems, and serving the overall focus of this research.

2.7 Introduction to Part B

Part one reviewed literature on the concept of interface, integration construct, drivers of integration and also identified the specific problems that characterise accounting-marketing relationship. Concluding this chapter, part two elaborates further the theoretical context of integration for this thesis.

But for the ownership dimension which relates specifically to the domain explored in that study (inter-firm setting), Jaspers & van den Ende (2006) spell out the crucial dimensions (coordination, task, and knowledge) that must be considered in the study of vertical relationships. Critically analysed, that approach shows resonance with the composite integration perspective (see Gupta *et al*, 1986; Song & Parry, 1993; Parry & Song, 1993; Jaspers & van den Ende, 2006; Shipilov & Danis, 2006).

Specifically, integration is conceptualised in this thesis to embrace information sharing, unified effort and involvement. To establish definite and concise criteria for identifying the level of integration in this investigation, part B explains and justifies the three integration dimensions. Thus, the focus in this part is to:

a) Highlight accounting-marketing relationship information exchange patterns,
b) Spell out clearly the context of information sharing dimension,
c) Spell out the context of unified effort for accounting/marketing integration,
d) Spell out the parameters for ascertaining involvement in the integration between Accounting and Marketing.

Sensitizing just one dimension of integration is insufficient to fully understand the complexities of vertical relationships (Jaspers & van den Ende, 2006). On the one

hand, understanding the complexities is very important, embracing composite integration, on the other hand, increases the synergistic prospects. Utilizing these three dimensional approach, the researcher argues, will enable maximisation of highlighted accounting-marketing integration benefits.

2.8 Accounting and Marketing Information Exchange

Accounting, as cited in Downie (1997, p. 309), is defined by the American Accounting Association (1966) as:

> "The process of identifying, measuring, and communicating economic information to permit informed judgements and decisions by users of the information."

While marketing is defined by the Chartered Institute of Marketing (CIM, 2003, p. 1) as below:

> Marketing is the management process for identifying, anticipating, and satisfying customer requirements profitably.

Contextually analysed, the former definition depicts that Accounting, through a set of tools, provides economic information to other organisational units. Such accounting information aids informed judgement concerning assets and liabilities, and the profit and loss of an organisation. The marketing process seeks to fulfil the tenets of the 'Marketing Concept'. The profit factor is a key element because organisations aim to satisfy customers at a profit, and such profit is usually an indicator that the organisation provides adequate customer value to earn a return, while also ensuring shareholder's value.

These definitions combined, it is obvious that both functions are part of an organisational team (of diverse functional boundaries). Although both functions are individual units and their individual representatives (Brown, 1983) occupy boundary roles, they are united by a common organisational goal of meeting the tenets of the 'Marketing Concept', i.e. profitably satisfying the customer, a focus which propels the

inter-dependence relationship. Marketing is central, and is essentially pivotal in the customer orientation focus. Accounting, as well as other departmental functions, should thus embrace the 'all-inclusive marketing' view (Kotler & Levy 1969, p. 15) and support marketing, in its pivotal role, to profitably satisfy customers.

2.9 Accounting and Marketing Transactional Flow

The interfunctional inter play in pursuing organisational profitability can be likened to the symphony orchestra where each participant relies on the other to fulfil a role. Coordinating the individual inputs is crucial as this determines the rhythm and lyrics of the symphonic outcome. Focusing on the accounting-marketing relationship, this thesis aligns to literature suggesting effective accounting-marketing integration would enable sound strategic marketing decisions.

By this organisational focus, accounting and marketing are like the proverbial two hands that need each other to wash better. If this relationship substance is exploited, the problem of accounting's inability to understand and (or) meet the information requirements of marketing (Foster & Gupta, 1994) would be eliminated.

In a hotel industry study, Downie (1997) flags specific accounting and marketing decision patterns (see Table 2.5). The decision making ability of each is enabled by information supplied by the other (interdependence relationship) (see Table 2.7), thus accounting decision making and implementation affects marketing decisions and vice versa. Given indispensability of each to the other's effectiveness, effective exchange of information is pertinent to the united goal of better strategic marketing decisions.

Existing literatures (see Shank, 1989; Shank & Govindarajan, 1992; Bromwich & Bhimani, 1994; Foster & Gupta, 1994; Stephen & Archambault, 1998; Wilson, 2000; Roslender & Hart, 2000; 2002a; 2002b; 2003) highlight accounting tools that enable marketing effort (see Tables 2.6, 2.7 & 2.8) and vice versa (see Tables 2.6 & 2.8).

Table 2.5: Decisions made in hotels

Marketing decisions	Accounting Decisions
Analysis	
Design of Products*	
Monitoring competition*	
Repeat business evaluation	Revenue maximisation*
Customer feedback evaluation	Pricing and setting rates*
Market pricing*	Identification of variances
Forecasting/monitoring sales*	
Identification of business gaps*	
Identification of market segments*	
Identification of business potentials	
Planning	
Compilation of marketing plan*	
Allocation of resources*	
Setting targets/strategies for achievement*	Budget compilation*
Evaluation/improvements to business policy*	Forecasting*
Yield management forecasting (if installed)*	Action on variances
Cross selling opportunities*	
Promotional planning*	
Local public relations activities/advertising*	
Targeting sales mix objectives*	
	Action on variances
Control	Cost control
Handling complaints	Purchasing
Monitoring/improving standards*	Account queries
Action on customer feedback	Investigation of variances
Management/control of bookings*	Emergency expenditure
Maintenance of guest histories	Design/review of control systems*
	Debt collection
	Personnel decisions
Operations decisions	Recruitment/selection of staff*
Delegation of duties	Identifying/fulfilling training needs*
Setting staffing levels*	Staffing structure/establishment*
Business planning*	Staff welfare
Legislative requirements*	Control of wage expenditure
	Appraisal system*

Source: Downie, (1996). The Use of accounting information in hotel marketing decisions
* Decisions which have a planning emphasis

Table 2.6: Functional Interfaces between Marketing and various functional areas (Lim & Reid, 1992, p. 160)

Function	Direction of Impact	Function
Marketing: Sales forecasts, Market forecasts	⟷	Finance: Capital requirements, Cash flow analysis
Marketing control: New product decisions	←	Financial Definitions of ROI, ROE, ROAE, ROS
Pricing decisions	⟷	Credit policies
Marketing: Product/Product line Profitability, Product line Decisions	←	Accounting: Cost allocation procedures (e.g., fully allocated variable costs)
Marketing Control & evaluation	→	Accounting Information
Marketing: Product assortment/ Development	⟷	Production: Production capabilities/ facilities
Sales forecasts/market forecasts	→	Production efficiency/ capacity planning
Marketing: Market research, Product development	⟷	R&D: Product development, R&D capabilities

This Table by Lim & Reid (1992) was adapted from Wind (1981).

Contextually combined, Tables 2.6 and 2.7 highlight bidirectional information interdependencies between accounting and marketing. Transactional flows, as flagged

in those Tables, and elaborated in Subsections 2.9.1 & 2.9.2, contribute to the overall organisational machinery for pursuing the goal of profitably satisfying the customer.

2.9.1 ACCOUNTING INFORMATION FOR MARKETING

Effective marketing function performance (Ruekert & Walker, 1987) requires a transactional flow, and the accounting role in this wheel is vital.

Classifying companies as either "high fliers" or the "also rans", Ratnatunga & Hooley (1988) identify accounting tools for serving marketing function information needs (see Table 2.7). Extending transactional flow viewpoint, CIM study text (1998), notes that, among others, marketing requires from accounting following information:

- Sales turnover figures, which may be totals or by product or market segment;
- Profitability figures by product or market segment;
- Customer account information (history of payments, outstanding debt and so on);
- Cost data;
- Pricing policy and price information, such as discounts allowed & payment terms;
- Budgets (sales budgets, product profitability budgets, market segment budgets, departmental budgets).

Table 2.7: Adapted from Ratnatunga & Hooley (1988). The application of Management Accounting Techniques to Marketing.

ACCOUNTING TOOLS	APPROX. USAGE LEVEL
Sales forecasting	High
Standard manufacturing costs	Above average
Standard marketing costs	Below average
Standard distribution costs	High
Budgetary control	Above average
Variance analysis	Below average
Periodic budgets	Average
Rolling budgets	Very low
Zero-based budgets	Nil
Fixed budgets	Low
Flexible budgets	Average
Ex post analysis	-
Full costing-net profit	Very low
Marginal costing-contribution	Very high
Break-even analysis	Low
Distribution cost accounting	Very low
Responsibility accounting	Very low
Segmental analysis	Low
Profitability analysis	Very high
Productivity analysis	Nil
Cost effectiveness analysis	Low

Summing up body of literature, accounting information to aid marketing would usually include (but not limited to) the contents of Table 2.8. Thus, if accounting is fully aware of the information needs of marketing, and tailors its information exchange with marketing to meet those needs, then the following (and a number of other) marketing decisions would be enabled:

- Pricing Decisions: Accounting can enable marketing achieve better product (and services) pricing (Shank & Govindarajan, 1992a+b &1993; Foster & Gupta, 1994; Downie, 1997; Roslender & Hart, 2000; 2002 & 2003). Utilising CVP analysis and ABCM[15] tools, accounting can determine profit and contribution per unit levels. The knowledge of these levels crucially aid pricing decisions, a fact reinforced by the findings in Foster & Gupta (1994) that suggests accounting enables marketing decisions of pricing, customer mix, product mix, and NPD.
- Investment decisions: Accounting's marketing decision utility is however not limited to pricing tasks. Through activity-based-budgeting, accounting enables wise financial steps in investment decisions (see Shank & Govindarajan, 1992a+b &1993; Foster & Gupta, 1994; Downie, 1997; Roslender & Hart, 2000; 2002 & 2003). Marketing investments on customers and market segments is also enabled through accounting effort. Using customer profitability analysis (CPA) and market segments profitability analysis (MSPA) tools, accounting enables the knowledge about profitable customers and segments, and thereby enable the right channelling of marketing resources (see Ratnatunga *et al*, 1988; Foster & Gupta, 1994; Downie, 1997; Roslender & Hart, 2000; 2002 & 2003). Through such investment analysis tools, necessary divestment decisions could also be taken.

[15] A benefit of ABC to marketers is the ability to identify profitable customers more accurately (Goebel *et al*, 1998).

- Marketing planning decisions: Accounting possesses a number of tools to aid marketing planning decisions. Accounting contributes to the setting up of marketing targets (Roslender & Hart, 2002a+b; Wilson, 2000) and the regular comparison of results against these targets (see Foster & Gupta, 1994; Goebel *et al*, 1998; Roslender & Hart, 2002a+b). The accountant as "budget officer" can use budgeting, variance analysis and investment appraisals tools to enable marketing plan, regular comparisons and adjustment decisions, where circumstances warrant.
- Marketing mix decisions: Further more, budgeting-wise; accounting is responsible for the allocation of total marketing budget among individual marketing vehicles. Utilising this budgeting and cost management tool, marketing decisions of how to plan and evaluate individual marketing vehicles such as advertising, sales promotions, and brand management (see Goebel *et al*, 1998; Foster & Gupta, 1994; Downie, 1997; Roslender & Hart, 2002) are effected.

Table 2.8 shows some areas of information exchange between accounting and marketing functions:

Table 2.8: Areas of information exchange and support between the marketing and accounting departments

Accounting information for marketing	Marketing information for Accounting
• Investment appraisals and decision patterns • Activity based costing management issues • Budgeting information for activities • Benchmark reports of activities and projects • Contribution and profit analysis of projects • Through its CA practices, the accounting function provides the marketing function immense information on customers, customer and market segments, as well as customer profitability dimensions along those definitions • These CA tools also enable the marketing function to identify those customers who value and appreciate a relationship with the firm • Accounting appraises projects and investments and offers the marketing departments possible suggestions about the need for divestment • The accounting department furnishes the marketing department with results of feasibility studies carried out on marketing investment plans • The accounting department intimates the marketing function about the financial practicability of any innovation plans. • Accounting is involved with marketing on deciding the prices for its products and services	• Marketing department provides the accounting function with information on customer requirements • Marketing provides information on the individual customers, market segments and their expectations • Marketing provides information to accounting from customers regarding product/service performance and the possible need for further investment in product development • Marketing provides information about new product/service goals and priorities • Marketing, through its market survey activities, provide information about opportunities in the market to be exploited. This includes opportunities like diversification, acquisition, mergers and alliances (portfolio management related decisions) • The marketing department provides the accounting department with information and ideas on enhancing the customer orientation position of the firm • The marketing department provides the accounting department with information relating to the and ways of sharpening the firm's CRM orientation • The marketing department provides the accounting department information relating to brand management and market segment considerations • The marketing department provides the accounting department with information relating to advertising, sales promotion practices and plans of the department • The marketing department informs the accounting department about test-marketing outcomes • The marketing department informs the accounting department about innovation plans • The marketing department informs the accounting department about the performance of its products/services in the market and if necessary, the need for further investment in creating awareness about the product/service.

The Table contains a sample of some of the areas of information exchange between the two departments.
Source: Author.

Section 2.9.1, highlighting a few of several accounting transitional trends that reflect cross-functional application of accounting knowledge to enabling marketing, reinforces the background in Table 2.8. Since there is inter-dependence, undoubtedly marketing information would also aid the accounting role and a few of these are highlighted in Section 2.9.2.

2.9.2 MARKETING INFORMATION FOR ACCOUNTING

Similarly, marketing's transactional flow aids the fulfilment of accounting roles (see Table 2.8), reinforcing accounting-marketing interdependence. Essentially, amongst others, marketing supplies accounting with:

- Customer and market segments information: Marketing, given its role in the delivery of product and service to customers is exposed to more direct contact with customers and the delivery channels. Using such contact means and market survey tools, marketing obtains useful customer and market segments knowledge to aid accounting in customers and market segments financial decisions making. Such market intelligence and accounting tools of CPA and MSPA are vital assets for the pursuit of the concern of profitably satisfying customers.
- Investment plans information: Also, marketing, as direct representatives for marketing activities, is often closer to the market place. Such direct link to the market allows marketing a vintage position to assess and gauge market realities and identify possible marketing investment rooms and possible marketing threats too. Accounting, as minders of the finances, and usually responsible for approving budgets, leverage on such marketing information in supporting the effort to attend to such threats or opportunities possibilities.
- The 'Marketing Concept' focus: Embracing the tenets of the 'marketing concept' is key to surviving in today's dynamic market. Marketing is central to the 'marketing concept' goal (see Section 2.8) and understands the tenets of the marketing concept than accountants (see Section 2.3). Marketing provides accounting with information and ideas to enhance organisations' customer orientation and the importance of such practice to organisation's profitability.
- Marketing mix information: Marketing also provides accounting marketing mix information (practices and plans) for the organisation's operations. Knowledge of such enables accounting meet role requirements for marketing mix decisions.

Sections 2.9.1 and 2.9.2 have highlighted some dimensions of the transaction flow between accounting and marketing as shown in Table 2.8, and in doing so, further

elaborated the interdependencies between accounting and marketing. If accounting and marketing engage in effective information sharing, then some form of integration takes place (see Section 2.3). However, optimising 'symbiotic interrelating' (Souder & Chakrabarti, 1978) and its 'strategic linking' (Plakoyiannaki & Tzokas, 2002), is conditioned not only on information sharing. Consequently, accounting and marketing integration must reflect other integration dimensions, and Section 2.10 addresses this.

2.10 How to best integrate Accounting and Marketing

Highlighted above, accounting and marketing are interdependent and utilise cross-inputs to achieve role targets. Interdependencies increase the need for cross-border coordination (Holtbruegge, 2005), and achieving effective interfunctional co-ordination requires, among other things, an alignment so that each perceives the advantage in cooperating closely with other functions (Narver & Slater, 1990, p. 22). This contention aligns with value delivery theory, for there must be (Prahalad & Hamel, 1990) communication, involvement and a deep commitment to working across organisational boundaries, to ensure delivery of value.

So, indeed, there exist avenues for accounting and marketing to respond to each other's needs. However, the introduction to this thesis suggests ineffective integration between them. Specifically, ineffective information exchange, attitudinal dimensions and insufficient 'Marketing Concept' focus were highlighted. Explained in the context of symphony orchestra, it could be said that adequate co-ordination (Narver & Slater, 1990; Holtbruegge, 2005) is lacking, a situation that hinders the value delivery initiative (Prahalad & Hamel, 1990). Organisations must deliver value (Prahalad & Hamel, 1990) and given the objective of having mutual understanding, sharing a common vision, sharing resources and achieving collective goals, as Kahn (1996) and Kahn & McDonough (1997) note, composite integration approach, which is

embraced in this study, is a priority. On this combined need to embrace 'Marketing Concept' and engage in effective integration to ensure effective strategic marketing decisions, it is argued that accounting and marketing relationship should reflect information sharing, unified effort and involvement. These are explained next:

2.10.1 INFORMATION SHARING (INFOS)

"Information requirements of companies are expanding as their competitive environments become more dynamic and due to the increasing importance of establishing meaningful relations with customers" (Barker, 2008, p. 316). Given this reality, departments, as repositories of vital information are critical agents for achieving such objective. Drucker (1997) maintains that "the top priority for success is to harness the intelligence and spirit of people at all levels of an organization to continually build and share knowledge" (cited in Barker, 2008, p.316). Information sharing is an important aspect of interfunctional integration, which is a prerequisite to achieving firm success (op. cit.).

Since, accounting and marketing are highly interdependent (de Ruyter & Wetzels, 2000), more elaborate set of coordination (Jaspers & van den Ende, 2006) and alignment of tasks (Jaspers & van den Ende, 2006; Thompson, 1967) are required. Such coordination (coordination integration - Jaspers & van den Ende, 2006) focuses on information processing to deal with inter-dependence. Given that, effective information sharing is crucial (Barker, 2008) and this thesis argues that the synergies of such interdependence should be harnessed through effective information exchange, for corporate success and efficiency (Larson & Gobeli, 1987). Such effective information exchange activates and sustains effective decision making.

Lewis and Chambers (1989) note, any decision made which affects the customer is a marketing decision, and the customer is the 'soul and substance' of marketing. Thus,

the responsibility for making marketing decisions (Downie, 1997) is not confined to the marketing or general manager, rather other departmental managers would also be making marketing decisions (see also Ruekert & Walker, 1987-January). It is on this logic that accounting and marketing integration argument is grounded.

However, decision makers (Pihlanto, 1983) do not have all the needed information or the information is unconscious (see also Durden, 1988[16]) or ill-structured. This view is empirically supported by Downie (1997), who reports that the gaps in the provision of information between accounting and marketing disabled marketing decisions. Reinforcing this information gap view, Wilson (2000) noted; accountants lack the knowledge and understanding of the information requirements necessary for the marketing function. Advancing this background, Drury *et al* (1993) and Abdel-Kader & Luther (2004) comment that, amongst others, the most significant challenges relating to the timing of management accounting reporting were concerned with: providing accurate and timely information, improving timeliness of reporting data. Ineffective integration in this interface has been suggested (see introduction to this thesis) and the nature of interface problems has also been elaborated in chapter one. Such decision-making handicaps (Pihlanto, 1983) would be overcome in the accounting-marketing interface if accounting and marketing live up to their expectations in meeting each other's information needs. Thus, this researcher suggests that organisations must strive to address the information exchange hiccups of information gaps, unconscious and or ill-structured information as stressed in Durden (1988) and Downie (1997).

Since, undoubtedly, accounting and marketing as functional repositories, possess relevant intangible asset (Grant, 1996), 'rare resources' (Barker, 2008) and market

[16]While the rest of the business community are becoming oriented toward marketing, accounting systems still provide that department with unsuitable data, geared toward past events Durden (1988).

intelligence (Slater & Narver, 1995), integration between them is essential in the pursuit of overall organisational objectives. Accounting and marketing must seek to exploit available functional tools for aiding each other in enabling the competitive prospects of the organisation. To generate vital decision asset for effectively aiding SMM, driven by the goal of providing adequate customer value at a profit, organisations must effectively share information. Literature on the characteristic problems of AMI (see chapter two) suggests that Accounting has failed to embrace the 'Marketing Concept' (e.g., Wilson, 1999; Wilson, 2000; Stephen & Archambault, 1998), thus causing misdirection of marketing effort, due mainly to a lack of knowledge of the interaction of the firm's products and markets.

Harmonising aforementioned backgrounds and the aim of this thesis, this researcher argues that accounting and marketing must embrace information sharing culture that is characterised by:

a) Firm awareness of the information need of each party,
b) Timely and accurate exchange of such information,
c) Use of understandable and not too technical language,
d) Awareness of the 'Marketing Concept', and
e) Information sharing patterns that reflect common goals between the functions.

Using above five metrics, the information sharing dimension of AMI is gauged towards establishing overall achieved integration, and strategic marketing evidence.

2.10.2 UNIFIED EFFORT (UNIE)

'Functional specialisation and resource interdependencies increase the need for cross-border coordination' and effective coordination (Narver & Slater, 1990, p. 22; Holtbruegge, 2005) for value delivery (Prahalad & Hamel, 1990) requires an alignment culture (Narver & Slater, 1990, p. 22) that (Prahalad & Hamel, 1990) embraces communication, involvement and a deep commitment to working across

organisational boundaries. This sense of deep commitment is a key element of unified effort (Boyt *et al*, 2005).

Organisational psychology theory flags group cohesiveness and esprit de corps[17] as crucial success factors in cross-functional cooperation and in the overall life of organisations (see Boyt *et al*, 2005). Esprit de corps (op. cit.) is a resource and such intangible resource (Constantin & Lusch, 1994), which is the mental state that serves to expand the capabilities of a group, constitutes the organisation's most valuable resource.

Organisations must remain collective entities with common goals and objectives (Knight *et al*, 1999; Boyt *et al*, 2005; Shipilov & Danis, 2006). This culture of shared values and motivations, or organisational esprit de corps (Boyt *et al*, 2005) is the foundation for unity of effort, a key team effort factor, for unharmonised efforts jeopardises unity of purpose -causing cross-purpose behaviour among integrating partners. Additional to high information sharing and involvement, high integration is also characterised by high unified effort (Parry & Song, 1993; Song & Parry, 1992 & 1993; Gupta *et al*, 1985, 1985-November & 1986-April), a notion also empirically reinforced by Song *et al* (2000) and Xie *et al* (2003).

To achieve effective AMI, and extendedly the 'Marketing Concept' target, accounting and marketing relationship must reflect unity and commitment towards the organisational goals. Such unity and commitment culture is critical to sustaining integration effort because unified effort thrives on it and will ginger the integrating partners to perform their functional roles adequately. This will galvanise response to each other's needs, information sharing, and mutual support to each other.

[17] Webster's Third New International Dictionary definition of esprit de corps – the "usually selfless and often enthusiastic and jealous devotion of the members of a group or association of persons to the group and its purposes".

According to Holland *et al* (2000) effective integration is characterised by a situation where the integrating partners are mindful of each others' needs and constraints and the synergistic outcome is the focus (see also Jassawalla & Sashittal, 1998; Plakoyiannaki & Tzokas, 2002). Conflict is a natural phenomenon in such a collaborative process (Lam & Chin, 2003 & 2005). Collaborative relationship (Lam & Chin, 2005) thrives on trust, mutual commitment and sustainable conflict level and effective resolution of such conflicts. Conflict is functional or cognitive conflict (op. cit), when it is task-oriented and focused on judgemental differences about the best way to achieve objectives (Rahim, 2001; Amason, 1996; Putnam, 1992; Lam & Chin, 2005). Such cooperative conflict handling style (Lam & Chin, 2005; Brown, 1983) exploits the benefits of judgemental differences, which enables effective decision making. Reducing hindering conflict (Seiler, 1963) is advised to get departments working together for improved productivity (Mollenkopf *et al*, 2000), and unnecessary delays must be avoided in expressing such judgemental differences. Combining these views (Holland *et al*, 2000; Song *et al*, 2000; Xie *et al*, 2003; Lam & Chin, 2003 & 2005) with the preceding team effectiveness-based arguments, this researcher suggests that for effective accounting-marketing integration, the unified effort integration dimension must reflect the characteristics of:

a) Mutual support of each other,
b) Give and take attitude,
c) Openness to criticisms from each other,
d) Swift resolving of such conflicts, and
e) Few disagreements in the strategic marketing efforts.

Essentially, this thesis suggests that the above 5-parameters are core to gauging accounting-marketing unified effort: It is important for both functions to show mutual support for each other, practice give-and-take culture, and engage and exploit the

positives of constructive criticisms. Similarly, the typical conflict issues reminiscent of their relationship should be wisely managed, resolved and the inherent advantages extracted for the good of the organisation. This contextualisation also sensitizes minimisation of disagreements. How these elements reflect on the strategic marketing process would also be explored.

2.10.3 INVOLVEMENT (INV)

The third imperative for effective alignment and coordination of cross-functional entities (Narver & Slater, 1990, p. 22; Holtbruegge, 2005) for value delivery (Prahalad & Hamel, 1990) is involvement. For effective strategic marketing decisions, a sound team culture must exist, a stance that aligns with the esprit de corps (Boyt *et al*, 2005) argument. This condition is hugely important, for the most successful organisations (Johnston *et al*, 2001) are the ones that embrace this team mentality. Concurring to this logic, this researcher has identified involvement as a key element in measuring achieved integration. Although they did not empirically measure involvement, researchers (Parry & Song, 1993; Song & Parry, 1992 & 1993; Gupta *et al*, 1985, 1985-November & 1986-April) congruently highlight involvement as core characteristic of any ideal integration. In their more recent studies, Song *et al* (2000) and Xie *et al* (2003) advanced on this background and measured this element.

Organisations are team entities, and involvement and joint participation of team members, despite individual functional identities is not only a tool that aligns with the conditions of inter-functional dependencies, but also a tool for strengthening team culture and increasing efficiency (given effective management of involvement dynamics). In the words of Boyt *et al* (2005), work in teams creates utility via social exchange if participative culture is embraced.

Involvement of the integrating partners is of key importance in a strategic marketing management effort because it enables the avenue for experiencing and managing the functional differences and conflict possibilities that characterise such a relationship. According to Ford & Randolph (1992) and Nemeth & Staw (1989), frequent communication and exposure to a variety of perspectives also stimulate creativity and increase the likelihood of generating new knowledge, thus increasing the likelihood of more successful new products. This researcher argues that a similar potential exists through direct involvement of accounting and marketing as the nature of exposure and conflict management possibilities as mentioned above, will enhance their perspectives, and thus the likelihood of better strategic marketing efforts.

Also, such involvement patterns will ginger sound strategic marketing decisions, in that the direct involvement will enable the participants acquire a more broader and constructive perspective, thereby enabling better response to market changes and also better prioritisation of strategic marketing efforts.

More over, where such involvement embraces cross-functional role performance, then accounting and marketing will understand each other's position better, a critical behaviour for managing likely culture bias that may exist between them. Through this pattern, cross-functional knowledge is acquired and 'oneness' and 'unity of purpose' is also strengthened.

In order to fully exploit the benefits of AMI, the researcher expects involvement of accounting and marketing to be characterised by:

a) Direct involvement across the stages of Strategic marketing process,
b) Open discussion of opposing views,
c) Cross-functional role performance,
d) Joint involvement in defining strategic marketing priorities, and
e) Joint involvement in responding to market changes.

The degree of involvement in the accounting-marketing integration will be gauged with the above five measures. This will include the direct involvement in responding to marketing and fulfilling the strategic marketing priorities and how open discussion of opposing views and cross-functional role performance contributes to this effort.

2.11 Conclusion to Part B

Advancing part one, this part has highlighted theoretical foundations, critical not only to the conceptualisations but also overall research ambition in this study. For maximum optimisation of inter-functional effectiveness, integration in this study, adapting and advancing the framework of Kahn (1996), Kahn and Mentzer (1998) and Parry and Song (1993), is conceived as a multidimensional construct that describes interfunctional atmosphere and is composed of 3-components, namely; information sharing, unified effort and involvement.

Aiming to enhance understanding of these elements and also aid the research concern, the characteristic features of these elements have been explained and also summarised in Figure 2.6. Justified by the need to ensure effectiveness in the Strategic Marketing Process and overall organisational success, this researcher maintains that the selected elements provide substantial backgrounds for pursuing the intended research focus.

Finally, having elaborated the conceptualised dimensions of integration, and specifying dimensional parameters, for the thesis, a standard for ascertaining the degree of achieved integration has thus been defined.

Since literature suggests general ineffective integration between accounting and marketing (see Sections 1.2 and 2.3), despite the acknowledged need for these functions to integrate (see Sections 1.2, 2.5, and 2.10), the question then arises: How can this relationship be managed to ensure effective integration between accounting

and marketing? It is very crucial for organisations to understand this background in keeping to the goals of the 'Marketing Concept'. The background of how AMI can be managed to eliminate the aforementioned problems of AMI (see Section 2.3) and thereby ensure effectiveness, is the focus of chapter three (*The antecedents of Integration*).

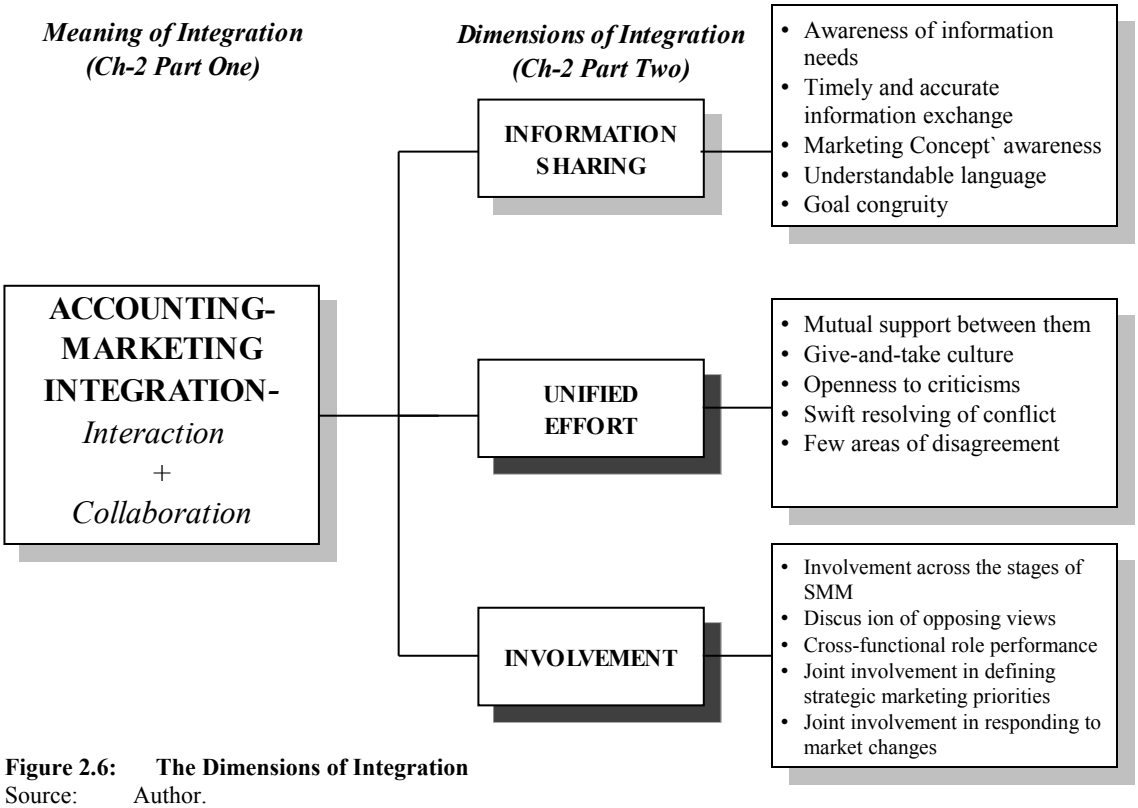


Figure 2.6: The Dimensions of Integration
Source: Author.

Figure 2.6 extends the background in Figure 2.5. Figure 2.6 summarises the integration conceptualisation for this study, reflecting the three dimensions of information sharing, unified effort and involvement, as already mentioned in part A. In the dimensional conceptualisations, parameters were prioritised taking into consideration the impasse issues flagged in Figure 2.5 on the one hand, and empirical precedence on the other, towards ensuring effective interface.

3 The Antecedents of Accounting/Marketing Integration

Brief synopsis of the chapter

This chapter basically explores the antecedents that influence the level of achieved integration in the Accounting-Marketing interface. Noted in the introduction to this thesis, the Accounting-Marketing interface has been very minimally explored. Understandably thus, literature from other interfaces served hugely as reference points for variables in this study. Most paramount is the R&D/Marketing interface. Similarly, a number of the hypotheses for this research, defined in this chapter, have been adopted from respective studies in those interfaces. Harmonising empirical evidence of variable mix suggested to influence achieved integration in previous studies with the emphasised characteristic problems of the Accounting – Marketing interface, this thesis considers the antecedents of communication factors, organisational factors, departmental differences, and physical proximity.

3.1 Introduction

Chapter one introduced the research problem and justification for this research, while chapter two highlighted accounting-marketing interface problems and reviewed the integration concept. Subsequent to the latter, the integration premise for this study was specified. Chapter 3 advances on the above and reviews literature, as well as defines respective hypothesis, of antecedents of integration.

According to Gupta (1984) the characteristics of the parties to a vertical relationship (Jaspers & van den Ende, 2006) have potentials for enabling (common interests) or disabling (conflicting interests) the effectiveness of the interface. Supporting but also extending this logic, Jaspers & van den Ende (2006) sensitizing four integration dimensions, suggest coordination, task and knowledge as critical integration issues. Joined together, these researchers reinforce the importance of ensuring effective 'symbiotic interrelation' (Souder & Chakrabarti, 1987) for 'strategic linking' (Plakoyiannaki & Tzokas, 2002).

To harness accounting-marketing integration synergies, organisations must clearly understand the variables that may account for variance in achieved integration between both departments. Thus, managing the 'enabling' and 'disabling' factors is critical to achieving effective integration.

Significant research efforts (see Tables 1.1, 3.2 & 3.3), majority addressing R&D/Marketing interface, have been devoted to identifying factors that explain variance in achieved interfunctional integration in organisations. Reporting the empirical findings in the study of sales-marketing integration, Dewsnap & Jobber (2004) commented that for practitioners, the findings demonstrate how the policies, organisational structures and operating climates instituted and fostered by senior management and the collaborative behaviours they themselves adopt can all influence levels of collaboration between sales and marketing.

Exploring cultural differences and knowledge gap existence in the accounting-marketing interface, Mills and Tsamenyi (2000, p. 257-8) commented as follows:

> *"Marketers and Accountants are two groups of organisational participants that need to work together (Cummings & Huse, 1989) because of the complementary nature of the two functions. In spite of this, the two professional groups have been construed as coming from different worlds (Oldroyd, 1994) with marketers perceived as caricature of a frivolous, unreliable, and unprofessional rogue, and Accountants as formal, boring intellectuals who are difficult to approach with very few social skills and even less charm (Williamson, 1979). Evidence suggests that in practice, there is lack of communication between the accounting and marketing (Schiff & Mellman, 1962; Collins, 1985; Moss, 1986) due to the existence of cultural differences and a knowledge gap between them (Box, 1984; Hindle, 1985; Ratnatunga et al, 1990). Some researchers have even argued about the imbalance of power (Wilson, 1981; Piercy, 1986; Oldroyd, 1994) and mutual ignorance and suspicion (Chadwick & Ratnatunga, 1981) between the groups."*

Combining these comments offers some insight as to variables that may explain such variance(s). Overall, literature (see Table 3.1) suggests achieved integration is influenced by Communication factors (see, *inter alia*, Gupta, 1984; Ruekert, & Walker, 1987; Griffen & Hauser, 1996; Parry & Song, 1993), Organisational factors – **Structural** (see, *inter alia*, Brown, 1983; Gupta *et al*, 1985 & 1987; Song *et al*, 1996; Parry & Song, 1993; Song & Parry, 1993; Moenaert *et al*, 1994; Olsen *et al*, 2001; Jaspers & van den Ende, 2006) and **Management** (see Brown, 1983; Gupta, 1984; Gupta *et al*, 1985; Song, & Parry, 1992 & 1993; Parry & Song, 1993; Griffin & Hauser, 1996; Song *et al*, 1997; Souder & Song, 1998; Song *et al*, 1998; Jaspers &

van den Ende, 2006; Le Meunier-FitzHugh & Piercy, 2007; Le Meunier-FitzHugh & Lane, 2009), Departmental culture (see Harrison, 1979; Brown, 1983; Gupta *et al* 1986; Ratnatunga *et al*, 1989 & 1990; Mills, & Tsamenyi, 2000; Parry & Song 1993; Wilson, 2000; Jaspers & van den Ende, 2006; Kotler *et al*, 2006), Personnel factors (see, *inter alia*, Harrison, 1978 & 1979; Chadwick & Ratnatunga, 1981; Wilson & Bancroft, 1983; Ratnatunga *et al*, 1989; Parry & Song, 1993; Wilson, 2000), and Physical proximity (see, *inter alia*, Harrison, 1978; Gupta *et al*, 1987; Ratnatunga *et al,* 1989; Xie *et al*, 2003; Maltz , 1997; Jaspers & van den Ende, 2006).

Table 3.1: The Antecedents of Cross-functional Integration

Antecedent Classifications	Studies	Specific Variables	Specific empirical/conceptual comments
Communicat-ion Factors	Gupta, 1984; Griffen & Hauser, 1996; Parry & Song, 1993; Mills & Tsamenyi, 2000; Maltz, 1997; Blackstead & Cooper, 1995; Ruekert & Walker, 1987.	Lack of communication*, inaccurate information, too little information exchange* and lack of a systematic method of gathering information and creating a shared data base*.	Communication shape cooperation and collaboration between functions. Communication is the "central nervous system" of any organisation.
Organisation-al Factors	Song et al, 1996; Parry & Song, 1993; Olsen et al, 2001; Moenaert et al, 1994; Gupta et al, 1985, 1987; Moenaert et al, 1994; Ruekert & Walker, 1987; Song & Parry, 1993.	Formalisation*, Quality of relations, Degree of articulation of corporate goals, Organisational process (the degree of employee participation in key projects*	Information flow effectiveness is often a function of organisational structure, Integration is inversely related to the level of formalisation, High integration companies exhibited give-and-take relationship
Management climate	Song et al, 1997; Souder & Song, 1998; Gupta, 1984; Moenaert, Souder et al, 1994; Song & Parry, 1992, 1993; Parry & Song, 1993; Song et al, 1998; Gupta et al, 1985; Griffin & Hauser, 1996.	Management's support for cross-functional integration*, Management's encouragement of risk taking behaviour* and Tolerance of failure*, Rewards system*, Decision making patterns*, Opportunities to communicate, Role flexibility*, and Reactions to integration outcomes.	A strong management commitment, value and support of CFIn motivates purposeful CFI, management's encouragement of risk taking behaviour and tolerance of failure also impacts positively on achieved CFIn, Joint reward of CFIn-participants, Role flexibility and Decentralisation of decision-making patterns impact positively on CFIn .
Departmental culture	Gupta et al, 1986; Mills &Tsamenyi , 2000; Harrison, 1979; Ratnatunga et al, 1989 & 1990; Bancroft & Wilson, 1979; Wilson, 2000; Williamson , 1979; Field & Gabart, 1971; Parry & Song, 1993.	Culture differences, perceptions, and orientations*. (Gupta et al 1986) refers to this as "Socio-cultural" factors.	There's a strong evidence of the problems of perception between marketers and accountants. Strong "socio-cultural" differences impacts negatively on CFIn.
Personnel Factors	Harrison, 1978; 1979; Parry & Song, 1993; Ratnatunga et al, 1989; Chadwick, & Ratnatunga, 1981; Wilson & Bancroft, 1983; Wilson, 2000; Mills & Tsamenyi, 1998; Rayburn, 1981; Parry & Song ,1993.	Knowledge gap: The Integrating departments lack cross-departmental knowledge.	Use of proper language enhances shared understanding and shared understanding enables business performance. Common knowledge, and or knowledge redundancy (Nonaka (1994) affects CFIn. Accountants often lack the knowledge and understanding of the information requirement necessary for the marketing function (Chadwick & Ratnatunga, 1981).
Physical proximity	Jacob & Teune; Xie et al, 2003; Ratnatunga et al, 1989; Harrison, 1978; Gupta et al, 1987; Maltz, 1997; de Ruyter & Wetzels, 2000.	Closeness, physical proximity of integrating functions*.	Closeness enhances integrative relationship. Physical distance hinders communication ability (CFIn). Physical proximity enables CFIn. Spatial proximity (the inverse of inter-functional distance is a tool for enhancing cross-functional integration.

* indicates variable to be explored in this study

According to de Ruyter and Wetzels (2000), marketing and finance departments are particularly relevant and instrumental to firm's efficiency and profitability and

strong inter-dependencies exist between them. It is important to flag success factors and barriers to effective integration between marketing and accounting. As not much is known about the direct influence of these variables on accounting-marketing integration (de Ruyter & Wetzels, 2000[18]), this study utilises literature in other interfaces and postulates the success factors or barriers to effective **AMI**.

Tables 3.2 and 3.3 highlight the explored variables, the dimensions of the explorations, and some crucial facts about the studies of Gupta (1984); Gupta *et al* (1986 &1987); Parry & Song (1993 &1997); and Song *et al* (1996 & 1997). These studies are presented here as they offer substantial theoretical resource for this thesis.

Since not all integrating mechanisms work the same for all interfaces, Griffin and Hauser (1996) prioritize the need to determine the relative efficacy of integration methods. Drawing from distinct yet complementary theoretical domains, this study has suggested a comprehensive, though not exhaustive, pool of factors that account for variance in achieved integration. The choice of mix of factors to be explored in this study is justified next in Section 3.2.

3.2 Justification of Antecedent Mix

Although previous studies have explored these constructs (see Tables 3.1, 3.2 and 3.3), the accounting–marketing interface implications remain largely unknown. Given this void, exploring a mix of these variables is valid, and would improve our understanding of the accounting-marketing interface. Embracing a multiple theoretical perspective would also contribute to extending, as well as fine-tuning existing theories. Specifically, justifying the variables embedded in the framework for this thesis was grounded on one or a combination of the below critical points:

[18] With the notable exception of the marketing –R&D interface, there is little conceptual or empirical work that explicitly addresses the phenomenon of lateral cross-functional relationships. Not much is known about the relationship between marketing and finance departments.

- Theoretical justification of variable evidenced by substantial literature;
- Variable inclusion justified on the need to clarify the influence on integration. A number of constructs are still opaque and warrant further attention, such as formalisation and centralisation (see Gupta *et al*, 1986[19+20]). Intensified exploration of such variable is necessary (Song & Parry, 1993).
- Evident research gap in relation to a variable;
- There exists a call for further research into the variable (see Song & Parry, 1993 and Table 1.1 in Section 1.2).

Table 3.2: The Antecedents of Cross-functional Integration – the empirical facts
Part 1: Empirical evidence – The Gupta et al School of thoughts

Studies	Antecedents studied	Scale of measurement	Empirical comments
Gupta et al (1987)	• The Quality of R&D/marketing relations, • Organizational structure, • Senior Management attitudes, • Methods used to organize new product activity.	Gupta et al, 1987 – study of 167 high-tech companies, surveyed more than 200 Marketing and R&D directors. Used mean scores on a scale of 1(Strongly Disagree) to 6(Strongly Agree) on each factor for each category of firms. Differences in the mean scores were tested for statistical significance by T-test.	High-integration companies were characterized by a high degree of decentralization. In low-integration companies, very few actions could be taken without approval-even small matters often had to be referred to a superior for a final answer. High-integration firms encouraged participation at all levels within R&D and marketing regarding new product development. Physical proximity facilitates communication, creates understanding and trust. In high-integration companies, the R&D and marketing groups were often in the same building, even on the same floor. In high-integration companies, the responsibilities of the managers were clearly articulated via policies (Formalization). In high-integration companies, senior management valued and supported cooperation between R&D and marketing. Both R&D and marketing managers in high-integration firms felt that they shared equally from successfully commercializing a new product. On the other hand, managers in low-integration companies complained that they received little credit for commercial success of a new product. The reward patterns in some high-integration companies depicted both monetary and non -monetary characteristics.
Gupta (1984)	Organization structure: • Complexity, • Formalization, • Centralization Centralization was measured through items selected by Gupta from scales developed by Aiken & Hage (1968), namely: CONT – 2-items, PART – 4-items.	Complexity (the number of occupational specialists in the organisation and their professionalism – Hage & Aiken, 1970:33) – was not explored further. Formalisation (FORM) – the emphasis placed within the organisation on following rules and procedures on performing one's job (see Parry & Song, 1993 for measures of scales). Centralisation (CONT + PART) is conceptualised in terms of hierarchy of authority and degree of participation in decision making (see Parry & Song, 1993 for measures of scale).	The factors having positive impact on the degree of integration achieved are: a) **R&D-Marketing Relations**: • Critically evaluate each other's input • Both involved from early stages of New Product Development Process • Conflicts resolved at lower levels • Marketing information perceived credible b) **Organizational Design and Senior Management's Attitude Factors**: • Less formalization* • Participative management • Greater centralization* • Physical proximity of R&D and Marketing • Need for integration is emphasized by senior management • Joint reward system for R&D and Marketing c) **R&D-Marketing Manager's Personality Factors**: • R&D managers with short-term time orientation • R&D managers seeking rewards within the organization • Preference to work on risky projects • Marketing managers with lower tolerance of ambiguity.
	Role of senior management in the Cross-Functional Integration process	Support of CFI (VALUE), joint (REWARD) system, enc. of risk-taking behaviour (RISK). Measures of scale for Parry & Song (1993) for these 3 variables were adopted from this study.	
	Socio-cultural differences between R&D and marketing managers	Culture, goals and aspirations, needs, motivations, behaviour, and attitudes. From the five-item scale developed by Miller & Wagner, two-items were adopted in this study to	These findings are based on R&D responses only; marketing manager's responses did not indicate any such relationship.

[19] Formalization appears to be both a facilitator as well as a barrier to integration, as indicated in past empirical findings.
[20] There also are contradictory research findings on the effect of centralization on Cross-Functional Integration and on innovation outcomes.

Studies	Antecedents studied	Scale of measurement	Empirical comments
		measure the professional orientation and three-items to measure bureaucratic orientation.	
Gupta et al (1985)	Communication factors, Degree of management support and value for integration, and Personality and cultural differences.	Data collected from 109 marketing and 107 R&D managers from 167 high-technology firms. A 6-point scale was used to measure the extent of involvement and information sharing, where 1 implied no involvement was currently achieved and 6 implied a very high degree of involvement was currently achieved.	The findings suggest that communication barriers exist and they affect the level of integration achieved between the R&D and marketing departments. Lack of information is perceived to be the trend and data suggest that 60% of R&D managers perceive that marketing information lacks credibility and 56% of marketing managers agree with this assessment. Also, inadequate management support and commitment to the integration activity was also identified as a barrier to R&D-marketing integration. Lack of direction, commitment, and encouragement from senior management were cited as barriers in 12% of marketing's statements and 14% of R&D's. The study result also indicated that personality and cultural differences existed between the R&D and marketing departments and this caused some barriers to the integration efforts.

Table 3.3: The Antecedents of Cross-functional Integration – the empirical facts
Part 2: Empirical evidence – The Parry & Song, and Song & Parry School of thoughts

Studies	Antecedents studied	Scale of measurement	Empirical comments
Song et al (1997)	Internal facilitators: • Evaluation and Reward procedure. • Top Management support External Forces (see table on moderators of Cross-Functional Integration)	A random sample of 300 high-tech Mexican firms listed in the World Business Directory. It was a mail survey and a 5-phase iterative procedure was adopted. The measurement scales used was multiple-item scales with questions using the Likert-type 0 to 10 scales (0 = Strongly Disagree, 10 = Strongly Agree).	Our findings indicate that individuals in the R&D, manufacturing and marketing areas perceive internal facilitators to drive cross-functional cooperation and NP performance. Internal facilitators positively impact on the degree of cross-functional cooperation achieved Cross-functional cooperation was more strongly affected by internal facilitators than by external environmental forces. This suggests that the ability of a firm to achieve the necessary levels of cross-functional cooperation in the NPD process is determined primarily by the mechanisms used to foster cooperation and not by the nature of the external environment. The firm's evaluation criteria, reward structures and management expectations have a strong direct on performance as well as the degree of cross-functional cooperation achieved. This suggests that top management plays a key role in determining the degree of cross-functional integration achieved through the policies and procedures implemented to support cooperative activities.
Parry & Song (1993)	• The role of organizational structure (*Formalization and Centralisation*)	801 companies included in sample frame, 411 firms randomly sampled. This study adopted the measures of scale developed by Gupta (1984). Multiple-items scales: Formalisation (FORM – 3items scale), Centralisation (Concentration of authority – CONT – 2items scale, and employee participation in decision making – PART-4items scale.	Ordinary least squares regressions of the achieved-integration variables on the variables measuring environmental uncertainty (see table on moderating factors), organizational structure and organizational climate. In all five equations, the coefficient of the formalization variable (FORM) is positive, thus no support for the hypothesis that formalization hinders achieved integration. Also, no support for the hypothesis that the decentralization of decision-making authority is associated with higher levels of achieved integration. The estimated coefficients suggest the opposite: in two equations, the coefficient of the concentration-of-decision-making-authority (CONT) is both positive and significant. Further more, no support for the hypothesis that higher levels of employee participation are associated with higher levels of achieved integration. In fact, the coefficient of (PART) varies across equations, and the coefficient itself is not significant. The regression coefficients of the variables measuring the quality of R&D-marketing relations (RELATE) and the business background of

Studies	Antecedents studied	Scale of measurement	Empirical comments
	• Organizational climate	The measure of scales used for exploring the organisational climate are: The state of R&D-marketing relations (RELATE) – 4-item scale; a 1-item scale regarding the extent to which marketing and R&D jointly share the rewards for successful new products was used to measure (REWARD); the degree to which senior management values R&D-marketing integration (VALUE) was 2-item scale; All 3 measures (RELATE, REWARD and VALUE) were based on statements[21]. RISK was a 3-item scale[22]; BUSBK was a single-item measure[23].	R&D personnel (BUSBK) are positive and significant in all five equations. In addition, the regression coefficient of the variable measuring senior management's acceptance of risk (RISK) is positive and significant[24] in all but the budgeting stage regression. Similarly, the coefficient of the variable measuring the value placed by senior management on integration (VALUE) is positive and significant in all but the planning stage regression. These regression coefficient patterns (RELATE, VALUE) support previous confirmations. The regression coefficient does not support the hypothesis that perceived level of R&D-marketing integration is an increased function of the perceived use of joint reward system. The statistical insignificance of our measure of joint rewards may reflect a failure to distinguish monetary and non -monetary rewards (compare with Gupta et al (1987)'s view on same subject).
Song & Parry (1993a).	R&D-Marketing Relations, Organizational structure, Corporate culture, and Management culture.	A survey of 274 Japanese R&D managers. To permit comparison with Gupta, Raj & Wilemon, this study adopted the R&D manager questionnaire developed by Gupta (1984). The questionnaire asked R&D managers to rate on a 6-point scale (1= none, 6 = extensive) the division's current level of R&D-Marketing integration for 19 activities associated with NPD. To ascertain the extent to which the divisions used various methods of organising NPD – Song & Parry (1993a), a 5-point scale (1 = never used, 5 = always used) was used.	**R&D-Marketing Relations**: The study showed that: - Employee interactions[25] typically involved respect, commitment and the recognition of shared dependence regardless of the level of R&D-marketing integration. - Job rotation may also stimulate effective integration between the R&D and marketing. - Relatively high levels of give-and-take culture, but cross-department views are not accepted without discussions. - In high-integration firms, R&D-marketing conflicts are resolved at lower organizational levels. This broad consultation tool may be a pointer of decentralization emphasis. **Organisational structure**: The study showed that high-integration firms: 1. Encourage participative decision-making. Decision-making procedures involve "consensus development, bottom-up communication and multiple participants in decision-making". 2. Are characterized by a considerable degree of decentralization. Decentralization may stimulate the sharing of information between R&D and marketing and thereby increase the level of achieved Cross-Functional Integration. 3. Place greater emphasis on written performance standards and written documentation of duties, authority and accountability. **Attitude of senior management**: The study showed that: - High-integration Japanese firms place a high value on cooperation and collaboration between R&D and marketing. They are also more likely to provide opportunities for members of each department to learn about the other department. - High-integration firms were more likely to use joint reward systems. Also, in high-integration firms, R&D and marketing departments were more likely to share credit for successes, as well as blame for failures. - High-integration Japanese firms encourage risk-taking and show high tolerance for failures. In fact, Japanese managers tolerate failure and consider mistakes to be part of the learning process.
Song & Parry (1993b)	The role of organizational structure. Organizational climate.	A survey of 274 Japanese marketing managers in the High-Tech industry. Comparisons were made against the framework proposed by Gupta et al (1986). To measure the state of R&D-marketing relations (RELATE + VALUE), scales were constructed from statements taken by Gupta (1984) from the research of Souder et al (1977), namely: RELATE – 3-item scale, VALUE – 3-item scale. RISK	**PART**S – From the regression, the sign of the coefficients varied across equations and were insignificant. The degree of participative decision-making was positively related to the degree of integration and the level of information-sharing between R&D and marketing. These results are consistent with those reported by Gupta et al (1987) in their study of U.S. firms. **CONT** – The regression was positive and significant at .10 in all 3 regressions. The results suggest that higher levels of centralization were associated with higher levels of achieved integration and information sharing. This effect differs from that reported in studies of U.S. A possible explanation of the trend in Japanese firms (Clark, 1979) is that firms with more decentralized decision processes tend to be older and more matured than firms with more centralized decision processes. **FORM** – In 2 of the 3 regressions, the coefficient of FORM was

[21] The statements were taken by Gupta from the research of Souder et al (1971).
[22] A 3-item scale constructed by Gupta and based in part on the work of Khandwalla (1974).
[23] A measure of the percentage of the R&D personnel with business backgrounds.
[24] The significant relationship between perceptions of achieved integration and senior management's tolerance of risk is consistent with case studies of innovation in Japanese firms (Quinn, 1985; Takeuchi & Nonaka, 1986).
[25] In part, employee interactions in Japanese firms reflect the fact that the ability to work well with fellow employees is the most important criterion for promotion decisions (Vogel, 1979, p. 151; Yoshino, 1968) – in Song & Parry (1993b).

Studies	Antecedents studied	Scale of measurement	Empirical comments
		was a 3-item scale (Cronbach's alpha = .75) constructed by Gupta and based in part on the work of Khandwalla (1974). On the whole, the 18 measures selected by Gupta (1984) to measure employee participation in new product decisions, the concentration of decision-making authority, formalisation, the quality of R&D-marketing relations, the support of senior management towards risk, was used in this study.	negative and significant at the .05 level of significance. In the (2) regressions it appears the negative effects of FORM (the attenuation of information flows) outweighed the positive effects (reductions in role ambiguity).This confirms that low levels of FORM will lead to high levels of achieved R&D-marketing integration. **RELATE & VALUE** – The coefficients of both were positive and significant in both regressions. This explains that the perceived levels of R&D-marketing integration are positively related to (1) the perceived harmony of R&D-marketing relations, and (2) the perceived value placed by senior management on integration. These results are consistent with (Souder 1981, 1988; Souder & Chakrabarti 1978; Maidique & Zirger 1984; Gupta et al, 1987). **RISK** – Risk tolerance was significant in one regression, but insignificant in 2 (that is, did not affect information-sharing or integration in the early stages of NPD). This regression trend suggests that case-specific accounts of the relationship between a high-risk orientation and the success of inter-disciplinary teams (Takeuchi & Nonaka, 1986) may not be representative of Japanese firms).

Generally, exploring these constructs in this study would contribute to accounting – marketing interface knowledge, and broad cross-functional integration literature, for considerable amount of empirical studies have considered marketing's relationship with R&D, Production, Manufacturing, Sales or in some cases, a combination of these. While a number of these factors have been empirically validated in some interfaces, the accounting –marketing interface is bereft of such evidence.

Relational impact of constructs is usually shaped by interface specificities (Ruekert & Walker, 1987; Griffin & Hauser, 1996) and task connectivity (Moenaert *et al*, 1994; Garrett *et al*, 2006 – New Zealand sample). Such interface shaped variances, Ruekert & Walker (1987 - January) report in a multi interface study involving Marketing, R&D, Manufacturing and Accounting, are mostly attributable to the similarity or non-similarity of the domains of network members, an argument supported by Maltz (1997, p. 95) who states: "Our study implicitly argues that the results obtained in previous exploration of marketing-R&D relationship may not be generalizable to other interfaces". Maltz's (1997) view lends support to the advice of Song & Parry (1993)[26] and the position in Ruekert & Walker (1987 - January)[27]. Thus,

[26] Song & Parry (1993) suggest a broader investigation of decision making processes in other functional areas as a way of verifying or refuting the confusing picture of their findings

[27] "With few exceptions (cf. Wind 1981), most of the literature on the relationship between marketing and other functions addresses the specific problems associated with one particular functional area, such as production or R&D, in a manner not generalizable across other functions (cf. Gupta et al, 1986)."

this study, aligning to the above arguments, aims to capture accounting – marketing interface realities of the selected variables.

The mix of integrating mechanisms embraced in this study is also justified, given the service industry focus. Majority of previous interfunctional relationship studies have targeted tangible products. Additional to its theory testing utility, exploring a comprehensive mix of factors would also increase understanding of implications for service-centred organisations.

Finally, there is demand for further investigation into these constructs and their influence on cross-functional relationships (Song & Parry, 1993; de Ruyter & Wetzels, 2000). Concluding their study report, Leenders & Wierenga (2002) called for further research into the antecedents of integration as they stated:

> *"Finally, our study shows that there are other factors besides integrating mechanisms[28] that affect integration (a considerable amount of variance still has to be explained). More research is needed on the organisational factors that have an effect on the level of integration in companies, such as specific individuals, leadership styles, planning procedures and other factors related to organisational structure in general."* (p. 314*)*

Tables 3.1, 3.2 and 3.3 specify organisational, management, socio-cultural, communication and personnel factors that are deemed to predict the degree of achieved integration in cross-functional relationships. Consequently, Section 3.2 has explained the research focus motivated criteria employed in the choice of variables for this study.

That done, Section 3.3 and the subsequent sections are geared towards advancing the goals of this research, by exploring existing literature on selected antecedents of integration for this thesis. The literature and theoretical positions about these variables are reviewed with intent to enabling a suitable definition of the hypotheses for this study. This approach of using hypotheses suits the purpose for meeting the goals of

[28] Integrating mechanisms (Leenders & Wierenga, 2002): a. Relocation and physical facilities design, b. Personnel movement, c. Informal social systems, d. Organisational structure, e. Incentives and rewards, f. Formal integrative management processes, g. ICT (Information and Communication technology).

this thesis as well as enables the testing of the existing literature. Literatures on the selected antecedent variables are elaborated in Sections 3.3, 3.4, 3.5, 3.6 and 3.7.

3.3 Communication Gap (COMMGAP)

Achieving organisational objectives hinges on the internal participants understanding the role of effective communication. Organisations are coalitions of interests constituting arenas where diverse groups interact (Burchell *et al*, 1980) and understanding inter-functional interface in organisations (Chadwick & Ratnatunga, 1981; Guilding & Pike, 1991) is critically important. Given organisational participants diversity (Laughlin, 1987), achievement of organisational success (Kelly, 1996; Collins, 1985) is highly communication dependent.

Communication is vital in social systems. It is pivotal to ensuring unity of purpose. Communication is to organisational existence what blood is to the human body. It is the "facilitator" of interfunctional interaction, cooperation (or collaboration) and mutual understanding. Communication's role within organisations has been considered as an implementation of a coordination strategy (Mintzberg, 1979), and also described as the 'central nervous system' (Blackstead & Cooper, 1995).

However, despite acknowledged communication's organisational implications, effective communication does not take place between accountants and product managers (Sizer, 1975) in many organisations. Further literature (see *inter alia*, Schiff & Mellman, 1962; Harrison, 1979; Collins, 1985; Moss, 1986; Ratnatunga *et al*, 1989 & 1990; Stephen & Archambault,1998; Wilson, 2000) supports this contention of ineffective communication between accountants and marketers. Highlighting the communication and information flows inadequacies between marketing and finance, Ratnatunga *et al* (1989) report that majority of interviewed marketers (52%) and a large number of accountants (40%) believed that interaction only existed at the top

management level, and due to poor down-the-line communication, the lower level functional staff do not see the full picture.

Beyond the accounting-marketing dyad, communication problems have been flagged (see Table 3.2) as barrier to R&D-marketing integration (see, Gupta *et al*, 1985; Gupta *et al*, 1988; Moenaert & Souder, 1990; Parry & Song, 1993; Griffin & Hauser, 1996). This empirical evidence resonates with Twiss's (1974) observation of the phenomenon of the "communication barrier" between these two departments. Recent study of sales-marketing collaboration (Le Meunier-FitzHugh & Piercy, 2007) lend support to this empirical contention: they note that, "to improve the relationship between sales and marketing, senior managers need to …, create effective communication, ….." (p. 952).

Combining Song & Parry (1993) and Gupta *et al* (1985), the key barriers to R&D/marketing integration (see Table 3.4) include lack of communication, inaccurate information, too little information exchange and lack of a systematic method of gathering information and creating a shared data base. There is thus some consensus on the communication dynamics that influence achieved R&D-marketing integration. Unfortunately, accounting-marketing interface is bereft of such empirical evidence.

Information is a key marketing decision making support (Lewis & Chambers, 1989; Downie, 1997), but such information must be communicated timely, accurately and in a purpose-tailored form for the support role to be fulfilled, for incorrect and incomplete information exchange (Lam & Chin, 2003 & 2005) lubricates conflict in collaborative efforts. As literature suggests (see Section 2.3), the major problems of accounting-marketing integration reflect communication characteristics. Reviewed evidence shows accounting lacks understanding of the marketing function (see

Wilson, 1999; Foster & Gupta, 1994; Wilson, 2000) and has failed to embrace 'Marketing Concept' (see Section 2.3).

Table 3.4: The measurement of communication factors: The measurement scales adopted in some of the studies

Antecedents measured	Studies and Interface	Measurement scale used in the study and Empirical Comments
Communication factors: (The extent to which the relationship between R&D and marketing follow formal communication channels).	**Ruekert & Walker,, 1987 (May). R&D – Marketing.**	Scale used: A four-item five point scale was used. *The organisational classification used here was: Prospector, Analyzer, and Defender* (which is not a concern in my study). Empirical comments: The personnel of the marketing department perceived a failure by the R&D department to provided information. R&D also feels marketing department was unable to provide R&D with relevant information.
Communication factors: During the past 6months, how frequently have people in your unit communicated or been in contact with people in this other unit? How frequently did you communicate with this other unit through each of the following ways during the past six months: 2. Written letters, memos, or reports of any kind? 3. Personal face-to-face discussions? 4. Telephone calls? 5. Group or committee meetings between 3 or more people from your unit and this other unit?	**Ruekert & Walker,, 1987 (January). R&D – Other functional units (Manufacturing, R&D, and accounting).**	Scale used: Multiple-item measures were used for many of the constructs. A 7-point scale ranging from "not once" to "many times". Empirical comments: Of the 24 correlations in both the marketing and non-marketing samples, all but one are positive and most are significant. Results showed positive trends on all 4interaction elements between the parties, but this was largely due to formalisation, especially the formal communication flows.
Communication factors:	**Gupta et al (1985)** **Gupta et al (1987) R&D and Marketing.**	A 6-point scale was used to measure the extent of involvement and information sharing. About 31% of both R&D and marketing managers indicated that the biggest barrier to R&D-marketing integration centre on communicating critical issues like customer requirements and not being able to come to agreement on crucial issues like development schedules and market needs. They also indicated that communication barriers were created by time pressures, poor timing of information and differences between the priorities of R&D and marketing. Scale used: Used mean scores on a scale of 1(Strongly Disagree) to 6(Strongly Agree) R&D perceives that marketing information lacks credibility. The study result showed that senior management in high-integration companies provided significantly greater opportunities for their R&D and marketing managers to communicate and understand one another's needs. Such opportunities helped R&D managers appreciate the pressure and perspectives of marketing and assisted marketing managers in becoming more sensitive to the aspirations and limitations of R&D. These opportunities included informal interaction sessions, workshops, educational programmes, and rotating job assignments.
Communication factors:	**Song & Parry (1993); Parry & Song (1993) R&D-Marketing**	A 6-point scale was used for the study. The study results indicated that R&D and marketing have a communication problem: - There is lack of communication between marketing and R&D - Marketing information is not transferred accurately to R&D - There is too little information exchange between marketing and R&D - R&D has no discussion with marketing people regarding product development strategies - The organisation lacks a systematic method of gathering information and creating a shared data base
Communication factors: The variables considered: 1. Informal communication. 2. The organisation of accounting facilitates the flow of information to marketing. 3. Accountants willingly and capably respond to marketing request for information.	**Mills & Tsamenyi (1998)** **Accounting-Marketing.**	Scale used for the study: 425 members were deemed eligible for the survey. Random sample (using Bailey, 1987) was taken from each population (Accounting & Marketing). A sample of 200 was taken from each professional membership listing. Rate of responses was 50 for accountants (27%) and 58 for marketers (31%). Both within acceptable response rate range of 20-40% (Teoh & Gul, 1985; Ratnatunga et al, 1988). A multi-item five point scale (Strongly Agree – Strongly Disagree) was used. Empirical comments: 1. Only formal communication existed between the marketing and accounting departments. 2. Divided opinion amongst accountants. No correlation was found between responses to the question. 3. Results show that (57%) accountants agree with statement and (48%) marketers disagree. Large number of respondents was undecided. When results were analyzed for correlation, a significant association was found.

On the evidence in Section 2.3, since accounting is not conscious of the information needs of marketing, it rationally cannot deliver the information needs of marketing. The direct consequence of this lack of the 'central nervous system' role is ineffective marketing effort.

Further highlighted in Section 2.3, accounting-marketing dyad communication problems were not limited to the nature mentioned above, rather, according to Drury *et al* (1993) and Abdel-Kader and Luther (2004) accounting also did not provide marketing with accurate and timely[29] information.

For the communication gap construct, the hypothesis is defined in Section 5.5.1.1.

3.4 Organisational Factors

According to interfunctional relationships literature (Song *et al*, 1996; Parry & Song, 1993; Olsen *et al*, 2001; Moenaert *et al*, 1994; Gupta *et al*, 1985, 1987; Perks & Riihela, 2004; Song & Thieme, 2006) organisational factors influence the degree and dimensions of interfunctional integration. In their conceptual work, Gupta *et al* (1986) linked achieved levels of R&D-marketing integration to elements of organisational structure[30] and organisation climate, while Song *et al* (1996) add that information flow effectiveness is often a function of organisational structure that may encourage or place barriers between the functional units. Tables 3.5 and 3.6 highlight organisational factors as evidenced in some previous investigations of interfunctional relationships.

[29] Timeliness is formally defined as the degree to which information is perceived as current and actionable – Maltz (2000)

[30] The literature on the structure-performance relationship is puzzling and ambiguous (Dalton et al. 1980; Rubenstein et al, 1976). Organisational structure can facilitate as well as hinder R&D – Marketing integration in particular, and innovative activities in general (Gupta et al, 1986).

Table 3.5: Organisational Characteristics that enhance Cooperation (Gupta & Wilemon [1988])

Characteristics	Explanations
1. Harmonious Operation	Discuss important issues, resolve conflicts early, work together
2. Formalisation	Clear performance standards, clear responsibilities, well defined guidelines
3. Decentralisation	Issues resolved quickly by 'local knowledge'
4. Innovativeness	Support new ideas, tolerate failure, responsive to change
5. Value Cooperation	Provides opportunities to exchange views and perspectives
6. Joint reward system	Both marketing and R&D share in success (and do not blame the other for failure

Table 3.6: Some statistics of previous studies on the selected organisational variables that impact on Cross-Functional Integration

Organisational variables identified	Researcher(s)	Empirical Evidence/Comments
Formalisation *	Gupta et al, 1986; Kahn et al, 1964; Parry & Song , 1993; Ruekert & Walker, 1987; Maltz, 1997; Ruekert & Walker, (1987b)	R&D/Marketing Integration is inversely related to the level of formalisation (Gupta et al, 1986). Formalisation reduces ambiguity, but increases the possibility of role conflicts (Kahn et al, 1964). Formalisation hinders achieved integration (Parry & Song, 1993). Formalisation impacts on the degree of CFIn (Maltz, 1997). Formalisation is positively related to the frequency of interaction between functions (Ruekert & Walker, 1987).
Quality of Accounting/Marketing relations	Moenaert et al, 1994; Gupta et al, 1987; Parry & Song, 1993.	High integration firms were characterised by: a give-and-take relationship between R&D and marketing (Gupta et al, 1987).
Degree of articulation of corporate goals (not addressed in this study)	Gupta et al, 1987; Song. & Parry, 1993a	See Table 3.3
Organisational process (the degree of employee participation in key projects*	Gupta, 1984; Parry & Song, 1993; Song & Parry, 1993a & 1993b.	See Table 3.3 The degree of employee participation in key projects is addressed as an element of management factors

* indicates variable(s) to be investigated in this study

Existing literature suggests two organisational factors typologies: structural and management. Utilising this organisation theory perspective, this thesis explores the influence of structural and management dimensions, in that order, on achieved accounting-marketing integration.

Formalisation has received considerable attention in previous studies (see Tables 3.6 and 3.7). Evidently though, its influential role remains opaque and requires further consideration, and Section 3.4.1 reviews literature on this variable.

Table 3.7: The measurement of formalisation: The measurement scales adopted in some of the studies

Antecedents measured	Studies and Interface	Measurement scale used in the study	Empirical Comments
Formalisation:(The extent to which relationship between R&D and marketing was explicitly verbalised, written down in detail, and used standard operating procedures such as rules, policies and forms).	Ruekert & Walker, 1987-May. R&D – Marketing.	A four-item five point scale was used.	Unclear definitions of goals, objectives and functional responsibilities across the two departments. R&D and marketing lack clearly defined NPD goals, objectives and functional responsibilities.
Formalisation: To what extent have the terms of the relationship between you and this other unit been: 1. Explicitly verbalised or discussed? 2. Written down in detail? To coordinate activities with this other unit during the past six months, to what extent: 3. Have standard operating procedures been established (e.g., rules, policies, forms, etc.)? 4. Are formal communication channels followed?	Ruekert & Walker, 1987-January. R&D –Other functional units (Manufacturing, R&D, and accounting).	Multiple-item measures were used for many of the constructs. The measures were adapted from those developed by Van den Ven & Ferry (1980). Scale used: see * below.	The use of rules or standard operating procedures increases the efficiency of operative interactions. The degree to which rules or standard operating procedures are used to govern the interaction between 2individuals in different functional areas can be defined as formalisation. Such rules are inflexible. The extent to which relationships between marketing personnel and those in another functional area are highly formalized is related positively to interaction flows (amount of resource, work and assistance flows between the parties).
Formalisation: (FORM) – the emphasis placed within the organisation on following rules and procedures on performing one's job	Gupta (1984) Gupta et al (1987)	A 3-item scale was used Used mean scores on a scale of 1(Strongly Disagree) to 6(Strongly Agree).	High-integration firms are characterised by lower levels of formalisation (See Table 3.3). High-integration companies had written performance standards and these companies nevertheless did not appear too structured. In other words, formalisation aids integration between R&D and marketing. See Table 3.3.
Formalisation: (FORM)	Song & Parry (1993b) Parry & Song (1993)	A 3-item scale was used. A 3-item scale was used	This study shows information sharing between marketing and R&D is inhibited by the existence of written procedures and guidelines specifying job responsibilities and work requirements. This result[31] is surprising. (More details on Table 3.3). In all five equations, the coefficient of the formalization variable (FORM) is positive, thus no support for the hypothesis that formalization hinders achieved integration. (See Table 3.3)

* A 5-point scale ranging from "not at all" to "very much" for the first 2 questions and 5-point scale ranging from "to no extent" to "great extent" for the last 2 questions.

3.4.1 ***FORMALISATION (FORMPS)***

Exploring inter-firm integration, Jaspers & van den Ende (2006) suggest that achieved integration is influenced by corporate policies. Guided by this fact, they recommend that organisations embrace 'task integration' amongst other three dimensions. Formalisation is a common tool of corporate policies and many studies suggest a correlation between the degree of formalisation in an organisation and the level of achieved integration between departments (e.g., Gupta *et al*, 1987; Parry & Song, 1993; Ruekert & Walker, 1987; Moenaert *et al*, 1994; Mollenkopf *et al*, 2000; Dewsnap & Jobber, 2004; Shipilov & Danis, 2006; Song & Thieme, 2006). However,

[31] This result is contrary to the position in Moenaert & Souder (1990) which argues that the clarification of roles and responsibilities can enhance the flow of information between R&D and marketing and increase the probability that such information will be favourably received.

the dimension of influence is fuzzy and is still a subject of debate among researchers (see Tables 3.3 and 3.8).

Table 3.8: The Impact of Formalisation on Cross-Functional Integration

Studies and Interface	Impact of Formalisation
Ruekert & Walker (1987) R&D – Marketing Interface	Formalisation of R&D-Marketing relations is positively associated with the perceived effectiveness of the R&D-Marketing relations.
Maltz (1997) R&D – Marketing Interface	Formalisation of R&D-Marketing relations is positively associated with the perceived effectiveness of the R&D-Marketing relations.
Gupta et al (1986) R&D – Marketing Interface	R&D-marketing integration is inversely related to the level of formalisation.
Song & Parry (1993) R&D – Marketing Interface	Sharing of information between Marketing and R&D is inhibited by the availability of written procedures and guidelines specifying job responsibilities and work requirements.
Gupta et al (1987) R&D – Marketing Interface	Clear policies and procedures and clarity of roles eliminate rooms for ambiguity and enable R&D- Marketing integration.
Parry & Song (1993) R&D – Marketing Interface	Insufficient evidence to support positive or negative impact of formalisation on R&D-Marketing integration.
Mollenkopf et al (2000) Marketing – Logistics interface	Formalisation inhibits integration.
Dewsnap & Jobber (2004) Sales – Marketing Interface	Influence of formalisation on integration is not significant

According to Zaltman *et al* (1973), formalisation is the emphasis placed within the organisation on following specific rules and procedures in performing one's job, while Hatch (1997) defines formalisation as the extent to which explicit rules, regulations, policies and procedures govern organisational activities. Such rules and procedures, Hatch (1997) noted, specify how decisions are to be made and how work processes are to be performed and they contribute to coordination by ensuring that desired activities are carried out in acceptable manner, a notion supported by Shipilov & Danis (2006) who argue that organisational norms enable achieved integration.

While the conceptual framework developed in Gupta *et al* (1986) posited inverse correlation of the level of formalisation and achieved R&D-Marketing integration, Gupta *et al* (1987) found no significant relationship in the same interface.

Adopting Gupta *et al*'s (1986) conceptual model, Parry & Song (1993) expected R&D-marketing integration to be inversely related to the level of formalisation. Although Parry & Song (1993) found no support for the hypothesis that formalisation hinders achieved integration, Song & Parry (1993)[32] suggest the opposite.

[32] They reported that the sharing of information between Marketing and R&D is inhibited by the availability of written procedures and guidelines specifying job responsibilities and work requirements.

Obviously, given contrasting findings, general understanding of formalisation's impact on achieved integration is blurred. Although, beside Mollenkopf *et al* (2000) and Dewsnap and Jobber (2004), all studies (see Table 3.8) explored the R&D – Marketing interface, and most (Gupta, 1984; Gupta *et al*, 1987; Parry & Song, 1993; Song & Parry, 1993) the high-tech industry, as well as using the same scale, the findings have been surprisingly conflicting. These contrasts justify further investigation of formalisation's link to achieved integration.

To improve the understanding of this link, this thesis explores the impact of formalisation on accounting-marketing integration. The hypothesis for achieving this target is defined in Section 5.5.1.2

3.4.2 MANAGEMENT DIMENSIONS

The management practices of an organisation influence the level of achieved inter-departmental integration (Song *et al*, 1997; Souder & Song, 1998; Gupta, 1984; Moenaert *et al*, 1994; Song & Parry, 1992; Parry & Song, 1993; Song *et al*, 1998; Gupta *et al*, 1985; Griffin & Hauser, 1996; Shipilov & Danis, 2006; Maltz, 1997; Mollenkopf *et al*, 2000; Dewsnap & Jobber, 2004; Leenders & Wierenga, 2002; Chimhanzi, 2004; Perks & Riihela, 2004; Le Meunier-FitzHugh & Piercy, 2007; Le Meunier-FitzHugh & Lane, 2009).

Evidenced in literature, management factors (see Tables 3.1 to 3.3) that influence integration among functions in organisations includes:

- Management's support for cross-functional integration (see Gupta, 1984; Gupta, *et al*, 1986 &1987; Parry & Song, 1993; Dewsnap & Jobber, 2004; Mollenkopf *et al*, 2000; Chimhanzi, 2004; Le Meunier-FitzHugh & Piercy, 2007),
- Management's encouragement of risk taking behaviour and tolerance of failure (Gupta *et al*, 1986 & 1987; Parry & Song, 1993),

- Reward system (Gupta, 1984; Gupta *et al*, 1986 &1987; Parry & Song, 1993; Song *et al,* 1997; Griffin & Hauser, 1996; Xie *et al*, 2003; Dewsnap & Jobber, 2004; Mollenkopf *et al*, 2000; Chimhanzi, 2004),
- Decision making patterns (Moenaert *et al*, 1994; Parry & Song, 1993; Souder & Song, 1998; Gupta, 1984; Gupta *et al,* 1986 & 1987; Garrett *et al*, 2006),
- Opportunities to communicate (Gupta *et al*, 1987; and others),
- Role flexibility (Parry & Song, 1993; Moenaert & Souder, 1990; Moenaert *et al,* 1994; Xie *et al*, 2003; Garrett *et al*, 2006).

This thesis examines the influence of management's support for integration, management's encouragement of risk taking behaviour, reward systems, decision making patterns, and role flexibility, on accounting-marketing integration. In exploring most of these variables, the items (relevant to the constructs and hypotheses contextualisation in this thesis) and scale of measures used in Gupta's, Gupta *et al*'s and Parry and Song's studies (see Table 3.10) would be adapted or adopted.

Table 3.9: Selected previous studies and comments on the selected management climate variables to be investigated in this study

Management climate variables selected	Researcher(s)	Empirical Comments
Management's support for cross-functional integration	Souder, 1977, 1981; Souder & Chakrabarti, 1978; Gupta,, 1984; Gupta et al, 1986, 1987; Parry & Song, 1993; Le Meunier-FitzHugh & Lane, 2009	High-integration companies exhibited a strong management commitment, value and support of cooperation and collaboration of the integrating departments (Gupta et al, 1987). Top management support is a crucial determinant of the achieved level of cross-functional integration.
Management's encouragement of risk taking behaviour	Gupta et al, 1986, 1987; Parry & Song, 1993; Quinn, 1979; Roberts, 1978, 1979; Roberts & Fusfeld, 1981; Wind 1982, p. 562.	Senior management's encouragement of risk-taking behaviour and entrepreneurial pursuits motivates effective cross-functional integration (Gupta et al, 1986). Top management's support of risk-taking culture impacts positively impact on innovation success (Gupta et al, 1986).
Rewards system	Gupta, 1984; Gupta et al, 1986, 1987; Parry & Song, 1993; Song et al, 1997; Griffin & Hauser, 1996; Gerstenfeld & Sumiyoshi, 1980; Souder & Chakrabarti, 1978	Joint reward structure greatly enhanced the harmony, involvement and quality of CFIn (Gupta et al 1987). Joint rewards systems facilitate R&D-marketing integration (Gerstenfeld & Sumiyoshi, 1980). The impact of joint rewards on cross-functional integration is partially positive and partially negative (Parry & Song, 1993).
Decision making patterns	Moenaert et al, 1994; Parry & Song, 1993; Souder & Song, 1998; Gupta, 1984; Gupta et al 1986, 1987; Kanter, 1983; Peters & Waterman, 1982.	There is a negative impact of centralisation on CFIn (Deshpande, 1982; John & Martin, 1984). Decentralised decision making facilitates CFIn (Gupta et al, 1987). Higher concentrations of decision making authority are associated with higher perceived levels of R&D-marketing integration (Parry & Song, 1993).In integrative organisation it must be expected that power is delegated to a large extent (Kanter, 1983). Decentralisation is "empowerment".
Role flexibility	Parry & Song, 1993; Moenaert & Souder, 1990; Moenaert et al, 1994	Role flexibility has a significant positive effect on the degree of CFIn (Moenaert & Souder, 1990). Integrating members comprehend better the information needs of the other party when they step into cross-functional roles (Moenaert & Souder, 1990). Job rotation fosters cross-functional skills and increases understanding of the practices, procedures, problems, and goals of other functions (Souder, 1987).

Table 3.10: The measurement of management factors: The measurement scales adopted in some of the studies

Antecedents measured	Studies & Interface	Measurement scale used in the study	Empirical comments
The quality of R&D-marketing relations and senior management attitude	Gupta et al (1987) R&D - Marketing		High-integration companies were characterised by a give-and-take relationship between R&D and Marketing. Harmonious R&D-Marketing relations also were achieved as a result of various organisational design factors and management attitudes. In high-integration companies, the achieved integration is perceived to be positively associated to decentralised decision making pattern, where managers were delegated authority to make "important" decisions, and transparent management commitment to the goals of CFIn (VALUE and SUPPORT for cooperation between R&D and Marketing , JOINT REWARD[33] (both monetary and non monetary) for successful commercialisation of a new product. See Table 3.3 – the antecedents of cross-functional integration: the empirical facts.
Senior management's attitude in the following areas is considered important in building an integrated R&D-marketing team: 1. Encouraging risk-taking and entrepreneurial pursuit. 2. Establishing joint reward systems for R&D and marketing. 3. Promoting the need for integration between R&D and marketing.	Gupta et al (1986) R&D - Marketing	This was a conceptual framework with some propositions.	The conceptual framework implies that there are certain variables that senior management can influence to create a climate where a greater degree of R&D-marketing integration would be achieved. These variable include: 1. Promoting the need for integration, 2. Establishing joint rewards systems, 3. Balancing the long-term and short-term objectives of the company, 4. Encouraging risk-taking, and 5. Providing opportunities for R&D and marketing managers to know and understand each other. On a different axis of organisational decision making, senior management can reduce the detrimental effects of socio-cultural differences between R&D and marketing managers through a proper staffing/training system, for example, hiring marketing managers with some technical backgrounds or giving business and marketing training to R&D personnel.
Management factors covered are: 1. Decision making patterns 2. Participative management 3. Greater centralization* 4. Need for integration is emphasized by senior management 5. Joint reward system for R&D and Marketing	Gupta (1984) R&D - Marketing	See Parry &Song (1993)-Table 3b.2	High-integration depicted that Management practices: - Valued cooperation and collaboration between R&D and marketing - Provide incentive to work on new ideas despite the uncertainty of their outcome - Encouraged equal sharing of rewards between R&D and marketing for a successfully commercialised new product - Provided opportunities for R&D and marketing to communicate and understand each other.
Top management's support and encouragement of Cross-Functional Integration	Gupta et al (1985) R&D - Marketing	A 6-point scale was used to measure the extent of involvement and information sharing.	The study identified, among others, lack of direction, commitment and encouragement for integrated efforts from senior management as a barrier of integration between the R&D and marketing departments. This view was perceived by 12% of marketing and 14% of R&D departments.

[33] Both R&D and marketing managers in high-integration firms felt that they shared equally for a successful commercialization of a new product.

Antecedents measured	Studies & Interface	Measurement scale used in the study	Empirical comments
Decision pattern (Centralisation (Concentration of authority – CONT, and employee participation in decision making – PART; REWARD - regarding the extent to which marketing and R&D jointly share the rewards for successful new products, (VALUE) - the degree to which senior management values R&D-marketing integration, (RELATE) – the state of R&D-marketing relations, (BUSBK) - the business background of R&D personnel, and (RISK) - senior management's acceptance of risk	Parry & Song (1993) R&D - Marketing	Centralisation (Concentration of authority – CONT – 2items scale, and employee participation in decision making – PART- 4items scale. A 1-item scale was used to measure (REWARD); (VALUE) was measured with a 2-item scale and (RELATE) with a 4-item scale; All 3 measures (RELATE, REWARD and VALUE) were based on statements[34]. RISK was a 3-item scale[35]; BUSBK was a single-item measure[36].	See Table 3.2: The Antecedents of Cross-functional Integration – the empirical facts for the empirical comments on all the variables.

Tables 3.9 and 3.10. Source: Author, Contents collated from referenced sources.

3.4.2.1 Management Support of Integration (MANSFINT)

This implies the importance which management attaches to the integration between the concerned functions. Senior management can provide an environment that may be either conducive, or inhibitive to the development of productive R&D/marketing interface (Souder, 1981; Souder & Chakrabarti, 1978). Reinforcing the importance of this factor in enabling integration, Jaspers & van den Ende (2006) call for 'internally consistent decisions' from management to enable the four dimensions of integration. Numerous studies (Gupta, 1984; Gupta *et al*, 1986; & 1987; Parry & Song, 1993; Mollenkopf *et al*, 2000; Dewsnap & Jobber, 2004; Chimhanzi, 2004; Le Meunier-FitzHugh & Piercy, 2007; Le Meunier-FitzHugh & Lane, 2009) have suggested that top management support is an important determinant of achieved interfunctional integration. Based on responses from (109 marketing and 107 R&D) directors of 167 high-technology firms, Gupta *et al* (1987) indicated that high-integration companies exhibited a strong commitment, value and support of cooperation and collaboration of the integrating departments by the managements of the companies.

[34] The statements were taken by Gupta from the research of Souder et al (1977).
[35] A 3-item scale constructed by Gupta and based in part on the work of Khandwalla (1974).
[36] A measure of the percentage of the R&D personnel with business backgrounds.

The integration realm in this thesis reinforces the importance of team elements to achieving the goals of integration. Team culture unites organisational participants. Fulfilling this uniting potency however hinges on all organisational entities (including management) sharing and believing in the efforts towards profitably satisfying customers. Essentially thus, management is a critical factor to harnessing this potency: hence management does not only have to create a climate and culture conducive to **AMI**, but also be committed to and supportive of the integration effort.

The hypothesis for the **MANSFINT** construct is defined in Section 5.5.1.3

3.4.2.2 Management's Encouragement of Risk-Taking Behaviour (RISKBEH)

Whether firms avoid or seek risks depends on whether decision makers perceive their firms as operating in the domains of gains or losses, respectively (Shoham & Fiegenbaum, 1999). Interfunctional relationship literature suggests management's encouragement of risk taking behaviour among integrating personnel, and tolerance of failure, predict the degree of achieved integration (Gupta *et al*, 1986; 1987; Parry & Song, 1993). According to Gupta *et al* (1986), organisations with high achieved R&D-marketing integration evidenced high management's encouragement of risk-taking and high management's tolerance of failure.

Modern day market place is characterised by volatility and fierce competition. Consequently, operating in it requires some brave measures, such as 'stepping into the unknown' (risk taking). From this stand point, it is to be expected that if management encourages such risk taking behaviour and shows necessary tolerance for failures, this invariably instils confidence in the participants and motivates the integration efforts.

To measure the link the between management's encouragement of risk-taking behaviour and achieved integration, the hypothesis defined in Section 5.5.1.4 will be used.

*3.4.2.3 **Reward System (REWARD)***

This relates to the philosophy that the management should adopt a suitable modus for compensating or rewarding the actors in the integration plan. This management rational reinforces "procedural justice" foundation's (Dooms & van Oijen, 2005) pay decisions relevance contentions (Folger & Konovsky, 1989; Lind & Tyler, 1988). If reward decision is poorly managed, it could ignite an atmosphere that jeopardises the goal of integration. Substantial literatures support the importance of joint reward system to integration (Gupta, 1984; Moss, 1986; Parry & Song, 1993; Song *et al,* 1997; Griffin & Hauser, 1996; Dewsnap & Jobber, 2004; Mollenkopf *et al*, 2000; Leenders & Wierenga, 2002; Chimhanzi, 2004; Le Meunier-FitzHugh & Piercy, 2007). Gupta *et al* (1987) reports: R&D and marketing managers of high integration companies felt that harmony, involvement and quality of their integration were greatly enhanced by the joint reward culture in the companies. This view reinforces Gerstenfeld & Sumiyoshi's (1980) report that a joint rewards system facilitates R&D-marketing integration in Japanese firms, and is also underlined by Leenders and Wierenga (2002). Explaining the most effective integration cases Gupta (1986) notes: Souder & Chakrabarti (1978) suggest joint reward system was used to ensure joint responsibility for success/failure of projects among R&D and marketing.

Contrasting this argument, Parry & Song (1993) suggest that R&D managers' perceptions of the use of joint rewards seem unrelated to the perceptions of achieved integration in Japanese firms. From that study, the impact of reward[37] on integration is partially positive and partially negative – this may reflect the general absence of project-specific rewards in Japanese firms, they noted. The fact that this result also contradicts the U.S. findings of Gupta *et al* 1987 could highlight differences in cultural dynamics. In recent studies, Chimhanzi (2004) found mixed evidence across

[37] The problems and conflicts between accounting and marketing mainly occur as a result of the differing evaluative criteria employed in the reward systems of the two departments (Moss, 1986).

the dimensions of integration: (ns for connectedness, but positively significant for interpersonal communication [$p < 0.01$] and written communication frequency [$p < 0.05$] dimensions, while Dewsnap and Jobber (2004) suggest insignificance.

In a more recent study, Le Meunier-FitzHugh and Piercy (2007), conceptualising joint rewards as facilitator, followed popular interface literature (Dewsnap & Jobber, 2000; Rouzies *et al*, 2005; Kotler *et al*, 2006) and expected collaboration between sales-marketing to be improved through alignment of rewards. Empirically, combining three case studies and a review of literature, the study found "very limited support for the proposition" (p. 951).

Suitable reward measures would enhance employee performance. Adopting a suitable reward structure among team members is important for team motivation. Organisations must use joint reward to enable integration. Joint reward system "is behaviour based and fosters good practice" (Chimhanzi, 2004, p. 88).

To measure reward – integration link, the hypothesis in Section 5.5.1.5 is used.

*3.4.2.4 **Decentralisation (DCENT)***

Designed to maximize synergy, the tripartite integration lens in this study prioritizes information sharing, unified effort and involvement. Given, but not limited to the involvement pertinence, it is important to consider how decision making involvement would influence integration.

Smooth decision making process and routines is imperatively significant in team interaction and collaboration efforts (Shipilov & Danis, 2006). Equally important is whether the smoothness is centralised or decentralised. Literature on R&D–marketing (e.g. Moenaert *et al*, 1994; Parry & Song, 1993; Souder & Song, 1998; Gupta, 1984; Gupta *et al,* 1986 & 1987; Song & Thieme, 2006; Garrett *et al*, 2006), sales–marketing (e.g. Dewsnap & Jobber, 2004), marketing–logistics (e.g., Mollenkopf *et*

al, 2000) integration contend that achieved integration is a factor of the extent to which organisations centralises or decentralises decision making.

For instance, Gupta *et al* (1986) suggest that if decision making takes place at higher organisational levels, overall participation in the decision making process would be lesser. Although centralisation of decision making powers ensures uniformity, it triggers delays and eliminates the chance to exploit opportunities, thereby hindering the **SMM** drive. Indeed, researches (Deshpande, 1982; John & Martin, 1984; Gupta *et al*, 1987; Wind, 1982, p. 484) suggest a negative impact of centralisation on integration. Gupta *et al* (1987), for example, suggest high-integration companies embrace high degree of decentralisation, where managers were delegated authority to make "important" decisions. Conversely, in low-integration companies, very few actions could be taken without approval – even small matters often had to be referred to a superior for a final answer. Decentralised decision making (Gupta *et al*, 1987) facilitates communication[38] between the various groups.

While Parry & Song (1993) embraced *Gupta et al*'s (1987) model and proposed that perceived level of R&D-marketing integration is a decreasing function of the perceived concentration of decision-making authority, (i.e. decentralisation enables integration), their study of high-technology Japanese firms found no support. Not only does Parry and Song (1993) suggest a no association between decentralisation of decision-making authority and higher levels of achieved integration, the estimated coefficients suggest the opposite: in two equations (2-item scale), the coefficient of the concentration-of-decision-making-authority variable (**CONT**) was both positive and significant, a contrasting indication that higher concentrations of decision making authority are associated with higher perceived levels of R&D-marketing integration.

[38] There are fewer tendencies to screen unfavourable information or withhold information, as is often the case in many centralised, hierarchically-structured companies (Gupta et al, 1987)

Compounding the opaqueness of this variable, recent research found a non significant correlation of decentralisation (Dewsnap & Jobber, 2004) and of centralisation (Mollenkopf *et al*, 2000) on achieved integration.

The disparity in findings between Gupta *et al* (1987) and Parry and Song (1993) warrants further investigation of the link between decision making pattern and cross-functional integration, especially given industry (high-tech companies) and interface (R&D-marketing) homogeneity of both studies. What explains this disparity? What could be the trend if another interface was explored? Does decentralisation really enable integration or is the reverse the case? To help address these issues, the hypotheses defined in Section 5.5.1.6 is used.

*3.4.2.5 **Role flexibility (ROFLEX)***

The degree of flexibility in the roles performed or the degree of extra-functional tasks a project member assumes in the course of the project (Moenaert & Souder, 1990) is known to impact on the degree of integration (see Parry & Song, 1993; Moenaert & Souder, 1990; Moenaert *et al*, 1994[39]; Leenders & Wierenga, 2002). This out-of-role behaviour (Moenaert & Souder, 1990) usually exerts a significant positive effect on the degree of information sharing between marketing and R&D project personnel, for stepping into external roles enables team members to comprehend better the information needs of the other party. Analysing inter-firm 'Knowledge Integration' and 'Task Integration', Jaspers and van den Ende (2006) emphasise the importance of cross-functional role performance in filling knowledge gaps. This knowledge management logic is also of utility to intra-firm interfunctional relationship, a viewpoint that lends support to role flexibility's integration relevance.

[39] Role flexibility stimulates information flows between marketing and R&D personnel

Further reviewed literature suggests patterns shown in organisations underline importance of this element to **CFIn** efforts, for example, Parry & Song (1993) report that in many Japanese companies, new recruits are typically given a variety of different assignments, and promising managers are also rotated among departments (see Noda, 1975; Yoshino, 1968; Abegglen & Stalk, 1986; Azumi & Hull, 1990). These practices, observers argue, encourage interfunctional communication, stimulate cooperation, and help outsiders understand department-specific practices, procedures, and problems (see Abegglen & Stalk, 1986; Hatvany & Pucik, 1981; Ouchi, 1981; Shimada, 1985). Leenders and Wierenga (2002) however found a non-significant relationship.

As Souder (1987) notes: Job rotation[40] fosters cross-functional skills and promotes understanding of the practices, procedures, problems, and goals of other functions.

Following above facts, cross-functional role performance enables interfunctional communication, stimulates cooperation and helps integrating partners understand specific practices, procedures and problems of each other's department.

This background adds support to the notion that knowledge gap influences achieved integration (see Demsetz, 1991; Grant, 1996; Nonaka, 1994), for according to Layder (1994) actors in any social interaction need to develop shared understanding of each other's knowledge so as to promote communicative action. As a matter of fact, the introduction (Section 1.2) and chapter two (Section 2.3) to this thesis highlight knowledge gap issues (Stephen & Archambault, 1998; Wilson, 2000; Roslender & Hart, 2002) as some of the fundamental problems that seemingly plague accounting-marketing dyad, a fact that reinforces evidence in Table (3.11). There is

[40] Job rotation encourages the growth of inter-departmental communication (Hatvany & Pucik 1981) and stimulates cooperation (Abegglen & Stalk, 1986).

thus consensus regarding cross-functional knowledge utility to effective integration, and accountants and marketers need to understand each other's knowledge domain.

As a reminder, the conceptualisation of integration for this thesis embraces involvement, a cross-functional factor that aligns with the need for cross-functional role performance. Cross-functional role performance is a vital tool for managing typical conflict drivers in interfunctional relationships, and although it is beyond the realm of this thesis to explore the conflict management efficacy of this tool, this researcher believes that increased cross-functional role performance between accounting and marketing will improve achieved **AMI**, for it will:

- Enable accountants understand the dynamics of the marketing function and vice versa,
- Enable both functions understand better the information needs of each other,
- Expand the chances of exploiting the benefits of interaction opportunities,
- Expand the chances for unity of purpose behaviour (goal congruity),
- Offer a means of managing some of the culturally driven biases that typify their relationship.

The hypothesis for measuring role flexibility impact on integration is defined in Section 5.5.1.7.

Table 3.11: Empirical and Conceptual comments on the influence of Knowledge gap on integration

Interface and Studies	Comments on Knowledge gap and integration
R&D/Marketing Ruekert & Walker (1987)	There was perceived lack of customer orientation or knowledge among R&D personnel and this knowledge gap was confirmed to impact negatively on R&D-Marketing integration.
Demsetz (1991); Grant (1996); Layder (1994)	The existence of common knowledge is a sine-qua-non for effective cross-functional knowledge integration. Shared knowledge promotes communicative action (Layder, 1994)
Accounting/Marketing Harrison (1978; 1979); Wilson (2000); Chadwick & Ratnatunga (1981)	Accountants are unable to provide marketing with the information it need and does not understand its role.
R&D/Marketing Gupta et al (1985)	11.9% R&D managers as against 6.7% marketing managers perceived the lack of knowledge about markets, competition, customers and product applications on the part of R&D personnel was an important barrier to the integration between them.
R&D/Marketing Parry & Song (1993)	The coefficient of the variable measuring the business background of R&D personnel was positive and significant, a confirmation that knowledge background influences the degree of achieved integration.
Accounting/Marketing Mills & Tsamenyi (2000)	Marketer's knowledge of accounting is limited, indicating marketers being unable to specify their information needs to Accounting and understand the information they receive from Accounting.
Accounting/Marketing Barker (2008)	Accountants and marketers possess different types of "domain knowledge" which is gained through experience as part of the job.

3.5 Culture & Orientation Differences (CODIFF)

World views and organisational routines are reinforced in the culture of the firm's functional departments (Griffen & Hauser, 1996). Different professions have different cultures[41] (see Bancroft & Wilson, 1979; Williamson 1979; Thomas 1989; Wilson, 2000; Kotler *et al*, 2006), and these culture differences (or thought world differences – Maltz, 1997) influence achieved integration (see Table 3.12). According to literature, departmental differences in culture, perceptions, orientations and focus (see Table 3.12) are core departmental factors that influence achieved integration (see Field & Gabart, 1971; Williamson, 1979; Harrison, 1979; Gupta *et al*, 1986; Mills & Tsamenyi, 1998; Wilson, 2000; Olsen *et al*, 2001). Departmental differences (Gupta *et al*, 1985) or socio-cultural elements (Gupta *et al*, 1986) influence communication among departments (see Chua & Clegg 1990; Bloor & Dawson 1994). In the study of inter-firm vertical relationships, Jaspers & van den Ende (2006) linked achieved integration to culture similarity among integrating partners.

Accounting-marketing interface literature suggests differences between accountants and marketers, for example the perceptions held by the professions towards each other (Williamson, 1979; Hindle, 1985; Durden, 1988; Wilson, 2000). According to Wilson (2000), a sharp contrast between accountants' introspection (as shown by a frequently encountered preoccupation with the costs of physical activities within the company) and the marketer's concern with the diagnosis of environmental opportunities (from which the success of an enterprise comes) has been made by a number of writers, such as Simmonds (1970), and Wilson (1975, 1979, 1981). Accountants (see problems of the interface) still tend to be dominated by attitudes formed in the production era[42] (Harrison, 1979; Bancroft & Wilson, 1979; Durden,

[41] Ember & Ember (1985, p. 166) culture encompasses the learned behaviours, beliefs, and attitudes that are characteristic of people in a particular society or population. It is the shared custom of a society – in Neil Cooper (2005).

[42] 'Business as a whole is comprehending the importance of marketing, but accountants often are not. … management accounting must "break free" from the dominant production orientation of the past.' (Durden, 1988, p. 5).

1988; Ratnatunga *et al*, 1990) instead of embracing the "marketing concept" philosophy (Wilson, 2000).

Further more, Durden (1988) observes an 'uncooperative and uncreative' attitude between accountants and marketers and suggests management accounting profession may be inhibited by its inability to interface with marketing function, lending support to Moss's (1986) comment that marketing-accounting interface is 'fraught with potential conflicts'. Elaborating the diverse orientation conflict contingencies, Moss (op. cit., p. 96) notes that while accounting prioritizes 'cost minimization and strict adherence to budgets and forecasts', marketing focuses on 'sales and growth in market share', thus resulting in conflicts. Sales-marketing interface literature (Kotler *et al*, 2006) also flags cultural and economic friction drivers.

Wilson (2000) and Britton (1971) suggest culture and perception differences in the accounting-marketing dyad. Flagging behaviours that retard integration, the former notes, accountants do not accept marketing as a distinct managerial function, while the latter notes that too many accountants regard marketing as a "quasi sales function only to be vested in the ultra optimist who thrives on dreams of fantasy" (p. 626).

Table 3.12: Some vital statistics of previous studies/conceptual definitions on the selected departmental factors/variables.

A. Departmental variables B. Researcher(s)/Authors	Important Comments/Statements
Culture differences, perceptions, orientations and focus (Socio-cultural factors). Gupta, 1984; Gupta et al, 1986; Mills & Tsamenyi, 1998; Harrison, 1979; Wilson, 2000; Williamson, 1979; Field & Gabart 1971; Simmonds, 1970; Olsen et al, 2001; Moss, 1986; Gupta et al,. 1985.	Culture differences exist between accountants and marketers (Britton, 1971; Williamson, 1979; Box, 1984; Hindle, 1985; Durden, 1988; Wilson, 1975, 1979, 1981, 2000). The differences in the culture and perceptions of the integrating department provide conflict substance (Brown, 1983). There is a sharp contrast between the accountant's introspection and the marketer's concern (Wilson, 2000; Simmonds, 1970). Despite being in the era of "marketing concept", accountants tend to stick to the production orientation (Harrison, 1979; Bancroft & Wilson, 1979; Shea, 1983; Durden, 1988; Ratnatunga et al, 1990). An `uncooperative and uncreative' attitude exists between Accountants and Marketers (Durden ,1988). Culture differences shape behaviour and values including communication (Chua & Clegg, 1990; Bloor & Dawson, 1994). There are also differences in the orientation of the accounting (focus tends to be cost minimization, adherence to budgets and forecasts) and marketing (focus tends to be on sales and growth in market share)) functions. The focus of accounting tends to be on 'cost minimization and strict adherence to budgets and forecasts' while the emphasis within the marketing department tends to be on 'sales and growth in market share' thus resulting in conflicts (Moss, 1986, P. 96).
Socio-cultural factors Gupta (1984) - R&D-Marketing	In high-integration companies there were less socio-cultural differences between the R&D and marketing managers. This helped in achieving harmonious relations between them.
Cultural differences Gupta et al (1985) - R&D-Marketing	A higher percentage of marketing managers (13%) than the R&D managers (7%) cited cultural differences as a barrier to effective integration. Engineering ego, parochialism, a "too professional" orientation of R&D, marketing's interest in power games, resistance to change and the NIH syndrome were cited as the barriers. **NIH – Not-Invented-Here syndrome**.
Disparity in goal orientation (Goal ambiguity) Xie et al (2003) – R&D-Marketing	In developing new products, Marketing aims for short-term profit while R&D typically aims for long-term technology advances. On Product focus, Marketing's focus on customer satisfaction leads it to demand a high degree of product variation (Shapiro, 1977), and Manufacturing's focus on product efficiency and cost reduction leads it to prefer product standardisation (Shapiro, 1977).
Cultures and Objectives differences Parry & Song, (1993) - R&D-Marketing	This study confirmed differences in objectives such as: - Marketing is not enthusiastic for products that will not create big sales instantly - Marketing has a short-term orientation and R&D has a long-term focus - R&D's time requirement do not match marketing's suggested launch time - R&D and marketing have different priorities. The study also stressed that there are cultural differences separating the R&D and marketing, and that R&D and marketing employees have different.
Perceptions Mills & Tsamenyi (2000) - Accounting-Marketing.	The results showed differences in the perception of both departments as to roles and the fulfilment of such roles towards the other function and this affect the ability to integrate.
Orientation - Ruekert & Walker (1987) - R&D-Marketing	Marketing personnel are too quick in their response to the market place
Cultural and Economic Frictions Kotler et al (2006) – Sales-Marketing	"The cultural conflict between Sales and Marketing is, if anything, even more entrenched than the economic conflict." (p. 5).
Information & Perception Differences Barker (2008)	There are perception and information (quality, source and acceptability) between accountants and marketers.
Elements of Culture Krishnendu Dasgupta S. P.Jain institute of management and research). Accounting - Finance	Focus Emphasis: - The constituencies are the firm's shareholders and investors = Accounting/Finance function. - The constituency is the customers = marketing function. Generation of profits: - Short-term perspective (immediate profit to satisfy shareholders and investors) = Accounting/Finance function. - Long-term perspective (profits would come if customers are satisfied) = marketing function.

Source: Author, Contents collated from referenced sources.

There are indeed culture and perception issues in the interface between accounting and marketing, and it seems logical to believe that these would influence the degree of their achieved integration, hence the hypothesis defined in Section 5.5.1.8.

3.6 Non-Departmental Proximity (NONDEPPROX)

According to Brown (1983), face to face interaction between social units is necessary. Grounded on this social capital logic (e.g., Adler & Kwon, 2002; Shipilov & Danis, 2006), interfunctional relationships literature (conceptual and empirical) suggests physical proximity utility to integration (see Table 3.13).

Social capital (op. cit.) is the goodwill available to individuals and groups. Its source lies in the structure and content of an actor's social relations. Its effects flow from the information influence and solidarity it makes available to the actor. Goodwill (Dore, 1983; Shipilov & Danis, 2006) is the substance of social capital.

In the accounting-marketing interface, the importance of the location of the marketing manager/accountant (Ratnatunga *et al*, 1989) was first observed by Harrison (1978) who found that the accounting function, located within manufacturing, tended to devote more time to the more accessible and immediate problems of production and that accounting staff tended not to consult directly with marketing personnel at equivalent hierarchical levels. This position reinforces Wilson & Bancroft's (1983) comment that if the two functions are physically close, strong interaction would be facilitated. Commenting further on this interface and physical proximity importance, Harrison, (1979) states that: the consequences of a physical separation between the disciplines are adverse to an effective accounting/marketing interface in several ways.

Collocation tends to increase communication among team members (Allen, 1986) , a contention reinforced by R&D-marketing dyad literature that links physical distance to decreased communication and performance (e.g., Xie *et al*, 2003) on group projects during new product development. A direct consequence of such physical distance (op. cit.) is that the effect of functional segregation (Shibutani, 1971; de Ruyter & Wetzels, 2000) thrives, given limited informal interaction possibilities (Maltz & Kohli, 1996, de Ruyter & Wetzels, 2000), thus causing a hollow in the communication process. Such chance meetings provide an opportunity for "serendipitous information exchange or problem solving" to take place (Maltz *et al*, 2001, p. 73).

Explaining their research findings, (Gupta *et al*, 1987) used the phrase 'Out of sight, out of mind' to describe the trend displayed by low-integration companies. Low integration was a reflection of the non-proximity which affected the degree of relations, cooperation and willingness to integrate. On the other hand, in high-integration companies, integrating departments were often in the same building (see also Kahn & McDonough III, 1997[43]; Dewsnap & Jobber, 2004), even on the same floor. There is real sensitivity to close, direct communication between marketing and R&D in most high-integration companies, they noted. Physical proximity facilitates communication, creates understanding and trust… (Gupta *et al*, 1987).

While R&D – Marketing integration evidence (see Table 3.13) suggests negative correlation between 'interfunctional distance'[44] and achieved integration, the few efforts in the Accounting/Finance – Marketing interface paint a vague picture about this link. For example, while Harrison (1978) and Wilson and Bancroft (1983) resonate R&D –Marketing interface evidence, Ratnatunga *et al* (1989) and de Ruyter and Wetzels (2000) highlight fuzzy link. Ratnatunga *et al* (1989) suggest there seems to be much closer proximity between marketing and finance in the food industry and this should facilitate interaction while de Ruyter and Wetzels (2000)[45] report a no-relationship between interfunctional distance and relational attitude between marketing and finance. Interestingly, increasing the intrigue and fuzziness of this link, Jaspers & van den Ende (2006) in inter-firm vertical relationship study, suggest (but also warn): that 'less spatial distance' facilitates coordination of task (coordination integration) but is not always true.

[43] Collaboration is positively influenced by the extent to which R&D and marketing departments were co-located in the same building.
[44] Inter-functional distance refers to the geographical or physical distance between departments (Maltz & Kohli, 1996).
[45] The participation in a large number of multi-disciplinary teams which meet frequently as well as the presence of a modern communication infrastructure ranging from electronic mail to video conferencing is an important reason why physical proximity is considered less important in the formation of attitude toward the other department" (de Ruyter & Wetzels 2000).

The hypothesis for exploring this connection between physical proximity and accounting/marketing integration is defined in Section 5.5.1.9.

Table 3.13: Some vital statistics of previous studies (including conceptual) on the influence of physical proximity on achieved integration study.

Interface	Researcher(s)	Some Striking Comments/Statements
R&D – Marketing integration	Xie et al, 2003; Maltz , 1997; Allen, 1986; Griffin & Hauser, 1996; Maltz & Kohli, 1996; Ratnatunga, 1989; Gupta, 1984; Gupta et al, 1987; Kahn & McDonough 111., 1997.	Collocation facilitates collaboration between functions (Xie et al, 2003). Spatial proximity enhances CFIn (Maltz, 1997). Collocation enables exchange of information (Allen, 1986; Griffin & Hauser, 1996). Low spatial proximity hinders informal interaction and reduces the chances for serendipitous information exchange and problem solving (Maltz & Kohli, 1996). Proximity facilitates direct communication, creates understanding and trust, .(Gupta et al, 1987), Physical separation may lead to insularity and it may reinforce the 'not-invented-here' suspicion (Griffen & Hauser, 1995), R&D – Marketing collaboration is positive when both departments share same building.
Accounting/ Finance – Marketing integration	Wilson & Bancroft, 1983; Harrison, 1978 & 1979; de Ruyter & Wetzels, 2000.	Physical nearness enhances interaction (Wilson & Bancroft, 1983) and communication (Harrison, 1978) between the accounting and marketing functions. Physical separation hinders Accounting/marking interface in many ways (Harrison, 1979). There is no relationship between inter-functional distance and relational attitude between finance and marketing (de Ruyter & Wetzels, 2000).
Political communities integration	Jacob &Teune, 1964	Closeness strengthens integrative relationship.

Source: Author, Contents collated from referenced sources.

3.7 Participation (EMPPASMS*)*

Employee participation is one of the most researched organisational practices (Sagie, 1997). However, the link between participative decision making and inter-departmental relationship is still very much opaque. Although Peterson *et al* (1994) identified participative components as integration approach, very little is known about the connectedness of participative decision making to achieved integration.

Within the participative decision making (PDM) framework, participation is defined as a process in which influence is shared between superiors and teams or sole subordinates (Mitchell, 1973). Contextually, drawing on Parry and Song (1993) and Song and Thieme (2006), participation in this thesis reflects participative engagement of personnel of both departments in the decision making across the stages of the strategic marketing process.

Empirically, participation has received minimal consideration in interfunctional relationship studies. In a non-dyadic study of Japanese high-tech companies, Parry & Song (1993) found no support for the hypothesis that higher levels of employee participation are associated with higher levels of achieved integration. Interestingly,

the coefficients were not only non-significant, but coefficient signs also varied across equations, thus contrasting Gupta *et al* (1987) that reported positive association of degree of participative decision-making and degree of R&D-marketing integration.

To improve the understanding of this variable and link to interfunctional integration, further exploration of this construct is required. To aid this target in this study, the hypothesis defined in Section 5.5.1.10 is used.

Overall, the premise in this chapter is grounded largely on R&D/Marketing integration literature. For this reason, prior to the conclusion of this chapter (see Section 3.9), the justification for this approach is explained in section 3.8.

3.8 Justifying Grounding of Antecedents on R&D/Marketing Integration Literature

One critical scientific reason for tapping on past empirical precedence is that no research exists in a vacuum. Further more, there is need for external validity. Additional to a number of justifications which are extractable from section 3.2, other justifications are summarised in two contexts: similarities and dissimilarities.

A number of similarities make the heavy reliance on R&D/marketing integration literature appropriate. Dyadic relationship is centred on interface (Brown, 1983), and the 'departmental' (see section 2.2) premise is the emphasis in both R&D/marketing and accounting/marketing integration. R&D/marketing interface is the most empirically explored, and thus offers substantial foundations to draw upon.

Given this last point, other similarities that further support the approach in this study include:

1. Interfunctional relationships are based on interdependence relationship (de Ruyter & Wetzels, 2000; Ruekert & Walker (January- 1987); Wind &

Robertson, 1983): each department needs the input from the other for its effective role performance,

2. Interfunctional relationships are driven by the need for goal congruity (Xie *et al*, 2003), towards corporate success. Interfunctional relationships are driven by overall organisational goals of achieving effective social system (see section 2.5.1), customer awareness (see section 2.5.2), contingency logic (see section 2.5.3) and stakeholders' interest (see section 2.5.4) and their respective contexts in Table 2.4 and Boxes a to d thereafter,
3. Interfunctional relationships are focused on symbiotic interrelating of entities (Souder & Chakrabarti, 1978) for strategic linking (Plakoyiannaki & Tzokas, 2002),
4. Interfunctional relationships are interpersonal relationship based,
5. Interfunctional relationships, despite interface context, are characterised by conflicts (Lam & Chin, 2003 & 2005; Maltz *et al*, 2001; Le Meunier-FitzHugh & Piercy, 2007),
6. Interfunctional relationships, regardless of interface context, are characterised by 'thoughts world differences' (Griffin & Hauser, 1996; Maltz, 1997; Rouzies *et al*, 2005; Kotler *et al*, 2006; Homburg & Jensen, 2007),
7. Finally, interfunctional relationships, regardless of interface context, broadly include interactive and collaborative process dimensions (Kahn & Mentzer, 1998; Chimhanzi, 2004; Jasper & van den Ende, 2006).

On the other hand, there are dissimilarities which make this approach also justified:

1. Each interface has its specificities that shape relational impact of constructs (Ruekert & Walker, 1987; Griffin & Hauser, 1996),

2. Interfunctional relationships outcomes are task connectivity dependent (Moenaert *et al*, 1994; Garrett *et al*, 2006 – New Zealand sample).

Interface shaped variances are mostly attributable to the similarity or non-similarity of the domains of network members (Ruekert & Walker (1987 - January)), and implicit evidence "argues that the results obtained in previous exploration of marketing-R&D relationship may not be generalizable to other interfaces" (Maltz (1997, p. 95).

As a step to heeding the advice of Song & Parry (1993)[46] and Ruekert & Walker (1987 – January)[47,] this study, draws largely upon R&D/marketing integration literature, to capture above dissimilarities based accounting – marketing interface realities of the selected variables. Critically, this emphasis offers the opportunity to highlight both theory-testing and theory-building insights.

3.9 Conclusion to Chapter 3

This chapter relayed concepts and variables that impact on interfunctional relationships in organisations (see Tables 3.2, 3.3 and 3.4). Literature summarised, typical integration factors reflect organisational, departmental, management or personnel characteristics, and Figure 3.1 below shows the antecedent premise for this study. For practitioners, understanding the nature and extent of influence these factors

[46] Song & Parry (1993) suggest a broader investigation of decision making processes in other functional areas as a way of verifying or refuting the confusing picture of their findings

[47] "With few exceptions (cf. Wind 1981), most of the literature on the relationship between marketing and other functions addresses the specific problems associated with one particular functional area, such as production or R&D, in a manner not generalizable across other functions (cf. Gupta *et al*, 1986)."

exert on integration is crucial because it enables organisations adopt necessary steps towards enabling effective integration.

Selection of variables within the aforementioned categorisation was justified on existing literature (empirical and conceptual) from broad CFIn and accounting-marketing domain. The selection criteria for chosen variables for this thesis have been clearly defined (see Section 3.2). These variables would be explored aiming to ascertain validity of respective hypothesised links in relation to accounting-marketing dyad. Beyond the accounting-marketing dyad, exploration outcomes would also offer necessary insights towards enhancing broad CFIn understanding of these constructs.

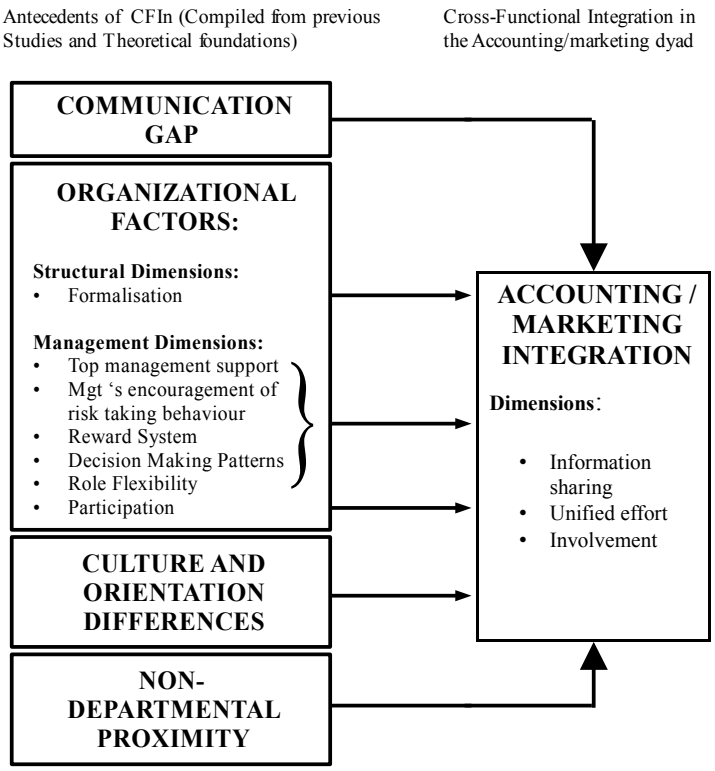


Figure 3.1: The framework for exploring the antecedents of Accounting - Marketing Integration.
Source: Author: Content collated from previous investigations of cross-functional relationships but aligned to Accounting/Marketing interface

This integrative theoretical framework offers ideal integrative lens to explore accounting/marketing vertical relationship. Figure 3.1, which has two core contexts, connects to Figures 2.6 and 2.5. Figure 3.1 proposes that communication gap, non -

departmental proximity, departmental differences and organisational factors – structural (formalisation), management (top management support for integration, management encouragement of risk taking behaviour, reward system, decentralisation, role flexibility and participation) are antecedents of accounting/marketing integration (Figure 2.6) which draws on the theoretical premises in Figure 2.5.

Substantial literature, though mainly conceptual and anecdotal, suggests strategic marketing synergy, given effective accounting-marketing integration (see Sections 1.2, 4.1 & 4.2). To fill important theoretical void, this study also sensitizes strategic marketing process integration realm (see Chapter 4). In this connection, Figure 3.1 is transported unto Chapter 4 for the gauging of accounting/marketing integration at various stages of the strategic marketing process (see Figure 4.1).

Further more, the context of Figure 3.1 is the Part A of the conceptual framework for the study summarised in Figure 5.1 and examined by the Structural Equation Model displayed in Figure 6.3. The hypothetical relationships for Figure 3.1 that was examined using the SEM (Figure 6.3) are defined in Section and sub-sections of 5.5.1.

The theoretical context for launching the strategic marketing spectrum, for advancing this study, is presented in chapter 4.

4 Strategic Marketing and Accounting/Marketing Integration

Brief synopsis of the chapter

Chapter four, the final literature review chapter of this thesis, explicates a critical contribution element in this study. Many researches have emphasised strategic marketing implications of effective accounting-marketing integration. Consequently, this Chapter reviews theoretical arguments relating to accounting–marketing integration synergy, and the organisational well-being implications. Also, this Chapter explains the core prioritisation in exploring the strategic marketing process, as well as the theoretical definitions for ascertaining 'enablers' or 'disablers' of **AMI** during the strategic marketing process, drawing on the theoretical framework in Figure 3.1

4.1 Introduction

In the welcome statement of the August 2006 issue of the Industrial Marketing Management, the Editor commented that 'the world economies continue to percolate at significantly different rates and industrial marketers and investors will seek the greatest opportunities for their companies'. This endeavour, he mentioned is never ending. Critical to attaining these opportunities is customer-centric operations, a pursuit whose sustainability hinges immensely on integrated marketing strategies (Vandermerwe, 1989). This customer-centric view is congruent with Porter (1985) who notes that competitive advantage grows out of the firm's unique ability in creating superior customer value. Any factor, action or event that lubricates such ability may be a potential cause of competitive advantage (Ma, 1999). Organisations seeking such prospects (Ma, 2002) do not wait passively for luck to break, but adopt an unequivocal proactive approach toward luck as a determinant of competitive advantage. Preparedness and pro-activeness could contribute to firms gaining and sustaining competitive advantage (op. cit). This approach of 'purposeful control and/ or intentional manipulation' (op. cit.) resonates with resource-based view logic, and lends support to Vandermerwe's (1989) argument.

The resource-based view of the firm (RBV) as a strategic management concept is gaining enthusiastic recognition by marketers (Fahy & Smithee, 1999). The

implications of RBV in recent marketing contributions have been evidenced, e.g., on marketing capabilities (Day, 1994) and on competitive advantage (Hunt & Morgan, 1995; 1996). "Given its focus on the nature of the firm and its appeal as a theory of competitive advantage, the likelihood is that 'resource-based' perspectives will become increasingly popular in the field of strategic marketing in the years ahead" (Fahy & Smithee, 1999, p. 1). The principal contribution of RBV of the firm to date has been as a theory of competitive advantage (op. cit.).

Developments in the strategic marketing field strongly reinforce views and proposition of Fahy and Smithee (1999): increasingly, integration, a resource-based view tool, has been advanced as a means to enhancing strategic marketing prospects, towards competitive advantage. By this logic, organisations integrating effectively would achieve sustainable competitive advantage (SCA), and thus earn economic rents or above return. Increasingly, substantial literature suggests critical strategic marketing importance of accounting-marketing integration and advocates empirical exploration. Recognising the critical relevance of this subject, Section 4.2 extends the background in Section 1.2, and flags further literature on the synergies of Accounting – Marketing integration.

4.2 The Synergy of Accounting-Marketing Integration – Why this Focus?

Accounting-marketing integration is critical to the economic prospects of organisations (de Ruyter & Wetzels, 2000), and needs to be explored; hence the *Journal of Marketing Management* (2006) calls for contributions on promoting improved accounting-marketing synergy. In subsequent years, this research call has gained increasingly (see Roslender & Wilson, 2008; Sidhu & Roberts, 2008).

Though largely conceptual, substantial literature (see Section 1.2) suggests strategic marketing synergies, given effective accounting-marketing integration. **AMI** is instrumental to achieving effective marketing towards ensuring competitive advantage (see Table 4.1), a critical organisational performance outcome. This organisational performance background is elaborated further in Section 4.3.

Table 4.1: List of authors and researchers and comments on AMI - SMM

Marketing Productivity focus	Authors/Researchers	Conceptual/ Empirical	Comments on AMI & SMM and research call
Profitability of marketing efforts & maximization of shareholder & customer value	De Ruyter & Wetzels (2000).		Marketing finance integration is instrumental to profitability and maximization of customer and shareholder value. It enables return on investment (**ROI)**
	Downie (1997).		The customer orientation input derived from integration between Accounting and marketing enables profitability.
	Anonymous (1998).		In order to maximize shareholders value, the whole organisation must be involved.
	Black et al (1998).		**CFIn** (of which **AMI** is a subset) is a tool for ensuring effective value-based management
	Moss (1986).		Accounting/Marketing integration enables **ROI**.
Effective Marketing mix decisions	Stephen & Archambault (1998)		The integration of marketing database and accounting data of target-costing and ABC with targeted market costing is very essential for developing market programmes with specific attention to attribute offering, price determination, and price maintenance decisions.
	Foster & Gupta (1994).	Conceptual	Effective information between managerial accounting and marketing enable marketing dynamics.
	Downie (1997).	Empirical	The study of the inter-dependency between Accounting and Marketing shows that **AMI** enables pricing decisions.
	Roslender & Hart (2002 and 2003)	Empirical + Conceptual.	Integration in this interface enables effective marketing-mix decisions.
	Wilson (2000).	Conceptual	Effective integration between Accounting and Marketing would enable effective marketing-mix decisions.
Strategic Positioning / Strategic Marketing	Roslender (1995 & 1996).	Conceptual	Accounting and Marketing integration is a tool for strategic positioning.
	Roslender & Hart (1999).	Empirical	**AMI** enables organisations attain the goal of profitably satisfying customers.
	Roslender & Hart (2002).	Conceptual	Effective integration between Accounting and Marketing is a weapon for responding to the market, the space where advantage is competed for, and hopefully secured and sustained.

Essentially, advocates contend that, for a more market oriented focus, accounting-marketing integration is pertinent. Put in accounting literature terms, "to survive, a firm must continue to offer the cheapest way for consumers to obtain the desired bundle of attributes" (Langfield-Smith, 2008, p. 209), and organisations must align accounting and finance to other functions for this target (Bromwich, 1990).

In the accounting literature, since its first mention by Simmonds (1981) in the UK professional magazine, *Management Accounting* (p. 12), there are increasing

'persuasive arguments in favour' (Langfield-Smith, 2008, p. 209) (e.g., Bromwich, 1990; Bromwich & Bhimani, 1994; Kaplan & Johnson, 1987; Miller & O'Leary, 1994; Roslender, 1996; Kaplan & Norton, 1992, 1996; Roslender & Hart, 2002a, 2002b, 2003; Shank, 2007; Anderson, 2007; Cadez & Guilding, 2007; Langfield-Smith, 2008; *inter alia*) of SMA or SCM (across the Atlantic).

On the premise that there is need to shift from the redundant assumption of traditional form of management accounting (Bromwich & Bhimani, 1994), Roslender and Hart (2002a), building on Roslender (1996), provide a framework for integrating management accounting and marketing to advance the potential of SMA. Refocusing on Simmond's (1981) formulation on the link between management accounting and marketing, they advocate the synergistic spectrum for accounting-marketing integration, and call for quantitative-based studies to advance on their work.

Thus, there is need to research AMI (Roslender & Hart, 1999, 2002, & 2003; Wilson, 2000; Downie, 1997; Stephen & Archambault, 1998; de Ruyter & Wetzels, 2000). Secondly, there is need to highlight strategic marketing evidence (JMM, 2006, Roslender & Hart, 2002a; Roslender & Wilson, 2008). This study seeks to contribute to knowledge in this connection.

4.3 What would AM-Synergy mean for Organisational Performance?

Interpersonal compatibility is a core managerial tool for strategy implementation (c.f., Eisendhardt & Schoonhoven, 1996; Steier & Greenwood, 2000; Batjargal, 2003; Shipilov & Danis, 2006). Integration, which thrives on such operative mechanism (Shipilov & Danis, 2006) enables corporate success (Downie, 1997; Song, 1991; Parry & Song, 1993; Song *et al*, 1998; Zinkhan & Verbrugge, 2000; de Ruyter & Wetzels, 2000).

Exploring relational exchange between marketing and finance, de Ruyter & Wetzels (2000) note that marketing-finance interface is vital to corporate success as strong interdependencies between the two departments exist, a view that corroborates Zinkhan & Verbrugge (2000). Aligning to this foundation, Roslender & Hart's (1999) qualitative study suggests that effective accounting – marketing relationship is a tool for reaching the goal of enhancing economic value. Supporting this value contention, Zinkhan and Verbrugge (2000) stress the ever increasing implication of marketing and finance integration to achieving firm's economic values.

Consequently then, achieving optimum organisational performance is, amongst others, a factor of the achieved accounting-marketing integration, a performance capacity that sustains on accounting–marketing synergy. To exploit this synergy, towards profitably satisfying customers (Roslender & Hart, 1999) and organisational economic well-being (Zinkhan & Verbrugge, 2000), organisations must ensure suitable integrating mechanisms are mobilised.

Outlined earlier, this study aims to enable effective **AMI**: exploring the antecedents of **AMI**, during (1) daily routine processes and (2) the strategic marketing process. Having defined the pattern for addressing the first objective (see chapters 2 and 3), this chapter dwells on the latter. In their report, Roslender & Hart (1999) call for intensive exploration of how **AMI** would enable the strategic marketing efforts of organisations. Essentially thus, embracing this **AMI** synergistic potency argument (see Roslender & Hart, 1999 & 2002) and also adhering to their call, this study explores the antecedents of **AMI** during the strategic marketing process.

Following the above theoretical foundations, this study is premised on the background that a balanced inter-dependence relationship between accounting and marketing, characterised by effective information sharing, unified effort and

involvement, would facilitate effective strategic marketing process, for meeting the marketing target suggested in Roslender and Hart (1999 & 2002) toward corporate success. While the positioning of these three dimensions of integration across the stages of the strategic marketing process is explained in Section 4.4.2, Section 4.4.1 explains the premise of the strategic marketing process for this study.

4.4 Measuring Integration at the strategic Marketing Stages

This study follows R&D – Marketing interface precedence (e.g., Parry & Song, 1993; *Gupta et al*, 1985 and Song *et al*, 1998) in the exploration of strategic marketing driven accounting-marketing integration.

Purposed to advance growing knowledge about the courtship between the disciplines of Accounting and Marketing, funding was secured in 1997 from the UK Chartered Institute of Management Accountants for a study of developments at the interface between management accounting and marketing management, and the end product presented in Roslender & Hart (1999).

Empirically, that study indicates that a 'marriage of equal partners' relationship between the two departments is immensely beneficial to the challenge of securing and sustaining the competitive advantage of the firms' business. The study commends the embrace of **SMA** as it encourages management accountants to adopt a more external or market orientation focus to provide senior management with information to aid the competitive advantage drive. Secondly, doing this represents a potential strength by virtue of management accounting's reliance on marketing themes (op. cit.). Achieving this marketing target, however, is conditioned not only on effective information sharing (Roslender & Hart, 1999 & 2002). Therefore, appropriate contextualisation of this 'marriage of equal partners' relationship is crucial.

Commenting on their study's methodology, Roslender & Hart (1999) stress the need to expose the phenomenon to intensive case work. To fill a research void and contribute to knowledge enhancement, this study, grounded on a comprehensive contextualisation of the constituents of such 'marriage of equal partners' relationship, extends, using a quantitative approach, the background in Roslender & Hart (1999).

Rationalised on its implementation enhancement potency (e.g. Ruekert & Walker, 1987), management of effective interfunctional relations is critical (Chimhanzi, 2004), a logical reinforcement of a key tenet of early organisational science studies (e.g., Fayol, 1949; Lawrence & Lorsch, 1967; March & Simon, 1958); that achieving organisational success is critically contingent on interfunctional co-ordination and departments working in concert. In resonance with this contingency thinking, literature (see Table 4.1) highlights strategic marketing potency of **AMI.**

Synergistic relationship (Roslender & Hart, 2003) involves a high degree of interfunctional cooperation and coordination, and a more organic form of inclusivity, and one consistent with the precepts of strategic management, rather than traditional form is needed and management accounting and marketing management must practice this culture to exploit the synergistic realities of the relationship. Interfunctional coordination is critical in creating value for buyers (Narver & Slater, 1999; Roslender & Hart, 2006) and management accounting system has the capability to provide a broad spectrum of information relevant for planning, controlling and decision, to aid such creating or enhancing of value (Abdel-Kader & Luther, 2004).

Joined together, these arguments legitimise the conclusion that 'information sharing' and 'coordination' are core for achieving synergistic relationship.

Functional context analysed, accounting and marketing are close and complementary. Both also, are depositories of huge customer knowledge information

for enabling and sustaining strategic marketing competencies. Intensive customer knowledge processes are critical competitive advantage response tools, and the financial services sectors, given their typical service packages, are platforms that are critically dependent on such and well-aligned across department intensive customer knowledge processes. To achieve such alignment, organisations must integrate.

The alignment of workforce capabilities (Gratton, 1994; Piercy, 1998) with customer focused marketing strategies, is the core of integration. Such alignment in the accounting-marketing dyad potentially generates strategic marketing synergies (Stephen & Archambault, 1998; Wilson, 2000; Roslender & Hart, 2002, 2003).

Following above theoretical lens, this study argues that effective 'symbiotic interrelating' (Souder & Chakrabarti, 1978) between accounting and marketing would enable 'strategic linking' (Plakoyiannaki & Tzokas, 2002) outcome of strategic marketing competencies. Effective accounting-marketing integration is a weapon for responding to the market, the space where advantage is competed for, and hopefully secured and sustained (Roslender & Hart, 2002), a tool for meeting the goal of profitably satisfying customers. A balanced accounting-marketing relationship, characterised by effective information sharing, unified effort and involvement, this researcher suggests, would propel effective strategic marketing process, for meeting above marketing targets (Roslender & Hart, 1999 & 2002) toward corporate success.

Section 4.4.1 explains the strategic marketing conceptualisation for this study while Section 5.5.2.1.1 positions the strategic marketing process integration dimensions.

4.4.1 THE CONCEPTUALISATION OF THE STRATEGIC MARKETING PROCESS FOR THIS STUDY

Using posture in connection to strategy, Stacey (1996, p. 5) notes that organisation strategy "is a picture of what it (*posture*) looks like, its shape and its capabilities".

Markets being more dynamic than ever before in the history of capitalism, the need for strategic perspective to compete successfully in them has become more acute (Egan, in CIM Handbook, 2003, p. 1). Marketing strategy, the emphasis in this study, is hugely important.

Integration is a means to an end, and this study, following anecdotal suggestions of strategic marketing synergies as accounting-marketing integration outcome, explores **AMI** during the strategic marketing process. Organisations aiming to achieve the emphasised potential benefits must be armed with a suitable marketing strategy (**SMS**). Interaction between marketing and other functional units of the organisation is important in order to implement an effective strategy (Lim & Reid, 1992) and *organisations that are able to recognise and manage this interaction gain a sustainable source of competitive advantage (Porter, 1985)*. Lim & Reid (1992) suggest 'a firm should take an integrative perspective in developing its marketing strategy, with each function explicitly focused on improving the firm's overall market responsiveness'. This integrative perspective theory, also emphasised in Roslender & Hart (2002 &2003), Foster & Gupta (1994), Wilson (2000) and Stephen and Archaumbault (1998) are crucial for synergistic strategies, for 'to achieve the things we need in the external market' (Piercy, in CIM, 2003, p. 236) organisations must match knowledge of things to do with ideal strategies, in line with available resources.

There is need for a balance of customer-focused and competitor-centred perspectives on competitive positioning, of necessity informed by contributions from other management functions (Narver & Slater, 1990). Cross-functional inputs sustain such crucial competitive advantage drive (see Kohli & Jaworski, 1990; Narver & Slater, 1990; Roslender & Hart, 2003). While Day and Wensley (1983, p. 80) note that the emergence of strategic marketing is an integrated organisational emphasis on

securing and sustaining competitive advantage within the markets served by the individual business units, Narver and Slater (1990) state that the formulation of the market orientation concept reinforces the inclusive nature of strategic marketing, identifying interfunctional coordination, along with a competitor orientation and a customer orientation, as its defining behavioural components. Strategic marketing's foundation emphasises the preparedness to pursue inter-disciplinary alliances in the pursuit of superior business performance. These arguments analysed, it is legitimate to conclude that strategic marketing, inter-functional coordination and competitor and customer orientation are essentials of market orientation. This analogy extended, it is also logical to suggest that effective accounting–marketing integration would propel strategic marketing synergy and overall firm performance.

Optimising strategic marketing synergies hinges on making the right marketing decisions. Effective functional relationship between both departments would generate vital strategic marketing capabilities (Hooley *et al*, 1998) to catalyse effective planning, decision making and control of marketing activities.

If the central management process question concerns the need to make decisions (Wilson, 2000), then we need to know what and how decisions should be made (Wilson, 2000; Wilson & Gilligan, 2005; Stacey, 1996). Decision making, a part of a broader problem-solving process, is either strategic or tactical (Wilson & Gilligan, 2005, p. 11); strategic decision is the focus in this study and centres on how organisations can knit best marketing mix to profitably satisfy customers, a core behavioural component of market orientation (Narver & Slater, 1990).

Deshpande of the Harvard Business School makes an emphatic statement about customer orientation and **SMM**:

> "*Customer-centric marketing pervades the core of every modern business enterprise. A firm's proficiency in understanding markets and creating customer value is a primary*

> *determinant of its long-term performance. However, as market structures and communications technologies evolve, managers face new challenges in their efforts to market products and services…. Strategic Marketing Management relates*[48] *to the process of developing and managing marketing strategy, examining how firms create and sustain customer value—from market analysis and product positioning to communications and channel systems design."*

Commenting further, Deshpande notes that managers, to confront intensified competition, must formulate and adapt their organisation's marketing strategies. These comments unarguably picture modern day marketplace norms. The strategic marketing realm in this thesis sensitizes how **AMI** enables organisations *develop and manage marketing strategy* for ensuring customer value at a profit. That being the focus here, **SMM** is conceptualised thus:

> *Strategic Marketing Management involves all marketing efforts geared towards fulfilling the tenets of customer orientations, i.e., knitting a suitable strategic marketing formula for profitably satisfying customers, and thereby enhancing overall organisational performance.*

Following the precedence in Parry & Song's (1993) study of R&D/Marketing integration and NPD in Japanese High-tech firms, '*all marketing efforts*' as conceptualised in this study would reflect interfunctional relationships along the 4 strategic marketing management stages, as defined by the CIM. Thus, the focus is to capture how the antecedent variables, defined in Chapter 3 and summarised in Figure Figure 3.1, influence integration along the stages of **SMA** (strategic marketing analysis), **SMP** (strategic marketing planning), **SMI** (strategic marketing implementation) and **SMC** (strategic management evaluation and control).

According to Hooley *et al* (2004), strategy is concerned primarily with effectiveness, and effectiveness is '*doing the right things*' (Drucker, 1974, cited in The CIM Handbook of Strategic Marketing, 2003, p. 4). For that effectiveness (Hooley *et al*, 2004), strategy needs to be well tuned to both the customers' needs and requirements (the market conditions in which to implement), and the resources and

[48] The word 'relates' introduced by author.

capabilities of the firm seeking to implement it (i.e. strategy fit). This background reinforces prior literature (e.g., Stacey, 1996) on the core focus of strategic process:

1. setting a goal in which the organisation's capability is matched to the requirements of its environment (see also Johnston & Clark, 2001; Johnston, 1988; Heskett, 1986; Heskett *et al*, 1990);
2. analysing the environment and the capability of the organisation (see also Johnston & Clark, 2001; Johnston, 1988 & 1989; Heskett, 1986);
3. deriving from the analysis those options that will achieve the goal (see also Johnston & Clark, 2001; Johnston, 1989; Heskett *et al*, 1990);
4. selecting the best option and implementing it (see also Heskett *et al*, 1990; Johnston & Clark, 2001; Johnston, 1989).

"In having a clear strategy managers know what initiatives to approve and those to reject" (Johnston & Clark, 2001, p. 343). A clear strategy allows managers to identify opportunities for bringing value to customers (Normann & Ramirez, 1993) and for delivering that value at a profit (Johnston & Clark, 2001; Roslender & Hart, 2003).

According to Hooley *et al* (1998), two main themes have dominated marketing strategy thinking during the 1990's. In that connection, as conceptualised in this study, for strategic marketing effectiveness, accounting and marketing must engage effectively in the dimensions of information sharing, unified effort and involvement across these four defined stages of the strategic marketing process. The strategic marketing stages are explained next.

4.4.2 THE STAGES OF STRATEGIC MARKETING MANAGEMENT

"Strategy implementation is operational in nature and relies on a series of daily activities performed by employees at all organisational levels" (Hrebiniak & Joyce, 1984; Webster, 1997 – both cited in Chimhanzi, 2004, p. 75). Analysis, planning and

control of strategy, also rely on such daily employee roles: Functional alignment must be ensured in the entire operational process, to leverage fully the inherent dyadic synergies. Given this operational logic, strategic marketing process integration and dimensions, in this study, aligning to CIM's (1998, p. 238) four stage strategic marketing definition, is gauged along these four stages, explained next:

4.4.2.1 Strategic Marketing Analysis

Before embarking on any strategic plan it is essential to have a clear idea of the current competitive situation (The CIM Handbook of Strategic Marketing, 2003; Johnston & Clark, 2001; Quinn, 1978). Strategic marketing analysis (Wilson & Gilligan, 2005, p. 41), as a primary tool for addressing the strategic question 'Where are we now?' (See also The CIM Handbook of Strategic Marketing, 2003, p. 11; Stacey, 1996, p. 8), concerns ways in which organisations can most clearly identify their current position and the nature of their marketing capability (see also Hooley, Saunders & Piercy, 2004). Against this background, they further note, the emergent analysis evidence facilitates better positioning of the marketing plan for deciding upon the course of organisation's future direction and the ways in which strategy is to be formulated. Assessing the resources and capabilities of an organisation is critical for a sound strategic marketing (Hooley *et al*, 2004, p. 139).

Such strategic marketing analysis (usually involving detailed marketing audit [see also Hooley *et al*, 2004] and review of marketing effectiveness) are designed to achieve a clear understanding of (Wilson & Gilligan, 2005, p. 41):

a) The organisation's current market position,
b) The nature of environmental opportunities and threats, and
c) The organisation's ability to cope with the demands of this environment.

Understanding strategic marketing analysis in this lens is crucial to the concern of profitably satisfying customers.

4.4.2.2 Strategic Marketing Planning

Having analysed its market environment and considered the resources at its disposal, an organisation must devise a suitable formula for realising the strategic marketing options (Naylor, 1999; Hooley *et al*, 2004). This act, referred to as strategic marketing planning (**SMP**) is inevitable (The CIM Handbook of Strategic Marketing, 2003), for it is a known fact, that even the smallest competitor can survive successfully, but this survival chance and the chance to live the strategic marketing dream depends on the strategic concept.

Managers "need to decide where they want the organisation to be in the future and how to get it there" (Naylor, 1999, p. 269), On the basis of analysis (see Section 4.4.2.1), "the core strategy of the company will be selected, identifying marketing objectives and the broad focus for achieving them" (Hooley *et al*, p. 39). Essentially, strategic plan requires proportions of perspiration and inspiration to make it come alive, and be brought to fruition (see The CIM Handbook of Strategic Marketing, 2003; Wilson & Gilligan, 2005).

Strategic marketing plans (The CIM Handbook of Strategic Marketing, 2003) would usually concern:

a) The long-term direction of the organisation;
b) Defining the scope of the organisation's activities in terms of what it will and will not do, or the nature of marketing objective (Wilson & Gilligan, 2005);
c) Matching the activities of the organisation to the environment in which it operates, so that it optimizes opportunities and minimizes threats;
d) Matching the organisations activities to its resource capacity, be it finance, personnel, technology or skills levels.

Additionally, Wilson & Gilligan (2005) maintain that the examination of approaches to be adopted is a key element of strategic marketing planning.

4.4.2.3 Strategic Marketing Implementation

"A strategy is only as good as its implementation" (Johnston & Clark, 2001, p. 343). After careful planning of the strategic steps, the organisation embarks on actual implementation (Hooley *et al*, 2004; Lynch, 2000; Drew & Kaye, 2007). This **SMM** stage is characterised by actual transformation of the strategic initiatives, or as Wilson & Gilligan (2005) put it, strategic implementation is concerned with translating a decision into action, which presupposes that the decision itself (i.e. the strategic choice) was justified on feasibility and acceptability.

"At the implementation level a marketing organisation capable of putting the strategy into practice must be created" (Hooley *et al*, 2004, p.39; see also de Wit & Meyer, 2001). This is critical, then 'implementation is all too often the graveyard of strategy' (Grundy *et al*, 1998, p. 11). Implementation activity (Wilson & Gilligan, 2005) would generally concern:

a) The actual execution of the plan;
b) The allocation of resources to new courses of action;
c) Adapting, if need be, the organisational structures to handle new activities; and
d) Training of personnel and devising appropriate systems.

According to the CIM Study Text (1998), strategic marketing implementation (**SMI**) procedure includes, in addition to the above, the identification of tasks to be performed, and may include some elements of contingency planning, for sudden market changes may render the initial marketing plan inappropriate.

4.4.2.4 Strategic Marketing Control and Evaluation

Control is a process whereby management ensures that the organisation is achieving desired ends (Naylor, 1999). Such process (Wilson & Gilligan, 2005) can

be defined as a set of organised (adaptive) actions directed towards achieving specified goals in the face of constraints. The "methods of control must be designed to ensure that the strategy implementation is successful" (Hooley *et al*, 2004, p. 39).

Strategic control concerns both the efficiency of strategic operation and ultimate effectiveness of that strategy (Hooley *et al*, 2004). It is "feedback loop *based*, and essentially a process of decision making, control and learning" (Stacey, 1996, p. 21; see also Naylor, 1999, p. 791)[49] Aligning this lens to the strategic marketing context, strategic marketing control relates to the control process that enables the organisation to know, from time to time, where it stands vis-à-vis predetermined future strategic marketing targets (de Wit & Meyer, 2001). This, as Wilson & Gilligan (2005, p. 725) note, requires that progress can be observed, measured and redirected, if there are discrepancies between actual and desired positions (see also Naylor, 1999).

Utilising above logic, the central notion of strategic marketing control is the evaluation of performance – whether *ex ante* (as in feed-forward control) or *ex post* (as in feedback control). Essential requirements thus, are comparison of desired against expected or actual outcomes, evaluation of divergences, and proposals for future courses of actions, requirements that underline the pertinence of questions like:

a) What has happened?
b) Why has it happened?
c) What is to be done about it?

Control and planning are complementary, and logically presuppose the existence of the other (Wilson & Gilligan, 2005; Stacey, 1996; Naylor, 1999). Following this logic, a number of the strategic marketing control measures in this study reflect evaluation of performance and identification of discrepancies toward effective readjustments.

[49] Italics added by Author.

4.5 Accounting-Marketing Integration during the Strategic Marketing Process – The Antecedents

4.5.1 INTRODUCTION

Having explained above the strategic marketing premise in this study, Section 4.5 launches the concluding part of this Chapter. Organisations must ensure effective integration in order to exploit its inherent gains. Essentially thus, to fully harness the strategic marketing potentials, organisations must ensure mechanisms that facilitate effective integration during the strategic marketing process. This concern in mind, this study also explores the predicting influence of the emphasised antecedents (see Chapter 3) across the four strategic marketing stages.

4.5.2 ANTECEDENTS OF STRATEGIC MARKETING PROCESS INTEGRATION BETWEEN ACCOUNTING AND MARKETING

"Resources, in and on themselves, do not confer a sustainable competitive advantage" (Fahy & Smithee, 1999, p. 9), rather as Kay (1993) notes, a resource only becomes a competitive advantage when it is applied to an industry or brought to a market. This study thus, intends to enhance understanding of accounting-marketing integration and achieving competitive advantage through optimisation of strategic marketing efforts. Developing a match between the firm's resources and the success factors (strategic marketing competencies, in this case) is a demanding task and the success of the match is a function of the structural, management, and socio-cultural realities of the firm. Organisations must thus adopt a suitable mix of these variables to achieve the strategic marketing targets. Given this importance, the study aims to identify the factors that may account for variance(s) in the achieved level of integration at the stages of the strategic marketing process.

The dimensions of integration during the strategic marketing stages are explained in Section 5.5.2.1.1 while the hypotheses are specified in Section 5.5.2.2 and

summarised in Table 5.3. For the measurement of the hypotheses, the research instrument (see Section 6.9.1) is used, with integration dimensions explained in Section 6.9.1.2, while the other dependent variables group are explained in Section 6.9.1.3.

4.6 Conclusion to Chapter 4

This chapter explained the strategic marketing premise for this study. For that goal, it draws on and extends the background in Chapter 3. Following existing literature, this chapter aligns to the logic that effective accounting/marketing integration would yield strategic marketing benefits.

"One of the principal insights of the resource-based view is that not all resources are of equal importance or possess the potential to be a source of sustainable competitive advantage (Fahy & Smithee, 1999, p. 5). Expectedly also, not all organisational factors would exert the same magnitude, or directional influence on the extent of achieved integration along the various strategic marketing process stages.

The integrative framework (Figure 3.1) was justified in Section 3.2. Figure 3.1 proposed communication gap, non - departmental proximity, departmental differences and organisational factors – structural (formalisation), management (top management support for integration, management encouragement of risk taking behaviour, reward system, decentralisation, role flexibility and participation) as antecedents, of accounting/marketing integration (Figure 2.6) which draws on the theoretical premises in Figure 2.5. This proposition is applied to Chapter 4 to yield Figure 4.1 below.

By the context in Figure 4.1, the above constructs are proposed as predictors of accounting/marketing integration at the four conceptualised strategic marketing stages (see Sections 4.4.2.1 to 4.4.2.4). Thus Figures 3.1 and 4.1 are similar, in that both are

based on the same antecedent conceptualisation, as well as integration conceptualisation. On the other hand, they differ, in that the former sensitizes ordinary integration, while the latter is focused on integration during the strategic marketing stages.

Figure 4.1 is the Part B of the overall framework for the study (see Figure 5.1) in Chapter 5, and is examined by the structural Equation Model shown in Figure 6.4. The hypothetical relationships for Figure 4.1 that would be examined by the SEM (Figure 6.4) are defined in Section and sub-sections of 5.5.2.



Figure 4.1: The Framework for exploring antecedents of AMI during the Strategic Marketing Process.
Source: Author: Contents adapted from previous studies on cross-functional relationships

5 The Conceptual Framework and Hypotheses

This Chapter, extending the focus in Chapters 1 to 4, is geared towards justifying external validity and advancing the research concern. The placement of the proposed research framework in the broad CFR research domain is explained, highlighting a number of previous researches, which this study tapped from, in alignment with the core focus of this research, in the configuration of the framework. Also, in this chapter, the rationale for the pattern of parsimonious conceptualisation adopted in this study is explained. In this chapter too, the hypotheses for the two dependent variable groups are specified.

5.1 Introduction

Chapters 2, 3 and 4 have reviewed literature, both interface specific and broad CFIn. These combined have been summarised in Figures 3.1 and 4.1. The core target in this chapter is to present a framework that encapsulates the central focus of this study, as has been individually highlighted in the preceding chapters. Prior to presenting the overall framework for this thesis, Section 5.2 highlights few previous frameworks in the broad cross-functional relationship (**CFR**) domain, whose configurations picture elements of instrumental relevance to the configuration for this thesis.

5.2 Previous Frameworks / Models for the Study of CFIn and Relevance to this Study

Table 5.1 highlights frameworks/models used in previous CFR studies and the elements emphasised in the research inquests, while the details below explain the respective approach adopted in exploring the embedded elements and each study's relevance to this thesis:

- Examining the integration concept, Gupta *et al* (1986) emphasised that establishing the perceived need for integration was equally of importance as establishing the degree of achieved integration. Shown in Table 5.1, that study

flagged variables that define the need for integration and those that shape the degree of achieved integration. Concerning the latter (which is relevant to this thesis), they explored the influence of organisational (structural, management and operating characteristics) and individual (socio-cultural differences) factors. Gupta *et al* (1986) is relevant to this thesis, as it explored; (1) the influence of structural (formalisation, centralisation, participation and physical proximity), management dynamics (senior management's values and support of integration, risk-taking behaviour, joint reward system, tolerance of failure) and socio-cultural differences (professional/bureaucratic orientations, time orientation) factors on achieved integration, and (2) the synergies of integration.

- Exploring the tripartite cross-functional cooperation (**CFC**) between R&D, Manufacturing and Marketing, Song *et al* (1997) identified internal facilitators (evaluation of reward procedures and top management support) as drivers of inter-functional cooperation (communication, task orientation and interpersonal relations). The model also presents external forces (market competitiveness, technological change, competitor response time and environmental uncertainty) not only as antecedent of achieved integration but also as determinants of the internal facilitators. This model maintains that the strongest, most direct effects on **CFC** and NPD Performance come from a firm's evaluation criteria, reward structures and management expectations than that of the external factors. In that study, integration is conceived as interdependency and information sharing, two elements, along with the internal facilitators, that are also conceptually recognised in the framework for this thesis (see Figure 5.1).
- In their contribution, Xie *et al* (2003) examined an important challenge to effective **CFIn**: goal incongruity among marketing, R&D and manufacturing in

NPD. The study explored the motivational (management support for integration and joint reward system) and facilitative (physical proximity and job rotation) variables that influence goal incongruity and the impact of goal incongruity on the dimensions of **CFIn** (quality of cross-functional information, harmony of cross-functional relationships and level of cross-functional involvement). This approach stresses the pertinence of common goals in achieving effective integration. Despite configuration difference, this thesis, like Xie *et al* (2003) explores the influence of above specified motivational and facilitative variables, though (in this study) on information sharing, unified effort and involvement dimensions of integration.

- Emphasising inter-dependence motivations behind **CFC**, Ruekert & Walker (January- 1987) explored the organisational and working environment of firms. Their model predicts that more interdependence, task and work similarity, formal between-group interactions, and influence between groups lead to less conflict and higher transaction flows (flows of resources, works and assistance) and perceived effectiveness between the groups. In other words, the more one function believes they depend on another, the greater the interactions and resource flows across the functional boundaries and the more the influence the information-providing group has over the information receiving group.
- Although configured differently, Maltz's (1997) framework reinforces dyadic relationship importance of a number of variables shown in other frameworks. Building on the work of Griffin & Hauser (1996), Maltz (1997) proposed an enhanced framework to further the understanding of when integrating mechanisms designed to increase cooperation between marketing and other functions are likely to be most effective. The framework suggests that the

efficacy of an integrating mechanism varies across marketing's interfaces with different functions – manufacturing, finance, and R&D. The study also examined the effects of internal and external volatility.

- Based on the published studies of U.S. firms, Parry & Song (1993) explored how a firm's strategy (prospector, defender and analyser) and environmental uncertainty (competition and technology) determine the ideal level of R&D - marketing integration in Japanese firms. The study also investigated the influence of organisational structure (formalisation) and climate (the state of R&D-marketing relations, centralisation, participation, reward structure, management's value for integration, encouragement of risk-taking behaviour, and business background of R&D personnel) on the achieved integration in the interface.
- Embracing 5 antecedents (perceived environmental uncertainty, harmony, formalisation, centralisation and decision making participation), Song & Thieme (2006) explored, using a tripartite sample of U.S., China and Japan, the R&D – Marketing relationship, highlighting similarities and differences in CF-involvement between both departments in the product innovation process.

Table 5.1: Selected Frameworks/models configuration for previous studies into CFIn

Studies & Interface	Components embedded in the framework/Model
Gupta et al (1986) R&D - Marketing	The study explored how organisational strategy and environmental uncertainty define the need for **CFIn**, and how organisational and individual factors shape the degree of achieved **CFIn**. The relationship between these elements and innovation success was also explored. Thus, antecedents and synergies of integration were explored.
Song et al (1997) R&D, Mfg. & Marketing	The study explored the internal facilitators and external forces that shape the CFI in organisations and the link between achieved integration and NPD performance.
Xie et al (2003) R&D, Mfg. & Marketing	This study explored how motivational and facilitative variables influence goal incongruity. Also, it explored the consequence of goal incongruity on **CFIn** in NPD.
Ruekert & Walker (January-1987)	This study shows a pattern of internal and external environments of an organisation's situation that influence the structural/process dimensions (transactions work, communication and coordination) and the outcomes (functional and psycho-social).
Parry & Song (1993) R&D-Marketing	This study investigated the influence of firm's strategy and environmental uncertainty on the ideal level of integration, as well as the organisational structure and climate on the achieved R&D-Marketing integration.
Maltz (1997) Marketing-Manufacturing Marketing-R&D Marketing-Accounting	This study explored the influence of integrating mechanisms Integrating Mechanisms (Multi-functional training, evaluation variety, cross-functional teams, social orientation, spatial proximity, formality) on cooperation in the Marketing-R&D, Marketing-Manufacturing, and Marketing and Accounting interfaces.
Song & Thieme (2006) Marketing-R&D	In a tripartite study of U.S., China and Japan, this study explored the influence of perceived environmental uncertainty, harmony, formalisation, centralisation and participation in decision making on three specified integration gaps, in relation to R&D – Marketing relationship. Also explored is the impact on product innovation success.

5.3 The Framework for this Study

The above frameworks/models present various perspectives in shedding light on the subject of CFR or CFIn, as used interchangeably in literature. Overall, the

configurations reflect either backgrounds of inter-dependency theory, organisational theory, socio-cultural theory or contingency theory, and embed elements central to addressing the research motivations behind respective studies. Some configurations suggest moderating or causal relationships may exist between explored factors.

Thus, framework is contingent on explored dynamics. Although these frameworks/models are homogeneous on the core CFR variables, the configurations differ, evidencing singularity of each individual study. This study of **AMI** adopts an integrative theoretical framework that aims to offer a rich account of accounting–marketing relationship. Given that target, this study embraces a broad range of variables reviewed above, however configured to align with this research's goal.

Maltz (1997) calls for a more comprehensive framework to explore the dynamics of cross-functional integration. Combining distinct, yet complementary theoretical traditions, this thesis suggests a fruitful avenue of research linking achieved level of integration with strategic marketing process. In developing the framework below the researcher focused on the core issues, variables and constructs that are central to the major theoretical streams upon which this study draws, yet introduces novel ideas that link these streams.

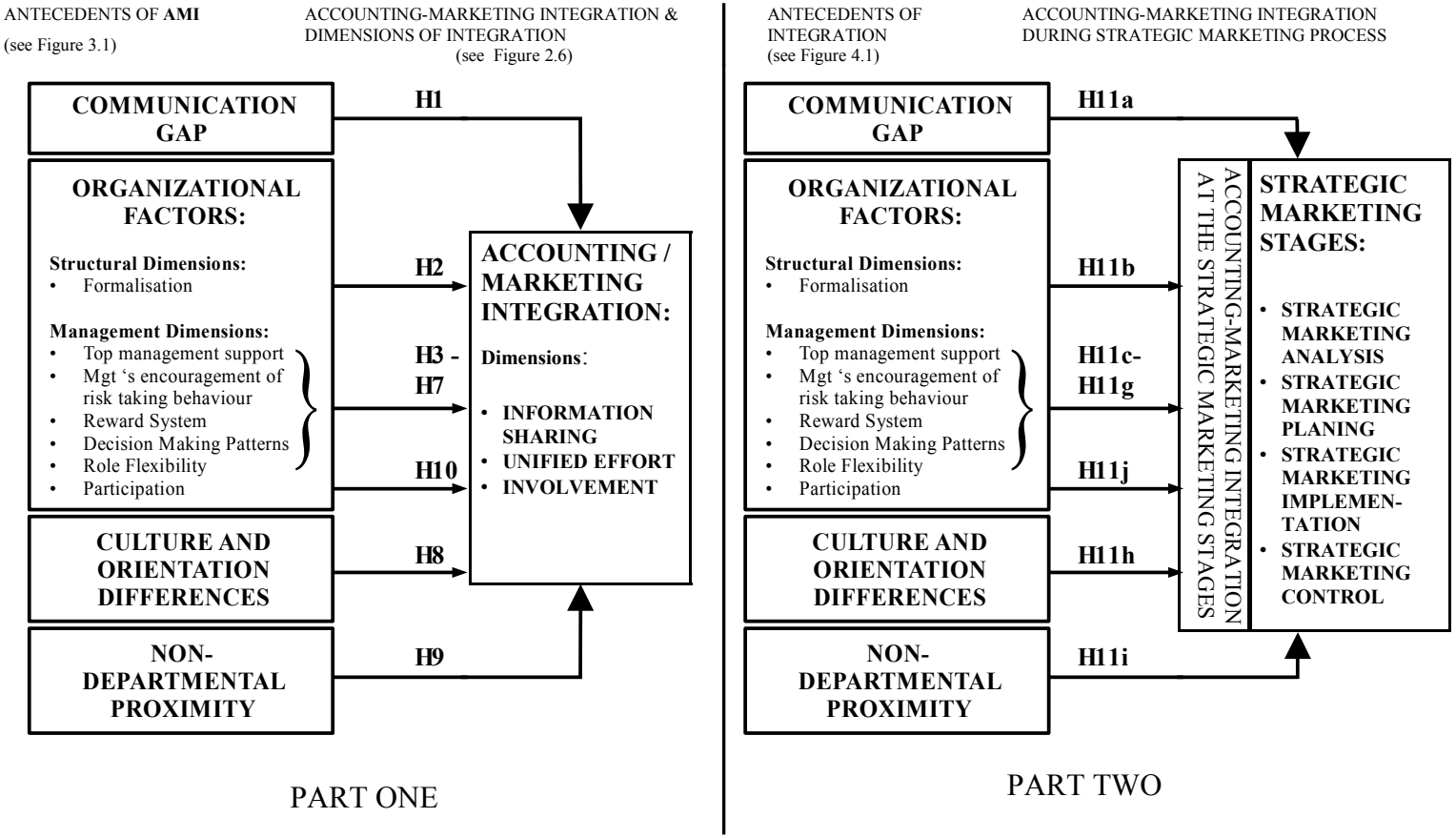


Figure 5.1: The Research Framework for the Study of Accounting-Marketing Integration
Source: Author

5.4 Rationale for the Framework for the Study of AMI

Figure 5.1 presents the framework for this study of accounting-marketing integration, highlighting the specific elements that are crucial to the research focus. Given the research problem (see Section 1.2) of this thesis, which suggests ineffective accounting-marketing integration - a phenomenon that culminates in the non-exploitation of the synergistic potentials of a healthy relationship between them, this thesis aims, as a reminder, to address below research questions:

a) What are the antecedents that predict the degree of achieved **AMI** in an organization?
b) What are the factors that influence the degree of achieved **AMI** during the strategic marketing process in an organisation?

To aid extensive exploration of issues identified in the research questions, insights were drawn from theoretical precedence (conceptual and empirical) (e.g., Harrison, 1979; Bancroft & Wilson, 1979; Wilson, 2000; Roslender & Hart, 2002; Song & Parry, 1992; Parry & Song, 1993; Maltz, 1997; de Ruyter & Wetzels, 2000; Dewsnap & Jobber, 2002 & 2004; Mollenkopf *et al*, 2000; Chimhanzi, 2004; Garrett *et al*, 2006; Perks & Riihela, 2004; Song *et al*, 2006; Le Meunier-FitzHugh & Piercy, 2007; Le Meunier-FitzHugh & Lane, 2009) to arrive at the framework for this study:

The following backgrounds underlie the rationale for the individual elements embedded in the configuration:

The levels of **CFIn** in organisations – Following integration precedence (e.g., Song & Parry, 1993; Gupta *et al,* 1987) integration is gauged on a continuum of high and low across organisations. Extending Song & Parry (1993) and Gupta *et al* (1987), this study, additional to integration summation, gauges integration dimensions of unified effort, involvement and information sharing.

While chapter one outlined core issues and justifications for this study, chapter two elaborated the typical problems suggested by literature to plague **AMI**. To positively manage these problems and ensure accounting-marketing integration, there is need to identify the antecedents of **AMI** and the extent of influence thereof. For this reason, this study's framework also includes antecedents. Researchers (Bancroft & Wilson, 1979; Harrison, 1979; Song & Parry, 1992 & 1993; Maltz, 1997) call for more exploration of the antecedents of **CFIn**. Being aware of these variables and nature of influence on the achieved integration is of immense importance to contemporary organisations, as it enhances their ability to manage these variables and boost the chances of achieving effective integration towards enhancing the **SMM** outcomes. Recognising this importance, this study explores a wide range of these variables.

In 1983 Wind and Robertson (p. 14) note, "the interdependency between marketing and other business functions has received little attention in the literature". Similarly, Huth and Speh (1984, p. 53) observe that "the marketing literature has given little attention to the web of interrelationships that exists between marketing and the other business functions. This is especially surprising, given the pivotal role that functional interdependence or integrated effort inevitably assumes in discussions of the marketing concept". Ruekert & Walker (1987–January) acknowledge **CFIn** importance and recommend objective look into the effectiveness and efficiency of inter-functional outcomes. Given contemporary interest in this area, it seems rational to argue that Wind and Robertson (1983) and Huth and Speh (1984) galvanised much awareness of marketing's interdependency relationship and evident research void.

Previous empirical **CFIn** investigations found rigorous support for a positive contribution of such relationship to NPD success (see, Song & Parry, 1993; Song & Parry, 1992; Gupta *et al*, 1985a & b; Parry & song,1993; Calantone & Di Benedetto,

1990; Song *et al*, 1997; Tzokas *et al*, 2003; Olson *et al*, 2001; Song & Thieme, 2006), innovation (see, Hurly & Hult, 1998; Gupta, 1984; Gupta, 1986; Moenaert & Souder, 1990), market orientation (see, Desphande *et al*, 2000; Hurly & Hult,1998; Slater & Narver, 1994; Kohli & Jaworski, 1990; Narver & Slater, 1990; Mouritsen, 1997; Le Meunier-FitzHugh & Lane, 2009) and *organisational performance* (see**,** Song *et al*, 1997; Olson *et al*, 2001; Le Meunier-FitzHugh & Lane, 2009). While majority of these empirical evidences relate to R&D-Marketing interface, the accounting-marketing interface still remains largely neglected.

The impact of R&D-Marketing integration on NPD and innovation has received numerous empirical confirmations. In pure contrast, accounting-marketing integration's link to organisation success has, apart from Roslender and Hart's 2003)[50] interview-based effort, only received conceptual mention (see, Foster & Gupta, 1994; Roslender & Hart, 2000 & 2002; Wilson, 2000; Stephen & Archambault, 1998). Roslender and Hart (2003) reinforce the position in these conceptual efforts, emphasising the importance of accounting-marketing integration to shaping the marketing dynamics of the organisation.

There is documented huge research gap and this requires a commensurate comprehensive attention in this study. Though this study does not explore the link between **AMI** and **SMC**, it seeks to contribute to bridging the obvious gap in this domain. To do this, this study draws on proposed synergistic foundations (Roslender & Hart, 2003; Foster & Gupta, 1994; Wilson, 2000) and explores the predicting influence of organisational (structural and management), communication, socio-cultural, and social capital factors on achieved **AMI** during the strategic marketing process, thus laying a foundation for future research directions in this dyad.

[50] The details of the exploratory field study by Roslender and Hart (2003) – see Roslender & Hart (2003). In search of strategic management accounting: theoretical and field study perspectives, *Management Accounting Research*, 14(3), pp. 255-279.

Overall, the approach to modelling **AMI** derives its support from internal and external paradigms of organisational behaviour, management culture, organisational context of business strategy, customer orientation, flexibility and efficiency, socio-cultural differences amongst integrating partners, as well as the synergistic propositions as outlined in chapter 4. These backgrounds are summarised in Figures 3.1 and 4.1 and both transported unto Figure 5.1

"Many of the limitations of previous work on marketing's interaction with other functional areas can be overcome by examining the broad range of social processes involved in the interfunctional relationships, rather than concentrating only on specific points of conflicts, normative prescriptions, analytical tools, or decision making mechanisms"(Ruekert & Walker, 1987 – January, p. 2). To address the research problems for this thesis, and extendedly fill research gaps, the proposed framework reflects a broad range of social processes that characterise **AMI**, a design that suggests a rich formula of 'how' to best integrate accounting and marketing (conceptualisation of integration) (see Section 2.10 and Figure 2.6), and 'what' integrating mechanisms would best facilitate achieved **AMI** (antecedents of integration), ordinarily (see Figure 3.1) and during the strategic marketing process (see Figure 4.1).

Next, the framework (Figure 5.1) is explained and the hypotheses defined in Section 5.5. The research instrument for exploring the hypothesised relationships is introduced in Section 6.9.1, while the Structural Equation Models for examining Figure 5.1 (Part A and Part B) are introduced in Section 6.12.1.1.

5.5 Explaining the Framework & Statement of Hypotheses

Figure 5.1 (part A) conceptualised the predictors of Accounting/Marketing integration. The framework proposes communication gap, non-departmental

proximity, departmental differences, and organisational factors – structural (formalisation) and management (top management support for integration, management encouragement of risk taking behaviour, decentralisation, role flexibility reward system and participation) would influence the degree of achieved dimensions of accounting-marketing integration.

Since a relatively coherent stream of literature, though mainly conceptual and anecdotal, suggest strategic marketing synergy potentials, given effective accounting-marketing integration (see Sections 1.2, 4.1 & 4.2), there is need to fill important theoretical void and shed light not just on the dimensions pictured in Figures 3.1 and 5.1 (Part A) above, but also on how these constructs shape accounting/marketing integration at various stages of the strategic marketing process. Thus, grounded on the same theoretical rationale for Figure 5.1 (Part A), Figure 5.1 (Part B) conceptualised a framework that proposes same group of constructs as predictors of accounting/marketing integration during the strategic marketing process (4-stages).

From the Parts A and B conceptualisation (Figure 5.1), there are two dependent variable groups in this study. For Figure 5.1 (Part A), the hypotheses are flagged in sub-section 5.5.1, while sub-section 5.5.2 presents the hypotheses for Figure 5.1 (Part B). Eleven hypotheses are proposed for the measurement of Figure 5.1. Hypotheses 1 to 10, representing the 10 antecedent constructs in Figure 5.1 Part A, relate to Figure 5.1 Part A, while hypothesis 11, which contains 10 hypotheses, relates to Figure 5.1 Part B.

For both groups, given elaborate literature review undertaken for each construct (see applicable sections and sub-sections of Chapters 2, 3 and 4), very brief theoretical validation is undertaken here in specifying the hypotheses, to avoid duplication of facts.

5.5.1 STATEMENT OF HYPOTHESES FOR FIGURE 5.1 (PART A)

Integration is the dependent variable for Part A. Integration is conceptualised as a higher-order construct, whose dimensions include InfoS, UniE and Inv as defined in Section 2.10 and contextualised in Figure 2.6. The hypotheses explained next thus apply to this emphasised integration context.

Justified on evident research gaps (see Sections 3.1 and 3.2), and supported by theoretical evidence (see Sections and subsections of 3.3 to 3.7), the conceptualised antecedents of accounting/marketing integration, summarised in Figure 3.1, include Communication Gap, Formalisation, Management Support for Integration, Reward, Management's Encouragement of Risk-Taking Behaviour, Decentralisation, Role Flexibility, Participation, Culture and Orientation Differences, and Non-Departmental Proximity.

Tapping on the theoretical foundations for each construct highlighted in Chapter 3, the following hypotheses are defined to explore Part A of Figure Figure 5.1 (see Sections 5.5.1.1 to 5.5.1.10).

5.5.1.1 Communication Gap (COMMGAP)

To achieve organisational objectives, internal participants must embrace and practice effective communication. Section 3.3 flagged relevant context theory. Accounting/marketing literature suggests communication issues in the interface (see Section 2.3), while R&D/Marketing interface literature identifies communication gap as integration barriers (e.g., Gupta *et al*, 1985 – see Tables 3.2 part 1 and 3.4; Song & Parry, 1993 – see Table 3.4). Contemporary sales/marketing interface evidence (Le Meunier-FitzHugh & Piercy, 2007) advices that "to improve the relationship between sales and marketing, senior managers need to …, create effective communication, ….." (p.952).

There seems to be a communication gap in the accounting-marketing interface, for according to Drury *et al* (1993) and Abdel-Kader and Luther (2004) accounting also did not provide marketing with accurate and timely[51] information. a circumstance that hinders integration and the **SMM** drive. Considering the role of effective communication in the coordination of organisation strategy, this study, aligning accounting/marketing interface literature to R&D/Marketing precedence , proposes that communication gap (unawareness of information needs, inability to meet information needs, inaccurate information and untimely information) would hinder accounting-marketing integration, thus the hypothesis:

H1 (COMMGAP): The more the communication gap between Accounting and Marketing the less the achieved accounting/marketing integration.

5.5.1.2 Formalisation (FORM)

Formalisation is a common tool of corporate policies. In that connection, reasonable research effort has been devoted to its association to cross-functional integration (e.g., Gupta *et al*, 1987; Parry & Song, 1993; Ruekert & Walker, 1987; Moenaert *et al*, 1994; Mollenkopf *et al*, 2000; Dewsnap & Jobber, 2004; Shipilov & Danis, 2006; Song & Thieme, 2006).

Despite invested effort, two clear research gaps are evident:

1). There are, to the best understanding of the researcher, no empirical evidence on the accounting/marketing interface.

2). The dimension of influence of formalisation on integration is fuzzy and still a subject of debate among researchers (see Tables 3.3 and 3.8).

Section 3.4.1 pinpoints literature, that amongst others, highlights empirical contrasts on the influence of formalisation on integration between functional areas. Alarmingly, even studies (Gupta, 1984; Gupta *et al*, 1987; Parry & Song, 1993; Song

[51] Timeliness is formally defined as the degree to which information is perceived as current and actionable – Maltz (2000)

& Parry, 1993) that explored the same interface (R&D – Marketing) interface, the same high-tech industry, as well as using the same scale, suggest conflicting findings.

To contribute to filling accounting/marketing dyad void, and broad interface understanding of this link, this thesis explores the impact of formalisation on accounting-marketing integration. According to organisation theory, task integration often facilitates the coordination of tasks (Jaspers & van den Ende, 2006). Drawing further on this theoretical lens, formalisation should have a positive impact on achieved integration, for, following Hatch's (1997) conceptualisation, if organisational processes are formalised, the possibilities of ambiguities concerning tasks and role fulfilment and overall organisation procedures would be eliminated.

Similarly, a formalised organisation procedure would enable uniformity, continuity and automatic processing of information. On these foundations, formalisation is vital to the wheel of integration as unnecessary bottlenecks and delays are eliminated, a circumstance that facilitates quick communication flow and speedy decision making. Given these facts, the researcher expects achieved accounting/marketing integration to be positively related to the level of formalisation, hence the hypothesis below:

H2 (FORM): The higher the formalisation in an organisation, the greater the achieved level of accounting-marketing integration.

5.5.1.3 Management Support for Integration (MANSFINT)

According to management theory (see Tables 3.9 & 3.10), top management support is an important determinant of achieved interfunctional integration (see e.g., Gupta, 1984; Gupta *et al*, 1986; & 1987; Parry & Song, 1993; Mollenkopf *et al*, 2000; Dewsnap & Jobber, 2004; Chimhanzi, 2004; Le Meunier-FitzHugh & Piercy, 2007; Le Meunier-FitzHugh & Lane, 2009).

Utilising R&D/Marketing interface evidence that management support would enable interfunctional integration, this study aligns to theory that reinforces the

importance of team elements to achieving the goals of integration. While team culture unites organisational participants, its uniting potency hinges largely on all organisational entities (including management) sharing and believing in the efforts towards profitably satisfying customers.

Essentially thus, management is a critical factor to harnessing this potency: hence management does not only have to create a climate and culture conducive to **AMI**, but also be committed to and supportive of the integration effort.

Applying this team culture foundation to **AMI**, it is expected that:

H3 (MANSFINT): The more management supports Accounting/Marketing integration, the more the achieved integration between the functions.

5.5.1.4 Management's Encouragement of Risk-Taking Behaviour (RISKBEH)

As evidenced in Section 3.4.2.2, and supported by Tables 3.9 & 3.10, management's encouragement of risk-taking behaviour predicts the degree of achieved integration (Gupta *et al*, 1986; 1987; Parry & Song, 1993). According to Gupta *et al* (1986), organisations with high achieved R&D-marketing integration evidenced high management's encouragement of risk-taking behaviour amongst integrating members.

Considering volatility and fierce competition in modern day market place, it seems logical to expect that if management encourages such risk taking behaviour and shows necessary tolerance for failures, this invariably instils confidence in the participants and motivates the integration efforts. On this logic, it is suggested that if management climate accommodates risk taking behaviour and also tolerates failure in such, then achieved **AMI** will be high, hence the hypothesis:

H4 (RISK): The more senior management encourages risk-taking from the accounting and marketing managers, the greater the degree of integration that will be achieved.

5.5.1.5 Reward System (REWARD)

"Procedural justice" literature (Dooms & van Oijen, 2005) flags pay decisions influence on group relationships. Poorly managed reward decisions could ignite an

atmosphere that jeopardises the goal of integration. Substantial literatures support the importance of joint reward system to integration (Gupta, 1984; Moss, 1986; Parry & Song, 1993; Song *et al* 1997; Griffin & Hauser 1996; Dewsnap & Jobber, 2004; Mollenkopf *et al*, 2000; Leenders & Wierenga, 2002; Chimhanzi, 2004; Le Meunier-FitzHugh & Piercy, 2007).

Elaborated in Section 3.4.2.3, empirical findings are however conflicting: joint reward is positively (Gupta *et al*, 1987; Gerstenfeld & Sumiyoshi, 1980; Leenders & Wierenga, 2002; Parry & Song, 1993), negatively (Parry & Song, 1993), and insignificantly (Chimhanzi, 2004; Dewsnap & Jobber, 2004) associated to achieved degree of integration. The studies of Parry and Song (1993) and Chimhanzi (2004) captured mixed results. In a recent examination of this construct, Le Meunier-FitzHugh and Piercy (2007) report that "there was very limited support for the proposition that aligned sales-marketing rewards will improve collaboration between sales and marketing" (p. 951).

General compensation researchers have shown that perceptions of inequity can result in undesirable behaviour on the part of an individual (Cropanzano & Randall, 1994), and suitable reward measures are known to be vital motivators to employee performance, for rewards are recognition of one's performance.

Recognising the potential for accrued benefits from aligned rewards on interfunctional relationships, Le Meunier-FitzHugh and Piercy (2007) call for further exploration of this variable. This call reinforces Chimhanzi (2004, p. 88), who previously flagged this need and also commented that there is "little research into this form of reward system" (op. cit.).

Suitable reward measures would enhance employee performance: reward is recognition of performance. This researcher believes that adopting a suitable reward

structure among team members is important for team motivation. Organisations must embrace joint reward to enable integration. Joint reward system "is behaviour based and fosters good practice" (op. cit.) and the motivational input of such reward system must be exploited for the target of profitably satisfying customers.

On the above theoretical premise, a positive correlation between joint reward and achieved accounting-marketing integration is expected, thus hypothesis:

H5 (REWARD): The more accounting and marketing managers are perceived to be equally rewarded for the integration outcomes, the greater the achieved integration.

5.5.1.6 Decentralisation (DCENT)

Smooth decision making process and routines is essential in team interaction and collaboration efforts (Shipilov & Danis, 2006). Whether the smoothness is centralised or decentralised is equally important. Substantial literature (e.g. Moenaert *et al*, 1994; Parry & Song, 1993; Souder & Song, 1998; Gupta, 1984; Gupta *et al,* 1986 & 1987; Song & Thieme, 2006; Garrett *et al*, 2006) for R&D–marketing, (e.g. Dewsnap & Jobber, 2004) for sales–marketing, and (e.g., Mollenkopf *et al*, 2000) for marketing–logistics integration, contend that achieved integration is a factor of centralised or decentralised decision making in organisations.

According to literature, however (see Section3.4.2.4), the link to integration is still very blurred. Empirically, centralisation impacts negatively (Deshpande, 1982; John & Martin, 1984; Gupta *et al*, 1987; Wind, 1982, p. 484) and positively (Parry & Song, 1993 – for 2-equations) on integration. In the case of Parry and Song (1993), the estimated coefficients suggest the opposite: in two equations (2-item scale), the coefficient of the concentration-of-decision-making-authority variable (**CONT**) was both positive and significant, a contrasting indication that higher concentrations of decision making authority are associated with higher perceived levels of R&D-

marketing integration. For the other equations, no association was found between centralisation of decision-making authority and levels of achieved integration,

Compounding the opaqueness of this variable, recent research found a non significant correlation of decentralisation (Dewsnap & Jobber, 2004) and of centralisation (Mollenkopf *et al*, 2000) on achieved integration.

The disparity in findings between Gupta *et al* (1987) and Parry and Song (1993) warrants further investigation of the link between decision making pattern and cross-functional integration, especially given industry (high-tech companies) and interface (R&D-marketing) homogeneity of both studies. What explains this disparity? What could be the trend if another interface was explored? Does decentralisation really enable integration or is the reverse the case?

It is important that organisations understand how decision making patterns impact on achieved integration and to contribute to enhancing knowledge, this thesis aims to explore accounting-marketing dyad evidence of this link. Decentralisation thrives on team[52] philosophy and this researcher believes that if decision making powers are spread across the organisation (i.e., if the accountant and marketing manager are empowered with decision making rights), it will enable the exploitation of team skills, swift exploitation of opportunities and better realisation of integration synergies. Also, McDonough III (2000) maintains that giving team members' decision making authority increases commitment to project and can also lead to greater satisfaction on the part of team members. Given above logic, the researcher expects decentralisation to impact positively on accounting-marketing integration, hence:

H6 (DCENT): The more decentralised the decision making process of an organisation, the more the achieved Accounting–Marketing integration.

[52] 'Teams permit employees to pool their ideas and to provide more creative solutions to problems' – Morgan (2001).

*5.5.1.7 **Role Flexibility (ROFLEX)***

Role flexibility, the degree of extra-functional tasks a project member assumes (Moenaert & Souder, 1990) impacts on the degree of integration (see Parry & Song, 1993; Moenaert & Souder, 1990; Moenaert *et al*, 1994[53]; Leenders & Wierenga, 2002; Jaspers & van den Ende, 2006). From reviewed literature (see Section 3.4.2.5), such out-of-role behaviour aids CFIn activities like communication, cooperation, and help outsiders understand department-specific practices, procedures, and problems. There is however, also a contention of non-significant relationship (Leenders & Wierenga (2002).

Also, Section 3.4.2.5 pinpoints role flexibility relevance to knowledge gap and conflict issues. Sensitizing the role flexibility element is important in this study, for a number of reasons:

1. There is need to enhance overall understanding of this construct,
2. For that target (1 above), there is need for theory testing, given conflicting results in past studies (Section 3.4.2.5),
3. There is need for accounting/marketing interface evidence, as no such evidence exists yet,
4. For the accounting/marketing interface further, given the knowledge gap , communication and conflict issues flagged in Section 1.2, Section 2.3 and Figure 2.6, as identified in respective studies (e.g., Stephen & Archambault, 1998; Wilson, 2000; Roslender & Hart, 2002; *inter alia*) this study is relevant.
5. Exploring role flexibility in the accounting/marketing interface is also necessary, as it fits the the integration conceptualisation for this thesis which embraces involvement, a cross-functional factor that aligns with the need for cross-functional role performance.

[53] Role flexibility stimulates information flows between marketing and R&D personnel

Essentially, the exploration of this variable sensitizes the extent that planned job rotation between accounting and marketing is exploited as capabilities enhancing device, and frequency of rotations.

Future research should investigate, amongst others; personnel movement's facilitating influence on dyadic relationships (Squire *et al*, 2009). On the above specified cross-functional role performance logic, the researcher supports the view of Moenaert & Souder (1990b), and expects **ROFLEX** to be positively related to the degree of **AMI**, hence the hypothesis:

H7 (ROFLEX): The more the role flexibility between Accounting and Marketing personnel, the more the achieved Accounting/Marketing integration.

5.5.1.8 Culture & orientation Differences (CODIFF)

Empirically (see Section 3.5), different professions have different cultures[54] (see Bancroft & Wilson, 1979; Wilson, 2000; Kotler *et al*, 2006), and these culture differences influence achieved integration (see Table 3.12). Based on Table 3.12, the core departmental differences in culture, perceptions, orientations and focus influence achieved integration (see Field & Gabart, 1971; Williamson 1979; Harrison, 1979; Gupta *et al*, 1986; Mills & Tsamenyi, 1998; Wilson, 2000; Olsen *et al*, 2001).

Literature (Williamson, 1979; Hindle, 1985; Durden, 1988; Wilson, 2000) suggests differences between accountants and marketers (see Section 3.5). Noted by Wilson (2000), a sharp contrast between accountants' introspection and the marketer's concern with the diagnosis of environmental opportunities has been made by a number of writers (e.g., Simmonds, 1970; Wilson,1975, 1979 & 1981). Accountants (see Section 2.3) are still production era[55] minded (Harrison, 1979;

[54] Ember & Ember (1985, p. 166) culture encompasses the learned behaviours, beliefs, and attitudes that are characteristic of people in a particular society or population. It is the shared custom of a society – in Neil Cooper (2005).

[55] 'Business as a whole is comprehending the importance of marketing, but accountants often are not. … management accounting must "break free" from the dominant production orientation of the past.' (Durden, 1988, p. 5).

Bancroft & Wilson, 1979; Durden, 1988; Ratnatunga *et al*, 1990) instead of embracing the "marketing concept" philosophy (Wilson, 2000).

As Section 3.5 further shows, there are uncooperative and uncreative, and goal incongruity issues between these departments (Durden, 1988; Moss, 1986), evidences that are supported by sales-marketing interface literature (Kotler *et al*, 2006) that flags cultural and economic friction drivers.

Wilson (2000) and Britton (1971) suggest culture and perception differences in the accounting-marketing interface. On behaviours that retard integration, the former notes, accountants do not accept marketing as a distinct and separate managerial function, while the latter notes that too many accountants regard marketing as a "quasi sales function only to be vested in the ultra optimist who thrives on dreams of fantasy" (p. 626).

Thus, there are attitudinal disparities across the two departments, and since such cultural and perception differences are typical of the accounting-marketing dyad, as literature suggests, then team climate becomes obviously threatened. Effective interfunctional integration thrives on amicable team climate; a critical substance in the conceptualisation of integration for this thesis.

Goal incongruity (Xie *et al*, 2003) hinders integration. On the team foundation, 'unified effort' and 'togetherness' themes reinforce concerns of 'unity of purpose' or 'goal congruity'. If, as literature suggests, accounting and marketing exhibit such parallel culture, orientation and perception tendencies, then the foundation for effective integration is sacrificed. On these behaviour traits, accounting and marketing cannot be on the same boat, a circumstance that hinders information sharing, unified effort, and involvement; leading extendedly to non-exploitation of interface synergies.

On the above facts, the researcher expects departmental culture and perception differences to have a negative influence on **AMI**, hence the below hypothesis:

H8 (CODIFF): The more the culture and perception differences between marketers and accountants in the accounting-marketing interface, the less the achieved integration.

5.5.1.9 Non-Departmental Proximity (NONDEPPROX)

Based on the social capital logic (e.g., Adler & Kwon, 2002; Shipilov & Danis, 2006) that face to face interaction is necessary between social units (Brown, 1983), interfunctional relationships literature suggests physical proximity utility to integration (see Table 3.13).

According to Shipilov & Danis (2006), goodwill - the substance of social capital (Dore, 1983; Shipilov & Danis, 2006), whose source lies in the structure and content of an actor's social relations, is tapped through information influence and solidarity it makes available to the actor.

Mainstream CFIn literature flags physical proximity as interfunctional integration facilitator, a lens that is grounded on **team work psychology theory**. Spatial nearness (Jaspers & van den Ende, 2006) does not only promote interaction (Wilson & Bancroft, 1983; Allen, 1986; Gupta *et al*, 1987; Kahn & McDonough III, 1997; Dewsnap & Jobber, 2004; Xie *et al*, 2003; Jaspers & van den Ende, 2006) but also enables the chances for regular informal interactions (Maltz & Kohli, 1996; de Ruyter & Wetzels, 2000).

Physical proximity, this researcher argues enables '*socialisation*', a concept (Gupta & Govindarajan, 2000) that reflects the level of interaction between, and communication of, various actors that leads to the building of personal familiarity, improved communication, and problem solving. Social capital is a force that binds and lubricates, facilitating efficient internal use of resources by promoting collective action and cooperation (Shipilov & Danis, 2006), and such regular informal

interactions promote goodwill (Adler & Kwon, 2002; Shipilov & Danis, 2006), a trend that improves staff compatibility upon which the synergies of the integration subsets of 'unified effort' and 'involvement' can be fully leveraged. Thus, given the inherent inter-personal dynamics, it is to be expected that the nearer accounting and marketing are to each other, the greater the tendency for inter-personal closeness, and goodwill to develop. This researcher believes that the greater the nearness between accounting and marketing, the greater the chances for effective integration between them, for physical proximity of the integrating personnel would enable a conducive atmosphere that motivates a friendly and "willing-to-integrate" mentality and relations between the integrating functions.

The influence of physical proximity on integration requires further empirical examination, on the combined evidence in Sections 3.6 and 5.5.1.9:

1. More research effort is required in relation to Gupta *et al*'s (1986) research call,
2. There are conflicting findings concerning this link (see Section 3.6),
3. Accounting/Finance – Marketing interface paints a vague picture about this link (see Section 3.6)
4. Contemporary evidence is needed on this link, especially concerning accounting-marketing interface (see Section 3.6)

Responding to Gupta *et al*'s (1986) call for more exploration of physical proximity's role on **CFIn**, and to enhance understanding of the link relative to **AMI**, the researcher believes that, given the above highlighted social capital argument, physical proximity should impact positively on **AMI**, hence the hypothesis below:

H9 (NONDEPPROX): The more the non-departmental proximity between Accounting and Marketing, the less the achieved integration between accounting and marketing.

5.5.1.10 Participation (EMPPASMS)

As literature shows (see Section 3.7), while employee participation is one of the most researched organisational practices (Sagie, 1997). the link between participative decision making and inter-departmental relationship is still very much opaque.

Empirically (elaborated in Section 3.7), there are contrasting findings concerning the hypothesis that higher levels of employee participation are associated with higher levels of achieved integration: while Parry and Song (1993) found no support, Gupta *et al* (1987) report positive association in the R&D-marketing interface.

It is important to explore participation's link to achieved integration, to enhance accounting/marketing dyad understanding, and also to fine-tune theory. Following empirical precedence (e.g., Parry & Song, 1993; Song & Thieme, 2006), participation in this thesis reflects participative engagement of personnel of both departments in the decision making across the stages of the strategic marketing process.

This study believes that if the personnel of both departments participate in such decision making processes, it would enhance their technical knowledge understanding and extendedly, their willingness to share information, show unified effort and involvement. Grounded on the motivational benefit logic of participative behaviours, the researcher expects participative decision making to enable integration, hence H10:

H10 (EMPPASMS): The more Accounting and Marketing personnel participate in the decision making process, the more the integration between accounting and marketing

5.5.2 STATEMENT OF HYPOTHESES FOR FIGURE 5.1 (PART B)

Achieved integration during the strategic marketing stages is the dependent variable realm of Part B. Applying the theoretical backgrounds for Figure 2.6 to the stages of the strategic marketing process (see Section and sub-sections of 4.4.2), integration at the strategic marketing stages was conceptualised.

Prior to specifying the hypotheses (see Section 5.5.2.2) for exploring part B of Figure 5.1, Section 5.5.2.1 clarifies the strategic marketing stages integration conceptualisation.

5.5.2.1 Integration at the Strategic Marketing Stages

This is explained in two parts. First, the measurement items for gauging each integration dimension at each stage of the Strategic Marketing Process are defined in Section 5.5.2.1.1 leading to the evidence in Table 6.5. Thereafter, the hypotheses for Figure 4.1, Figure 5.1 Part B, both pictured in Figure 6.4, are defined in Section 5.5.2.2.

5.5.2.1.1 The Dimensions of Integration at the Strategic Marketing Stages

Section 4.4.1 specified the strategic marketing context for this study, while Section 4.4.2 reviewed literature on strategic marketing stages, highlighting critical elements for each stage. The strategic marketing process integration realm for this study is specified in Section 5.5.2.1.1.

'Creating value for buyers is much more than a "marketing function"; rather a seller's creation of value for buyers is analogous to a symphony orchestra …' (Narver & Slater, 1990, p. 22), cited in Roslender and Hart, 2006, p. 235. Coordination of firm's resources is critical for value creation. Organisational routines and interactions, amongst others, are tools by which firm's resources are co-ordinated (Grant, 1991), and teamwork (Fahy & Smithee, 1999), but not limited to, is a typical example of such organisational routines and interactions. Building on this range of insights, this study identifies interaction and teamwork dynamics as the core capability constituents for optimizing strategic marketing integration synergies. Achieving best orchestrated strategic marketing, this study argues, depends on effective "symbiotic interrelating" (Souder & Chakrabarti, 1978), one conceptualised to include three dimensions.

Developing and maintaining strategic consensus is important for organisational performance, and effective dissemination and optimum leveraging of information thrive on that (Hansen, 1999; Shipilov & Danis, 2006). Such strategic consensus aligns with the goal congruity theory, one, this researcher maintains, should embrace not only information sharing, but also unified efforts and involvement. Organisations must remain collective entities with common goals and objectives (Knight *et al*, 1999; Shipilov & Danis, 2006) and such strategic orientation strengthens the general dedication to the team/organisational competitive mission.

"The essence of developing a marketing strategy is to ensure that the company's capabilities are matched to the competitive market in which it operates" (Hooley *et al,* 2004, p. 33). For a commercial organisation, they add, this means ensuring that resources and capabilities match the needs of its market. Extending Hooley *et al's* (2004, p. 33) viewpoint, (Wilson & Gilligan, 2005, p. 20) note that if implementation is ineffective, the carefully devised strategy will be unable to help improve organisation's performance. It is critically important that such strategic consensus be evident in the entire strategic machinery, i.e., the information sharing, unified effort and involvement dynamics must reflect this consensus and across all the stages of strategic marketing management.

Hooley *et al* (2004, p. 33) and Wilson & Gilligan (2005, p. 20) combined; reinforce Bourggeois (1980) and Schendel & Hofer (1979) who commented: One key to successful strategic management is the ability to align organisational resources, capabilities and competencies with environmental opportunities and threats in a manner that facilitates high performance. Strategic Marketing is a channel for achieving marketing orientation, and the argument is that effective accounting and marketing alignment is critical to achieving strategic marketing objectives. To fully

optimize these synergy potentials, such alignment culture must be reflected across all strategic marketing stages.

Since the aim is to capture dimensional importance, and factors accounting for variance in achieved integration across all four stages, achieved strategic marketing integration (per stage) is measured with a 6-item instrument (2 items per dimension).

Achieved accounting-marketing integration at **SMAS** is explored by using 6 indicators that capture the extent of: accurate and timely information exchange, and the degree to which information sharing practices reflected common strategic goals (**InfoS**); mutual support and willingness to listen to criticisms (**UniE**); and joint participation in ascertaining changes and effects, as well as joint involvement in considering resources for change responses (**Inv**).

To capture achieved integration at **SMPS**, the following 6 elements are emphasised: willingness to share information, and the extent to which accurate and timely information is shared in the planning process (**InfoS**); mutual support in establishing strategic marketing schedules, and team spirit and openness to criticisms is setting strategic marketing goals and priorities (**UniE**); and joint participation in deciding strategic marketing goals and priorities, and also in decisions concerning apportionment of resources (**Inv**).

The degree of achieved (**InfoS**) for the **SMIS** is measured by 2 indicators that picture the extent of awareness of information needs of each other, and the degree to which accurate and timely information is shared in strategic marketing implementation; while to capture degree of achieved (**UniE**), team spirit and willingness to engage in cross-functional role behaviour are prioritised in the implementation stage. (**Inv**), as last, but not least important integration dimension

explores the extent to which key implementation tasks and allocation of resources to aid implementation, reflected joint involvement of both departments.

Similar to other stages, 6 indicators measure achieved integration at **SMCS**. Mutual support and give-and-take propensity were explored (**UniE**) in the dyadic relationship, while the extent to which accurate and timely information is shared to aid monitoring and transformation of **SMM** plans, as well as to aid evaluation of performance and identification of variance(s) reflect (**InfoS**). The 2 indicators to capture (**Inv**) examine joint involvement in the monitoring of the transformation of strategic marketing plans, as well as in identifying and evaluating courses of action in the event of variance(s).

Although some minimal disparities are evident amongst the indicators used for each stage, indicator choice matched the need to prioritise some cores of each stage.

The actual contextualisation and combination of the three integration dimensions (InfoS, UniE and Inv) are reflected in the research instrument summarised in Table 6.5 for each Strategic Marketing Stage (SMAS, SMPS, SMIS & SMCS).

5.5.2.2 The Statement of the Hypotheses

Combining the theoretical foundations in Chapters 3 & 4, the hypotheses (summarised in Table 5.3 for Figure 5.1 (Part B), which measures achieved integration during the strategic marketing stages, are discussed here.

Across diverse dyadic relationships with marketing, considerable studies have sought to explain what fosters or hinders effective integration (e.g., Parry & Song, 1993; Song & Parry, 1997, Song *et al*, 1997; Chimhanzi, 2004; Mollenkopf *et al*, 2000; Xie *et al*, 2003; Song & Thieme, 2006; Le Meunier-FitzHugh & Piercy, 2007). Given lack of empirical research on accounting–marketing dyad, there is significant gap in our understanding as to factors that explain variations, negative or positive, in

the level of achieved integration between them, not only along the three dimensions of integration, but also during the strategic marketing process.

Recognising that effective accounting-marketing integration is a means to strategic marketing competencies, as numerously posited (e.g. Roslender & Hart, 1999; 2002 & 2003; Foster & Gupta, 1994; Stephen & Archambault, 1998; Downie, 1997; Wilson, 2000; Zinkhan & Verbrugge, 2000; de Ruyter & Wetzels, 2000), the backgrounds advanced in H1 – H10 are extended further by H11. Given the conceptual commonality between Figures 3.1 and 4.1, the hypotheses defined in Sections 5.5.1.1 to 5.5.1.10 are transported unto Figure 4.1.

Using the framework shown in Figure 4.1, H11 seeks to enable understanding of how to facilitate effective accounting-marketing integration at the 4-stages of strategic marketing process, i.e. empirically capture the constructs that trigger a positive or negative variance in achieved integration across the stages. In testing for H11, empirical evidence would be sought, towards identifying the most significant dimensions of integration across the 4-stages of the strategic marketing process.

Following the theoretical arguments supporting the hypothesised directions in H1 to H10, Figure 5.1 Part B, which is measured by H11, is premised on the definition that H1 to H10 would either foster or hinder achieved accounting-marketing integration across the 4-stages of the strategic marketing process, in the same vein. Embracing this background, H11 as conceptualised in the Structural Equation Model shown in Figure 6.4, is defined thus:

H11a (COMMGAP): The more the communication gap between accounting and marketing the less the achieved accounting-marketing integration at the strategic marketing stages.

H11b (FORM): The higher the level of formalisation in an organisation, the greater the achieved level of accounting-marketing integration at the strategic marketing stages.

H11c (MANSFINT): The more management supports accounting-marketing integration, the more the achieved integration at the strategic marketing stages.

H11d (RISKBEH): The more senior management encourages risk-taking from the accounting and marketing managers, the greater the degree of achieved integration at the strategic marketing stages.

H11e (REWARD): The more the accounting and marketing managers are equally rewarded for the integration outcomes, the greater the degree of integration that will be achieved at the strategic marketing stages.

H11f (DCENT): The more decentralised the decision making process of an organisation, the more the achieved accounting-marketing integration at the strategic marketing stages.

H11g (ROFLEX): The more the cross-functional role flexibility between accounting and marketing personnel, the more the achieved accounting-marketing integration at the strategic marketing stages.

H11h (CODIFF): The more the culture and perception differences between marketers and accountants at the accounting-marketing interface the less the degree of achieved integration at the strategic marketing stages.

H11i (NONDEPPROX): The more the non-departmental proximity of accounting and marketing, the less the integration between accounting and marketing at the strategic marketing stages.

H11j (EMPPASMS): The more accounting and marketing employees participate in the strategic marketing process, the more the achieved integration at the strategic marketing stages.

While Table 5.2 summarises the hypotheses for the achieved accounting/marketing integration (summation and dimensions), Table 5.3 depicts the hypotheses for the achieved accounting/marketing integration during the four-stages of strategic marketing. The structural models for exploring these proposed relationships are shown in Figures 6.3 and 6.4.

Table 5.2: Summary of Hypotheses for Figure 5.1 Part A	
Hyp./Nr	**Hypotheses Description**
H1 (COMMGAP)	The more the communication gap between accounting and marketing the less the achieved accounting-marketing integration.
H2 (FORM)	The higher the level of formalisation in an organisation, the greater the achieved level of accounting-marketing integration.
H3 (MANSFINT)	The more management supports accounting-marketing integration, the more the achieved integration between both functions.
H4 (RISKBEH)	The more senior management encourages risk-taking from the accounting and marketing managers, the greater the degree of achieved integration.
H5 (REWARD)	The more accounting & marketing managers are equally rewarded for integration outcomes, the greater the degree of integration that will be achieved.
H6 (DCENT)	The more decentralised the decision making process of an organisation, the more the achieved accounting-marketing integration.
H7 (ROFLEX)	The more the cross-functional role flexibility between accounting and marketing personnel, the more the achieved accounting-marketing integration.
H8 (CODIFF)	The more the culture and perception differences between marketers and accountants at the accounting-marketing interface the less the degree of achieved integration.
H9 (NONDEPPROX)	The more the non-departmental proximity of accounting and marketing, the less the integration between accounting and marketing.
H10 (EMPPASMS)	The more accounting and marketing personnel participate in the decision making process, the more the achieved accounting/marketing integration.

Table 5.3: Summary of Hypotheses for Figure 5.1 Part B	
Hyp./Nr	**Hypotheses Description**
H11a (COMMGAP)	The more the communication gap between accounting and marketing the less the achieved accounting-marketing integration at the strategic marketing stages.
H11b (FORM)	The higher the level of formalisation in an organisation, the greater the achieved level of accounting-marketing integration at the strategic marketing stages.
H11c (MANSFINT)	The more management supports accounting-marketing integration, the more the achieved integration at the strategic marketing stages.
H11d (RISKBEH)	The more senior management encourages risk-taking from the accounting and marketing managers, the greater the degree of achieved integration at the strategic marketing stages.
H11e (REWARD)	The more accounting & marketing managers are equally rewarded for integration outcomes, the greater the degree of integration that will be achieved at the strategic marketing stages.
H11f (DCENT)	The more decentralised the decision making process of an organisation, the more the achieved accounting-marketing integration at the strategic marketing stages.
H11g (ROFLEX)	The more the cross-functional role flexibility between accounting and marketing personnel, the more the achieved accounting-marketing integration at the strategic marketing stages.
H11h (CODIFF)	The more the culture and perception differences between marketers and accountants at the accounting-marketing interface, the less the degree of achieved integration at the strategic marketing stages.
H11i (NONDEPPROX)	The more the non-departmental proximity of accounting and marketing, the less the integration between accounting and marketing at the strategic marketing stages.
H11j (EMPPASMS)	The more accounting and marketing personnel participate in the strategic marketing process, the more the achieved integration at the strategic marketing stages.

5.6 Conclusion to the Chapter

Chapters 1 to 4 highlighted theoretical justifications and premise for this study. Advancing on that, Chapter 5 summarised the realm for this study in the framework (see Figure 5.1). In doing this, steps were taken to ensure measure validity, a concern that also legitimised the need to explain relevance of previous studies to this thesis and placement of this thesis in the overall subject domain. The backgrounds reflected in selected CFR investigation models have been summarised in this chapter. The CFR themes in summarised frameworks (amongst others) were aligned to the needs of the accounting – marketing interface in defining the framework for this study.

Overall, summarising selected previous frameworks in the broad CFR domain fits the need to explain the placement of this study in the subject spectrum. The proposed models shown in Figures 3.1, 4.1 and 5.1 facilitate parsimonious conceptualisation, and more importantly, offer the potential for advancing research by identifying additional constructs that may associate the degree of achieved integration, either ordinarily in the working relationship between accounting and marketing, or during their working relationship across the strategic marketing process.

Drawing on, but also extending the precedence in reviewed studies, the operational definition of integration includes interaction and collaboration, simplified into information sharing, unified effort and involvement. This expanded operationalisation permits broad gauging of the substantive of integration; hence this study focuses not only on interaction dimensions, but also considers the behavioural construct of cooperation and the attitudinal construct of collaboration.

For this composite integration lens, and also the antecedents framework, this chapter also detailed out the hypotheses (summarised in Tables 5.2 and 5.3) that were tested by the use of the research instrument summarised in Table 6.5.

Utilising the research instrument (Table 6.5) towards examining hypothesised relationships, the methodological approach explained in Chapter 6 was followed and the operationalisation and testing of proposed models discussed in Chapters 7 and 8.

6 Research Methodology

Brief synopsis of Chapter Six

Chapter six presents the methodological approach for this study. First, the philosophical placement of the study is explained. In that connection too, the quantitative approach and rationale for use are also explained. Survey details on industrial sectors, respondents, RR, survey instrument, amongst others, are also elaborated here. The Structural Equation Models for examining the conceptualised relationships are also introduced in this chapter. Following these, the statistical analyses steps undertaken to ensure parametric suitability, reliability and validity of data, towards structural equation modeling and hypotheses testing are also explained.

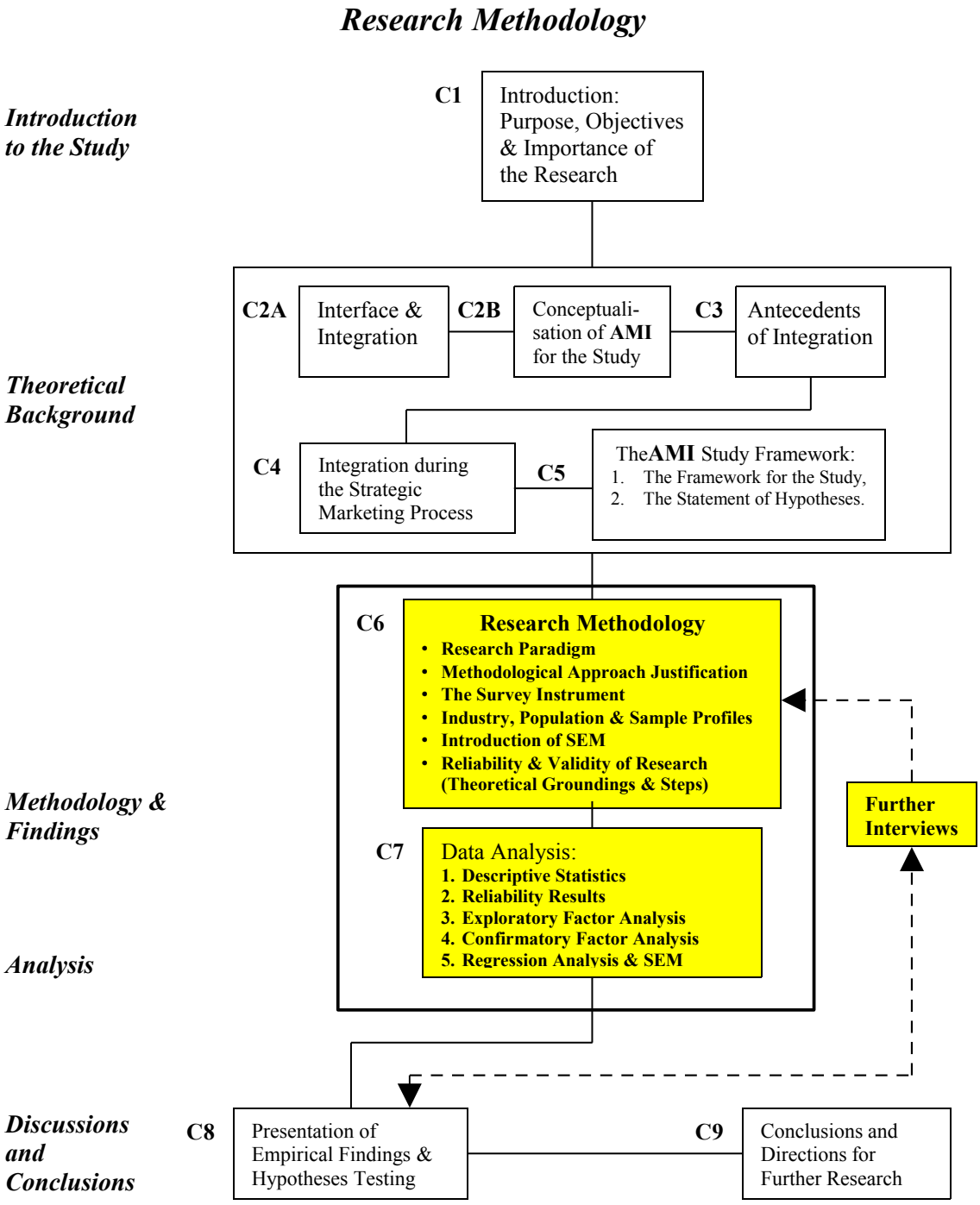


Figure 6.1: The Research Chronology: Chapters and Context

6.1 Introduction

This chapter explains two targets: the position of this thesis in the philosophical context for research, and the research tools for exploring the focus of the thesis. Chapter one (*the introduction to the study*) demonstrated importance and need to explore **AMI**. Consequently, to explore the framework pictured in Figures 3.1, 4.1 and 5.1, this chapter explains the methodological approach. In sequential manner, this chapter reiterates the research objectives, discusses research philosophy, engaging in analogy of various philosophical views, and specifying the research paradigm premise of this study. Next, the research design is outlined, describing data collection process (including sampling issues). Lastly, the chapter explains the analytical steps, highlighting data purification metrics used, including factor analyses towards testing the structural equation model.

As a reminder, the objectives of this thesis are:

- To identify the accountants' and marketers' perceptions of **AMI**,
- To identify the factors that foster or hinder effective **AMI**, and
- To capture the influence of these factors on **AMI** across the stages of the strategic marketing process.

Given above objectives, this study combines exploratory and explanatory approach. The exploratory is necessary to flag new facts about **AMI**, as this phenomenon is largely unexplored, and the consequence being lack of understanding of the phenomenon, while the explanatory fits theory testing purpose, not only of accounting-marketing interface specific issues, but also constructs, which though, empirically validated in other interfaces, remain unexplored in accounting-marketing dyad.

Aiming for the three research objectives, the study embraces the positivism paradigm and quantitative metrics are used for data collection, given research fit.

Although, following methodological classification, this thesis is purely quantitative, some qualitative metrics are utilised for pre-testing of questionnaire, refining of quantitative mechanism, and explaining quantitatively derived findings.

This chapter, thus, highlights the following *four* components of the study:

- The research design,
- The positioning of the study within philosophical paradigms/definitions,
- The specification of methodological approach and participating companies' profile, and
- The validity and reliability focus.

6.2 The Research Design

The social sciences disciplines identify three dominant research design structures (cf. Ghauri *et al*, 1995); "Exploratory", "descriptive" and "causal". Exploratory research type mostly suits situations that require initial ideas and insights to a research problem. Such kind of research (Ghauri *et al*, 1995) is often adequate for elucidating potentially poorly understood or developing concepts. Investigating interfunctional relationship requires the adoption of a research methodology which permits exploration and analysis of the diverse and complex elements that manifest during actual integration and organisational activity connectivity. For this comprehensive **AMI** focus, a mail survey is deemed legitimate to explore the research problem and address the adopted research questions. Given exploratory and explanatory target explained above, the study's quantitative tool exploits the use of hypotheses.

Following Song & Parry (1996) and Song *et al* (1997), four steps are undertaken to ensure appropriateness of research design for this study, namely: (1) problem formulation, variable specification, and categorisation; (2) selecting appropriate research techniques; (3) developing appropriate research instrument design; and (4) developing sampling and survey administration techniques and procedures.

6.3 Methodological Approach and Assumptions

This Section explains research paradigms and the placement of this study within this scientific paradigms context.

6.3.1 RESEARCH PARADIGMS AND ASSUMPTIONS

Similar to other scientific disciplines, the conduct of research into interfunctional integration in organisation is guided by a research paradigm, comprising ontological, epistemological and methodological assumptions that together (Khazanchi & Munkvold, 2003) frame the nature of the research and the role of the researcher in the scientific enquiry.

In the first major effort to conceptualise research paradigms, Kuhn (1962), justifying the concept, notes that the idea implies that "a scientist will normally work within a theoretical framework – a paradigm – that determines the problems that are regarded as crucial, the ways the problems are to be conceptualised, the appropriate methods of enquiry, the relevant standards of judgement, etc" (see Philips, 1987, p. 205).

Contributing to the above realm of thinking, Filstead *(*1970) suggests that a paradigm accomplishes the following four objectives:

- It serves as a guide to professionals in a discipline, to highlight important problems and issues confronting the discipline.
- It facilitates development of explanatory schemes (i.e., models and theories) which can place these issues and models in a framework.
- It establishes the criteria for the appropriate 'tools' (i.e., methodologies, instruments, and types and forms of data collection).
- It provides an epistemology in which the preceding tasks can be viewed as organising principals for carrying out research in a discipline. Paradigms not only

allow the discipline to 'make sense' of different kinds of phenomena but also provide a framework for identifying that these phenomena exist in the first place.

Analysing Filstead's (1970) four objectives, Hunt (1983) comments that paradigms are not theories and law-like generalisation, rather paradigms (Arndt, 1983) should be approached as the foundations of theory since they give meaning and direction to the research process. This research into **AMI**, recognising 'fit-for-purpose' research pertinence, follows relevant paradigmatic foundations.

According to Guba & Lincoln (1994), the four categories of scientific paradigms are Positivism, Critical theory, Constructivism, and Realism, each comprising of:

- **Ontology**, i.e., the theory or study of existence (being). For example, ontological assumptions in the conduct of inquiry within a paradigm might specifically characterise the nature of reality. The ontology question asks: *what is the form and nature of reality and what is there that can be known about it?*
- **Epistemology** refers to the relationship between the reality and the researcher. The epistemological question asks: *what is the nature of relationship between the inquirer and the external world?*
- **Methodology**, i.e., a procedure by which knowledge (reality) is to be generated. The methodological question asks: *how can the researcher approach whatever can be known about reality?*

Each of the scientific paradigms, summarised in Figure 6.2, are explained below.

6.3.1.1 The Positivism Paradigm

Positivism assumes that science measures independent facts about a single apprehensible reality (Tsoukas, 1989; Guba & Lincoln, 1994). Elaborating positivism, Healy and Perry (2000) noted that the data and its analysis is value free and it does not change because it is observed. Through positivism (Guba & Lincoln, 1994, p. 110), the investigator develops a view of the world through a one way mirror. Positivists, it is argued, separate themselves from the world they study while

researchers within the other three paradigms maintain that participating in real-world life is essential, to explore and understand its aspects and properties. Table 6.1 highlights the characteristics of positivism.

As Healy and Perry (2000) note, positivism is based on quantitative data while the other three paradigms are mainly linked to qualitative research.

Table 6.1: The characteristics of Positivism

Features	Applications
Epistemological grounding	It is based on the epistemological belief that all true knowledge is 'scientific' knowledge [cf a religious paradigm]. There is search for universal laws or principles. There is also tight coupling among explanation, prediction and control.
Pattern	The paradigm of scientific method from the physical world is applied to the social world.
The Nature of Reality	There is a single objective reality that is orderly and predictable. Reality can be studied by amassing information / facts about it. Reality is independent of the researcher. Reality is single, tangible, and fragmentable.
The relationship of researcher to Researched	Researchers must and can be neutral, detached and objective. Knower and known are independent.
Findings	The findings of research will correspond to reality – the correspondence theory of truth.
The Role of Values in Inquiry	Inquiry is value free.
The possibility of causal linkages	There are real causes.
The Possibility of Generalisation	Time and context free generalisation are possible. From the study, sample generalisations about the world would be possible – usually in the form of explanations – erklären.

Source: Author. (Ideas generated from Khazanchi & Munkvold (2003))

6.3.1.2 The Critical Theory Paradigm

In this paradigmatic lens, social realities are assumed to consist of historically situated structures. The pattern here is that critical theory researches aim at critiquing and transforming the social, economic, political, cultural, and gender aspects of the reality. Researches within this paradigm are often ethnographic and depict elements of historical character focusing on societal, institutional and organisational structure. Assumptions of the critical theory paradigm are grounded on the fact that reality has subjective aspects and therefore data is value-dependent not value-free (Guba & Lincoln, 1994). As Guba and Lincoln (1994) advised, even though critical theory acknowledges the complexity of reality, it is not very suitable for marketing research unless the researcher with his or her involvement in a study attempts to liberate people from their historical, mental and emotional structures.

6.3.1.3 The Constructivism Paradigm

Under this paradigm, truth is viewed as a particular belief system in a particular context. Like critical theory, constructivism focuses on the system of beliefs that lies behind an aspect of the world and suggests that reality consists of 'multiple realities' conceived in people's minds. The study of reality, Guba and Lincoln (1994, p. 112) point out, depends on researcher - respondent interaction, i.e. the researcher has to be a 'passionate participant' in the fieldwork. Constructivism, as Healy and Perry (2000) note, may be suitable for social sciences and consumer behaviour researches, particularly, if these studies incorporate notions of religion, beauty, or prejudice. Given its exclusion of economic and technological dimensions of business, constructivist is rarely considered for marketing management studies (Hunt, 1999).

6.3.1.4 The Realism Paradigm

According to Guba and Lincoln (1994) and Godfrey and Hill (1995), realism paradigm suggests that there is a 'real' world to discover even though it is not perfectly apprehensible (see also Healy & Perry, 2000; Tsoukas, 1989).

In a contribution to advance understanding of ontological assumptions of paradigms, Popper (1994) identified and coded three overlapping aspects of reality known as the three 'world'. *World one* is relevant to positivism and consists of material and physical things. *World two* is related to critical theory and constructivism and is the subjective world on people's mind. *World three* links to realism and comprises of abstract things that are borne on people's mind – world of mental products' (Popper, 1994, p. 9) – and exists independently of any person. A further contextualisation of these scientific paradigms and their ontological, epistemological, as well as methodological elements is shown in Figure 6.2.

The conclusion about the research paradigm follows then thus: The kinds of assumptions we make about "what exists" affects what we consider "we can know" about it, which in turn affects how "we think" it is best to study it (http//www.sar.bolton.ac.uk/ltl/lecture2/intro.htm). Thus, our ontological assumptions affect our epistemological, which in turn inform our methodological assumptions.

This thesis embraces positivism and the specific dimensions in which these philosophical definitions characterise the methodology plan is explained further (in this chapter) in the specification of the methodology configuration for this study.

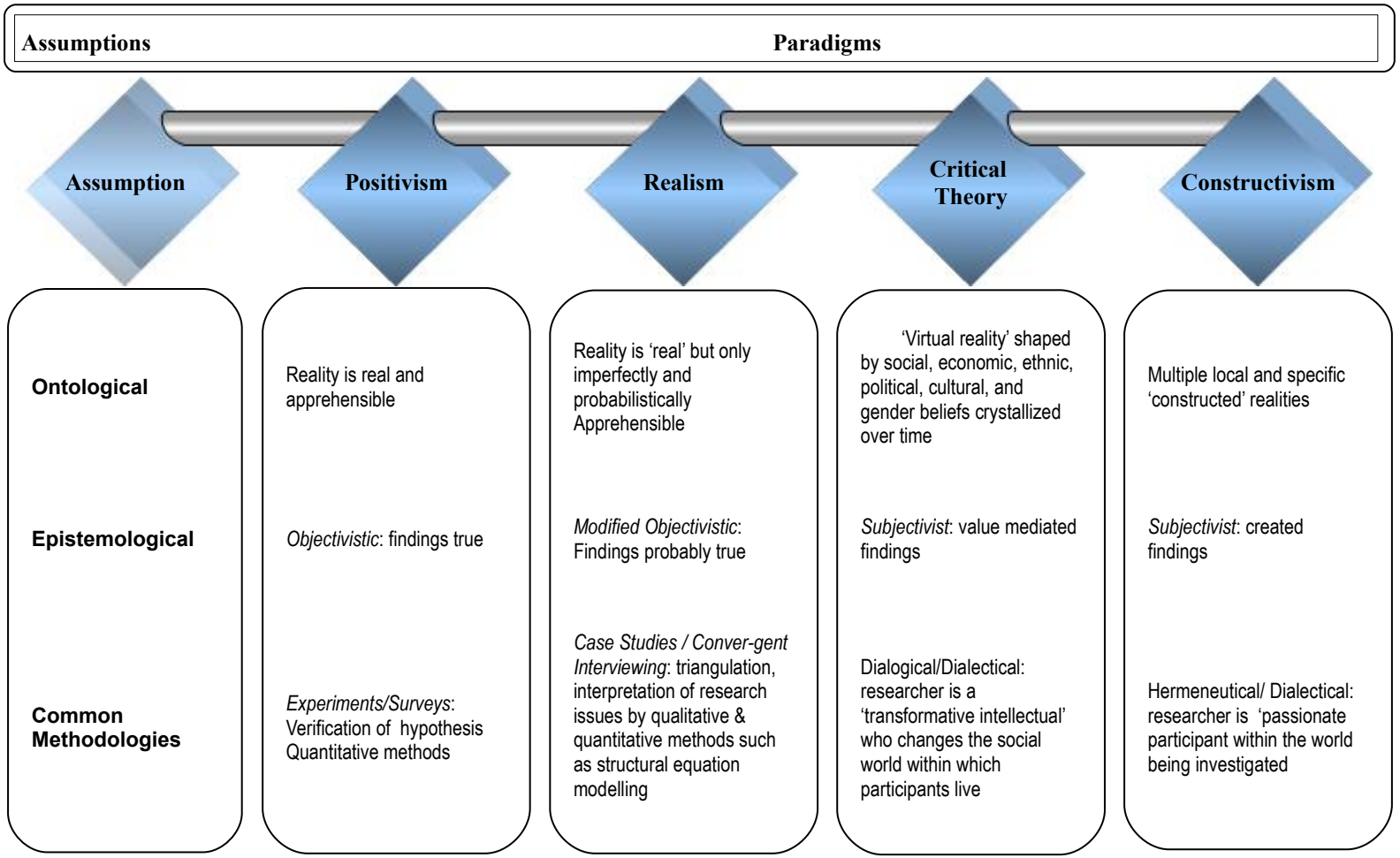


Figure 6.2: Four Categories of Scientific Paradigms and Their Elements
Sources: Adapted from Guba & Lincoln (1994) and Healy & Perry (2000)

6.3.2 THE METHODOLOGICAL APPROACH

While introducing this chapter, the objectives of this thesis were reiterated, towards ensuring appropriate definition of methodological steps to aid research goal.

In this study, the methodological assumptions fall within the hard and external continuum, with an objective emphasis on understanding and explaining the phenomena under study and exploring the links of relationships in the accounting-marketing integration. In philosophical context, this research is positivism grounded and thus objective focused. Positivism puts lots of emphasis on fixable regulations and insists that we are able to observe all things objectively and value free. Table 6.1 and Figure 6.2 highlight the circumstances that prompt positivism approach, and its fit in this research.

6.3.2.1 Why Positivism for this Research?

The Longman dictionary (1995) defines research as "the studious study of a subject, that is intended to discover new facts or test new ideas; the activity of finding information about something that one is interested in or needs to know about" (p. 1205). In the strenuous journey to knowledge, researchers and scholars employ various research paradigms to guide them through the course of knowledge seeking (Kim, 2003). Using "transcendental realism", Bhaskar (1998, p. 25) argued that "*it is the nature of objects that determines their cognitive possibilities for us*" (italics added by Kaboub [*online*]). In other words, what we study determines how we study it (Bhaskar, 1998). Following Bhaskar's (1998) philosophical argument, the "fit-for-purpose" research concern is served by the "positivism" approach in this thesis. The positivism justification in this research is summarised in Table 6.2 below:

Table 6.2: Justifications for the use of positivism.

Research issue	Justification of Positivism
Developing and Testing Hypotheses **The need for Replication**	"Because of the fundamental premises that underlie positivism, specifically the requirements that the development and testing of hypotheses in a manner that is both quantifiable and able to be replicated, the emergent findings would be less prone to error introduced by investigator subjectivity and receive wider acceptance. Empirical procedures used in the positivistic tradition, moreover, are best able to assess and develop practical organisational interventions relative to the outcomes produced by the interpretative and critical science paradigm" (Kim, 2003). Positivism enables verification of hypotheses through rigorous empirical testing (**Khazanchi & Munkvold, 2003).**
Previous CFI Studies	Literature reviewed in the area of **AMI**, and **CFI** in general (see table 7g), and others in related field have depicted a positivist culture. 100% of studies reviewed in **CFI** have used this approach and that confirms the suitability of the approach in exploring the dynamics (**Author).**
Causal Relationships	"Quantitative evidence can indicate relationships which may not be salient to the researcher. It also can keep researchers from being carried away by vivid, but false, impressions in qualitative data" (**Eisenhardt , 1989)**. "Since positivistic knowledge seeks to determine how change in one variable will produce change in another (causal relationship), it facilitates the attempt to get more output for one's input that is the practical concern of practitioners in organisations" (**Swanson, 1995)**.
Theory Testing	The true nature of reality can be obtained by testing theories about actual objects, processes, or structures in the real world (**Khazanchi & Munkvold, 2003)**. Positivism facilitates the refinement, and even negation, of existing theories by challenging and questioning them for more refined applications rather than dwelling on the antecedents of previous research (**Moser, Mulder, & Trout, 1998**).

Source: The Author. Contents collated from referenced sources.

Primarily, positivism is ideal for this investigation; given aforementioned research objectives (see Section 6.1). Essentially, the positivism approach offers a vital medium for addressing the key 'What' questions in this study of **AMI**.

Using hypotheses, independent-dependent relationships are explored in this thesis, for example, the thesis seeks to identify the antecedents of **AMI,** ordinarily and across the stages of **SMM**. Such relationship contexts are better served by positivism.

Additional to the above relationship testing utility, the objective of establishing the pattern of integration (what is integration) justifies the positivistic approach.

Also, to achieve the goals of theory testing and generating generalisable facts, positivism approach is most appropriate.

Finally, as evidenced in Table 6.2, majority (92.31%) of CFR researches (see also Table 6.3) have embraced positivism, evidence that confirms methodological validity.

6.4 The Research Setting

Aiming for defined exploratory objectives, this research is survey based. Finding out what is happening; to seek new insights; to ask questions and assess phenomena in a new light, fits within the exploratory realm (Robson,1993). This study of **AMI**, given its 'What' type of questions, is exploratory. Exploratory studies suit the purpose of empirically investigating a contemporary phenomenon within its real-life context (Yin, 1994, p. 3). To fully address the concerns of the study, and understand the dynamics in the setting, this study followed Yin's (1994, p. 3) logic.

According to Yin (1994, p. 20), there are five components of case studies, namely (1) A study's questions; (2) Its propositions, if any; (3) Its unit(s) of analysis; (4) The logic linking the data to the propositions, and (5) The criteria for interpreting the findings.

This thesis, though not case study based, draws on Yin's exploratory context in line with the five components above. To answer the 'What' questions (see objectives of the thesis) for this study, the exploratory mechanism utilises propositions (hypotheses) to gauge the causes and effects relationships and generate findings towards addressing the specified research questions. As Sjoberg *et al* (1991) note, the unit of analysis could be "an individual, a community, an organisation, a nation-state, an empire or a civilisation". In this study the unit of analysis is organisation and given exploratory cum explanatory target, additional to following empirical dyadic relationships precedence, a high sample size (see Section 6.4.1) was targeted: to aid broad contemporary evidence for valid generalisation, and also capture robust insight about the **AMI** from the perspective of those closest to it.

The study's hypotheses were justified on theoretical logic (see Chapters 3, 4 & 5), and proposed linkages scrutinized through statistical processes (see Chapters 7 and 8)

The exploratory research setting in this research is purely quantitative, utilising qualitative tools only (1) for pre-testing of the quantitative instrument – (see Section 6.9.3), and (2) for follow-up exploration and explanation of a core emergent finding (see Section 6.10.2)

6.4.1 THE INDUSTRY SAMPLING

In this thesis, in-depth investigation pattern, including a small number of respondents drawn from a relatively large number of organisations, was used. The rationale for this approach stems from its utility in enabling valid judgements concerning the nature of **AMI**, exploring the independent – dependent relationships, and enhancing the ***generalisability*** of findings. Secondly, this approach is congruent with empirical precedence in the interfunctional relationship domain.

The target sample for this study comprised of UK financial services organisations. Combining the FAME Database and FSA statistics, the researcher sampled companies for this research. As LeCompte & Goetz (1982) note, one way to address the issue of external reliability and validity is by clearly outlining the unit of analysis, especially its beginning and the end, hence to participate in this study, firms were selected in accordance with clearly defined criteria. They must meet these conditions:

- Be a medium or large size UK financial services organisation,
- Company's stock must be traded on the stock exchange market,
- Have separate accounting and marketing departments,
- Be engaged in strategic marketing activities,
- Be in a competitive market.

For various reasons, defining above criteria was deemed useful for this study. Essentially, homogeneity among participating companies is key to ensuring valid and

concise sample, towards valid results, in relation to the explored relationships. Individually, each criterion is relevant to exploring the issues relating to **AMI**. It is primarily important that the organisations have accounting and marketing departments to enable the exploration of the relationship between them. Also, it has been suggested (see, Roslender & Hart, 2002 & 2003; Foster & Gupta, 1998; Stephen & Archambault, 1998; Wilson, 2000) that effective **AMI** would enable better strategic marketing decisions towards profitably satisfying customers. For uniformity and relevance of findings, sampled firms must reflect characteristics that enable exploration of the issues involved (see Gupta, 1984, 1985a+b; Song & Parry, 1992; Parry & Song, 1993; Hise *et al*, 1990). Consequently, organisations for this study must reflect customer focus and strategic marketing direction. Essentially too, participating companies must operate in a competitive market. This selection pattern would enable theory testing, and overall research targets.

6.5 Quantitative Research Method

Arbnor & Bjerke (1997, p. 9) define research methods "as the guiding principle for the creation of knowledge". Researchers should choose appropriate methodologies driven by nature of task (Galliers, 1991; Lee, 1991), like qualitative and quantitative, positivistic, interpretative and critical approaches (Klein & Myers, 1999).

Emphasised earlier, the explored dynamics in this research rationalise positivism approach, thus expectedly, pure quantitative research tool. Quantitative research produces numerical and statistical data (LeCompte & Goetz, 1982; Bryman, 2004, p. 19) and largely undertakes an objective analysis (Bilton *et al*, 2002; Bryman, 2004, p. 19) where the underlying assumption is that data are ordinal and contain intervals to allow statistical manipulation (Allen & Skinner, 1991). This numerical and statistical data dynamics favour the interest of answering the 'What' questions in this research.

> "Quantitative evidence can indicate relationships which may not be salient to the researcher. It also can keep researchers from being carried away by vivid, but false, impressions in qualitative data, and it can bolster findings when it corroborates those findings from qualitative evidence." **(Eisenhardt (1989, p. 535)**

Being deductive, quantitative approach in this thesis, following Frankfort-Nachmias & Nachmias (1992), is based upon formulating and empirically verifying research hypotheses on a specific set of data. Scientific hypotheses are value-free; the researcher's own values, biases, and subjective preferences have no place in the quantitative approach. This study uses questionnaires to pursue this scientific hypotheses target.

Prior to explaining the quantitative metrics employed in this study, Section 6.6 elaborates the quantitative rationale for this study.

6.6 Rationale for Use of Quantitative Approach

Gamon (1991)[56] provides a guide for justifying the research approach for any study. The underlying issues in the research questions and proposed hypotheses in the literature review chapters, as well as overall research agenda pictured in the framework justify quantitative approach in this research. This tool suits "exploratory" and "explanatory" intent in this study, for, suitability of approach is contingent on the double 'how' of research problem formulation and research agenda specification (Allen & Skinner, 1991). More over, the concern for quality, reliability and general applicability of research findings supports this approach.

Additional to highlighted context in Table 6.2, further support for quantitative legitimacy is explained below:

- Primarily, generating generalisable findings is core in this thesis, and a quantitative mechanism serves this target best. Emphasizing quantitative techniques legitimacy in this way, Jick, (1979) maintains that quantitative

[56] Gamon (1999) contends that for any reputable evaluation a solid base of evidence is essential and a selection of an appropriate information collection strategy thus imperative.

research generates greater confidence in the generalizability of results, in that, the aim is to examine how different social phenomena affect large number of people (Bilton *et al*, 2002).

- Simple and cheap as it may sound, quantitative empirical precedence of almost 100% (see Table 6.3) in **CFIn** domain, suggests appropriateness and suitability to **CFR** studies. For one thing, this thesis investigates the influence of a number of variables (reasonably validated predictors of achieved integration in other interfaces) on **AMI**. To ensure uniformity, and a basis for comparison and congruency check, it is rational to follow confirmed precedence.
- Impact evaluations using survey data from statistically representative samples is known to be better suited to assessing causality by using econometric methods or reaching generalizable conclusions. Further on the relationship point above, this study explores the variables that influence the degree of **AMI** in organisations, ordinarily and during the strategic marketing process (i.e. a case of dependent – independent relationships) in the chosen organisations. Given this relationship focus; quantitative mechanism is a 'sine qua non'.
- Also, given specified hypotheses, to aid examination of relationship between variables, a logical way to gauge existence and nature of influence will be to use a quantifiable metric. Quantitative tools fit hypotheses testing (Merriam, 1988)
- Justifying positivism for this study, the 'What' nature of research questions was highlighted. This research characteristic requires a statistical analysis.
- Theory testing is aimed in this thesis. With that, the drive is to contribute to existing knowledge about not just **AMI** but **CFIn** extendedly. Therefore, theory testing is intended, to confirm (or otherwise) existing empirical notions of

specific variables. For this target of vetting theoretical notions about these variables, quantitative approach is legitimate in this study.

- Further more, given multiple sectors in this study, quantitative techniques would provide the best means for identifying and comparing sector differentials.

Table 6.3: A selection of investigations into CFIn and the research methodologies used in them

Studies/Investigations	Approach adopted & number of firms used
Mills & Tsamenyi (1998): Communicative Action and the Accounting/Marketing interface in industry	SM[57] – Quantitative- QMS[58]. A total of 400 sample frame for Accounting and Marketing.
Moenaert et al (1994): R&D–Marketing integration mechanisms, communication flows, and innovation success	SM – Quantitative – QMS. 156 questionnaires (78 innovation projects – 2 per project)
Kahn, & Mentzer (1998): Marketing's integration with other departments	Single method – Quantitative- QMS. Marketing (177), manufacturing (157), and R&D (180) managers were involved.
R. T. Hise et al (1990): Marketing/R&D interaction in New Product Development: Implications for New Product Success Rates	SM –Quantitative – QMS. Questionnaires sent to 776 firms involved in NPD.
Murray R. Millson & Wilemon (2002): The impact of organisational integration and product development proficiency on market success	Mixed method – Quantitative[59] + Qualitative[60] - QMS.
Ruekert & Walker (1987-Jan): Marketing's interaction with other functional units: A conceptual framework and empirical evidence	SM – Quantitative – QMS. 114 marketing managers and 69 non-marketing personnel (Manufacturing, Accounting and Research and Development) were sent questionnaires.
Song et al (1996): Managing R&D-Marketing integration in the New Product development process	SM – Quantitative – QMS. The study involved 376 U.S. firms.
Song & Parry (1992): The R&D-Marketing interface in Japanese High-Technology firms	SM – Quantitative – QMS. 2 Questionnaires (R&D + Marketing) to 411 high-tech firms.
Song et al (1998): The impact of cross-functional joint involvement across product development stages: An exploratory study	SM – Quantitative – (5-phase iterative procedure) Focus group interviews and Questionnaires
Parry & Song (1993): Determinants of R&D – Marketing integration in High-Tech Japanese firms	SM – Quantitative – QMS. 411 questionnaires to 411 high-tech firms.
Ruekert & Walker (1987-May): Interactions between Marketing and R&D departments in implementing different business strategies	SM – Quantitative – QMS. Questionnaires were sent to 114 marketing and sales personnel and 40 R&D personnel.
Saghafi et al (1990): R&D/Marketing interfaces in the telecommunications industry	SM – Quantitative – QMS. Sample consisted of 73 R&D and 103 managers from 5-telecommunication firms and 60 high-tech experts from industry, academia and consulting firms.
Song et al (1997): Antecedents and consequences of **CFC**: A comparison of R&D, Manufacturing and Marketing perspectives	SM – Quantitative – QMS and focus group interviews. 300 randomly selected firms were used for the study.
Gupta et al (1985a): The R&D-Marketing interface in High-Technology firms	SM – Quantitative – QMS. Questionnaires were mailed to marketing managers and R&D managers of 331 firms.
Gupta et al (1985b): R&D-Marketing dialogue in High-Technology firms	SM – Quantitative – QMS. Questionnaires sent to 331 high-tech firms.
Gupta, Ashok K. (1984): A Study of R&D/Marketing Interface and Innovation Success in High-Technology Firms	SM– Quantitative - QMS. Questionnaires sent to R&D and Marketing managers of 331 high-tech firms
Song & Parry (1993 Spring): R&D-Marketing integration in Japanese high-technology firms: Hypotheses and empirical evidence	SM – Quantitative – QMS.
Ratnatunga et al (1989): The Marketing-Finance interface	SM – Quantitative – QMS. Survey questionnaires sent to marketing directors and finance directors of 160 companies.
Xie J. et al (2003): A study of tripartite integration between marketing, R&D and Manufacturing in United States, Great Britain, Hong Kong, Japan and China	SM – Quantitative – QMS. Survey involving 1083 firms (256 – U.S., 214 – U.K., 279 – Japan, 119 – Hong Kong, and 215 – China.
Chimhanzi (2004): A study of Marketing-HR interaction in strategy implementation in U.K. service organisations	SM – Quantitative – QMS. Survey questionnaires sent to marketing managers at the strategic business unit of 740 U.K. services companies.
Mollenkopf et al (2000): A study of Marketing-Logistics integration in New Zealand firms	SM – Quantitative – QMS. 464 Survey questionnaires were sent to marketing and logistics managers (proportion not specified).
Song & Thieme (2006): A study of R&D-Marketing interface in the Product innovation process in U.S., Japanese and Chinese companies	SM – Quantitative – QMS. Survey questionnaires were sent to marketing managers of 728 U.S., 611 Japanese, and 514 Chinese companies.
Roslender & Hart (2002a): Integrating management accounting and marketing in the pursuit of competitive advantage: the case for strategic management accounting	SM – Qualitative - Exploratory Case Studies
Le Meunier-FitzHugh & Piercy (2007): Exploring Collaboration between Sales and Marketing	SM – Qualitative – 3 Exploratory case Studies and Review of literature
Barker (2008): Exploring the differences between accountants and marketers in terms of information sharing	SM – Quantitative – Longitudinal, studies, in-depth surveys within a single firm

[57] SM = Single Method
[58] QMS = Questionnaire (Mail Survey).
[59] Structured questions (in the form of scales) were used in testing hypotheses.
[60] Unstructured questions (open-ended questions) were used to help understand and explain test results.

Studies/Investigations	Approach adopted & number of firms used
Le Meunier-FitzHugh & Lane (2009) Collaboration between sales and marketing,	SM – Quantitative – QMS.

- Finally, reliability, replication and generalizability of the findings (see Table 6.4) are critical concerns in a research of this nature. These three concerns (Bryman, 2004, p. 28) are the most prominent social research evaluation criteria. Given the elements and perspectives in this thesis, using the quantitative approach to explore this topic would generate substantial findings that would satisfy the relevant dimensions of below three research foundations.

Table 6.4: The criteria for evaluation of social research.

Criteria	Characteristics
Reliability	Reliability is concerned with the question of whether the results of the study are repeatable. Reliability is particularly an issue in connection with quantitative research. The quantitative research is likely to be concerned with the question of whether a measure is stable or not.
Replication	Replication is very close to reliability. Sometimes, researchers choose to replicate the findings of others. There may be a host of different reasons for doing so, such as feeling that the original results do not match other evidence that is relevant to the domain in question. A researcher must spell out his/her procedures in great detail for replication to obtain. In order to assess the reliability of a concept, the procedures that constitute that measure must be replicable by someone else.
Validity	Validity is concerned with the integrity of the conclusions that are generated from a piece of research. Validity could be measurement validity, internal validity, external validity or ecological validity. Measurement validity: This criterion applies primarily to quantitative research and to the search for measures of social scientific concepts. Measurement validity is often referred to as concept validity. Essentially, it is to do with the question of whether a measure that is devised of a concept really does reflect the concept that it is supposed to be denoting. The measure in use must be reliable. Internal validity: This is concerned with the question of whether a conclusion that incorporates a causal relationship between two or more variables holds water. Internal validity raises the question: how confident can we be that the independent variable really is at least in part responsible for the variation that has been identified in the dependent variable? External validity: This issue is concerned with the question of whether the results of a study can be generalised beyond the specific research context. The issue of how people are selected to participate in the research becomes crucial. This is one of the main reasons why quantitative researchers are so keen to generate representative samples. Ecological validity: As Cicourel (1982, p. 15) has put it: 'Do our instruments capture the daily life conditions, opinions, values, attitudes, and knowledge base of those we study as expressed in their natural habitat?' This criterion is concerned with the question of whether social research sometimes produces findings that may be technically valid but have little to do with what happens in people's everyday lives. If research findings are ecologically invalid, they are in a sense ***artefacts*** of the social scientist's arsenal of data collection and analytical tools. The conclusions deriving from a study using questionnaires may have measurement validity and a reasonable level of internal validity, and it may be externally valid, in the sense that the findings can be generalized to other samples confronted by the same questionnaire, but the unnaturalness of the fact of having to answer a questionnaire may mean that the findings have limited ecological validity. We might expect that much qualitative research is stronger than quantitative investigations in terms of ecological validity.

Source: The content of this Table was generated from Bryman (2004), pp. 28-30.

6.7 Data Collection Metrics for the Thesis

Mintzberg (1979, p. 585) notes: "No matter how small our sample or what our interest is, we have always tried to go into organisations with a well-defined focus – to collect specific kinds of data systematically." This logic aligns with the 'fit-for-purpose' research concern.

To explore the conceptualised **AMI** framework, the data collection focus is positivistic – quantitative, and following marketing research tradition on

interfunctional relationships (see Table 6.3), is objective. To achieve the goal of enhancing accounting-marketing integration understanding, the objective metrics, explained in Section 6.8, are used in this study.

6.8 The Quantitative Metrics for this Study

Quantitative research strategy emphasizes quantification in the collection and analysis of data (Bryman, 2004, p. 19), and quantitative evidence can indicate relationships which may not be salient to the researcher (Eisenhardt, 1989). In this study, the quantitative research strategy utilizes questionnaires to generate quantitative evidence for explored relationships.

This study's quantitative instrument, explained in Section 6.9 and subsections, was derived from interfunctional integration precedence in diverse dyads. Following social science research tradition, the instrument was pre-tested.

6.9 The Quantitative Instrument

This Section is explained in two parts. First the survey instrument is introduced in Sections and Subsections of 6.9.1. and 6.9.2. Secondly, the pretesting of the Questionnaire is explained in Section 6.9.3.

6.9.1 THE RESEARCH INSTRUMENT

Yin (2004:123) notes: Certain properties of one unit are determinants of behaviour at another level. Grounded on this logic, this thesis explores the nature and extent of links between the dependent and independent variables shown in Figure 5.1.

To explore conceptualized relationships, the survey instrument (multi-item) (see Table 6.5) for this study was generated from previously validated scales, a rational step that meets research concern for reliability and validity. The

components embedded in the model include constructs defined in chapters 2, 3 and 4, and inclusion in the proposed model was justified in chapters 2 and 5.

All measurement items have been either adopted (or adapted) from previous studies of interdepartmental relationships (e.g., Gupta *et al*, 1987; Song, 1991; Parry & Song, 1993; Dewsnap & Jobber, 2004; Mollenkopf *et al*, 2000; Chimhanzi, 2004; Xie *et al*, 2003; Song & Thieme, 2006; Barker, 2008). Minor adaptations were made to align measurement items to the context of this research. The measures to tap both dependent and independent constructs are reported in Sections and sub-sections of 6.9.1.2 and 6.9.1.3 (for the former) and 6.9.2 (for the latter). While each construct's reliability statistics are reported in Sections and sub-sections of 7.2.1.1 and 7.2.1.2, the validity statistics for the respective constructs are detailed out in Sections and sub-sections of 7.7, 7.9, 7.10 & 7.13.

6.9.1.1 Measurement of Dependent (Endogenous) Variables

Two groups of endogenous variables are explored in this study: (1) Achieved integration (ordinary) and (2) Achieved integration during the strategic marketing process. Overall, the instrument (See Table 6.5) to establish the degree of achieved integration, and as well measure the influence of the 10 independent across the 4-stages of strategic marketing management) was adopted mainly from the instrument developed by Gupta (1984) and used by Gupta *et al* (1985), Song (1991), Song & Parry, (1993), Parry & Song (1993), and severally further validated by other studies (e.g., Mollenkopf *et al*, 2000; Chimhanzi, 2004, Xie *et al*, 2003; Song & Thieme, 2006). These studies have reported a high level of reliability and validity for their instruments, and affirmed the relevance of these items to measuring such dyadic relationships.

The measurement scales are explained in Subsections 6.9.1.2 (for 1) and 6.9.1.3 (for 2).

6.9.1.2 Degrees of Integration

Chapter two has conceptualised three dimensions of integration, namely degrees of involvement, unified effort, and mutual information sharing. 16 indicators, derived from previous studies, are contained in the survey instrument to capture the degree of total integration between accounting and marketing (see Appendixes 7 & 8).

6.9.1.2.1 Degree of Involvement (DINV)

To tap the degree of involvement as defined in part B of Chapter 2, 5 questions, generated from CFR literature, were used (See Table 6.5). These measurement items, though not entirely, in same combination, have been previously validated in CFR studies (e.g., Gupta, 1984; Gupta *et al*, 1986; Song, 1991; Parry & Song, 1993; Song & Dyer, 1995; Song & Parry, 1993; Song *et al*, 1997; Xie *et al*, 2003, Song & Thieme, 2006; Dewsnap & Jobber, 2004.

6.9.1.2.2 Degree of Unified Effort (DUE)

The second corner of the integration triangle reflects the degree of unified effort. This dimension, which emphasises esprit de corps behaviour, is measured using 5-items (See Table 6.5), drawn from existing literature (Song & Parry, 1993; Parry & Song 1993; Gupta, 1984; Kahn & Mentzer, 1998; Gupta *et al*, 1986; Song & Dyer, 1995; Song *et al*, 1997; Kahn, 1996; Leenders & Wierenga, 2002; Massey & Dawes, 2006; Xie *et al*, 2003; Dewsnap & Jobber, 2004; Song & Thieme, 2006).

6.9.1.2.3 Degree of Mutual Information Sharing (DMIS)

Information sharing, a construct which shares commonalities with interaction in numerous previous studies, reflects not only information needs awareness but also accurate and timely as well as effective information exchange towards attainment of

organisational goals. To explore conceptualised context, and permit ideal explanation of relationship, the measurement scale (see Table 6.5) prioritised 6 items that aligns foundational precedence (e.g., Parry & Song, 1993; Fisher *et al*, 1997; Leenders & Wierenga, 2002; Dewsnap & Jobber, 2004) to the accounting–marketing interface realm.

6.9.1.3 Integration during the Strategic Marketing Process

Following theoretical justification, though mainly conceptual and normative, this study resides in the substance that effective **AMI** would enable strategic marketing synergies. H11 (see Chapter 4) sensitizes a model geared towards effective integration during the stages of strategic marketing management. Consequently, this is the second dependent variable focus. This endogenous variable exploits the three integration dimensions (see Section 6.9.1.2). From the 16 statements[61] (see Table 6.5) to measure the three dimensions, two statements from each respective dimension are exploited, following precedence (e.g., Gupta, 1984; Song, 1991; Parry & Song, 1993; Song *et al*, 1998) to gauge achieved integration at every stage of the strategic marketing process (see Chapter 4). All 24 questions (6 per stage), aligned to the strategic marketing focus in this study, have been numerously used (in diverse combinations) and reported to have high level of reliability and validity in the aforementioned studies.

All questions in the instruments for both endogenous variables were scaled in a 6-point likert format, and managers from each function were asked to indicate the extent to which their relationship with the other department reflected the conceptualised involvement, unified effort and information sharing characteristics.

[61] The items are presented in Part 2 of the questionnaires in Appendix **7 & 8**.

6.9.2 MEASUREMENT OF INDEPENDENT (EXOGENOUS) VARIABLES

Figure 5.1, the framework for this study, proposes 10 constructs that may foster or hinder achieved **AMI**. Combined, the explored independent variables reflect aspects of organisational structure, senior management policy and behaviour, communication factors, personnel factors, departmental factors, and physical proximity. Drawing on, and combining literature supporting these aspects (e.g. Gupta, 1948; Gupta *et al*, 1987, Dewsnap & Jobber, 2004; Song, 1991; Song & Parry, 1993; Song *et al*, 1997; Song *et al*, 2000; Leenders & Wierenga, 2000; Mollenkopf *et al*, 2000; Murray & Wilemon, 2002; Xie *et al*, 2003; Chimhanzi, 2004; Song & Thieme, 2006), but aligned to accounting/marketing dyad context, this study uses multi-item scales (see Appendixes 7 & 8) to capture the influence of the 10 independent constructs on achieved integration, including during the strategic marketing process. The measurement instrument (Table 6.5) for each construct is derived as explained next:

6.9.2.1 Communication gap (COMMGAP)

Building on the pioneering work of Gupta (1984) and Parry and Song (1993), this study adopted a 4-item scale to tap this construct. On the theoretical evidence in interface literature, which highlights existence and nature of communication issues that plague accounting-marketing dyad, using selected items, identified in Parry and Song (1993) as barriers to effective inter-departmental communication, seems ideal.

6.9.2.2 Formalisation (FORMPS)

Following formalisation context in chapter 3, a 4-item instrument was derived, combining the backgrounds in (Gupta, 1984; Gupta *et al*, 1987; Parry & Song, 1993; Song *et al*, 1997; Dewsnap & Jobber, 2004; Mollenkopf *et al*, 2000; Song & Thieme, 2006) to check the evidence of formalised procedures and written documentation.

6.9.2.3 Culture and orientation differences (CODIFF)

Literature (see chapters 2 and 3) suggests culture and orientation differences characterise the accounting-marketing interface. Dwelling in that background, this study, borrowing from Parry and Song (1993) and Gupta (1984) but harmonised with theoretical problems of accounting-marketing interface, adopted four items sensitizing orientation, culture, thinking patterns, and perceptions of organisational objectives, to explore culture and orientation differences.

6.9.2.4 Management Support of Integration (MANSFINT)

This construct has received vast attention in the consideration of **CFR**. **MANSFINT** is measured in this study with a 4-item scale adapted from Dewsnap and Jobber (2004), Song (1991), Song *et al* (1997), Gupta *et al* (1987), Gupta (1984), Xie *et al* (2003) and Chimhanzi (2004). The scale (see Table 6.5) was designed to tap the degree to which senior management, through policies and behavioural virtues, promote accounting-marketing integration.

6.9.2.5 Encouragement of risk taking behaviour (RISKBEH)

To measure risk taking behaviour encouragement, as defined in chapter 3, this study adapted a 4-item scale from Song (1991), Parry and Song (1993), Gupta (1984), and Gupta *et al*, 1987, to capture management's effort to enhance risk taking propensity.

6.9.2.6 Decentralisation (DCENT)

This construct consists of 4 statements regarding the authority to exercise decisions powers without prior approval from above. To suitably capture the conceptualised perspective, the scale for measuring this variable was adapted from (Gupta *et al*, 1987; Song, 1991; Parry & Song, 1993; Mollenkopf *et al*, 2000; Dewsnap & Jobber, 2004; and Song & Thieme, 2006).

6.9.2.7 Participation (PART)

Adapting the backgrounds in Gupta *et al* (1987), Song (1991), Parry & Song (1993), Dewsnap & Jobber (2004), and Song & Thieme (2006) to accounting-marketing context, 4 statements (see Table 6.5) relating to employee participation at the 4-stages of the strategic marketing process were employed to tap this construct.

6.9.2.8 Reward (REWARD)

This construct, emphasising uniform salary structure and team performance based evaluations, contains 4-items in the original instrument for this study. The operationalisation of reward was based on numerously validated items (e.g., Gupta *et al*, 1987; [Song, 1991; Parry & Song, 1993] - both using 1-item; Song *et al*, 1997 & 2000; Mollenkopf *et al*, 2000; Chimhanzi, 2004; and Dewsnap & Jobber, 2004).

6.9.2.9 Role Flexibility (ROFLEX)

Following construct conceptualisation, best appropriate 4-item measurement scale was derived from Xie *et al* (2003), Moenaert *et al* (1994) and Garrett *et al* (2006), to capture if cross-boundary role performance was practised, and if such culture was emphasised as a tool for developing capabilities.

6.9.2.10 Non-departmental proximity (NONDEPPROX)

This construct explores the extent of physical distance between both departments. Combining Xie *et al* (2003) and Leenders & Wierenga (2002), a 4-item scale was derived to capture if both departments were physically separated, had rare informal interactions and chance meetings, and the understanding of possible consequences of physical separation on chance meeting and understanding each other.

Applying above specified measurement items (16 for achieved integration, 24 for achieved integration during the strategic marketing process, and 40 for the exogenous

constructs) on a 6-point likert scale, a questionnaire (see Appendices 7 & 8) was generated, after due enhancement through pilot study (see Section 6.9.3), and used in the survey as detailed out in Section 6.10.

The research instrument for measuring both dependent and independent constructs is summarised in Table 6.5 below:

Table 6.5: The Research Instrument for the Study of Accounting/Marketing Integration

S/Nr	CONSTRUCTS	MEASUREMENT ITEMS	SOURCES (ADOPTED/ADAPTED)
A	**Dependent Variables**		
1	Degree of Information Sharing	a) Awareness of the information needs of each other, b) Awareness & sharing if customer perspectives, c) Effective information exchange, d) Accurate and timely exchange of information, e) Awareness of each other's goals, f) Awareness of organisational strategic goals.	Parry & Song, 1993; Fisher *et al*, 1997; Leenders & Wierenga, 2002; Dewsnap & Jobber, 2004.
2	Degree of Unified Effort	a) Give-and-take attitude, b) Willingness to listen to criticisms from each other, c) Swift resolving of conflicts, d) Mutual support of each other, e) Few disagreements in strategic marketing decisions.	Song & Parry, 1993; Parry & Song 1993; Gupta, 1984; Kahn & Mentzer, 1998; Gupta *et al*, 1986; Song & Dyer, 1995; Song *et al*, 1997; Kahn, 1996; Leenders & Wierenga, 2002; Massey & Dawes, 2006; Xie *et al*, 2003; Dewsnap & Jobber, 2004; Song & Thieme, 2006.
3	Degree of Involvement	a) Involvement of both in strategic marketing decisions, b) Engaging in open discussion from both perspectives, c) Joint involvement in analysing customer needs, d) Joint participation in responding to market changes, e) Joint involvement in defining the strategic marketing priorities.	Gupta, 1984; Gupta *et al*, 1986; Song, 1991; Parry & Song, 1993; Song & Dyer, 1995; Song & Parry, 1993; Song *et al*, 1997; Xie *et al*, 2003; Song & Thieme, 2006; Dewsnap & Jobber, 2004.
B	**Dependent Variables**		
4	Integration at SMAS	a) A&M support each other mutually in the joint effort to ascertain the changes taking place in the trading environment and assess how these changes affect the firm and its activities. b) A&M are willing to listen to criticisms from each other in the effort to analyse the Strategic Marketing issues. c) A&M exchange accurate & timely information in the effort to effectively ascertain the changes taking place in the trading environment and asses how these changes affect the firm and its activities d) A&M information sharing practices reflect common strategic goals between the functions e) A& M jointly participate in the entire process of ascertaining the changes taking place in the environment and assessing how these changes affect the firm f) A& M are jointly involved in considering the resources available for responding to the identified changes	Integration at SMAS (Strategic Marketing Analysis Stage) was measured by combining 2 items of each dimension of integration as defined in 1, 2 & 3 above. These items were applied to SMAS in accordance with the precedence in Gupta, 1984; Song, 1991; Parry & Song, 1993; Song *et al*, 1998.
5	Integration at SMPS	a) A& M support each other mutually in establishing strategic Marketing schedules b) A&M show united team spirit and openness to criticisms in their effort to set strategic marketing goals and priorities c) A& M willingly share information in their effort to generate strategic marketing ideas d) A& M share accurate & timely information to aid marketing planning mix f) A&M participate jointly in deciding on the strategic marketing goals and priorities g) A&M participate jointly in decisions concerning apportionment of resources to strategic marketing efforts	Integration at SMPS (Strategic Marketing Planning Stage) was measured by combining 2 items of each dimension of integration as defined in 1, 2 & 3 above. These items were applied to SMPS in accordance with the precedence in Gupta, 1984; Song, 1991; Parry & Song, 1993; Song *et al*, 1998.
6	Integration at SMIS	a) A& M depict team spirit in the execution of Strategic marketing plans b) A& Mare willing to perform cross-functional roles in ensuring effectiveness & efficiency of Strategic Marketing Plans c) A&M are aware of the information needs of each other in the execution of Strategic Marketing Plans d) A& M share accurate and timely information in the execution of Strategic Marketing Plans e) A& M jointly identify the specific tasks to be performed and execute actual Strategic Marketing Plans f) A&M are jointly involved in the allocation of resources to the courses of Strategic Marketing Mgt. action	Integration at SMIS (Strategic Marketing Implementation Stage) was measured by combining 2 items of each dimension of integration as defined in 1, 2 & 3 above. These items were applied to SMIS in accordance with the precedence in Gupta, 1984; Song, 1991; Parry & Song, 1993; Song *et al*, 1998.

7	Integration at SMCS	a) A& M mutually support each other in the process of monitoring the transformation of Strategic marketing Plans b) A& M show unity in the process of analysing performance to identify deviations from plans & areas of variances c) A& M share accurate and timely information to aid monitoring of transformation of Strategic Marketing plans d) A& M share accurate and timely information & aid evaluation of performance & identification of variances e) A& M jointly participate in the monitoring of the transformation of Strategic Marketing Plans f) A& M jointly participate in identifying & evaluating courses of action in the event of variance(s)	Integration at SMCS (Strategic Marketing Control Stage was measured by combining 2 items of each dimension of integration as defined in 1, 2 & 3 above. These items were applied to SMCS in accordance with the precedence in Gupta, 1984; Song, 1991; Parry & Song, 1993; Song *et al*, 1998.
C	**Independent Variables**		
8	Communicat-ion Gap	a) There is lack of communication between accounting and marketing, b) Accounting information is not transferred accurately to marketing, c) There is too little information exchange between marketing and accounting, d) Accounting has no discussion with marketing regarding strategic marketing issues.	Gupta, 1984; Parry & Song, 1993.
9	Formalisation	a) Staff performance appraisals are based on written performance standards b) Duties, authority, and accountability of personnel are documented in policies, procedures, or job descriptions c) Written procedures & Guidelines are available for most of the work situation d) Formal communication channels are always followed	Gupta, 1984; Gupta *et al*, 1987; Parry & Song, 1993; Song *et al*, 1997; Dewsnap & Jobber, 2004; Mollenkopf *et al*, 2000; Song & Thieme, 2006.
10	Management Support for Integration	a) Top Management promotes team loyalty over functional loyalty b) Top Management promotes performance measures that favour integration between accounting and marketing c) Top Management encourages different functions to work together d) Top Management supports integration of accounting and marketing	Dewsnap & Jobber, 2004; Song, 1991; Song *et al,* 1997; Gupta *et al,* 1987; Gupta, 1984; Xie *et al,* 2003; Chimhanzi, 2004.
11	Management's Encouragement of Risk-Taking Behaviour	a) Management provides enough incentives to work on new ideas despite the uncertainty of their outcomes b) Management has a strong desire for high-Risk, high-Return Investments c) Management encourages you to keep trying even if you fail in the Strategic process d) The Management rewards Successful Risky Projects	Song, 1991; Parry & Song, 1993; Gupta, 1984; Gupta *et al*, 1987.
12	Culture and Orientation Differences	a) Marketing people do not seem to understand Accounting people b) The Marketing culture differs from that of Accounting c) Marketing thinking patterns differ from those of Accounting d) Marketing and accounting have different views of organisational objectives	Parry & Song, 1993; Gupta, 1984.
13	Reward	a) M&A share equally in the rewards from successful strategic marketing effort b) M&A executives of the same rank are on the same salary level c) Team members evaluation are based on team performance instead of individual performance d) Formal evaluation criteria for Accounting – Marketing inter-departmental teamwork exist	Gupta *et al*, 1987; Song, 1991; Parry & Song, 1993; Song *et al*, 1997 & 2000; Mollenkopf *et al*, 2000; Chimhanzi, 2004; Dewsnap & Jobber, 2004.
14	Decentralisat-ion	a) Very few actions are taken without the approval of a superior b) Even small matters on the job have to be referred to someone higher up for a final say c) Individuals don't feel empowered to make decisions in their jobs d) Employee participation is not encouraged in strategic decision making	Gupta *et al*, 1987; Song, 1991; Parry & Song, 1993; Mollenkopf, *et al*, 2000; Dewsnap & Jobber, 2004; Song & Thieme, 2006.
15	Role Flexibility	a) A planned job rotation of Marketing and Accounting employees is emphasised as a device for developing their capabilities b) Marketing and accounting functions do rotate employees c) Accounting gather and contribute strategic marketing information to the marketing team d) Some of the accounting members performed technical marketing tasks in the strategic marketing process	Xie *et al,* 2003; Moenaert *et al,* 1994; Garrett *et al,* 2006
16	Non-Departmental Proximity	a) Marketing is physically separated from Accounting b) Informal interactions rarely happen between Marketing and Accounting c) Chance meetings are rare between Accounting and Marketing personnel d) Physical separation between marketing and accounting reduces the chance to learn and understand each other	Xie *et al,* 2003; Leenders & Wierenga, 2002.
17	Participation	Participation During S-M-Analysis stage Participation During S-M-Planning stage Participation During S-M-Implementation stage Participation During S-M-Evaluation & Control stage	Gupta *et al,* 1987; Song, 1991; Parry & Song, 1993; Dewsnap & Jobber, 2004; Song & Thieme, 2006.
Note: (1) To accurately tap each department's perception, some questions were reversed to achieve concerned department emphasis, hence two questionnaires in Appendixes 7 (Accounting Department) and 8 (Marketing Department). (2) A&M = Accounting & Marketing Source: Author, contents collated from flagged references			

6.9.3 PRETESTING THE QUESTIONNAIRE

The collection of information through experienced individuals knowledgeable in the area of investigation is termed a 'pilot study' (Green & Tull, 1978). From the list of 1000 firms sampled from the 'FAME' database and FSA register for the actual survey 6 firms were selected to pilot test and refine the instrument for this study. The selection of these firms was rationalised on geographical proximity (Pressey, 2000), and a personal contact within the organisation, and the willingness of the informant to participate in the procedures was established (see Appendix 1).

Following Churchill's (1979) recommendation, the measurement instruments for this research were extensively pre-tested (see also Parry & Song, 1993; Song *et al*, 1997; Kahn & Mentzer, 1998). To reduce ambiguity of questions and enable response rate (RR), the instrument for this study was refined through a two-dimensional one-stage pre-test. Taking a cue from Parry and Song (1993), semi-structured interviews were carried out with accounting and marketing managers of selected companies. These pilot interviews with the 10 personnel (5 accountants and 5 marketing managers) were tape recorded, and following Moenaert and Souder (1990), recorded transcripts were subsequently thematically content analysed. The sixth company was eliminated from the pilot-testing sample, as one of its department managers was indisposed; a circumstance which the researcher deemed unsatisfactory for the dyadic criterion for the pilot-testing exercise.

Mailed-questionnaire pilot-test format can provide information regarding the accuracy and reliability of the sampling frame chosen, allows estimates of the sample size to be made, calculation of probable non-response rate, and can provide information leading to a change in the sequence of questions, while also enabling

piloting of type of paper, layout of questions, letter of introduction and test reply-paid facilities (op. cit.). To aid the above interests, the questionnaires were mailed along with a covering letter to the respondents to enable them familiarise themselves with the contents before the actual testing. This step was designed to enable response rate (RR) for as Baruch (1999) notes: achieving dependable, valid, and reliable results, requires a high RR, and in this case most of the respondents in response to the primary (email) request showed willingness to participate but were overwhelmed by work pressure. To enhance participation, reminder emails were sent as well as phones calls made to respondents (Asch *et al*, 1997). Additionally, respondents were reminded of the importance of the study to enabling their understanding of accounting-marketing integration and were promised a copy of the executive report of the aggregated and fully anonymous results.

Following completion of interviews, pre-testing of the questionnaires was carried out with respective respondents from the selected companies. In contrast to Pressey (2000), given time factor, pre-testing of questionnaires was conducted immediately after the interviews, in this study, as the prospects of getting another audience with the respondents, in short time, looked slim. The respondents were asked to complete the questionnaires and comment as they deemed relevant in relation to wordings, language, general content, length, and design and paper format.

Having completed pilot interviews and pre-testing of the questionnaires, a revision of the questionnaires was undertaken ensuring that questions were kept short as possible or eliminated and any jargon removed to facilitate RR (Spector, 1992). Also, comments and suggestions as to content and design were reflected in the revised version of the questionnaires. The final version of the questionnaires were then subsequently checked and confirmed suitable by the participating 10 respondents.

6.9.4 SAMPLING OF RESPONDENTS FOR PILOT TESTING (INTERVIEWS AND QUESTIONNAIRE) AND ACTUAL SURVEY

As Eisenhardt (1989) notes, in hypothesis-testing research, the concept of population is not only crucial because the population defines the set of entities from which the research sample is to be drawn, but also, the selection of an appropriate population controls extraneous variation and helps to define the limits for generalizing the findings. Relating this background to the business world, Johnston *et al* (1999, p. 202) emphasize that in business-to-business environments involving multiple contextual variables influencing organisational behaviour, individuals within a particular organisation may only see a partial picture of the entire situation, thus making single key-informant survey designs less appropriate. On this logic (op. cit.), all relevant parties must be interviewed to obtain a more comprehensive picture of the phenomenon (see also Aaker – Day 1986, p. 129). Lincoln and Guba's (1985) guidelines for purposeful sampling emphasise sampling should begin with top managers who play major roles in the issues of concern, a logic that resonates with (Daft & Weick, 1984; Isabella, 1990; Kiesler & Sproull, 1982).

Combining above three viewpoints (i.e., Eisenhardt, 1989; Johnston *et al*, 1999, p. 202; and Lincoln & Guba, 1985), the sampled population for this study included all UK financial services companies that satisfy criteria specified in Section 6.4.1, and respondents are the top managers (**see Box 6.7a**), i.e., the Heads of accounting and marketing of participating companies.

> "Managers represent the sentiments of their departments (Phillips, 1981). It was presumed that department managers would be most involved with interaction and collaboration activities and most able to reflect appropriate characterisations of the interdepartmental situation because they oversee the functioning of their respective departments, assign personnel to multifunctional assignments, and deal directly with other departments."- Kahn & Mentzer (1998, p. 56). **Box 6.7a**

Supporting (Lincoln & Guba, 1985; Isabella, 1990; and Kumar *et al*, 1993), Lawrence and Lorsch (1969), studying the measures of environmental uncertainty,

adopted a selection criteria that combined questionnaires and interviews to collect data from only the top executives in each organisation [...] who would be in a position to be extremely knowledgeable about conditions in their particular industry.

Social atomism (Bhaskar, 1998) suggests that the explanation of social events be deduced from behaviour of the 'participating individuals' and the description of their situation. Recognising this social atomism substance, this study exploits this background, in tandem with the "Modus Operandi" in Lawrence & Lorsch (1969), for both the pilot-testing and actual survey stages. Thus, the Heads of accounting and marketing of selected companies, given their key informant position (see Kumar *et al*, 1993), by virtue of the major roles they play (see Daft & Weick, 1984; Isabella, 1990; Kiesler & Sproull, 1982) participated in both stages.

6.10 The Actual Survey

Guided by the 5 criteria defined in Section 6.4.1, 1000 FSO's were sampled from the 'FAME' database and FSA register for the actual survey. From the 1000 organisations, 320 were sampled, and the revised questionnaires were mailed to them. To achieve a research design that accurately identifies the independent – dependent relationships, following standard practice in reputable studies, the 320 organisations were selected from a heterogeneous target population (Hair *et al*, 2003, p. 305).

Overall, following the pattern in (Gupta *et al*, 1985 & 1986) selected companies, in addition to satisfying the criteria emphasised in Section 6.4.1, had yearly revenue of at least £10m (however in dollars for Gupta *et al*) and as in (Gupta *et al*, 1985 & 1986; Song & Parry, 1992; Parry & Song, 1993,) allocate about 5% thereof to strategic marketing efforts. Also, the companies must have at least 100 employees (Kahn, 2001[62]).

[62] Companies with greater than 100 employees would normally have a departmental structure comprising many individual departments.

To sample the 320 companies, the following criteria were prioritised:

1). Ensuring a fair representation of each of the five financial services sectors explored in this study,

2). Confirmation (through phone) of a valid contact address of the company,

3). Following 1 and 2 above, numbers were allocated to the companies in each sector list. Subsequently, to achieve the sample for each sector (see Table 6.8), the companies, represented by numbers were picked, in no sequence or criteria.

Overall, 640 questionnaires (2 per organisation) were mailed out in the first mailing batch. The survey questionnaires (see Appendixes 7 & 8) contained mainly questions scaled in Likert format and two open-ended questions and were mailed along with a personalised (in over 90% cases) covering letter, and a self-addressed reply envelop to the Heads of Accounting/Finance and of Marketing. The personalised covering letter (see Appendix 5) outlined the research subject, the usefulness of the study, the dyadic approach in the study, the target respondents, and the significance of each organisation's response. The letter also included a promise of confidentiality, time estimate (pilot-testing derived), anticipated duration for response, and a promise to send an executive report of the aggregated and fully anonymous results and recommendations to all respondents who would like to have it.

Mailed-questionnaire pilot-test format can provide information to indicate (amongst other things) the probable non-response rate (Pressey, 2000). The response rate for this study, a pure contrast to the 83.3% registered at the pilot-testing phase, negates this argument. After 9weeks of mailing out the first batch of questionnaires, 62 questionnaires were returned (6 unusable), reflecting a response rate of less than 10%. As Baruch (1999) notes: in order to have dependable, valid, and reliable results, we need a high RR from a wide representation of the whole population under study.

To enable the RR (Baruch, 1999; Asch, 1997), reminder letters (see Appendix 6) were sent (along with a copy of the questionnaire) as well as telephone calls made to those who had not responded, reminding them of the importance of their response to the survey. After sending out reminder letters and making telephone calls for another 6 weeks, the response rate had only minimally improved, with only 83 usable questionnaires returned. Whether the reminder letters or the telephone calls were more response enhancing was not obvious.

6.10.1 ENHANCING RESPONSE RATE: FURTHER STEPS TAKEN

This section is explained in two subsections. Sub-section 6.10.1.1 explains the technique used to enhance response rate, while sub-section 6.10.1.2 explains the overall response achieved and the reasons for the low response rate for the study.

6.10.1.1 Further Technique Used to Improve Response Rate

Reported in Section 6.10 above, only 83 usable questionnaires were achieved after 15 weeks of commencing the survey. To improve RR, towards ensuring dependable, valid, and reliable results (Baruch, 1999), a modification in approach was deemed necessary, induced by limited telephone access to respondents.

Persevering further to improve response rate, a mixed-approach was adopted. First, sending of reminder letters was intensified. Secondly, following empirical evidence (Song, 1991; Parry & Song, 1993; Swink & Song, 2007) that points to response inducement reasons (see Section 6.10.1.2 and Table 6.6), a consultancy firm, with established working relationship with companies in the explored industry, was used to intensify contact with the respective Heads of the two departments (where necessary) of some of the non-responding companies.

In addition to reiterating the subjects emphasized in the first letter introducing the study, the reminder letter (see Appendix 9) also commented on the mailing time of the

first contact with questionnaire, the number of completed questionnaires received so far, and also stressed the importance of the firm's response to enabling the need for a representative sample for analysis for the study.

On the evidence from this study, the technique of using a consultancy company with established working relationship with target respondents is a good response rate enhancing technique. The overall RR for this study is explained next.

6.10.1.2 Overall Response Rate and Reasons for Low Response

After a data collection period stretching over 8months, 175 questionnaires were returned, and following missing data analysis, 162 (84 – marketing & 78 –accounting) were deemed eligible for further analysis. Overall, 75 dyads were found, that is, responses were received from both accounting and marketing departments of 75 participating companies, yielding 150 usable questionnaires. The other 12 usable questionnaires were unpaired and accounted for by 9 (marketing) and 3 (accounting).

The overall RR for this study (27.34%) compares favourably with other studies that examined marketing's integration with other departments (see Table 6.6). A number of reasons explain the low RR in this study:

1). A critical analysis of response rate precedence in previous CFR studies (see Table 6.6), indicate, that, apart from the international studies conducted by Song, either alone, or in partnership, with RR of over 50%, the usual RR stands between 19% and 33%.

2). Connected to 1 above, the huge RR in the studies of Song (with or without his partners) is partly explained by a response population that had previously participated in his prior studies. Obviously, these are not only used to working with him, as well as the dynamics of such surveys, but are also quite aware of the benefits of such studies

to organisational development. Also, the non-paired response factor might explain the high RR in most of Song's studies.

3). Analyzing Table (6.6) content, a trend of supporting evidence that resonates with Song and his colleagues' RR conclusions, is evident. Studies in the UK, in the considered domain, seem to register a lower RR in comparison to studies in Japan, US, and even Australia. Although Xie *et al* (2003), a multi-Country and Continent study, did not employ paired response format, the RR clearly provides supporting evidence about UK studies. May be future studies on this subject could provide empirical explanations to this circumstance.

4). Flagged earlier, while marketing's cross-functional relationship with R&D, Production and Manufacturing, has received immense attention since the early 80's, its relationship with accounting is scarcely explored. Given this fact, it seems logical to suggest that while practitioners are conscious and aware, and appreciate the role, in explaining the relationship, the awareness in relation to research might still be limited.

5). Also, the majority of non-responding organisations emphasised either lack of time, fear of exposing their competitive edge, or in the extreme case, there were organisations (and most strangely top organisations) that had policies of not participating in such surveys.

6). Further more, it must be noted that the non-dyadic factor in a number of sampled firms, including surprisingly some major companies, which in some cases did not entirely own both departments, affected the response rate, as some companies, given that fact, declined response.

7). Finally, in 5 of the non-paired response cases, the non-responding managers, though keen to participate, declined however, as they felt justifiably, being less than

one year in their roles, their response might not reflect correctly the phenomenon in their individual organisations. This fact also affected the response rate for this study.

Further interviews (6.10.2) were conducted, following quantitative data analysis.

6.10.2 FURTHER INTERVIEWS

Prompted by interesting evidence emerging from survey results, further interviews were carried out. The interviews (two-phase) sought to explain how and what mechanisms, if any, were used to supplement explored antecedents, in managing accounting-marketing dyadic relationship.

The first phase of interviews, conducted through telephone, lasted between 5 to 10 minutes, and was purposed to ascertain existence and nature of such mechanism highlighted above, while phase two sensitized motivation and process of mechanism.

Both interviews and findings are elaborated in Sections 8.12, 8.13 & subsections.

Table 6.6: Response Rates - Previous Studies of Cross-Functional Relationship

S/Nr	Studies	Interface	Sampled Population (N)	Response Rate (%)	Nature of Response
1	Gupta (1984)	R&D – Marketing	331 U.S. firms (662 Questionnaires sent)	109 (Marketing), 107 (R&D), RR = (33%)	Paired (R&D and Marketing Managers
2	Ruekert & Walker (January 1987)	Marketing – Production/R &D/ Accounting	Single Firm Sample: 183 Questionnaires sent out: 114 (Marketing), 69 (others)	151: 95 (Marketing-83%), 56 (Others-81%). Overall RR =	Very minimally paired (Marketing, R&D, Production, & Accounting)
3	Song (1991)	R&D - Marketing	411 Japanese firms (822 Questionnaires were sent)	264 (Marketing), 274 (R&D). 315 companies responded. RR = 65.5%, Adjusted RR = 54.3% (223 companies – paired R.	Paired (R&D and Marketing Managers
4	Parry & Song (1993)	R&D - Marketing	411 Japanese firms	274 (67%)	Non-paired (Only R&D Directors)
6	Kahn & Mentzer (1998)	Marketing-Manufacturing- R&D	860 firms (2580 Questionnaires were sent to Marketing, Manufacturing and R&D managers of the respective sampled firms.	514 managers (20%): 177 (Marketing), 157 (Manufacturing), and 180 (R&D)	Paired (Marketing, R&D, and Manufacturing)
7	Homburg, Workman, & Krohmer (1996)	Marketing's influence within the firm	(Questionnaires sent to 2610 Marketing Managers of U.S. and German Companies firms)	Pooled sample RR = 19.7% (19.9% - U.S., 19.4% - Germany). Responses (280 – U.S., 234 - Germany	Non-paired (Only Marketing Managers)
8	De Ruyter & Wetzels (2000)	Marketing - Finance	361 Netherlands firms (457 Questionnaires were sent: 267 (Marketing), 190 (Finance)	I62, RR = (35%): 96 (Marketing – 36%), 66 (Finance – 35%)	Unbalanced paired (Marketing and Finance Managers)
9	Ratnatunga et al (1989)	Marketing - Finance	160 Australian firms (Questionnaire sent to 320 Directors)	120: 65 (Marketing), 55 (Finance). RR = 38%	Paired (Marketing & Finance Directors)

S/Nr	Studies	Interface	Sampled Population (N)	Response Rate (%)	Nature of Response
10	Dewsnap & Jobber (2004) **WP**	Sales - Marketing	221 UK firms (504 Questionnaires sent to middle & senior Sales & Marketing Managers)	169 from 65 firms. RR = 34%	Non-balanced paired (Middle & Senior Sales & Marketing Managers)
11	Chimhan-zi (2004)	Marketing - HR	UK Services firms. Questionnaires sent to the Marketing Managers of the SBUs of the firms	230 usable Questionnaires returned. RR = 31.2%	Non-paired (Only Marketing Managers)
12	Lu & Yang (2004)	R&D - Marketing	151 Taiwanese firms (Questionnaires sent to several SBUs in a firm	153 from 43 firms: 82 (R&D), 71 (Marketing). RR for firms = 28.48%	Paired (R&D and Marketing Managers).
13	Dawes & Massey (2005)	Marketing – Sales	(Questionnaires sent to Sales Managers of 325 Australian and 716 UK firms)	Overall RR = 20.3%: (113 UK responses = 16.6% RR), 88 Australian responses = 28.2% RR	Non-paired (Only Sales Managers)
14	Mollenk-opf et al (2002)	Marketing - Logistics	New Zealand firms (Questionnaires sent to 464 Marketing and Logistics Managers [but not from the same firm] of New Zealand firms)	Actual RR = 40%. Within-group RR = 33% for each department. 186 responses, only 155 used for analysis.	Non-paired (Both Marketing and Logistics Managers, but not from the same firm)
15	Swink & Song (2007)	Marketing - Manufacturing	Questionnaires sent to project managers of a newly developed product in 643 U.S. firms	467 usable questionnaires were received; RR = (72%)	Non-paired (Only Project managers, not Marketing, nor Manufacturing Managers).
16	Massey & Dawes (2006)	Marketing - Sales	448 Australian firms (Questionnaires sent to Marketing Managers of Australian firms)	RR = 100 (22.3%) Marketing managers of 448 Australian firms.	Non-paired (Only Marketing Managers)
17	Barker (2008)	Accounting-Marketing	Large Canadian Companies	Usable sample of 98 (RR=23%) of the eligible companies.	Accounting and Marketing responses. No dyadic evidence.
18	Le Meunier-FitzHugh & Lane (2009)	Sales-Marketing	1000 large UK companies selected. Questionnaires mailed to Managing Directors/Chief Executives	223 responses (RR = 22.3%), 77 unusable, usable responses = 146 (usable RR = 14.6%).	Response sample included Chairman, CEO, MD, Dirs. Marketing+Sales Directors/Managers, and other personnel.

6.11 Demographics of Participating Firms and Respondents

Before highlighting the demographics of participating firms, Section 6.11.1 justifies the choice of industry sectors for this study.

6.11.1 WHY THE FINANCIAL SERVICES INDUSTRY?

a) 'The massive growth of emerging economies, the unpredictability of world events and instantaneous communication across the globe all contribute to the mix of challenge and opportunity for the leading providers of financial services and related business services' (UK Trade & Investment, 2006). Through a carefully articulated working relationship between HM Treasury and UK Trade & Investment (UKTI), the UK financial services industry is not only meeting the challenges and opportunities of globalisation of financial services, but stands out as the no. 1 in global financial services. The financial services grouping represents the largest single sector of UK gross domestic product (GDP) accounting for 22% of GDP in 1997 (Euromonitor, 2000) and 24% of gross value added at current basic prices in 1998 (Annual Abstract of Statistics, 2000). This shows the great importance in the UK economy.

b) More over (UK Trade & Investment, 2006), London remains the premier international centre for wholesale financial services and business, backed by strong regional centres of international standards financial services clusters, such as Edinburgh, Leeds, Manchester, Birmingham, Norwich and Bristol. In Scotland, the financial services industry accounts for one in 10 Scottish jobs, with well over 113,000 people directly employed in the industry and over 100,000 more employed in support services. Norwich, as the home base of University of East Anglia, has strong pre-eminence in national and international financial services, with at least two financial services providers ranking among the three best, globally, in their

sectors, and providing millions of employment opportunities. Thus, the UK financial services industry is a key stimulant of growth internally and internationally (see Table 6.7). According to UK Trade & Investment (2006), financial services industry is the fastest growing industry in Scotland, expanding by 36 per cent between 2000 and 2005.

c) As flagged by Howcroft and Durkin in the Editorial of *Journal of Marketing Management* (2003), "financial service providers need to adopt a more marketing oriented approach to the challenges they face" (p. 913).

d) Previous CFIn researches have gravely ignored the services industry. Thus, in honouring the call of Ryals & Payne (2001) for the investigation of services oriented organisations, this study seeks to contribute to filling this research void.

e) And more so, high involvement services, such as accountancy, banking, insurance, etc. have characteristics which lend themselves to the dynamics that typify accounting-marketing working relationship, hence choice of this industry.

Table 6.7: Growth in International Financial Markets in the UK

Financial Activities	1995	2004	% change	Related Comments
Cross-border bank lending ($bn)	1,350	3,524	161	The UK dominates key international financial markets, with London the location for 70% of the secondary market in international bonds; over 405 of the over-the-counter derivatives market; over 305 of the world's foreign exchange business; over 40% of cross-border equities trading; and 20% of cross-border bank lending.
Foreign Equities Turnover ($m)	627	2,234	256	
Foreign Exchange turnover ($bn)	464	753	62	
Derivatives turnover				
(i) exchange traded				
(millions of contracts, 2004)	201	587	192	
(ii) over-the-counter ($bn)	74	643	769	
Fund management	n/a	3,754	n/a	
(source of funds, $bn)				
Hedge fund assets ($bn)	n/a	190	n/a	

Source: International Financial Markets in the UK, International Financial Services London, November 2005, quoted in UK Trade & Investment, 2006.

Utilising UKTI's (2006) key sub-sector guideline, five sectors of Accountancy (Auditing & Investigation), Insurance, Banking, Risk Assessment and Asset Management, and Brokerage, are embraced in this study. The details of sampled and responding firms are described in Table 6.8. To test for possible non-response bias, statistical analysis were performed on four key metrics of annual turnover, operating

profit, total number of employees, and total assets. All t-tests for differences in respondent and non-respondent means were insignificant at the **10**% level of confidence. A multivariate analysis of variance (MANOVA) of first-wave and second-wave respondents yielded similar results. These results thus indicate that the data are representative of UK companies that satisfy this study's selection criteria.

Inspecting sector demographics of sample population and participating firms, industry distribution of participating firms and distribution of firms in the sample population are similar, thus major problems of non-response bias is not a concern.

Table 6.9 shows demographics of accounting and marketing respondents. They represent a broad range of ages, had different levels of education and rank highly in terms of work experience. 20.4% (marketing managers) and 46.1% (accounting managers) belonged to a professional society. While majority, across both functions, are educationally qualified, sharp functional loyalty exists in qualification statistics.

Overall, many top ranked FSOs, in the various sectors, participated in this study.

Table 6.8: Industry Sector representation in the Total Population and the Response Sample

	Numbers of Firms		
Industry Sector	**Sampled**	**Participated[1]**	**Participated[2]**
Banking	70	17	14
Insurance	100	30	24
Auditing & Accounting	50	16	11
Brokerage	40	15	13
Risk Assessment and Asset Management	60	21	14
TOTAL	320	99	76

Note: 1.) At least one of the marketing and accounting managers participated
2.) Both marketing and accounting managers participated.

Table 6.9: Demographic profiles of respondents

	Average	Marketing	Accounting
1.	Age	41	45
2.	Total work experience (Years)	22	23
3.	Work experience with present company	15	12
4.	Years worked with this company in present role	8	10
5.	Bachelors Degree	75%	79%
6.	MBA	2%	1%
7.	Masters Degree	8.3%	7.4%
8.	PhD Degree	1%	None
9.	Accounting related Qualification	0.5%	82%

10.	Marketing related Qualification	80.6%	1%
11.	A member of a professional society	20.4%	46%
12.	Associate Chartered Accountant	None	25%
13.	Chartered Management Accountant	None	10%
14.	Fellow Chartered Accountant	None	7%
15.	Chartered Marketer	28.7%	None

6.12 Analysing the Data – the Metrics

6.12.1 INTRODUCTION

Section 6.12.1 is explained in two main sections. First, the structural equation models for gauging the hypothesised relationships summarised in Tables 5.2 and 5.3, based on the instrument defined in Section and Subsections of 6.9.1.2, 6.9.1.3 and 6.9.2 are presented for both dependent variable groups in Section 6.12.1.1. Thereafter, the statistical steps towards appropriate examination of the models are pinpointed in Section 6.12.1.2.

6.12.1.1 Structural Model for the Study

Figure 5.1, the framework, presents the research context for this study, grounded on conceptual and empirical precedence. Based on literature, directional influences, in relation to the independent - dependent relationships have been hypothesised (see Table 5.2 and Table 5.3).

The similarities and differences between Figures 3.1 and 4.1, as flagged in Section 4.6 apply here too. Thus, Figures 6.3 and 6.4 both reflect the same antecedents conceptualisation and three integration dimensions, but while the former explores ordinary integration connection, the latter examines strategic marketing stages integration connection.

The examination of the Structural Equation Model (Figures 6.3 & 6.4) is elaborated in Chapters 7 and 8. The model defined in Figure 6.3 would be estimated for the aggregate and dimensional (InfoS, UniE & Dinv) integration to capture the degree of variances (if any) across all dimensions. The same estimation target would be pursued for strategic marketing process integration pictured in Figure 6.4.

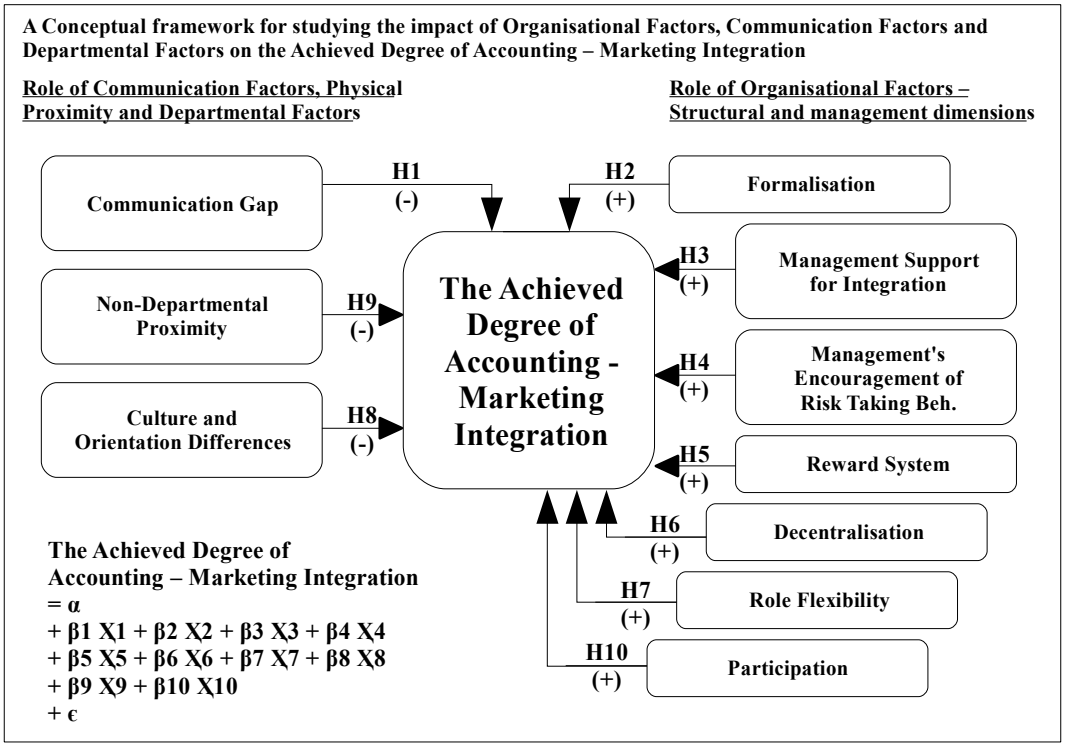


Figure 6.3: Structural Equation Modeling: Antecedents of Achieved Integration.

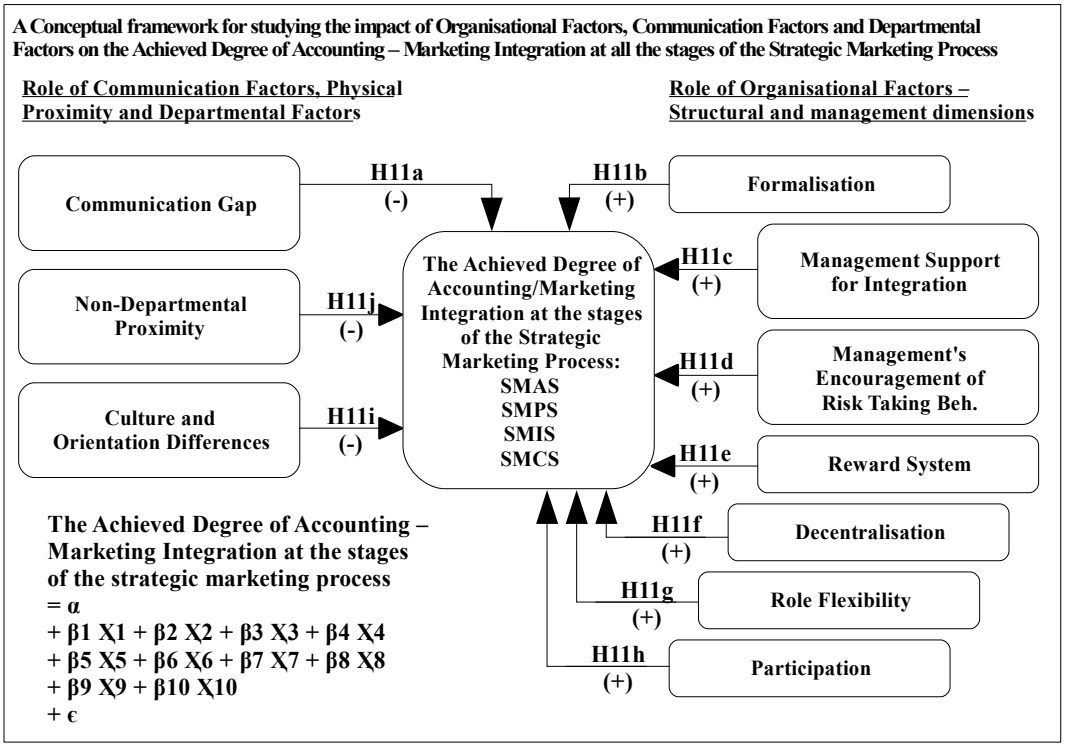


Figure 6.4: Structural Equation Modelling: Antecedents of Achieved Accounting-Marketing Integration at the strategic marketing stages.

6.12.1.2 Examining Emergent Data

Given quantitative justification, necessary quantitative software was accordingly applied to ensure best possible analysis of SEM Figures 6.3 and 6.4, for effective interpretation of findings. To generate analytical judgements on the emergent quantitative data, the SPSS 14 (Statistical Package for Social Sciences) program was used. Data screening was undertaken to capture data characteristics and ensure suitable analytical procedures are followed, employing the scales and measurement indicators for exploring conceptualised model.

Penultimate to engaging in empirical evaluation of the 11 proposed hypotheses, which included statistical examinations (Chapter 7) and outlining the statistical findings (Chapter 8), this section explains the analytical process: screening data for analysis, defining the analysis structures (following methodological legitimacy), undertaken in examining the data, to evaluate the core concerns specified in Section 6.1. Chronologically, a three step approach was used: identify the step, provide theoretical justifications underlying the step (e.g., scale and construct validation, as well as the factor extraction approach), and present the preliminary examination results.

Preliminary data purification steps included normal distribution tests, reliability and validity tests, and finally, the main descriptive statistics findings associated with the empirical evaluation of accounting-marketing integration. While the parametric checks undertaken are summarised in Section 6.12.2.1, the reliability and validity statistics are contained in Sections 7.2 and 7.3. The descriptive statistics of the measures for exploring the relationship are presented in Section 7.3.

6.12.2 SCREENING DATA FOR ANALYSES

Having completed data collection, the researcher prepared the questionnaires for data coding and storage, each variable coded, with a number assigned to each response category. Subsequently, the resulting data was entered into the SPSS (version 14), and screened to aid further analyses. Data was screened to test for the distribution type, reliability and validity of measures of scales and constructs.

6.12.2.1 The Data Distribution

To allow for parametric analysis, data was examined for normality of distribution. Following Diamantopoulos & Schlegelmilch (1997, p. 98), the median and mean values were used in conjunction with the frequency distribution, histogram plots, and the kurtosis values, to check for normality of data distribution. For a skewed distribution (Diamantopoulo & Schlegelmilch, 1997, pp. 99-100; Field, 2005, p. 11), comparing the mean and median values could be helpful in explaining normal distribution (Diamantopoulos & Schlegelmilch, 1997, p. 100); and the bell-shaped curve implies that the majority of scores lie around the centre of the distribution (so the largest bars on the histogram are all around the central value, a tendency (Field, 2005, p. 8) that might lead to a normal distribution assumption. Going by the evidence for all tests conducted, a conclusion of near-normal distribution seemed legitimate. However, the danger in such a conclusion is summarised thus by Field (2005, p. 93):

> "It is all very well to look at histograms, but they tell us little about whether a distribution is close enough to normality to be useful. Looking at histograms is subjective and open to abuse[...] What is needed is an objective test to decide whether a distribution is normal. The skewness and kurtosis statistics […] tell us a bit about deviations from normality, but they deal with only one aspect of non-normality each."

To eliminate this problem (Field, 2005, p. 93), there is need to capture the extent to which the distribution as a whole deviates from a comparable normal distribution. Following this recommendation, Kolmogorov-Smirnov and Shapiro-Wilk tests were undertaken to compare the scores in the sample to a normally distributed set of scores

with the same mean and standard deviation, culminating in significant values ($p < .05$), which indicates the distribution might be different from normal distribution.

Field (2005, p. 93) however calls for caution on interpretation of such tests, stating:

> "These tests seem great: in one easy procedure they tell us whether our scores are normally distributed. However, they have their limitations because with large sample sizes it is very easy to get significant results from small deviations from normality, and so a significant test doesn't necessarily tell us whether the deviation from normality is enough to bias any statistical procedures that we may apply to the data. I guess the take home message is: by all means use these tests, but plot your data as well and try to make an informed decision about the extent of non-normality."

On this thumb rule rationality, this study, despite the results of the Kolmogrov-Smirnov and Shapiro-Wilk tests, and given below reasons, deems the deviations from normality insubstantial to bias any statistical procedure of the parametric type:

a) The majority of the scores lie around the centre of the distribution (Field, 2005, p. 8),
b) The Kurtosis values are relatively close to zero (Diamantopoulos & Schlegelmilch, 1997, p. 97),
c) Most studies in the main cross-functional relationship domains have largely used parametric approach, and to allow for comparisons and aid generalisation interest emphasised earlier, parametric approach is used, and
d) The non-normal distribution structure may have been remotely induced by the non-existence of a non-categorical mid-point in the scale, given the likert-scale of 1 – 6.

To prepare data for further analysis, reliability and validity tests were also undertaken.

6.12.2.1.1 Validation of Measures

In an editorial report, Froman (2000) flagged the sine qua non for ensuring reliable and valid consistency in researches:

> "Reliability, as represented by consistency, is a necessary but not sufficient element of good measurement. A measure may be reliable but not valid. … If an instrument has a sturdy reliability reports, then reasonable validity estimates may be achievable."

Supporting above foundation, Hair *et al* (2003, p. 303) advice that researchers exploring independent–dependent relationships must be aware of the importance of

validity issues that directly affect functional relationship designs. Extraneous variables are numerous and may result in contamination of the functional relationship (op. cit.). Such contamination elements are threats to the validity of research findings, and thus, validity, the extent to which the conclusions drawn from the experiment are true, is pertinent. The measuring instrument is considered to be valid if it measures what it is supposed to measure and not something else (Sekaran, 2000). Joppe (2000, p. 1) explains validity in quantitative research context as below:

> "*Validity determines whether the research truly measures what it was intended to measure or how truthful the research results are. In other words, does the research instrument allow you to hit "the bull's eye" of your research object? Researchers generally determine validity by asking a series of questions, and will often look for the answers in the research of others."*

There are several types of validity that contribute to the overall validity of a study. The two main dimensions are internal and external validity (Sekaran, 2000, p. 205). Hair *et al* (2003, p. 303), agree with Yin (2003, p. 34), and recommend internal validity, external validity and construct validity.

6.12.2.1.1.a Internal and External Validity

External validity concerns the degree to which the findings of a causal study can be applied to other settings, people, or events (Sekaran, 2000). Internal validity of a research, on the other hand, concerns its ability to measure what it purports to perform (e.g. Smith, 1975). While external validity relates to the extent to which the research results are generalisable to the external environment, internal validity captures the relationship between individual items included in the composite measure and the measure itself (Babbie, 1994, Sekaran, 2000). Both validity targets are addressed in this study: external validity in this section and internal validity in Sections 6.12.2.1.1 and 6.12.2.1.2 and Subsections. There are three types of internal validity (content validity, construct validity and criterion-oriented validity (Sekaran, 2000, p. 205).

Only content (face) and construct (or congruent) (convergent and discriminant) validities are considered in this study.

While external reliability concerns wider construct replicability, internal reliability concerns collecting data to analyse the construct in a manner congruent with precedence.

External Validity (and Reliability):

Following LeCompte & Goetz (1982), external reliability and validity are also addressed in this study by clearly outlining the unit of analysis, especially its beginning and the end; hence participating firms were selected in accordance with some clearly defined criteria (see Section 6.4.1).

Three issues are related to external reliability (LeCompte & Goetz, 1982), namely:

a) researcher status position
   (i.e. what positions do researchers hold within the study group?);
b) informant choices
   (who provides the data? Is the access to respondents selective?); and
c) social situation/condition
   (do respondents tailor appropriate responses to situations?)

The pattern of respondents sampling for this study's data collection metrics, including personal dimensions, has also been spelt out and the judgement criteria employed in the selection as well as those for survey organisations show similarity with the patterns in previous research efforts in the area. External reliability requires both careful delineation of the types of people who served as respondents and the decision process that informed their choice (LeCompte & Goetz, 1982). The use of semi-structured interviews (to refine the questionnaire), in addition to the pre-test pattern for this study, enables this validity concern too.

In this study, an individual effort; the researcher's position is neutral and, is not, in any way, a member of nor influenced by any social group. With researcher keeping an open mind, research bias is not a concern in this study, hence no validity threats.

External validity in this study (see chapter 8) is also checked by engaging in comparative analysis of findings against other CFR studies findings.

6.12.2.1.1.b Content Validity

Content validity concerns the extent to which a measuring instrument includes an adequate and representative set of items that tap the subject matter of interest (Sekaran, 2000). "*The more the scale items represent the domain or universe of the concept being measured, the greater the content validity*" (op. cit. p. 207). Content validity is not achieved through empirical or statistical procedures (Nunnally, 1978), but rather determined by careful judgements of the appropriateness of the content of a measure. Guided by Sekaran's (2000) content validity foundation, to ensure adequate and representative items to tap accounting-marketing integration, respondents' (see Pilot-testing) views and ideas were taken into account in revising the measurement instrument. The content of the research instrument was explained in Section and subsections of 6.9.1.2, 6.9.1.3 and 6.9.2 and summarised in Table 6.5.

6.12.2.1.1.c Construct Validity

Construct validity *"testifies to how well the results obtained from the use of a measuring instrument fit the theories around which the test is designed"* (Sekaran, 2000, p. 208). This context reinforce Dick and Hagerty (1971) who note that a construct can be considered to be a hypothesis or explanation of some type of behaviour and if an instrument does in fact measure the construct, then one can argue that the measuring instrument has construct validity. Construct validity can be broken

down into sub-categories: convergent validity and discriminant validity. Commenting on convergent and discriminant validity, Sekaran (2000, p. 208) notes:

Convergent validity is established:

> "*when the scores obtained by two different instruments measuring the same concept are highly correlated*".

While discriminant validity is established:

> *"when, based on theory, two variables are predicted to be uncorrelated, and the scores obtained by measuring them indeed empirically found to be so*".

In this study construct validity was checked through correlation analysis and a two step parsimony examination of exploratory and confirmatory factor analyses.

6.12.2.1.1.d Correlation Analyses Tests

The Correlation matrix is the bridge over which a researcher often moves from the data to a factor loading matrix delineating the factors in the data (Rummel, 1970, p. 133). To prepare the statistical data for factor analysis (Harman, 1967, p. 13; Rietveld & Van Hout, 1993, p. 291), a correlation check among the variables in this study was undertaken. Emphasising the need to examine correlations among variables prior to factor analysis, Lee and Scott (2004) note:

> The goodness of fit indices and standardized estimates do not show specific information about the reliabilities and validities of the scale in detail, therefore other statistics need to be used to validate the model."

Given that view, Pearson correlation coefficients were calculated for all constructs to determine whether the prerequisite condition for subsequent analyses by using a data reduction existed.

Following the good practice guideline (Hair *et al*, 1992), the correlation technique used in this study to clarify the strength and direction of associations between variables, and validate data to ensure parsimony, was geared towards:

a) Examining the strength of the relationships;

b) Examining the statistical significance of the relationships;
c) Examining the square of the correlation coefficients.

Inspection of the numerical value of correlation coefficient will yield clear indication of the strength of the relationship between the variables. Near zero values indicate weak relationships, while those nearer to +1 or -1 suggest stronger relationship (Field, 2005). Inter-item correlations for each construct are reported in chapter 8.

Statistical significance of the obtained correlation is a crucial tool for validation of measures, so that correlation coefficient from a sample can be used as a basis for inference about the parent population. Statistical significance, when applied to a correlation coefficient, indicates whether or not the correlation is different from zero at a given level of confidence. A statistically significant correlation is indicative of an actual relationship rather than one due entirely to chance (Hair *et al*, 1992).

Thirdly, interpreting correlation coefficient is achieved by examining the square of the coefficient of correlation, r^2. This shows the proportion of variance in one variable that can be attributed to its linear relationship with the other, i.e. it indicates the amount of commonality between two variables (Hair *et al*, 1992; Field, 2005).

To achieve above three targets, the applicable correlation steps were taken, and all results are satisfactory. Following the recommendations of (Harman, 1967, p. 13; Rietveld & Van Hout, 1993, p. 291; Lee & Scott, 2004) construct validity (correlation of variables) estimates were determined prior to factor analysis, as well as reliability estimates, in this study. Two additional construct validities (convergent and discriminant, explained in chapter 7) of the scales and indicators were estimated to ensure that indicators and scales measure what they are hypothesized to measure).

While the factor analyses results are presented and explained in chapter 7, Section 6.12.2.1.2 and subsections introduce and justify the nature of and factor analysis steps embraced in this study.

6.12.2.1.2 Factor Analysis

6.12.2.1.2.a Introduction

As Gorsuch (1983) commented, "all scientists are united in a common goal: they seek to summarise data so that the empirical relationships can be grasped by the human mind" (p. 2). For this goal, this study, given the justification in (Appendix 11) used the factor analysis technique. Factor analysis has been numerously defined.

Synthesising these definitions, a clear commonality is evident: factor analysis is a number of methods designed to analyze interrelationships (Reyment & Joreskog, 1993), a collection of procedures for analyzing the relations (Cureton & D'Agostino, 1983), and a number of related statistical techniques which help determine characteristics that go together (Bryman & Cramer, 1990). Factor analysis, these definitions emphasize, involves a set of procedures, and enables the reduction of number of variables into a smaller set of factors. In this study, the above emphases are elaborated in Sections 7.6 and 7.7.

Specifically, the goal of factor analysis is to enable the possibility of: (1) gaining a clear view of the data, and (2) using the output in subsequent analyses (Rummel, 1970; Field, 2000; Rietveld & Van Hout, 1993; Field, 2005).

By reducing a data set (Field, 2005, p. 620) from a group of interrelated variables into a smaller set of factors, factor analysis achieves parsimony by explaining the maximum amount of common variance in a correlation matrix using the smallest number of explanatory concepts. To achieve parsimony, the steps in Figure 6.5 were taken.

6.12.2.1.2.b Steps in the Factor Analysis

Factor analysis tells the researcher (Kerlinger, 1979) what tests or measures belong together. Achieving optimum reliable results from such mix of measures thus requires appropriate stepwise approach (Kerlinger, 1979, p. 180; Rietveld & Van Hout, 1993, p. 291), but in a parsimonious manner (Kerlinger, 1979, p. 179; Field, 2005, p. 620). Drawing on Rietveld and Van Hout (1993, p. 291), the factor analysis steps for this study consists of seven main steps (see Figure 6.5).

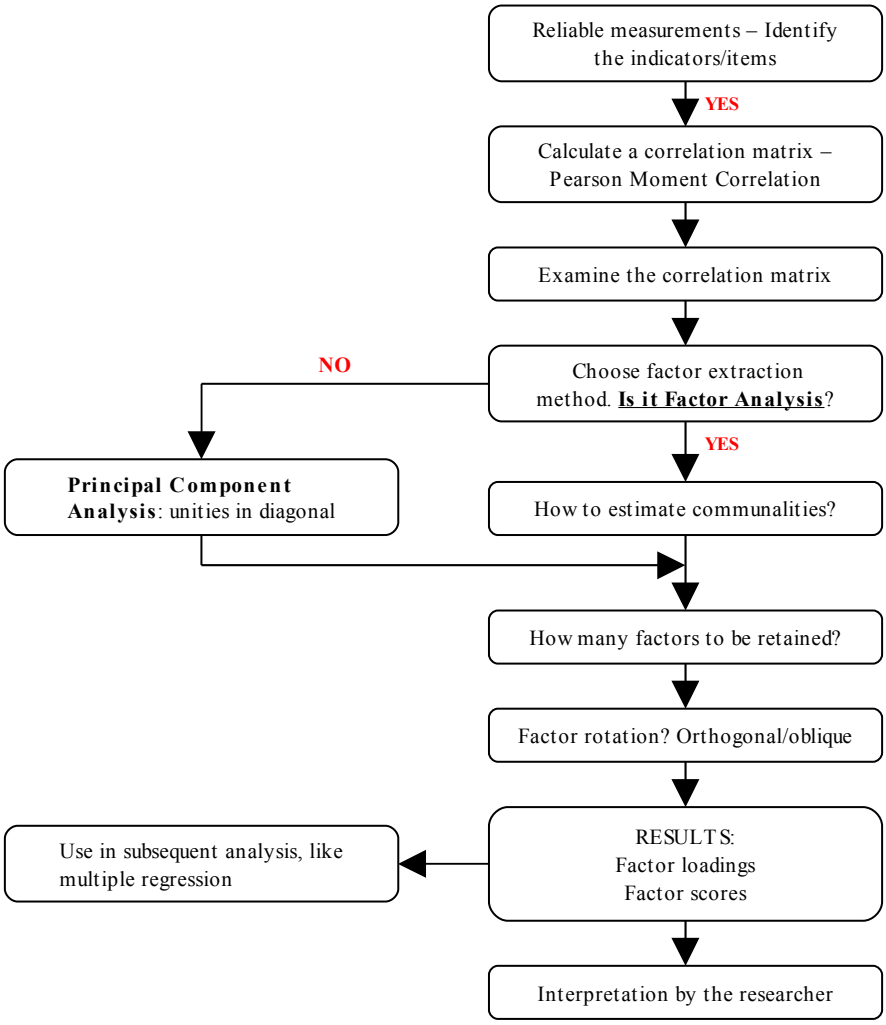


Figure 6.5: Overview of the steps in a factor analysis for this study. Adapted from Rietveld & Van Hout (1993, p. 291)

Using above template (Figure 6.5), the data were explored to capture the underlying variables (factors or latent variables) (Field, 2000 & 2005), determine

which factors to retain, and establish the factor loadings and scores, culminating in factor extraction output, to facilitate regression procedures.

6.12.2.1.2.c Justification and Nature of Factor Analysis

In this study, measurement model purification is conducted through exploratory and confirmatory factor analyses. Sections (, 6.12.2.1.2.d & 6.12.2.1.2.e) explain (EFA) approach towards achieving exploratory factor analysis target justified in Appendix 11.

EFA is ideal for this study for two reasons: (1) the theoretical foundation for this study draws largely from other domains of CFR: this study is the first to explore, in the conceptualised context, the Accounting – Marketing interface, thus, measures for this study, though empirically confirmed in other interfaces, have only received conceptual recognition in accounting-marketing relationship, i.e., a weak literature base exists(Rummel, 1970, p. 31; Stevens, 1996) for the specific domain, and given that fact, (2) this study, additional to its theory testing goal, is also geared towards theory generating for the specific domain, and EFA (Stevens, 1996, p. 389) is generally a theory generating procedure (see also Rummel, 1970, p. 31 - below).

> "In a relatively new domain of interest in which the complex interrelations of phenomenon have undergone little systematic investigation, exploratory factor analysis is useful for exploring the unknown" (Rummel, 1970, p. 31)

While the priority is to generate theoretical and empirical foundation for further use in the exploration of accounting-marketing relationships, steps were also taken in this study, additional to the confirmatory factor analysis, to permit the inference of the results beyond the specific domain. To ensure this inference objective, this study has not only used numerously empirically validated variables, but applied to randomly selected participants (Field, 2005, p. 629; Diamantopoulos & Schlegelmilch, 1997, p. 66), in which case, "the measured variables constitute the population of the variables

in which we are interested" (Field, 2005, p. 629; Wuensch, 2004). This random sampling approach (Diamantopoulos & Schlegelmilch, 1997, p. 66) is not only legitimate for inferential statistics but also fits hypotheses testing. This approach in this study is exploratory device fit (Rummel, 1970, p. 22), satisfies inferential criteria (Rummel, 1970, p. 22; Diamantopoulos & Schlegelmilch, 1997, p. 66), and legitimate for testing the hypothesised backgrounds (Gorsuch, 1983, p. 134; Diamantopoulos & Schlegelmilch, 1997, p. 66).

6.12.2.1.2.d Exploratory Factor Analysis Technique

Since Principal Component Analysis (PCA) assumes there is no measurement error, it is considered not to be a true exploratory factor analysis (Fabrigar *et al*, 1999; Gorsuch, 1989; Costello & Osborne, 2005). For this reason, severely restricted use of PCA in favour of a true factor analysis method is advised (Bentler & Kano, 1990; Floyd & Widaman, 1995; Ford et al, 1986; Gorsuch, 1990; Loehlin, 1990; MacCallum & Tucker, 1991; Mulaik, 1990; Snook & Gorsuch 1989; Widaman, 1990, 1993), all cited in Costello & Osborne (2005).

Combining above advice and the justification specified in Appendix 11, this study uses exploratory factor analysis (or principal factor analysis - Field, 2005, p. 629). Exploratory analysis literature is bereft of agreement concerning the best technique, for, as Costello and Osborne (2005) note (1) information on the strengths and weaknesses of these techniques is scarce, and often only available in obscure references, and (2) there does not even seem to be an exact name for several of the methods, as they are often used interchangeably. Given that, quite a number of authors suggest the Maximum Likelihood or principal Axis Factoring techniques would give the best results (Gorsuch, 1989; Snook & Gorsuch, 1989; Fabrigar *et al*, 1999; Costello & Osborne, 2005), depending (Costello & Osborne, 2005) on whether

data are generally normally-distributed (Fabrigar *et al*, 1999) or significantly non-normal (Fabrigar *et al*, 1999), respectively. Although Field (2005) agrees with the above view on maximum likelihood technique, he prioritizes alpha factoring over principal axis factoring, in achieving broad generalization of results. "The choice of method depends largely on what generalisations, if any, you want to make from your data" (Field, 2005, p. 629). Considering the inference motives specified in Section , without sacrificing the basis for comparison, the principal axis factoring is deemed fit. The principal axis factoring is embraced in this study for, following Miller (1971, p. 196), it fits:

a) "*exploratory uses*, the exploration and the detection of patterns of variables with a view to the discovery of new concepts and a possible reduction of data;
b) *confirmatory uses*, the testing of hypotheses about the structuring of variables in terms of the expected number of significant factors and factor loadings; and
c) *uses a measuring device*, the construction of indices to be used as new variables in later analysis".

6.12.2.1.2.e Factor Rotation

> "Once factors have been extracted, it is possible to calculate to what degree variables load onto these factors (i.e. calculate the loading of the variable on each factor)" (Field, 2005, p. 634). Factor rotation technique (op. cit.) is used to discriminate between factors. There are two types of rotation: Orthogonal rotation and oblique rotation. While "orthogonal rotations produce factors that are uncorrelated" (Costello & Osborne, 2005), i.e. "we rotate factors while keeping them independent" (Field, 2005, p. 635), oblique methods allow the factors to correlate (Costello & Osborne, 2005; Field, 2005, p. 635). "Before rotation, all factors are independent (i.e. they do not correlate at all) and orthogonal rotation ensures that the factors remain uncorrelated." **(Field, 2005, p. 635)**

Conventional wisdom (Costello & Osborne, 2005) advises researchers to use orthogonal rotation because it produces more easily interpretable results. To simplify and clarify the data structure (Costello & Osborne, 2005; Field, 2005, p. 634), factor rotation was undertaken. The factors in this study are extracted using the varimax orthogonal rotation method. Varimax (Field, 2005, p. 636), the opposite of quartimax, attempts to maximise the dispersion of loadings within factors. This method, Field

(2005) further noted, allows for the loading of smaller number of variables highly onto each factor, resulting in more interpretable cluster of factors.

To enable the theory-testing perspective, as well as hypotheses testing target, confirmatory factor analysis (CFA) was also undertaken in this study. CFA is recommended for hypotheses testing (Field, 2005, p. 629). Researchers rarely collect and analyse data without an *a priori* idea about how the variables are related (Floyd & Widaman, 1995). Consequently, this study combines exploratory and confirmatory factor analyses, and the statistical results are explained in chapter 7.

Penultimate to presenting the exploratory cum confirmatory factor results, the descriptive statistics for all measurement measures are explained in Section and subsections of 7.3.

6.13 Conclusion to the Chapter

This chapter began with a diagrammatic introduction of the methodological steps in this research. Following that, the philosophical context of this study was explained, leading to the justification of the quantitative research tool. Thereafter, the sampling dynamics used and demographics of participating companies, for the survey, using the survey instrument (see Table Table 6.5), towards investigating the framework in Figure 5.1, were explained. In this chapter too, the structural equation model for examining the hypothesised relationships in Figure 5.1), was introduced.

Subsequent to the above, the theoretical foundations for all data purification steps undertaken were explained. While theoretically explained and justified in this chapter, the statistical results for the means, standard deviations and cronbach's alphas, as well as the descriptive results, are all reported and discussed in Chapter 7.

Validity is the twin sister of reliability in the consideration of research concerns. Consequently, the theoretical foundations supporting the measure validation in this

research were also explained in this chapter. The empirical evidence emerging from the validation steps undertaken is presented in chapter 7.

Having explained the methodological procedures in this chapter, the next chapter, advancing on the evidence in chapter 6, presents and discusses the reliability findings. Also, Chapter 7 specifies the factor extraction steps followed, presents and also explains the statistical validity results. Two stages of factor analyses (Exploratory and Confirmatory) were undertaken and explained in chapter 7 for measurement model purification, penultimate to the multivariate examinations of data and overall structural model measurement elaborated in chapter 8.

7 Data Analysis 1: Assessment of Measures And Measurement Model

Brief synopsis of Chapter 7

This chapter presents the reliability and validity results for this research. For reliability, the mean , standard deviation and Cronbach's Alpha values are explained. Following this, the descriptive statistics of measures are presented and explained. This chapter also reports the validation of measures, presenting and explaining the exploratory, as well as the confirmatory factor analyses results. Also, the structural equation modeling steps are introduced in this chapter.

7.1 Introduction

Using statistical approach explained in chapter 6, the emergent data was screened for reliability and validity evidence. These included descriptive analyses, preliminary check for correlation and estimation of Cronbach's alpha. Also, exploratory and confirmatory factor analyses were undertaken, as well as testing the overall model fit. Apart from the latter (see Chapter 8), the statistical analyses findings are reported in this chapter.

First, the reliability (mean, standard deviation and Cronbach's Alpha) results are explained in Section and sub-sections of 7.2. Noted in Froman (2000), reliability, as represented by consistency, is a necessary but not sufficient element of good measurement. A measure may be reliable but not valid (op. cit.).

In this chapter therefore, the validity estimates for the measurement instrument are also presented. Further more, the steps for statistically examining and explaining the structural equation model introduced in Chapter 6, are explained here.

Following the statistical reliability results, the descriptive statistics for the measures are presented and explained in Section 7.3. Thereafter section 7.4 introduces the structural equation model steps while construct indicators correlation and other exploratory factor results are reported in Section and sub-sections of 7.7 and 7.9. The confirmatory factor results are reported in Section 7.13.

This Chapter is presented under the following main headings:

a) Scales Reliability and Descriptive Statistics of Measures
b) Defining the Structural equation model (**SEM**)
c) Exploratory Factor Analyses (**EFA**)
d) Confirmatory factor analyses (**CFA**)

7.2 Scales Reliability and Validation

Utilising theory largely validated in diverse CFR domains, hypotheses (see Tables 5.2 and 5.3 in Chapter 5) were postulated to aid exploration of 'exogenous' and 'endogenous' relationships[63]. Factor analysis is a sine-qua-non for such a relationship investigation (Byrne, 2001, p. 3; Field, 2005, p. 629).

Following Field's (2005, p. 629; see Section 7.12) advocacy, confirmatory factor analysis is essential in this study. Given that pertinence, the evaluation of measurement model was executed using factor analyses, combining exploratory (EFA - see Sections 7.7 and 7.9) and confirmatory (CFA -see Section 7.13). To ensure suitability of data for further measure purification (EFA) and subsequent confirmatory assessment of dimensionality, convergent validity, reliability and discriminant validity, data purification mechanisms of reliability and correlation analysis tests were undertaken.

7.2.1 RELIABILITY STATISTICS OF MEASURES

For appropriate independent–dependent relationship exploration, the measures (independent and dependent) for this study were checked for reliability. To obtain the multiple-item measures, the respondent's rating for the relevant items were summed up and divided by the sum of the number of items. The mean, standard deviation and Cronbach's alpha values for the items and constructs not only affirm the reliability of the measurement items but are congruent with previously validated instruments (e.g.,

[63] 'Exogenous' and 'Endogenous' (see Sections 6.9.1.1 and 6.9.2).

Gupta, 1984; Song, 1991; Parry & Song, 1993; *inter alia*). The reliability statistics for the endogenous and exogenous variables are presented in Tables 7.1 and 7.3, while the descriptive statistics for all variables are reported in Section 7.3. The Tables reflecting pooled, accounting and marketing samples describe the measures, aligned to this interface, though largely developed by Gupta (1984), and numerously validated (see Section 6.9.1), used in this study.

7.2.1.1 Dependent Variables

Using a survey instrument refined through a pilot-testing mechanism (see Section 6.9), this study investigates two levels of dependent variables, namely 'Degree of Achieved Integration' and 'Achieved Integration at the Strategic Marketing Stages'.

7.2.1.1.1 The Degree of Achieved Integration

Mean values, standard deviation and Cronbach's alpha estimates were calculated to ensure instrument reliability for achieved integration. Justified in Section 7.7.1.1, only 12 variables were considered for further analysis and thus reported in Table 7.1.

From the 12 statements to capture 'Degree of Achieved Integration (**DINTTOT**), 4 statements measured each of three integration dimensions, namely 'Degree of Involvement' (**DINV**), 'Degree of Unified Effort' (**DUE**), and 'Degree of Mutual Information Sharing' (**DMIS**). Cronbach alpha (α) was calculated for each measure for the pooled sample, as well as for the marketing and accounting samples. The pooled sample Cronbach alpha for these measures were 0.90 (**DINV**), 0.87 (**DUE**) and 0.93 (**DMIS**). The values for the marketing sample were 0.92 (**DINV**), 0.87 (**DUE**), and 0.93 (**DMIS)**, while 0.88 (**DINV**), 0.87 (**DUE**), and 0.93 (**DMIS**) were for the accounting sample. These ranges of α value suggest that the constructs were acceptably reliable for the purpose of the study (Song, 1991; Peter, 1979). At

Cronbach alpha level of 0.71, higher-order construct reliability is evidenced, thus the use of these three dimensions as subsets of **DINTTOT** is legitimate.

7.2.1.1.2 The Achieved Integration at Strategic Marketing Stages

Following (mainly conceptual) logic that effective AMI would enable strategic marketing synergies in organisations, hypothesis (H11) was proposed to capture how the antecedents influence achieved integration at the strategic marketing stages. Using the instrument defined in Section 6.9.1.3, reliability tests were performed for the four-stages of the strategic marketing process: the analysis (**SMA**) stage, the planning (**SMP**) stage, the implementation (**SMI**) stage, and the evaluation and control (**SMC**) stage. Two statements respectively were used to measure the extent of **(DINV**, **DUE** and **DMIS)** at each stage of the strategic marketing process.

Cronbach alpha (α) was computed for each measure for the pooled sample, as well as the accounting and marketing samples. The Cronbach statistics for the pooled sample were 0.91 (**SMAS**), 0.93 (**SMPS**), 0.89 (**SMIS**) and 0.94 (**SMCS**). The marketing statistics show Cronbach alpha values of 0.91 (**SMAS**), 0.93 (**SMPS**), 0.91 (**SMIS**) and 0.96 (**SMCS**), while the accounting statistics were 0.92 (**SMAS**), 0.92 (**SMPS**), 0.88 (**SMIS**) and 0.94 (**SMCS**). These Cronbach values suggest construct reliability for the purpose of this study (Song, 1991; Peter, 1979). Construct reliability for the strategic marketing process is also evidenced at (α) of 0.95, a reinforcement of higher-order construct reliability reported in Section 7.2.1.1.1.

Table 7.1: Construct Measurement: Dependent Variables – Achieved Integration

Constructs and Measure of Constructs	No. of Items	POOLED SAMPLE			MARKETING SAMPLE			ACCOUNTING SAMPLE		
		Sample Means	Std. Dev.	Cronb Alpha	Sample Means	Std. Dev.	Cronb Alpha	Sample Means	Std. Dev.	Cronb Alpha
Achieved Integration: 3 Dimension of Integration:				**.71**						
Information Sharing	**4**			**.93**			**.93**			**.93**
InfoS1		4.22	1		4.23	1.03		4.13	1.06	
InfoS2		4.12	0.94		4.11	0.93		4.03	1.01	
InfoS3		4.01	0.9		3.96	0.95		3.93	0.9	

Constructs and Measure of Constructs	No. of Items	POOLED SAMPLE			MARKETING SAMPLE			ACCOUNTING SAMPLE		
		Sample Means	Std. Dev.	Cronb Alpha	Sample Means	Std. Dev.	Cronb Alpha	Sample Means	Std. Dev.	Cronb Alpha
InfoS4		3.92	0.99		3.9	1		3.93	1.03	
Unified Effort	**4**			**.87**			**.87**			**.87**
UniE1		4.17	0.98		4.21	0.92		4.13	1.06	
UniE2		4.09	0.96		4.08	1		4.04	0.91	
UniE3		3.83	1.05		3.81	1.11		3.77	1.03	
UniE4		4.22	0.93		4.29	0.98		4.16	0.92	
Involvement	**4**			**.90**			**.92**			**.88**
Inv1		3.84	1.31		3.89	1.3		3.83	1.32	
Inv2		4.12	1.18		4.18	1.25		4.12	1.13	
Inv3		3.35	1.07		3.34	1.12		3.3	1.08	
Inv4		3.62	1.18		3.65	1.21		3.61	1.23	
Achieved Integration at Strg. Mktg. Stages:				**.95**						
Strg. Mktg. Analysis Stg.	**6**			**.91**			**.91**			**.92**
SMAS1		3.91	1.01		3.91	1		3.99	1.02	
SMAS2		4.02	1		4.01	1.12		4.04	0.91	
SMAS3		3.87	1		3.8	1.06		3.9	0.96	
SMAS4		4.18	0.98		4.17	1.07		4.18	0.97	
SMAS5		3.61	1.12		3.51	1.22		3.65	1.08	
SMAS6		3.62	1.1		3.58	1.16		3.67	1.07	
Achieved Integration at Strg. Mktg. Stages:										
Strg. Mktg. Planning Stg.	**6**			**.93**			**.93**			**.92**
SMPS1		3.81	1.15		3.84	1.17		3.77	1.16	
SMPS 2		3.91	1.12		4.01	1.19		3.88	1.09	
SMPS3		4.06	0.96		4.08	0.95		4.07	1	
SMPS4		3.83	1.02		3.85	1.06		3.8	1.02	
SMPS5		3.7	1.15		3.7	1.26		3.7	1.08	
SMPS6		3.59	1.15		3.59	1.21		3.55	1.13	
Strg. Mktg. Impl. Stg.	**6**			**.89**			**.91**			**.88**
SMIS1		3.86	1.05		3.83	1.15		3.94	0.92	
SMIS2		2.76	1.2		2.76	1.09		2.88	1.32	
SMIS3		3.97	1		3.93	1.04		4	1	
SMIS4		3.9	0.99		3.84	1.03		3.96	0.98	
SMIS5		3.34	1.07		3.35	1.13		3.35	1.05	
SMIS6		3.33	1.17		3.39	1.21		3.29	1.16	
Strg. Mktg. Control Stg.	**6**			**.94**			**.96**			**.94**
SMCS1		3.87	1.03		3.88	1.08		3.87	1.02	
SMCS2		3.97	1.04		4	1.09		3.94	1.05	
SMCS3		3.9	0.97		3.85	1		3.94	0.98	
SMCS4		3.87	0.99		3.8	1.03		3.91	0.97	
SMCS5		3.75	0.95		3.79	0.96		3.75	0.98	
SMCS6		3.83	1.03		3.84	1.04		3.91	1.02	

Table 7.2: Explanation of Acronyms (used in Table 7.1 among others)

Achieved Integration	**The 3-Dimensions of Achieved Integration**
Information Sharing	Accounting/Marketing information sharing is characterised by:
InfoS1	Awareness of information needs of each other
InfoS2	Effective Information Exchange
InfoS3	Accurate & Timely Info. Exchange
InfoS4	Awareness of each other's goals
Unified Effort	Accounting/Marketing unified effort is characterised by:
UniE1	Give & Take attitude
UniE2	Willingness to listen to criticisms
UniE3	Swift resolving of conflicts
UniE4	Mutual support of each other
Involvement	Accounting/Marketing involvement is characterised by:
Inv1	Involvement of both in strategic marketing decisions
Inv2	Engaging in open discussion from both perspectives

Inv3	Joint involvement in analysing customer needs
Inv4	Joint involvement in defining the strategic marketing priorities
Achieved Integration at the Strategic Marketing Stages	**Achieved Integration at Strategic Marketing Stages** – (In this firm):
Strategic Marketing Analysis Stage	Strategic marketing Analysis Stage
SMAS1	Accounting and Marketing support each other mutually in the joint effort to ascertain the changes taking place in the trading environment and assess how these changes affect the firm and its activities
SMAS2	Accounting and Marketing are willing to listen to criticisms from each other in the effort to analyse the Strategic Marketing issues.
SMAS3	Accounting and Marketing exchange accurate & timely information in the effort to effectively ascertain the changes taking place in the trading environment and asses how these changes affect the firm and its activities
SMAS4	Accounting and Marketing information sharing practices reflect common strategic goals between the functions
SMAS5	Accounting and Marketing jointly participate in the entire process of ascertaining the changes taking place in the environment and assessing how these changes affect the firm
SMAS6	Accounting and Marketing are jointly involved in considering the resources available for responding to the identified changes
Strategic Marketing Planning Stage	Strategic marketing Planning Stage
SMPS1	Accounting and Marketing support each other mutually in establishing strategic Marketing schedules
SMPS 2	Accounting and Marketing show united team spirit and openness to criticisms in their effort to set strategic marketing goals and priorities
SMPS3	Accounting and Marketing willingly share information in their effort to generate strategic marketing ideas
SMPS4	Accounting and Marketing share accurate & timely information to aid marketing planning mix
SMPS5	Accounting and Marketing participate jointly in deciding on the strategic marketing goals and priorities
SMPS6	Accounting and Marketing participate jointly in decisions concerning apportionment of resources to strategic marketing efforts
Strategic Marketing Implementation Stage	Strategic marketing Implementation Stage
SMIS1	Accounting and Marketing depict team spirit in the execution of Strategic marketing plans
SMIS2	Accounting and Marketing are willing to perform cross-functional roles in ensuring effectiveness & efficiency of Strategic Marketing Plans
SMIS3	Accounting and Marketing are aware of the information needs of each other in the execution of Strategic Marketing Plans
SMIS4	Accounting and Marketing share accurate and timely information in the execution of Strategic Marketing Plans
SMIS5	Accounting and Marketing jointly identify the specific tasks to be performed and execute actual Strategic Marketing Plans
SMIS6	Accounting and Marketing are jointly involved in the allocation of resources to the courses of Strategic Marketing Mgt action
Strategic Marketing Control Stage	Strategic marketing Evaluation and Control Stage
SMCS1	Accounting and Marketing mutually support each other in the process of monitoring the transformation of Strategic marketing Plans
SMCS2	Accounting and Marketing show unity in the process of analysing performance to identify deviations from plans & areas of variances
SMCS3	Accounting and Marketing share accurate and timely information to aid monitoring of transformation of Strategic Marketing plans
SMCS4	Accounting and Marketing share accurate and timely information & aid evaluation of performance & identification of variances
SMCS5	Accounting and Marketing jointly participate in the monitoring of the transformation of Strategic Marketing Plans
SMCS6	Accounting and Marketing jointly participate in identifying & evaluating courses of action in the event of variance(s)

7.2.1.2 Independent Variables

The emerging data for all independent variables, using the instrument specified in Section 6.9.2 were examined for reliability. Table 7.3 displays the means, standard deviation and Cronbach's alpha estimates for all independent variables for pooled, marketing and accounting samples.

Given the evidence in the Table 7.3, all variables satisfy the 0.7 reliability benchmark (Nunnally, 1979).

Communication gap **(COMMGAP)** scale had Cronbach's alphas of 0.92, 0.94 and 0.90 for pooled, marketing and accounting samples respectively. Formalisation, referred to as (**FORMPS**) with Cronbach's alphas of 0.86 (pooled), 0.85 (marketing) and 0.87 (accounting) samples, compares well with all 3 samples in Song and Thieme (2006).

Four items sensitizing orientation, culture, thinking patterns, and the perceptions of organisational objectives measured (**CODIFF**), producing Cronbach's alphas of 0.89 (pooled sample) and 0.90 (accounting and marketing samples).

Management Support of integration (**MANSFINT**), with a Cronbach's alpha of 0.92 (pooled sample) reflects reliability. At 0.91 and 0.93 the marketing and accounting samples (in that order), not only reflect reliable coefficients, but also corroborate pooled evidence.

Risk taking behaviour encouragement (**RISKBEH**), adapted from Song (1991), Parry and Song (1993), Gupta (1984), and Gupta *et al*, 1987a show reliable consistency at Cronbach's alphas of 0.77 (pooled), 0.80 (marketing) and 0.72 (accounting) samples.

The measurement scale defined in Section 6.9.2.6 for decentralisation (**DCENT**) generated Cronbach's alpha comparable with Gupta (1984), Mollenkopf *et al* (2000)

and Song & Thieme (2006) - for all 3 samples, of 0.88 (pooled and marketing) and 0.90 (accounting) samples. The **PART** scale measuring employee participation at the 4-stages of the strategic marketing process recorded reliable coefficients of 0.90, .81 and .87 for the three samples.

The **REWARD** construct scale contained 4-items in the original instrument for this study. As justified in Section 7.10.7, two dimensions of this construct were captured, prompting a 2-item reliability check, and Cronbach's alpha values of 0.85 (all samples) for the monetary dimension of rewards (**REWARDM**) and 0.80, 0.84 and 0.78 for (pooled, marketing and accounting samples) for the performance dimension (**REWARDP**). The Cronbach's alpha for both factors compares with that in Mollenkopf *et al* (2000).

The 4-item instrument employed to capture if cross-boundary role performance was practiced (**ROFLEX)**, achieved reliability at Cronbach's alpha levels of 0.81, 0.85 and 0.77 for pooled, marketing and accounting samples, in that order.

Finally, using the measurement instrument defined in Section 6.9.2.10, this study explored non-departmental proximity (**NONDEPPROX**). The 4-items are internally consistent at Cronbach's alpha of 0.92 (pooled), 0.93 (marketing), and 0.91 (accounting).

Table 7.3: Construct Measurement: Independent Variables – Antecedents of Integration
Part 1: Collected Data

Constructs and Measure of Constructs	No. of Items	POOLED SAMPLE (N = 162)			MARKETING SAMPLE (N = 84)			ACCOUNTING SAMPLE (N = 78)		
		Sample Means	Std. Dev.	Cronb Alpha	Sample Means	Std. Dev.	Cronb Alpha	Sample Means	Std. Dev.	Cronb Alpha
Antecedents of Integration: Communicat-ion Gap	**4**			**.92**			**.94**			**.90**
CommGap1		2.82	1.16		2.88	1.21		2.74	1.16	
CommGap2		2.96	1.18		3.06	1.26		2.88	1.12	
CommGap3		2.86	1.11		2.89	1.15		2.87	1.07	
CommGap4		2.85	1.25		2.75	1.31		2.97	1.22	
Formalisation	**4**			**.86**			**.85**			**.87**

Constructs and Measure of Constructs	No. of Items	POOLED SAMPLE (N = 162)			MARKETING SAMPLE (N = 84)			ACCOUNTING SAMPLE (N = 78)		
		Sample Means	Std. Dev.	Cronb Alpha	Sample Means	Std. Dev.	Cronb Alpha	Sample Means	Std. Dev.	Cronb Alpha
Formps1		4.36	0.92		4.45	0.88		4.38	0.91	
Formps2		4.54	0.91		4.61	0.88		4.58	0.88	
Formps3		4.23	1.12		4.34	1.05		4.2	1.12	
Formps4		3.9	0.85		3.98	0.8		3.83	0.86	
Cult. & Orientation. Diffs	**4**			**.89**			**.90**			**.90**
Codiff1		3.69	1.07		3.68	1.18		3.7	1.05	
Codiff2		4.44	0.9		4.49	0.9		4.41	0.97	
Codiff3		4.46	0.9		4.51	0.86		4.39	1.02	
Codiff4		3.56	1.01		3.6	1		3.49	1.09	
Mgt. Support of Integration	**4**			**.92**			**.91**			**.93**
MansFint1		3.96	1.03		3.96	1		3.96	1.08	
MansFint2		3.88	1.02		3.91	1		3.8	1.05	
MansFint3		4.43	1.04		4.43	0.95		4.45	1.05	
MansFint4		4.24	1.18		4.29	1.05		4.17	1.27	
Enc. of Risk Taking Behav.	**4**			**.77**			**.80**			**.72**
RiskBeh1		3.79	1.04		3.8	1.14		3.86	0.96	
RiskBeh2		2.95	1.09		2.78	1.17		3	1.03	
RiskBeh3		3.7	1.03		3.64	1.12		3.78	0.98	
RiskBeh4		3.79	1.01		3.8	1.07		3.83	1.01	
Decentralisa-tion	**4**			**.88**			**.88**			**.90**
DCENT1		3.69	1.2		3.69	1.15		3.81	1.24	
DCENT2		3	1.24		2.96	1.21		3.01	1.36	
DCENT3		2.88	1.04		2.84	1		2.9	1.05	
DCENT4		2.83	1.05		2.73	1.07		2.94	1.07	
Reward (Monetary)	**2**			**.85**			**.85**			**.85**
RewardM1		3.22	1.4		3.19	1.39		3.14	1.48	
RewardM2		2.86	1.44		2.83	1.52		2.75	1.46	
Reward (Performance)	**2**			**.80**			**.84**			**.78**
RewardP1		3.27	1.04		3.25	1.09		3.22	1.07	
RewardP2		3.14	1.15		3.13	1.14		3.07	1.15	
Role Flexibility	**4**			**.81**			**.85**			**.77**
RoFlex1		1.96	1.03		1.83	1.03		1.93	0.97	
RoFlex 2		2.03	1.08		1.85	1.04		2.04	1.09	
RoFlex 3		3.04	1.05		3.04	1.08		3.06	1.08	
RoFlex 4		2.17	1.01		2.14	1.04		2.07	0.99	
Non-Departmental Proximity	**4**			**.92**			**.93**			**.91**
NonDepprox1		4.17	1.48		4.18	1.53		4.3	1.43	
NonDepprox2		3.47	1.48		3.51	1.55		3.51	1.47	
NonDepprox3		3.35	1.56		3.34	1.58		3.33	1.59	
NonDepprox4		3.94	1.38		3.95	1.44		4	1.34	
Participation	**4**			**.90**			**.81**			**.87**
Emppasms1		4.07	1.25		4.86	0.81		3.32	1.14	
Emppasms2		4.14	1.25		4.93	0.81		3.38	1.14	
Emppasms3		4.08	1.38		5.1	0.76		3.09	1.11	
Emppasms4		4.32	0.97		4.69	0.87		4.03	0.98	

Table 7.4: Explanation of Acronyms in Table 6.11

Constructs & Measures	**The Antecedents of Accounting Marketing Integration** (In my firm),
Communication Gap	Communication Gap
CommGap1	There is lack of communication between Accounting & Marketing
CommGap2	Information is not communicated accurately
CommGap3	Too little information exchange between Accounting & Marketing
CommGap4	Marketing has no discussion with Accounting regarding Strategic Marketing. issues
Formalisation	Formalisation of procedure and structures
Formps1	Staff performance appraisals are based on written performance standards
Formps2	Duties, authority, and accountability of personnel are documented in policies, procedures, or job descriptions
Formps3	Written procedures & Guidelines are available for most of the work situation
Formps4	Formal communication channels are always followed
Cult. & Orientation. Diffs	Culture and Orientation Differences *
Codiff1	Marketing people do not seem to understand Accounting people
Codiff2	The Marketing culture differs from that of Accounting
Codiff3	Marketing thinking patterns differ from those of Accounting
Codiff4	Marketing & Accounting have different views of organisation's objectives
Mgt. Support of Integration	Management Support of Accounting/Marketing Integration
MansFint1	Top Management promotes team loyalty over functional loyalty
MansFint2	Top Management promotes performance measures that favours integration between Accounting & marketing
MansFint3	Top Management encourages different functions to work together
MansFint4	Top Management supports integration of Accounting & marketing
Enc. of Risk Taking Behav.	Encouragement of Risk Taking Behaviour
RiskBeh1	Management provides enough incentives to work on new ideas despite the uncertainty of their outcomes
RiskBeh2	Management has a strong desire for high-Risk, high-Return Investments
RiskBeh3	Management encourages you to keep trying even if you fail in the Strategic process
RiskBeh4	The Management rewards Successful Risky Projects
Decentralisation	Decentralisation of Decision making Authority
DCENT1	Very few actions are taken without the approval of a superior
DCENT2	Even small matters on the job have to be referred to someone higher up for a final say
DCENT3	Individuals don't feel empowered to make decisions in their jobs
DCENT4	Employee participation is not encouraged in strategic decision making
Reward (Monetary)	Reward – Monetary Dimension
RewardM1	Marketing and Accounting share equally in the rewards from successful strategic marketing effort
RewardM2	Marketing and Accounting executives of the same rank are on the same salary level
Reward (Performance)	Reward – Performance Dimension
RewardP1	Team members evaluation are based on team performance instead of individual performance
RewardP2	Formal evaluation criteria for Accounting – Marketing inter-departmental teamwork exist
Role Flexibility	Role Flexibility
RoFlex1	A planned job rotation of Marketing and Accounting employees is emphasised as a device for developing their capabilities
RoFlex 2	Marketing and Accounting functions do rotate employees
RoFlex 3	Accounting gather and contribute strategic marketing information to the marketing team
RoFlex 4	Some of the Accounting members performed technical marketing tasks in the strategic marketing process
Non-Departmental Proximity	Non-Departmental Proximity
NonDepprox1	Marketing is physically separated from Accounting
NonDepprox2	Informal interactions rarely happen between Marketing and Accounting
NonDepprox3	Chance meetings are rare between Accounting and Marketing personnel
NonDepprox4	Physical separation between Marketing reduces the chance to learn and understand each other
Participation	Participation of employees of each department

Constructs & Measures	**The Antecedents of Accounting Marketing Integration** (In my firm),
Emppasms1	Participation During S-M-Analysis stage
Emppasms2	Participation During S-M-Planning stage
Emppasms3	Participation During S-M-Implementation stage
Emppasms4	Participation During S-M-Evaluation & Control stage

Note: * = Sentence structure reversed in all questions for the marketing respondents.

7.3 Descriptive Statistics for the Measures

Having explained the philosophical context of this study, the data collection modus operandi, and research reliability and validity measures undertaken, Section 7.3 extends the focus in Section 6.12 and presents the descriptive statistics for all variables captured in the factor structures for measuring the relationships in the framework. The frequency of responses allocated along each scale is reported, in relation to the mean and standard deviation values for each construct, as shown in (Tables 7.1 & 7.3). Descriptive research encompasses more than just a fact-gathering expedition, as the results detailed out in this section, are the preliminary background for further empirical and statistical analyses, subsequently enabling the confirmation (or rejection) of the specified hypotheses. Thus, supporting the scientific rationalities highlighted below, the descriptive results are explained:

> "Facts do not lead anywhere. Indeed facts are the commonest, cheapest and most useless of all commodities. Anyone with a questionnaire can gather thousands of facts a day – and probably not find much use for them. What makes facts practical and valuable is the glue of explanation and understanding, the framework of theory, the tie-rod of conjecture. Only when facts can be fleshed to a skeletal theory do they become meaningful in the solution of problems." **(Ferber et al, 1964, p. 153)**

7.3.1 DEPENDENT VARIABLES: ACHIEVED INTEGRATION

The descriptive statistics for all three dimensions of integration are reported below. Given justification in Section 7.7.1.1, only the descriptive statistics for measures retained in the factor extractions are detailed out.

7.3.1.1 Measures of Information Sharing: Descriptive Finding

The distribution of responses for the measures of information sharing is reported in Table 7.5. Statistically, descriptive evidence for information sharing indicates that

majority of respondents (40.7%) scored awareness of information needs of each other relatively highly as shown on the (score 4). The second most highly ranked at 29.0% is score 5. 15.4% of the respondents indicated the score of 3 for this item. The mean value from the results reveals scores above the midpoint at 4.2222.

Effective information exchange is scored in a quite similar proportion, in relation to the degree of information sharing. Respondents scored 41.4% at the '4' score and 29.6% at the score of 5. Over 70% of the respondents indicated that effective information exchange is core in their information sharing dimensions. At 4.1173, the mean score for this item is above the midpoint of the scale.

37.7% of the respondents perceived information sharing in their organisations to be characterised by accurate and timely exchange of information at a score of 4, while 27.8% ranked this item at a score of 5. Combining the scores 4 to 6, 68.6% perceived this item as core element of information sharing in their organisations. The mean value for this item was 4.0062.

Similar to other items for this construct, awareness of each other's goals is ranked highly in the information sharing dimension across the organisations, with 36.4% scoring it at 4, 22.20% at 5 and 4.9% at 6. The mean obtained from the results show that the scores were above the midpoint at 3.9198.

Overall, at least 63.5% of the respondents perceived each of the items to be core characteristics of information sharing at their organisations.

Table 7.5: Measures of Information Sharing

Information Sharing variables	Strongly Disagree 1	Disagree 2	Slightly Disagree 3	Slightly Agree 4	Agree 5	Strongly Agree 6
InfoS1	6.0%	4.9%	15.4%	40.7%	29.0%	9.3%
InfoS2	0%	5.6%	18.5%	41.4%	29.6%	4.9%
InfoS3	0%	3.7%	27.8%	37.7%	27.8%	3.1%
InfoS4	6.0%	4.3%	31.5%	36.4%	22.2%	4.9%

Note: 1.) Respondents were asked to mark on a scale of 1 (Strongly Disagree) to 6 (Strongly Agree) their perception of Information Sharing in their Organisations. 2.) Information Sharing Variables are fully explained in Table 7.2.

7.3.1.2 Measures of Unified Effort: Descriptive Finding

The respondents' perceptions on the measures of unified Effort are illustrated in Table 7.6. Overall, the respondents perceive the 4 measures typify unified effort dimension in their organisations.

Give and take attitude measures vary significantly, pictured 40.7% at score 4, 30.2% at 5, and 6.8% at 6. The mean demonstrates that average response was well over the midpoint at 4.1728, with a convincing 77.7% of the respondents perceiving this measure as core unified effort characteristic. At 37.7% and 29.6%, willingness to listen to criticisms from each other is also weighed heavily as core unified effort factor at the scores of 4 and 5 respectively. However, at 23.5%, more respondents weighed this measure at score 3 than any other measure of this construct. The mean value for this measure was 4.0926.

Although 24.1% of respondents suggest swift resolving of conflicts was not a common feature of the unified effort, at a score of 3, majority of the respondents do perceive that their organisations engage in swift resolving of conflicts to strengthen unified effort. While 36.4% of the respondents ranked this measure at a score of 4, 23.5% perceived it at a score of 5. The mean value for this measure was 3.8333.

Over 80% of the respondents perceived mutual support of each other as a core indicator of unified effort in their organisation, scored at 4 (43.8%), 5 (29.6%) and 6 (7.4%). At a mean value of 4.2222, well over the midpoint, this measure is a significant factor of unified effort.

Although the respondents' scoring of the measures legitimise conclusion that these measures are core characteristics of unified effort at the organisations, a pattern of three similar scores ranging from score 3 to 5, across the 4 measures, is evident.

Table 7.6: Measures of Unified Effort

Unified Effort Variables	Strongly Disagree 1	Disagree 2	Slightly Disagree 3	Slightly Agree 4	Agree 5	Strongly Agree 6
UniE1	.6%	4.3%	17.3%	40.7%	30.2%	6.8%
UniE2	0%	4.3%	23.5%	37.7%	29.6%	4.9%
UniE3	.6%	11.7%	24.1%	36.4%	23.5%	3.7%
UniE4	0%	4.3%	14.8%	43.8%	29.6%	7.4%

Note: 1.) Respondents were asked to mark on a scale of 1 (Strongly Disagree) to 6 (Strongly Agree) their perception of Unified Effort in their Organisations. 2.) Unified Effort Variables are fully explained in Table 7.2.

7.3.1.3 Measures of Involvement: Descriptive Finding

The descriptive findings for the 4 measures of involvement are presented in Table 7.7. Uniquely, the involvement dimension stands out as the only dimension where the responses are relatively balanced across the various scores, a fact, which in itself, might mirror involvement as not a strong feature of accounting – marketing integration, and thus less significant, in relation to the other two dimensions.

Although 29.0% of the respondents perceived involvement of both departments is strategic marketing decisions to be a crucial feature of involvement (at a score of 5), 25.3% respondents scored it at 3. The third highest score of this measure was 4 at 20.4%, and the mean was above the average at 3.8395.

The respondents' perception on engaging in open discussion from both perspectives captures this measure as instrumental to involvement at the scores of 5 (31.5%), 4 (27.8%) and 6 (10.5%), a trend that is supported by a well above midpoint mean value of 4.1235.

In pure contrast to the other three measures, joint involvement in analysing customer needs is pictured as less significant feature in accounting/marketing relationship, with majority of the respondents scoring it at 3 (38.3%), 2 (18.5%) and 1 (3.1%). 14.8% of the respondents scored this measure at 5, while 24.1% perceived 4 as applicable. Despite that trend, the mean was above the midpoint at 3.3519.

As regards respondents' feedback on joint involvement in defining the strategic marketing priorities, the results skewed around the range of 2 to 5. 34.0% of the

respondents believed that involvement in their organisations was characterised by a fair measure of involvement in defining strategic marketing priorities, 22.2% perceived it higher at score 5. While 20.4% respondents scored this measure at 3, 16.7% scored it at 2. This measure had a mean value of 3.6235.

Table 7.7: Measures of Involvement

Involvement Variables	Strongly Disagree 1	Disagree 2	Slightly Disagree 3	Slightly Agree 4	Agree 5	Strongly Agree 6
Inv1	3.1%	14.2%	25.3%	20.4%	29.0%	8.0%
Inv2	0%	12.3%	17.9%	27.8%	31.5%	10.5%
Inv3	3.1%	18.5%	38.3%	24.1%	14.8%	1.2%
Inv4	4.3%	16.7%	20.4%	34.0%	22.2%	2.5%

Note: 1.) Respondents were asked to mark on a scale of 1 (Strongly Disagree) to 6 (Strongly Agree) their perception of Involvement in their Organisations. 2.) Involvement Variables are fully explained in Table 7.2.

7.3.2 DEPENDENT VARIABLES: ACHIEVED INTEGRATION AT STRATEGIC MARKETING STAGES

7.3.2.1 Measures of Integration at SMAS: Descriptive Finding

Table 7.8 presents the descriptive findings for the 3 integration dimensions at the analysis stage of the strategic marketing process. Mutual support between both departments in gauging market environment changes and effects on the firm is ranked highly, with 42.0% respondents scoring at 4 and 26.5% at 5. 71.0% respondents perceived this measure as core in the strategic marketing analysis stage integration. The measure's mean score was 3.9136. Ranked equally high, willingness to listen to criticism is scored at 4 (40.7%) and 5 (25.9%), and with a high mean value of 4.0247.

39.5% of the sample indicated (scored at 4) that accurate and timely exchange of information is a core feature of accounting-marketing integration during the strategic marketing analysis stage and 21.6% of respondents ranked the importance at 5. However, a fair number of the respondents (27.2%) perceived this measure, at a score of 3, not to typify accounting-marketing working relationship at the Strategic marketing analysis stage. The overall mean for this measure was 3.8704.

Information exchange practices between both functions that reflect common strategic goals are considered crucial at the SMAS. Majority of respondents suggest

critical importance of this measure to strategic marketing analysis, scoring it at 4 (39.5%, 5 (31.5%) and 6 (6.8%). Further significance of this measure is evident in the highly above midpoint mean of 4.1728.

The respondents' perception about joint participation in the process of ascertaining market environment changes and assessing effects on the firm at the SMAS is widely spread across the 6points on the scale. 49.5% of respondents perceived this measure not to be a key feature of accounting and marketing working relationship at the SMAS, scoring it at 1 (2.5%, 2(13.0%) and 3(34.0%). Despite this statistics, the overall mean score for this measure was 3.6173.

The last measure of integration at the SMAS reflected joint involvement in considering the resources available for responding to identified changes. While 37.0% respondents ranked this at score of 4, 14.2% perceived score 5 to picture this feature in their organisations. 4.9% ranked it at a score of 6, and the mean value was 3.6235.

Table 7.8: Measures of Strategic Marketing Analysis Stage

Strategic Marketing Analysis Variables	Strongly Disagree 1	Disagree 2	Slightly Disagree 3	Slightly Agree 4	Agree 5	Strongly Agree 6
SMAS1	1.2%	8.6%	19.1%	42.0%	26.5%	2.5%
SMAS2	1.9%	3.1%	22.8%	40.7%	25.9%	5.6%
SMAS3	1.2%	6.2%	27.2%	39.5%	21.6%	4.3%
SMAS4	.6%	4.3%	17.3%	39.5%	31.5%	6.8%
SMAS5	2.5%	13.0%	34.0%	25.9%	20.4%	4.3%
SMAS6	1.9%	14.2%	27.8%	37.0%	14.2%	4.9%

Note: 1.) Respondents were asked to mark on a scale of 1 (Strongly Disagree) to 6 (Strongly Agree) their perception of the dimensions of integration at the Strategic Marketing Analysis Stage in their Organisations. 2.) Strategic Marketing Analysis Variables are fully explained in Table 7.2.

7.3.2.2 Measures of Integration at SMPS: Descriptive Finding

Table 7.9 illustrates the responses to the variables concerning the dimensions of integration at the strategic marketing planning stage. The scores allocated to these measures skewed more heavily along scores 3 to 5.

Majority of respondents ranked highly mutual support in establishing strategic marketing schedules in accounting-marketing integration at the SMPS, scoring it at 4 (31.5%), 5 (21.6%) and 6 (6.8%). A high 29.6% ranked score 3 for this measure, and

the mean value was 3.8148. SMPS2 (the extent to which united team spirit and openness to criticisms characterised efforts by accounting and marketing to set strategic marketing goals and priorities) is a significant feature of accounting-marketing working relationship at 76.7%, with respondents scoring this measure at 4 (38.9%), 5 (18.5%), and 6 (19.3%), and a mean value of 3.9136. At 19.3%, the proportion of respondents who answered the survey by a "6" score was the highest for all stages of the strategic marketing process.

A great majority of respondents believe that accounting and marketing willingly share information in their effort to generate strategic marketing ideas. Scored at 4 (38.3%), 5 (27.8%) and 6 (5.6%), this measure weighs significantly in the integration at SMPS, and reports a mean value of 4.0617. Accurate and timely sharing of information to aid marketing planning mix is ranked highly at the score of 3 (30.9%). Despite that, score 4 was the most highly weighed at 32.7%. Equally highly ranked was score 5 at 24.1%. Overall, at a mean of 3.8272, this measure is perceived as a core element of accounting/marketing working relationship at the SMPS.

While 32.7% of respondents scored joint participation of accounting and marketing in deciding strategic marketing goals and priorities at 4, 24.1% scored it at 5. However, a fairly large proportion of respondents (23.5%) slightly disagree that the measure is a core feature of their integration at SMPS. The mean value for this measure was 3.7037. The twin element of joint participation related to decisions concerning apportionment of resources to strategic marketing efforts. With a mean value above midpoint (3.5864), this measure is ranked significantly at 4 (28.4%), 5 (21.6%) and 6 (2.5%), but also ranked highly at 31.5% for score 3.

Table 7.9: Measures of Strategic Marketing Planning Stage

Strategic Marketing Planning Variables	Strongly Disagree 1	Disagree 2	Slightly Disagree 3	Slightly Agree 4	Agree 5	Strongly Agree 6
SMPS1	3.1%	7.4%	29.6%	31.5%	21.6%	6.8%
SMPS2	.6%	11.1%	21.6%	38.9%	18.5%	19.3%
SMPS3	0.0%	4.3%	24.1%	38.3%	27.8%	5.6%
SMPS4	.6%	8.0%	30.9%	32.7%	24.1%	3.7%
SMPS5	3.1%	13.6%	23.5%	32.7%	24.1%	3.1%
SMPS6	4.3%	11.7%	31.5%	28.4%	21.6%	2.5%

Note: 1.)Respondents were asked to mark on a scale of 1 (Strongly Disagree) to 6 (Strongly Agree) their perception of the dimensions of integration at the Strategic Marketing Planning Stage in their Organisations.
2.) Strategic Marketing Planning Variables are fully explained in Table 7.2.

7.3.2.3 Measures of Integration at SMIS: Descriptive Finding

The distribution of the scores for the measures of integration at the strategic marketing implementation stage is presented in Table 7.10. An inspection of the individual measures shows a distribution pattern that is skewed, in like score points and magnitude, as across other stages of the strategic marketing process, except for two measures. 66.0% respondents (38.9% [4], 22.8% [5] and 4.3% [6]) believe that accounting and marketing depict team spirit in the execution of their strategic marketing plan. This measure is also scored highly at 3 (23.5%) and has a mean value 3.8580. Cross-functional role performance appears not to be a common practice in the accounting-marketing interface. Majority of respondents (69.8%) perceive that to be the case, with 17.3% strongly convinced. However, score 4 is the third most highly weighed at 24.1%. The mean value for SMIS2 was 2.7593. SMIS3 has a highly above midpoint mean value of 3.9691. Impliedly, accounting and marketing are aware of each others' information needs in the execution of strategic marketing plans, with 74.0% supporting this fact. While it can be concluded that majority of respondents are convinced (67.9%) that accounting and marketing share accurate and timely information in the execution of strategic marketing plans, it is evident that scores 3 and 5 are ranked second most highly and equally at 23.5%. This measure has a mean value of 3.8951. The response pattern for SMIS5 reflects near proportionate parity, at 58.1% to 41.9%, suggesting that joint identification of tasks and execution of actual

strategic marketing plans is not a characteristic of accounting-marketing working relationship. Despite this trend, the mean value for this measure is 3.3395. Respondents perceive SMIS6 in same light as SMIS5. With mean value at 3.3272, 55.7% of respondents believe accounting and marketing are not jointly involved in the allocation of resources to the courses of strategic marketing activity.

Table 7.10: Measures of Strategic Marketing Implementation Stage

Strategic Marketing Implem. Variables	Strongly Disagree 1	Disagree 2	Slightly Disagree 3	Slightly Agree 4	Agree 5	Strongly Agree 6
SMIS1	1.2%	9.3%	23.5%	38.9%	22.8%	4.3%
SMIS2	17.3%	27.2%	25.3%	24.1%	4.9%	1.2%
SMIS3	.6%	8.6%	16.7%	46.3%	22.8%	4.9%
SMIS4	.6%	8.0%	23.5%	40.7%	23.5%	3.7%
SMIS5	4.9%	14.2%	38.9%	27.2%	13.6%	1.2%
SMIS6	4.9%	20.4%	31.5%	25.3%	16.0%	1.9%

Note: 1.) Respondents were asked to mark on a scale of 1 (Strongly Disagree) to 6 (Strongly Agree) their perception of the dimensions of integration at the Strategic Marketing Implementation Stage in their Organisations. 2.) Strategic Marketing Implementation Variables are fully explained in Table 7.2.

7.3.2.4 Measures of Integration at SMCS: Descriptive Finding

Table 7.11 shows the descriptive statistics for all six measures of integration at the strategic marketing control stage. Similar scores, in terms of rank direction and magnitude, are evident across all variables. 67.9% respondents believe that accounting and marketing mutually support each other in monitoring strategic marketing plans, scoring this variable at 4 (40.1%), 5 (24.1%) and 6 (3.7%). At 19.8%, score 3 is the third most weighed score, and variable mean is 3.8704. The scores for variable 6 (accounting and marketing jointly participate in identifying and evaluating courses of action) are highly similar to variable 1. Majority of respondents (68.5%) perceive this variable to be a core feature of their organisations, and 43.2% scored it at 4. **SMCS6** has a mean score of 3.8333. **SMCS2** (accounting and marketing show unity in the process of analysing performance to identify deviations from plans and areas of variances) registered the highest mean score amongst all variables at 3.9691, with majority of respondents (72.3%) convinced that this variable is a core characteristic of their organisations. **SMCS2** is the least weighed at score 3 and most

highly weighed at score 6, in comparison to all other variables. The mean score for variables 3, 4 and 5 are well above the mid-point of the scale at 3.9012, 3.8704, and 3.7531 respectively, indicating that all 3 measures are accorded high conceptual importance in the explored organisations, with majority (67.8%, 67.3%, and 61.7% respectively) believing that their organisations were characterised by these dynamics.

Table 7.11: Measures of Strategic Marketing Control & Evaluation Stage

Strategic Marketing Control Variables	Strongly Disagree 1	Disagree 2	Slightly Disagree 3	Slightly Agree 4	Agree 5	Strongly Agree 6
SMCS1	0.0%	12.3%	19.8%	40.1%	24.1%	3.7%
SMCS2	0.0%	11.1%	16.7%	42.0%	24.7%	5.6%
SMCS3	0.0%	8.6%	23.5%	40.1%	24.7%	3.1%
SMCS4	0.0%	9.9%	22.8%	40.7%	23.5%	3.1%
SMCS5	0.0%	9.9%	28.4%	40.7%	18.5%	2.5%
SMCS6	1.2%	11.1%	19.1%	43.2%	22.2%	3.1%

Note: 1.) Respondents were asked to mark on a scale of 1 (Strongly Disagree) to 6 (Strongly Agree) their perception of the dimensions of integration at the Strategic Marketing Control Stage in their Organisations.
2.) Strategic Marketing Control Variables are fully explained in Table 7.2.

Overall, accounting for scale differences, the mean and standard deviation (grand and individual items) values for all dependent variables conform to the standards reported in respective past studies using same measures (e.g. Song, 1991, Song & Parry, 1993; Mollenkopf *et al*., 2000; Leenders & Wierenga, 2002).

7.3.3 INDEPENDENT VARIABLES: THE ANTECEDENTS OF INTEGRATION

Below, the descriptive findings (pooled sample) for all explored antecedents are reported.

7.3.3.1 Measures of Communication Gaps: Descriptive Finding

Table 7.12 shows the distribution of responses in relation to the extent communication gap is evident in the accounting-marketing working relationship. With 73.4% of respondents favouring scores 1, 2, and 3 at 12.3%, 29.6% and 31.5%, it is overwhelmingly untrue that lack of communication typifies accounting-marketing working relationship, a fact reinforced by the below midpoint mean value of 2.8210.

Although the mean value for COMMGAP2 is marginally below the midpoint at 2.9630, a reasonable majority of respondents (67.9%) do not share the opinion that information is not communicated accurately in this interface. This measure was scored at 2 (34.0%) and 3 (26.5%). Proportionately, the next closest was score 4 at 21.0%. 34.6% of the respondents, the highest for any measure of this construct, disagree with the notion that there is too little information exchange between accounting and marketing, while 31.5% ranked this measure at the score of 3. The third most highly ranked score was 4 at 16.0%. Harmonising the aforementioned statistics of this measure with its mean value of 2.8580, it is legitimate to conclude that too little information exchange is not a feature of the accounting/marketing interface. Although COMMGAP4 depicted statistical similarity with other 3 measures of this construct, the proportionate scoring tended to spread more across all 6 points on the scale. At a mean value of 2.8519, with scores of 1 (13.6%), 2 (30.2%) and 3 (26.5%), the majority of respondents do not support the notion that marketing has no discussions with accounting regarding strategic marketing issues.

Table 7.12: Measures of Communication Gaps

Communication Gaps Variables	Strongly Disagree 1	Disagree 2	Slightly Disagree 3	Slightly Agree 4	Agree 5	Strongly Agree 6
COMMGAP1	12.3%	29.6%	31.5%	17.3%	8.6%	.6%
COMMGAP2	7.4%	34.0%	26.5%	21.0%	9.3%	1.9%
COMMGAP3	8.0%	34.6%	31.5%	16.0%	9.3%	.6%
COMMGAP4	13.6%	30.2%	26.5%	18.5%	9.3%	1.9%

Note: 1.) Respondents were asked to mark on a scale of 1 (Strongly Disagree) to 6 (Strongly Agree) their perception of the Communication Gaps in their Organisations. 2.) Communication Gaps Variables are fully explained in Table 7.4.

7.3.3.2 Measures of Formalisation: Descriptive Finding

Table 7.13 displays the respondents' perception about the measures of formalisation in relation to the accounting-marketing integration. The responses are skewed relatively more around scores 3 to 6 for all 4 measures.

A vast majority of respondents (88.4%) indicate that, in their firms, staff performance appraisals are based on written performance standards, scoring this

measure at 4 (45.1%), 5 (34.0%) and 6 (9.3%). This strong evidence is further demonstrated by the highly above midpoint mean value of 4.3642. With regard to documentation of duties, authority and accountability of personnel in policies, procedures, or job description, respondents are highly unanimous (93.2%) in the belief that this measure is a characteristic of their firms. This measure was heavily weighed at 4 (45.7%), 5 (31.5%) and 6 (16.0%), explaining the mean value of 4.5432.

FORMPS3 (mean = 4.2284) measured if written procedures and guidelines are available for most of the work situation. Although this measured was scored at all 6 points, majority of responses (80.3%) were positively affirmative. Respondents scored this measure at 4 (41.4%, 5 (25.9%) and 6 (13.0%). Although 74.1% of respondents believed that formal communication channels are always followed, over half of the sample (54.9%) scored this measure at 4, and the second mostly highly weighed score was 3 at 20.7%. The mean value for this measure was 3.8014.

Table 7.13: Measures of Formalisation

Formalisation Variables	Strongly Disagree 1	Disagree 2	Slightly Disagree 3	Slightly Agree 4	Agree 5	Strongly Agree 6
FORMPS1	.6%	3.1%	8.0%	45.1%	34.0%	9.3%
FORMPS2	.6%	1.2%	4.9%	45.7%	31.5%	16.0%
FORMPS3	1.9%	5.6%	12.3%	41.4%	25.9%	13.0%
FORMPS4	.6%	4.9%	20.4%	54.9%	16.7	2.5%

Note: 1.) Respondents were asked to mark on a scale of 1 (Strongly Disagree) to 6 (Strongly Agree) their perception of the Formalisation in their Organisations. 2.) Formalisation Variables are fully explained in Table 7.4.

7.3.3.3 Measures of Culture and Orientation Differences: Descriptive Finding

Table 7.14 presents the descriptive statistics for the measures of culture and orientation differences. In contrast to items 2 and 3 of this construct, the response structure for CODIFF1 is almost equally proportioned for agreement and non agreement. 58% of the respondents, scored at 4 (34.6%), 5 (19.8%) and 6 (3.7%), suggest that both departments do not seem to understand each other. Statistically, a good number of respondents suggest the contrary at score 3 (28.4%) and 2 (11.7%). The overall mean score for this measure was above the midpoint at 3.6852.

An alarming majority of respondents (87.3%) believe strong culture differences exist between accounting and marketing personnel. 36.4% respondents scored this feature at 4, while 41.4% at 5 and 9.9% strongly believed at a score of 6. This alarming characteristic is also pictured in the mean value of 4.444. CODIFF3 sought to capture if differences existed in the thinking patterns of accounting and marketing. Respondents' perception about this measure aligns with the picture evidenced in the preceding measure. 88.9% of respondents, scoring at 4 (37.0%), 5 (42.0%) and 6 (9.9%) suggest that accounting and marketing differ in their thinking patterns, with a mean value well above the midpoint of 4.4630. Similar to the expressed perceptions about accounting and marketing understanding each other, a very marginal majority of respondents (51.9%) believe the views of both departments as regards organisation's objectives, are not congruent. This measure was scored at 4 (35.8%), 5 (13.0%) and 6 (3.1%). This measure is however also scored highly at 3 (33.3%) and 2 (14.2%). The mean value for CODIFF4 was 3.5556.

Table 7.14: Measures of Culture and Orientation Differences

Culture & Orientation Differences Variables	Strongly Disagree 1	Disagree 2	Slightly Disagree 3	Slightly Agree 4	Agree 5	Strongly Agree 6
CODIFF1	1.9%	11.7%	28.4%	34.6%	19.8%	3.7%
CODIFF2	0.0%	3.1%	9.3%	36.4%	41.4%	9.9%
CODIFF3	0.0%	3.7%	7.4%	37.0%	42.0%	9.9%
CODIFF4	.6%	14.2%	33.3%	35.8%	13.0%	3.1%

Note: 1.) Respondents were asked to mark on a scale of 1 (Strongly Disagree) to 6 (Strongly Agree) their perception of the Culture and Orientation Differences in their Organisations. 2.) Culture and Orientation Differences Variables are fully explained in Table 7.4.

7.3.3.4 Measures of Management Support of Integration: Descriptive Finding

Table 7.15 shows strong evidence that management practices at the sampled population are supportive of accounting/marketing integration. All 4 measures of this construct are heavily skewed around scores 4 to 6. Score 6 is weighed heavily in all measures, but in two measures (MANSFINT1 and 2) less proportionately to score 3.

Majority of respondents (76.5%) believed that top management promotes team loyalty over functional loyalty, scoring this measure at 4 (47.5%), 5 (25.9%) and 6 (3.1%), and a mean value of 3.9568. Also, majority of respondents (70.9%), believed

that MANSFINT2 (mean value = 3.8827) typifies management behaviour in relation to accounting/marketing working relationship, with scores at 4 (47.5%), 5 (19.1%) and 6 (4.3%). Interestingly though, these 2 measures are fairly skewed at the scores 1 to 3, and proportionate score for 3 ([13.0% for MANSFINT1] and [20.4% for MANSFINT2]) is not only higher than score 6 for both measures but also score 5 (MANSFINT2).

In the accounting/marketing dyad, top management strongly encourages different functions to work together. This perception is shared by a vast majority (86.5%) of the sample, weighing this measure at scores 4 (34.0%), 5 (42.0%) and 6 (10.5%). This strong evidence is also pictured in the overwhelmingly above midpoint mean value of 4.4321. MANSFINT4 suggested that top management supports accounting-marketing integration. Respondents perceptions (78.8%), skewed at 4 (32.9%), 5 (33.6%) and 6 12.3%), suggest this culture, evidencing a mean of 4.2407.

Table 7.15: Measures of Management's Support of Integration

Management's Support & Value Variables	Strongly Disagree 1	Disagree 2	Slightly Disagree 3	Slightly Agree 4	Agree 5	Strongly Agree 6
MANSFINT1	2.5%	8.0%	13.0%	47.5%	25.9%	3.1%
MANSFINT2	2.5%	6.2%	20.4%	47.5%	19.1%	4.3%
MANSFINT3	1.9%	3.7%	8.0%	34.0%	42.0%	10.5%
MANSFINT4	2.5%	8.0%	9.3%	35.8%	33.3%	11.1%

Note: 1.) Respondents were asked to mark on a scale of 1 (Strongly Disagree) to 6 (Strongly Agree) their perception of the Management's Support & Value of Integration in their Organisations. 2.) Management's Support & Value Variables are fully explained in Table 7.4.

7.3.3.5 Measures of Risk Taking Encouragement: Descriptive Finding

The respondents' perceptions about the measures of risk taking encouragement are contained in Table 7.16. Taking each measure in turn, 38.9% and 21.0% ranked the scores 4 and 5, in that order, for RISKBEH1, which asked respondents whether, in their firms, management provides enough incentives to work on new ideas despite the uncertainty of their outcomes. Scores 2 and 3 are also ranked highly at 9.3% and 25.9% respectively. The mean value for RISKBEH1 was above midpoint at 3.7963.

RISKBEH2 had a below midpoint mean of 2.9568, and was scored reasonably across 1 to 5. Majority of respondents (68.5%) believed this is not a typical

characteristic of risk taking propensity in the accounting/marketing interface, scoring it at 3 (30.9%), 2 (29.6%) and 1 (8.0%). The third most highly ranked score for this measure was however 4 at 22.2%. The third item (RISKBEH3) of this construct followed the same pattern as RISKBEH1, with majority (62.4%) perceiving the statement that management in their firms encourages you to keep trying even if you fail in the strategic process, to be true, scoring this item at 4 (42.6%), 5 (16.7%) and 6 (3.1%). Although this item was also scored highly at 2 (10.5%) and 3 (25.3%), the mean for RISKBEH3 was 3.7099. Over half the sample scored RISKBEH4 at 4. Inspecting this measure, 72.2% of respondents believed that the management rewards successful risky projects. The mean value for this measure was 3.7963.

Table 7.16: Measures of Encouragement of Risk Taking Behaviour

Encouragement of Risk Taking Beh Variables	Strongly Disagree 1	Disagree 2	Slightly Disagree 3	Slightly Agree 4	Agree 5	Strongly Agree 6
RISKBEH1	1.2%	9.3%	25.9%	38.9%	21.0%	3.7%
RISKBEH2	8.0%	29.6%	30.9%	22.2%	9.3%	0.0%
RISKBEH3	1.9%	10.5%	25.3%	42.6%	16.7%	3.1%
RISKBEH4	2.5%	9.9%	15.4%	51.2%	18.5%	2.5%

Note: 1.) Respondents were asked to mark on a scale of 1 (Strongly Disagree) to 6 (Strongly Agree) their perception of the Encouragement of Risk Taking Behaviour in their Organisations. 2.) Encouragement of Risk Taking Behaviour Variables are fully explained in Table 7.4.

7.3.3.6 Measures of Decision Making Authority (Decentralisation): Descriptive Finding

Presented in Table 7.17 are the survey responses for the items that constitute decentralisation. While measures 1 and 2 were reasonably scored at ranges 1 to 6, measures 3 and 4 weighed very heavily at scores 2 and 3, minimally at 1, 4 and 5, and zero at 6. As Table shows, the responses are more heavily skewed around points 2 to 5 on the scale for all measurement items.

For DCENT1, the extent to which actions can be taken without the approval of a superior, almost half (49.4%) suggest the trend in their firms reflected scores 4 (19.1%), 5 (24.1%) and 6 (6.2%). On that statistics, and considering the mean of 3.6914, this measure is averagely a feature of accounting-marketing interface. Most respondents (64.8%) are not in agreement that their employees have decision freedom

over even small matters, reflecting a minimally above mid-point mean of 3.0062. The statistics for DCENT3 and DCENT4 evidence similarity. While both are weighed zero at score 6 on the scale, majority of respondents (78.4%) do not believe that in their organisations individuals feel empowered to make decisions on their jobs, nor is employee participation encouraged in strategic decision making (77.8%). Mean values are 2.8827 for the former and 2.8395 for the latter.

Table 7.17: Measures of Decentralisation

Decentralisation Variables	Strongly Disagree 1	Disagree 2	Slightly Disagree 3	Slightly Agree 4	Agree 5	Strongly Agree 6
DCENT1	1.2%	14.2%	35.2%	19.1%	24.1%	6.2%
DCENT2	8.0%	35.2%	21.6%	19.1%	15.4%	.6%
DCENT3	5.6%	33.3%	39.5%	11.1%	10.5%	0%
DCENT4	6.2%	35.8%	35.8%	12.3%	9.9%	0%

Note: 1.) Respondents were asked to mark on a scale of 1 (Strongly Disagree) to 6 (Strongly Agree) their perception of the Decentralisation in their Organisations. 2.) Decentralisation Variables are fully explained in Table 7.4.

7.3.3.7 Measures of Joint Rewards: Descriptive Finding

The measures for this construct are distributed reasonably across all points for both monetary and performance dimensions (see Table 7.18). However, the disagreement scores are proportionately heavier than the opposites, in all except one case.

Inspecting REWARDM1 statistics, which suggested that accounting and marketing staff shared equally in the rewards from a successful strategic marketing effort, not only did the majority of respondents (53.2%) perceive the contrary, but points 1 and 2 on the scale were scored heavily at 13.0% and 23.5%. Despite that though, with scores 4 and 5 weighing heavily at 25.9% and 17.9% respectively, the mean value was above midpoint at 3.2284. In terms of distribution of scores, REWARDM2 was quite similar to REWARDM1. However, despite directional similarity, with majority (66.0%) believing the contrary, reasonable variances in magnitude were evident, e.g. scores 1 and 3 were weighed heavily at 24.1% and 22.8%, in that order. Scores 4 and 5 were ranked equally at 13.6% each. On this evidence, marketing and accounting executives of the same rank are not on the same salary level, a fact also reflected in the below mid-point mean of 2.8642.

The measures for the performance dimension of reward (REWARDP) were scored more reasonably across points 1 to 5. 58.0% respondents believed that team members evaluation are not based on team performance but rather on individual performance, with points 1, 2 and 3 on the scale weighed at 5.6%, 16.0% and 36.4% respectively. In terms of magnitude, point 4 was the second most highly scored at 31.5%. The mean for REWARDP1 was 3.2778. Most respondents (58.6%) did not believe that formal evaluation criteria for accounting-marketing inter-departmental teamwork existed in their firms. Scores 4 and 3 were the most highly ranked at 31.5.0% and 30.2%. Third in significance was score 2 at 19.8%. Scores 1 and 5 weighed same at 8.6%. REWARDP2 had a mean value of 3.1481.

Table 7.18: Measures of Joint Reward

Joint Reward Variables	Strongly Disagree 1	Disagree 2	Slightly Disagree 3	Slightly Agree 4	Agree 5	Strongly Agree 6
REWARDM1	13.0%	23.5%	16.7%	25.9%	17.9%	3.1%
REWARDM2	24.1%	19.1%	22.8%	18.5%	12.3%	3.1%
REWARDP1	5.6%	16.0%	36.4%	31.5%	9.3%	1.2%
REWARDP2	8.6%	19.8%	30.2%	31.5%	8.6%	1.2%

Note: 1.) Respondents were asked to mark on a scale of 1 (Strongly Disagree) to 6 (Strongly Agree) their perception of the Joint Reward in their Organisations. 2.) Reward Variables are fully explained in Table 7.4.

7.3.3.8 Measures of Role Flexibility: Descriptive Finding

The respondents' perceptions about the measures of role flexibility are contained in Table 7.19. Apart from **ROFLEX3**, where scores are fairly skewed along all points on the scale, all other variables are heavily negatively skewed, with highly alarming statistics for scores 1. At levels of 91.3%, 90.1% and 90.1% for variables 1, 2 and 4 respectively, majority of respondents strongly maintain that (emphasising a planned job rotation of marketing and accounting employees as a device for developing their capabilities, actual rotation of accounting and marketing employees, and performance of technical marketing tasks in the strategic marketing process by accounting members) are not practised in their organisations. Consequently, the mean scores for all three variables are well below the mid-point level at 1.9620, 2.0370, and 2.1728

respectively. However, above average, 63.3% of respondents perceive accounting and marketing working relationship to be characterised by ROFLEX3, evidencing a variable mean score of 3.0494. Evidently thus, despite the low conceptual acceptance of most role flexibility measures, accounting's role to gather and contribute strategic marketing information to the marketing team received high conceptual acceptance in the organisations.

Table 7.19: Measures of Role Flexibility

Role Flexibility Variables	Strongly Disagree 1	Disagree 2	Slightly Disagree 3	Slightly Agree 4	Agree 5	Strongly Agree 6
ROFLEX1	42.0%	30.2%	19.1%	6.8%%	1.9%	0%
ROFLEX2	42.6%	22.8%	24.7%	8.0%	1.9%	0%
ROFLEX3	11.1%	14.8%	36.4%	33.3%	4.3%	0%
ROFLEX4	29.0%	37.0%	24.1%	7.4%	2.5%	0%

Note: 1.) Respondents were asked to mark on a scale of 1 (Strongly Disagree) to 6 (Strongly Agree) their perception of the Role Flexibility in their Organisations. 2.) Role Flexibility Variables are fully explained in Table 7.4.

7.3.3.9 Measures of Non-Departmental Proximity: Descriptive Finding

All four measures of this construct are weighed at all points on the scale. However, as pictured in Table 7.20, while respondent responses suggest non-departmental proximity tendencies for variables 1 and 4, the opposite is evident for variables 2 and 3. From the statistics, majority of respondents suggest that at their organisations marketing is physically separated from accounting (66.6%), and physical separation between marketing and accounting reduces the chance to learn and understand each other (63.5%). Well above mid-point of scale; mean values for both variables are fairly similar at 4.1728 and 3.9444 respectively. While just 53.1% respondents are convinced that informal interaction rarely happen between marketing and accounting at their organisation, less than half of the respondents (48.7%) support the notion that chance meetings rare between marketing and accounting personnel. Interestingly, point 3 was scored highest for measures 2 (25.3%) and 3 (23.5%), and NONDEPPROX2 and 3 registered mean values of 3.4753 and 3.3580, in that order.

Table 7.20: Measures of Non-Departmental Proximity

Non-Departmental Proximity Variables	Strongly Disagree 1	Disagree 2	Slightly Disagree 3	Slightly Agree 4	Agree 5	Strongly Agree 6
NONDEPPROX1	3.1%	14.8%	15.4%	17.9%	25.9%	22.8%
NONDEPPROX2	8.6%	25.3%	13.0%	24.7%	19.8%	8.6%
NONDEPPROX3	13.6%	23.5%	14.2%	18.5%	22.8%	7.4%
NONDEPPROX4	4.3%	14.2%	17.9%	21.6%	30.2%	11.7%

Note: 1.) Respondents were asked to mark on a scale of 1 (Strongly Disagree) to 6 (Strongly Agree) their perception of the Non-Departmental Proximity in their Organisations. 2.) Non-Departmental Proximity Variables are fully explained in Table 7.4.

7.3.3.10 Measures of Participation: Descriptive Finding

Statistically (see Table 2.3), the organisations embrace employee participation at the strategic marketing stages, evidencing majority approval for scores 4 to 6 of 69.1%, 68.5%, 66.1% and 83.4% for **EMPPASMS1** to 4, in that order. All variables are scored very highly at point 5 with scores ranging between 34.0% and 40.1% .With the exception of **EMPPASMS 4**, all variables are weighed along all points on the scale. The mean value for all participation variables are well above the mid-point of the scale at 4.0741 (participation during strategic marketing analysis stage), 4.1420 (participation during strategic marketing planning stage), 4.0864 (participation during strategic marketing implementation stage), and 4.3272 (participation during strategic marketing control stage), indicating conceptual importance of emphasising employee participation across the stages of the strategic marketing process.

Table 7.21: Measures of Participation

Participation Variables	None 1	Little 2	Some 3	Quite a bit 4	A Great Deal 5	Extensive 6
EMPPASMS1	2.5%	11.7%	16.7%	22.2%	38.9%	8.0%
EMPPASMS2	1.9%	10.5%	19.1%	18.5%	40.1%	9.9%
EMPPASMS3	3.1%	13.6%	17.3%	17.9%	34.0%	14.2%
EMPPASMS4	0.0%	4.9%	11.7%	38.3%	35.8%	9.3%

Note: 1.) Respondents were asked to mark on a scale of 1 (None) to 6 (Extensive) their perception of the Participation in their Organisations. 2.) Participation Variables are fully explained in Table 7.4.

An inspection of the mean and standard deviation (grand and individual items) values for all independent variables indicates uniformity with the standards reported in respective past studies using similar measures (e.g. Song, 1991, Song & Parry, 1993; Song & Dyer, 1995; Song *et al*, 1997; Mollenkopf *et al*., 2000; Leenders & Wierenga, 2002; Song & Thieme, 2006).

7.4 The Structural Equation Model

According to Kline (1998), the structural equation modeling process centres around two steps: validating the measurement model and fitting the structural model. While first stage involved measurement purification through exploratory and confirmatory analyses, stage two involved the assessment of the overall structural model. Stage one is addressed in this chapter while stage two is presented in chapter 8.

7.5 Exploratory Factor Analysis

Despite a predetermined factor structure subsumed in the proposed conceptual framework, exploratory factor analysis can be useful as a preliminary tool for the definition of the underlying dimensional structure (Gerbing & Anderson, 1988). On this background, exploratory factor analysis (EFA) was used as a preliminary procedure for achieving measure purification. Adopting the process defined in Figure 6.5 in conjunction with the extraction method, which is explained in Section 7.8, a preliminary construct validity check was undertaken, using SPSS 14.0.

7.6 Principal Axis Factoring and Scale Construction

Do all the items represent single variable? Prior to EFA, a correlation test was undertaken to examine interrelatedness amongst measurement items. Sections 7.9 and 7.10 and the relevant Tables suggest firm relatedness of these variables. Then, preliminary factor analysis was undertaken, to enable better interpretation of the correlation results, and capture more clearly the indicators that correlated weakly. Also, such a preliminary approach was necessary to identify candidates for deletion, towards achieving Cronbach's Alpha of at least .70 and factor extraction accounting for close to 10% variance for a retained factor (Cappelleri *et al*, 2000) and 70% cumulative variance (Habig, 2003; Field, 2000, pp. 436-437; Rietveld & van Hout,

1993, pp. 273-274). Seeking maximum conceptual clarity of constructs, this study followed Nunnally, (1978) and used orthogonal (varimax) rotation. Taking these steps was crucial to identifying the core attributes of **AMI**. Following this, the main factor analysis was undertaken.

7.6.1 PRELIMINARY MEASUREMENT SCALE EXAMINATION

Aiming for best reliability and validity of results, the reliable factor solutions were obtained by ensuring appropriate absolute magnitude of factor loadings (Field, 2000, p. 443), and adjacently, higher communalities (Field, 2000, p. 43; Field, 2005, p. 634[64]), through elimination of indicators with high unique variance, and thus, a danger to the absolute factor loadings. Such steps are crucial for concerns of generalisation of results (Field, 2000, p. 443; Rietveld & Van Hout, 1993, p. 264).

To achieve the above, a preliminary extraction of key indicators for all construct measurement instruments was undertaken, by considering their communalities. Through this approach, a reduced variable set, containing much of the information in the initial set of variables, was achieved, to serve as the operational representatives of the factorial constructs (Gorsuch, 1983, p. 90), for further analyses. Subsequently, the extracted items were factor analysed to extract the main factor components (see Sections 7.9.1, 7.9.2 and 7.10 and subsections), for further analyses.

Overall, the exploratory factor analysis target in this study aimed to satisfy the four criteria (Cappelleri *et al*, 2000) to judge interpretability and overall results: (1) at least 3 items loaded on a retained factor, (2) the items loaded on a given factor shared some conceptual meaning, (3) items that loaded on different factors measured different underlying constructs, and (4) the rotated factor patterns reflected simple structure in that a) most of the items had high loadings (≥|0.40) on one factor and low loadings on

[64] The closer the communalities are to 1, the better our factors are at explaining the original data.

the other factor(s), and b) each factor had high loadings for some items and low loadings for others. The preliminary factor examination explained in Section 7.7 and subsections for all variables satisfied above four targets.

7.7 Preliminary Construct Examination Results

The results of the preliminary examination of dependent and independent constructs are explained in Sections 7.7.1 and 7.7.2.

7.7.1 DEPENDENT VARIABLES

Two dependent variables groups are explored in this study. On the one hand, the degree of dimensions of integration, and secondly, the degree of achieved integration across the stages of the strategic marketing process.

7.7.1.1 Degree of Achieved Integration

Three factors (see Table 7.23) were extracted to capture the extent of achieved of integration. Following adopted practice for achieving an optimal factor solution, (Weiss & Anderson, 1992; Yang *et al,* 1992; Katsikeas, 1994), some items were dropped from the final factor analysis, as they were found to lack variation or confound the conceptual interpretability of the factor structure. On preliminary analyses evidence, 4-measures were selected from each integration dimension, and subsequently factor analysed to extract 3-factors (see Section 7.9.1). Table 7.22 highlights the factor extraction results for the first preliminary exploratory factor analysis (PEFA).

Table 7.22: Principal Axis Factoring Analysis of the Degree of Achieved Integration- Preliminary Evidence

	Measurement Variables	Factor 1 Loadings	Factor 2 Loadings	Cumulative % variance
1	Information Sharing (Awareness of the Information needs of each other)	.589	.484	
2	Information Sharing (Awareness & Sharing of Customer Perspectives) ***1**	**.480**	**.596**	
3	Information Sharing (Effective Information Exchange)	.738	.306	
4	Information Sharing (Accurate & Timely exchange of Information)	.722	.424	
5	Information Sharing (Awareness of each other's goals)	.675	.421	
6	Information Sharing (Awareness of Organisational Strategic goals) ***2**	**.634**	**.372**	
7	Unified Efforts (Give-and-Take attitude)	.670	.155	
8	Unified Efforts (Willingness to listen to Criticisms from each other)	.697	.416	
9	Unified Efforts (Swift Resolving of Conflicts)	.738	.160	
10	Unified Efforts (Mutual Support of each other)	.753	.357	
11	Unified Efforts (Few Disagreements in Strategic Marketing Decisions) ***3**	**.584**	**.258**	

12	Involvement (Involvement of both in Strategic Marketing Decisions)	.306	.812	
13	Involvement (Engaging in open discussion from both Perspectives)	.436	.670	
14	Involvement (Joint involvement in Analysing Customer needs)	.301	.730	
15	Involvement (Joint participation in responding to Market Changes) ***4**	**.353**	**.736**	
16	Involvement (Joint involvement in defining the Strategic Marketing Priorities)	.230	.861	
	Eigenvalue	**5.381**	**4.520**	
	% of variance explained	**33.63%**	**28.25%**	**61.88%**

* Extraction Method: Principal Axis Factoring: Varimax orthogonal rotation with Kaizer Normalization converged in 9 iterations.
*1, 2, 3, & 4 = Items ejected for final factor extraction, following scientific justification.

Four measurement items were dropped from the 16 conceptualised integration measurement items. These items, highlighted in Table 7.22, were thoroughly screened using a 3-stage factor analyses process, to justify exclusion. Based on the conceptual premise for this study, a three integration factor was a priority. To achieve this target on the one hand, and maximum conceptual clarity (Nunnally, 1978) on the other, the three scientific benchmarks (see Section 7.6) were followed.

Scientifically, additional to the rationale explained in Section 7.9.1, the deletion of the 4-items was legitimatised on the following:

a) Item (*1) cross loaded significantly on F1 and F2 (see Table 7.22), and even in subsequent 3-factor extraction attempts,
b) The nearly significant cross loading of (*2) as in Table 7.22 above was also evident in further (PEFA) examinations. Compelled extraction of 3-factors did not clarify construct placement of this variable: though this variable loaded marginally below .4 benchmark (Cappelleri *et al*,2000) for F1 and F3, loadings were fairly close to that of F2,
c) For (*3), justification (2) above applies in all context,
d) Justified mainly on (PEFA) evidence, partly reported in Table 7.22, following thorough examination of overall statistical evidence, (*4) is dropped: though cross loading is minimal, examination of factor matrix indicates a highly significant negative power of this variable on F1. A 3-factor check, inclusive this variable, did not enable conceptual interpretation (Yang *et al*. 1992; Katsikeas, 1994).

7.7.1.2 Achieved Integration at the Strategic Marketing Stages

A free-Varimax orthogonal rotation analysis of the 24-items yielded 2-factors with cumulative variance of 67.515%. Not only was the achieved cumulative variance

short of the 70% mark (Rietveld & Van Hout, 1993, pp. 273-274; Field, 2000, pp. 436-437), most of the indicators understandably cross-loaded on the factors. To address these shortcomings on the one hand and secondly, to allow for optimum exploration of the relationship across the 4 conceptualised stages of strategic marketing management, the 24-indicators were factor analysed, each stage independently, using the Varimax orthogonal rotation method to extract 4-factors (1 per stage). The factor loading structures are presented and explained in Section 7.9.2 and subsequent subsections.

7.7.2 INDEPENDENT VARIABLES

The Antecedents of Integration: A first-hand Varimax orthogonal factor analysis of the antecedent variables of integration extracted 10 factors and a cumulative variance of 64.737%. Numerous variations were explored to enhance the cumulative variance of the extracted factors, but failed, meaning the three scientific criteria (see Section 7.6) were not met. The (PEFA) evidence indicated cross variable loadings, though insignificant at the .8 benchmark (Field, 2005, p. 629). Given this evidence of minimal communalities between the variables of different conceptualised constructs, individual constructs analysis seemed legitimate. Consequently, the 10 antecedent constructs were examined separately, combining the correlation coefficient and factor loading matrixes of the indicators to capture the extent of relevance, of each, to the respective constructs, and the final EFA results for each construct are explained in Section 7.10.

A preliminary examination of the variables for measuring the **Reward** construct showed relatively low correlations across the 4-items, prompting a detailed examination. Tracking the communalities in tandem with the Factor Plot in rotated Factor Space, 2-reward dimensions were evident; supporting the extraction of 2-

factors. Strong communalities (see Table 7.34), reinforced by Factor Plot in rotated Factor Space evidence, were tracked between 'Reward - Accounting & Marketing staff share equally in the rewards from a successful Strategic Marketing effort' and 'Reward - Accounting and Marketing Executives of the same rank are on the same Salary Level' on one hand, and 'Reward - Team members Evaluations are based on Team Performance instead of individual performance' and 'Reward - Formal Evaluation Criteria for Accounting - Marketing inter-departmental Teamwork exist', on the other. Analysing these dimensions separately seemed legitimate, not only to harness the full impact of each cluster, but also for achieving valid cumulative variance level, and an acceptable degree of internal consistency. Additionally, doing the contrary is unwise, as correlation across the clusters is strongly insignificant. On this evidence, the Reward factors did not fulfil criterion 1 (Cappelleri *et al*, 2000).

Before explaining the final EFA findings, the factor extraction decision rules used in this study are highlighted in Section 7.8.

7.8 Factor Extraction

Following (Leighton *et al*, 2005; Field, 2000, pp. 436-437; Rietveld & van Hout, 1993, pp. 273-274) the three widely used decision rules were used in examining the factors in this study: K1 (Kaiser, 1960), Cartell's Scree test (1966), and Kaiser (1958).

The K1 rule (Kaiser-Guttman) suggests that only factors with eigenvalues equal to or greater than 1.0 should be retained (Kaiser, 1960). Cartell's Scree test (1966) suggests that if a factor is significant it will have a large eigenvalue (accounts for the majority of the variance).

The Scree test is a graphical approach whereby eigenvalues that are similar in a plot will form a straight line, thus eigenvalues that fall above the line are considered the factors that account for the bulk of the correlations (variance) in the matrix.

The Kaiser rule for determining the number of factors to retain utilizes the Varimax-rotated image loadings matrix, and in order for a factor to be retained, or considered significant, there must be at least three factor loadings equal to or greater than 0.30. Following these backgrounds, all factors and their factor loadings were examined, and those factors that met these criteria were retained.

7.9 Exploratory Factor Analyses of Dependent Variables

Sections 7.9.1 and 7.9.2 present the Principal Axis Factoring Analyses results of the two groups of dependent variables. A uniform table format is applied in reporting all Principal Axis Factoring (PAF) analyses in this chapter, and specifies the inter-item correlation, amount of variance explained by the factor solution, variable communalities, factor loadings and the respective eigenvalues for the extracted factor(s). Except for a few negligible cases (see Section 7.9.2 and subsections), all statistics satisfy the four specified criteria (Cappelleri *et al*, 2000).

7.9.1 PRINCIPAL AXIS FACTORING OF THE DIMENSIONS OF ACHIEVED INTEGRATION

Following the decision rules for factor extraction (see Section 7.8), 3 factors were achieved in the main EFA. Compelling Varimax Orthogonal rotation to extract 3-factors, as against the 2-factors ordinarily prompted (and with a cumulative variance of less than 70%), was crucial to achieving 70% cumulative variance, but also, for ensuring, as much as possible, that variables are loaded maximally (see Table 7.22) to one factor (Field, 2005, p. 634), as cross loadings existed in the 2-factor structure. Adopting a pre-designated number of factors extraction approach (Gorsuch, 1983, p. 142) was necessary to capture clearly the conceptualised dimensions of integration.

The achieved factors **F1** (Degree of involvement between both departments - **DINV**), **F2** (Degree of unified efforts between both departments - **DUE**), and **F3**

(Degree of mutual information sharing between both departments - **DMIS**), required 9 iterations, achieving 70.108% cumulative variance. Internal consistency and stability statistics were reasonably strong to demonstrate reliability and indicate that items on the same factor were measuring the same construct, with Cronbach's alpha of .90 (**F1**), .87 (**F2**) and .93 (**F3**). A three-factor solution was also supported by the percentage of variance accounted for by each factor. While **F1** accounted for 26.19% of the variance, **F2** and **F3** accounted for 23.39% and 21.99% respectively. Some cross loading (reasonably below .40) existed across the factors, an indication of the intrinsic influence of each variable on the other, which supports that these variables are ideal to measure integration. Following Cappelleri *et al* (2000), the cross loadings are ignored, given the .4 rule. Thus, only indicators with loadings of at least .5 are embraced in defining the variables. When factor loadings were split across factors, the variable was counted in the factor in which it carried the highest loading. The loading structure for the integration dimensions are presented and explained in the subsections of 7.9.1.

The PAF for three factors extracted is adequate for the data at Bartlett's test of sphericity value (p=0.000) and KMO (.917). The PAF results of the achieved integration measures are presented in (Table 7.23). The identification and labelling of extracted factors are discussed in Subsections 7.9.1.1, 7.9.1.2 and 7.9.1.3. Table 7.23 below, however does not detail the inter-item correlation, as this has been accounted for in the preliminary variable examination (see Section 7.7.1.1) supported by Table 7.22. Comparison of the grand mean values and standard deviations for the **DINV**, **DUE** and **DMIS** with previous studies was not feasible, as previous CFR studies have usually analysed integration summation. This study, first to gauge integration along these broad contextualised dimensions, is however, consistent with precedence (e.g.

Parry and Song, 1993; Song and Dyer, 1995; Song and Thieme, 2006) on mean values and standard deviations reported for the measurement items.

Table 7.23: Principal Axis Factoring Analysis of the Degree of Achieved Integration

		Factor Loading **DINV**	Factor Loading **DUE**	Factor Loading **DMIS**	Comm-unality
Involvement of both is strategic marketing decisions	**(V1)**	**.827**			.744
Engaging in open discussion from both perspectives	**(V2)**	**.733**			.701
Joint involvement in analysing customer needs	**(V3)**	**.688**			.585
Joint involvement in defining the strategic marketing priorities	**(V4)**	**.843**			.708
Give-and-take attitude	**(V1)**		**.682**		.495
Willingness to listen to criticisms from each other	**(V2)**		**.651**		.679
Swift resolving of conflicts	**(V3)**		**.783**		.587
Mutual support of each other	**(V4)**		**.635**		.631
Awareness of the information needs of each other	**(V1)**			**.784**	.743
Effective information exchange	**(V2)**			**.808**	.774
Accurate and timely exchange of information	**(V3)**			**.711**	.767
Awareness of each other other's goals	**(V4)**			**.621**	.679
Eigenvalue		**3.142**	**2.807**	**2.638**	
% of variance explained		**26.19%**	**23.39%**	**21.99%**	

Note: Varimax orthogonal rotation with Kaizer Normalization converged in 9 iterations.

7.9.1.1 Degree of Involvement (DINV)

DINV measures the extent to which accounting-marketing working relationships depict joint involvement in meeting the service needs of the customers. Evidenced in Table 7.23, the items for **DINV** load heavily at .827, .733, .688 and .843 for V1 to V4 respectively. The mean score for this factor of 3.713 (s.d. = 0.936) on the 6-point scale indicates that the respondents perceive the measures of **DINV** to be critical. The loadings demonstrate the importance of involvement of both departments in decision making, analysing customer needs and defining strategic marketing priorities. This study also demonstrates that engaging in open discussion from both perspectives promotes joint involvement. The statistics of this factor highlights a clear conceptual association between the 4 measures, and justify their acceptance as measures of the construct, thus supporting body of literature on this construct. The emergent evidence reinforces the need to emphasise involvement in cross-functional relationships. An inspection of mean scores and standard deviations of V1 to V4 evidences resonates with previous studies that examined these items (see Section 7.9). This factor, labelled 'Degree of Involvement' is presented as an acronym (**DINV**) in this study.

7.9.1.2 Degree of Unified Effort (DUE)

As more organisations recognise and embrace integration as a sine qua non of interdependence (or dual relationship – Jaspers & van den Ende, 2006) and a means to meeting the tenets of the marketing concept, unified effort has increasing become a critical emphasis in 'symbiotic interrelation' (Souder & Chakrabarti, 1978). This study (see Table 7.23) statistically reinforces this importance. Overall, the four measures used in this study correlate with one another and load heavily on the factor at .676, .609, .805, .641. From the principal axis factoring results, give and take attitude, willingness to listen to criticism, swift resolving of conflicts, and mutual support of each other, are critical to unified effort. A clear conceptual association is evident among all four measures. While the factor mean of 4.065 (s.d. = 0.883) has not been compared with previous studies, given justification in Section 7.9, the mean values and standard deviations of the individual measures are uniform with previous studies on integration summation (e.g. Song, 1991; Parry & Song, 1993; Mollenkopf, *et al*, 2000; Leenders & Wierenga, 2002). The factor extracted has been labelled 'Degree of Unified Effort' and abbreviated (**DUE**) for the purpose of this study.

7.9.1.3 Degree of Information Sharing (DMIS)

Information sharing dimensions have been numerously considered in the exploration of cross-functional relationships (Song, 1991; Parry & Song, 1993; Leenders & Wirenga, 2002; Xie *et al*, 2003; Song & Thieme, 2006). **DMIS** has a grand mean of 4.048 (s.d. = 0.922). From the PAF analysis results, the 4-items for this study are crucial factor components: the close communalities of .611 to .719 are supported by a strong and close loading of the items on the factor. Conceptually thus, there is a clear association amongst all items. The item means and standard deviation values for V1 to V4 satisfy the standard in previous studies adopting respectively these measures

(e.g. Song, 1991; Parry & Song, 1993; Mollenkopf *et al*, 2000). For the purpose of this study, this factor – Degree of Information sharing is abbreviated as (**DMIS**).

Overall, factors **DINV**, **DUE** and **DMIS**, representing the dimensions of integration, account for grand means and standard deviations corroborating standards in past studies (though not applying all combination of measures) (e.g., Song, 1991; Parry & Song; 1993; Song & Dyer, 1995; Mollenkopf *et al*, 2000; Leenders & Wierenga, 2002; Song & Thieme, 2006).

7.9.2 PRINCIPAL AXIS FACTORING OF THE STAGES OF STRATEGIC MARKETING PROCESS

As justified in Section 7.7.1.2, the four stages of strategic marketing were factor analysed separately. Consequentially, configuration of factor structures, reflecting conceptualisation, showed that a single factor was extracted for each stage. Since a single factor was extracted, no rotation of the data matrix was possible and the convention of evaluating the extracted factor was undertaken for all stages.

The Subsections of 7.9.2 highlight the PAF statistics for the 4- strategic marketing process stages (**SMAS**, **SMPS**, **SMIS** and **SMCS**). Except for explained variance (**SMIS**) minimally (< 70%), all conditions (Section 7.6) were satisfied. However, for a one-factor extraction, the explained variance statistics for all stages are greater than 10% and legitimate (Cappelleri *et al*, 2000). To check for differences in the magnitude of importance (if any) of the three dimensions of integration stage wise, proportionate measures (two per dimension) were embraced in each stage. The six items measuring defined stages have been validated in R&D/Marketing interface studies on New Product Development stages (e.g. Parry & Song, 1993; Song, 1991; Song *et al*, 1997 & 1998; Olson *et al*, 2001). The mean and standard deviation values for all (stages) (including their individual measures) match studies that reported these statistics (e.g., Song, 1991, Parry & Song, 1993; Kahn & Mentzer, 1998).

7.9.2.1 Strategic Marketing Analysis Stage (SMAS)

The **SMAS** represents a combination of measures to check the relative importance of the dimension metrics during strategic marketing analysis. The values of the Bartlett's test of sphericity (p=0.000) and the KMO (.846) are high and significant, suggesting model suitability for factor analysis. The results of the PAF Analysis are presented in 7.24. The resultant factor loadings for the six variables ranged highly between .742 and .849, accounting for an eigenvalue of 4.149 and an explained variance of 69.15%. A clear conceptual association is thus evident amongst all the measures. Overall, the Factor mean, well above midpoint at 3.871 (s.d. = 0.866), is an indicator that the respondents perceived these variables highly. The mean and standard values for each measure support the evidence in studies of R&D–Marketing integration (e.g., Song, 1991; Parry & Song, 1993). For the purpose of this study, the factor is labelled **SMAS**.

Table 7.24: Principal Axis Factoring Analysis of Achieved Degree of Integration at Strategic Marketing Analysis Stage

Measures of achieved integration at Strategic Marketing Analysis Stage	V1	V2	V3	V4	V5	V6	Loading **SMAS**	Comm-unality
A & M support each other mutually to ascertain changes & effects in the trading environment **(V1)**	1.000						**.791**	.626
A & M willingly listen to criticisms from each other in the effort to analyse the SM issues **(V2)**	.575	1.000					**.742**	.550
A & M exchange acc. & Timely Info. in ensuring effective ascertaining of changes & effects on company **(V3)**	.604	.682	1.000				**.826**	.682
A & M information Sharing practices reflect Common Strategic goals between the Functions **(V4)**	.556	.647	.735	1.000			**.756**	.571
A & M jointly Participate in the entire process of ascertaining the changes & effects on the firm's activities **(V5)**	.703	.607	.646	.544	1.000		**.849**	.722
A & M are jointly involved in considering the resources available for responding to the identified changes **(V6)**	.698	.474	.595	.554	.817	1.000	**.796**	.634
Eigenvalue and % of variance explained							**4.149** and **69.15%**	

Note: 1.) Varimax orthogonal with Kaizer Normalization converged in 5 iterations. Solution not rotated. 2.) A&M = Accounting & Marketing

7.9.2.2 Strategic Marketing Planning Stage (SMPS)

Similar to the planning stage of the strategic marketing process, the **SMPS** factor (see Table 7.25) constitutes a combination of the dimensions of integration. The KMO value for factor was, at (.879) well above the .5 cut-off (Kaiser, 1970), and significant

at p=0.000 (Bartlett's sphericity test value), suggesting factor analysis suitability to the data. This factor composed of sector variables, each loading heavily on a vector generating an eigenvalue of 4.403. The factor variance explained of 73.38% is spread significantly across all six measures at .783, .846, .721, .866, .834, and .896 respectively, in that order. Expectedly too, a strong communality is evident between the measures, a further indication that respondents perceived all measures to be core elements of the conceptualised factor. The 'above mid-point' Factor mean of 3.818 (s.d. = 0.939) does suggest that these measures are positively embraced. The factor items have been previously discussed (in varying combinations) in cross-functional relationship literatures (e.g., Song, 1991; Parry & Song, 1993; Kahn & Mentzer, 1998; Song *et al*, 1997). The mean and standard deviation values (factor and measures) are consistent with Song studies above adopting the respective measures.

Table 7.25: Principal Axis Factoring Analysis of Achieved Degree of Integration at Strategic Marketing Planning Stage

Measures of achieved integration at Strategic Marketing Planning Stage	V1	V2	V3	V4	V5	V6	Loading **SMPS**	Comm-unality
A & M support each other mutually in establishing Strategic Marketing Schedules **(V1)**	1.000						**.783**	.613
A & M show united Team Spirit & openness to Criticisms in their effort to set Strategic. Marketing goals & Priorities **(V2)**	.703	1.000					**.846**	.715
A & M willingly share Information in their effort to generate Strategic Marketing Ideas**(V3)**	.534	.638	1.000				**.721**	.520
A & M share Accurate & Timely Information to aid Marketing Mix Planning **(V4)**	.666	.718	.739	1.000			**.866**	.750
A & M participate jointly in deciding on the Strategic Marketing goals and priorities **(V5)**	.637	.689	.538	.695	1.000		**.834**	.696
A & M participate jointly in decisions concerning apportionment of resources to Strategic Marketing efforts **(V6)**	.713	.728	.593	.734	.854	1.000	**.896**	.802
Eigenvalue and % of variance explained							**4.403** and **73.38%**	

Note: 1.) Varimax orthogonal with Kaizer Normalization converged in 5 iterations. Solution not rotated. 2.) A&M = Accounting & Marketing

7.9.2.3 Strategic Marketing Implementation Stage (SMIS)

The third stage of the strategic marketing process in this study is the implementation stage. To explore the implementation dynamics, a factor, labelled **SMIS**, for the purpose of this study, was extracted (see Table 7.26). High and significant factor analysis adequacy was achieved for this factor at KMO (.803) and Bartlett's test of sphericity value (p=0.000). The factor mean of 3.525 (s.d. = 0.878)

on the six-point scale employed suggests that respondents scored the interfunctional relationship highly on strategic marketing implementation practices. Examining the inter-item correlation and communality values, a strong conceptual importance of all measures is evident. Consequently, the perceived importance of these measures is reflected in the close and highly uniform heavy loading of each measure, ranging from .624 to .836. **SMIS** commands a factor eigenvalue of 3.970 and variance explained of 66.16%. The mean and standard deviation statistics for this factor (including individual measures) are comparable to previous studies (e.g., Song, 1991, Parry & Song, 1993).

Table 7.26: Principal Axis Factoring Analysis of Achieved Degree of Integration at Strategic Marketing Implementation Stage

Measures of achieved integration at Strategic Marketing Implementation Stage	V1	V2	V3	V4	V5	V6	Loading **SMIS**	Comm-unality
A & M depict team spirit in the execution of the Strategic Marketing Plans **(V1)**	1.000						**.739**	.546
A & M are willing to perform cross-functional roles in ensuring effectiveness & efficiency of Strategic Marketing plans **(V2)**	.594	1.000					**.624**	.389
A & M are aware of the information needs of each other in the execution of Strategic Marketing Plans **(V3)**	.575	.508	1.000				**.836**	.699
A & M share accurate & timely information in the execution of Strategic Marketing Plans **(V4)**	.497	.459	.834	1.000			**.772**	.595
A & M jointly identify the specific tasks to be performed & execute actual Strategic Marketing Plans **(V5)**	.570	.488	.611	.585	1.000		**.811**	.657
A & M are jointly involved in the allocation of resources to the course of SMM action **(V6)**	.656	.456	.636	.575	.821	1.000	**.835**	.697
Eigenvalue and % of variance explained							**3.970** and **66.16%**	

Note: 1.) Varimax orthogonal with Kaizer Normalization converged in 5 iterations. Solution not rotated. 2.) A&M = Accounting & Marketing

7.9.2.4 Strategic Marketing Control Stage (SMCS)

Effective control mechanisms are core for effective strategic marketing process. To gauge integration at this stage, a factor (**SMCS**) was extracted (see Table 7.27). Factor analysis adequacy of **SMCS** to the data was high and significant at KMO (.874) and Bartlett's test of sphericity value (p=0.000). The analysis denoted that **SMCS** is a crucial element of the strategic marketing process. All variables for **SMCS** are very closely inter-related, highly communal and consequently, load heavily at (.891, 858, .

901, .905, .846 and .827) on this factor. This factor accounts for an eigenvalue of 4.798 and a variance explained of 79.97%. The mean score for this factor was 3.866 (s.d. = 0.897), indicating that respondents are convinced their organisations prioritise strategic marketing control. The mean and standard deviation values for this factor (including individual items) match the standards in previous studies that used the respective measures (Song, 1991; Parry & Song, 1993).

Table 7.27: Principal Axis Factoring Analysis of Achieved Degree of Integration at Strategic Marketing Control Stages

Measures of achieved integration at Strategic Marketing Control Stage	V1	V2	V3	V4	V5	V6	Loading **SMCS**	Comm-unality
A & M mutually support each other in the process of monitoring the transformation of SMM plans **(V1)**	1.000						**.891**	.794
A & M show unity in the process of analysing performance to identify deviations from plans & areas of variances **(V2)**	.826	1.000					**.858**	.736
A & M share accurate & timely information to aid monitoring of transformation of SMM plans **(V3)**	.808	.799	1.000				**.901**	.812
A & M share accurate & timely information & aid evaluation of performance & identification of variances **(V4)**	.812	.764	.887	1.000			**.905**	.819
A & M jointly participate in the monitoring of the transformation of SMM plans **(V5)**	.717	.680	.711	.733	1.000		**.846**	.716
A & M jointly participate in identifying & evaluating courses of action in the event of a variance or variances **(V6)**	.699	.675	.687	.710	.878	1.000	**.827**	.684
Eigenvalue and % of variance explained							**4.798** and **79.97%**	

Note: 1.) Varimax orthogonal with Kaizer Normalization converged in 5 iterations. Solution not rotated. 2.) A&M = Accounting & Marketing

7.10 Exploratory Factor Analyses of Independent Variables

Overall, the indicators for measuring each construct were extracted on the basis of higher factor loadings and correlation coefficients (Rummel, 1970, p. 135) closer to the value of 1. In the final factor extractions, items loading below .40 (Cappelleri *et al*, 2000) were identified as candidates for ejection, except where scientific evidence legitimised the contrary (see Section 7.10.8)

Explained in Section 7.5.2, all 10 independent variables were separately factor analysed. On the basis that only a single factor was extracted, data matrix rotation was not possible and the convention of evaluating the extracted factor was undertaken for all constructs. All factors achieved factor analysis adequacy to the data, using KMO

and Bartlett's test of sphericity value criteria. The PAF Analyses for all hypothesised antecedents of integration are presented in the respective subsections for all constructs. The Table format specified in Section 7.9.2.1 is followed, and statistics satisfy (except in few cases) the applicable guidelines in Section 7.6.1 and 7.8.

7.10.1 COMMUNICATION GAP (COMMGAP)

Capturing frequency, quality and bidirectional dimensions, Massey and Dawes' (2006) study of influence of communication on functional and dysfunctional conflict between marketing and sales managers reported amongst others, that communication quality (supported by bidirectional communication) had the single strongest effect on perceived relationship effectiveness. Well above .5 cut-off (Kaiser, 1970) at .852 (KMO) and p=0.000 (Bartlett's test of sphericity value), **COMMGAP** achieved high and significant factor analysis adequacy for the data. The PAF Analysis results (see Table 7.28) for **COMMGAP** (emphasising accuracy and content) for this study highlight critical importance of the 4-measures in the factor. V1 to V4 are highly inter-related and load heavily on the factor, with a loading of .810 to .899. The eigenvalue for **COMMGAP** is 3.239 while variance explained is 80.99%. The mean for this factor is 2.874 (s.d. = 0.963) and by implication, the variables are highly rated in the working relationship between these functions. The negatively coded questions for this factor explains the below mid-point mean value. The results for this factor reinforce evidence in the pioneering work of Gupta (1984) and Parry & Song (1993).

Table 7.28: Principal Axis Factoring Analysis of Communication Gap

Measures of Communication Gap	V1	V2	V3	V4	Loading **COMMGAP**	Comm-unality
There is lack of Communication between Accounting & Marketing **(V1)**	1.000				**.884**	.782
Inaccurate cross-transfer of information between Accounting and Marketing **(V2)**	.778	1.000			**.862**	.744
There is too little Information Exchange between Marketing & Accounting **(V3)**	.780	.776	1.000		**.899**	.809
Accounting has no discussion with Marketing regarding Strategic Marketing issues **(V4)**	.717	.681	.745	1.000	**.810**	.656
Eigenvalue and % of variance explained						**3. 239 & 80.99%**

Note: Varimax orthogonal with Kaizer Normalization converged in 6 iterations. Solution not rotated.

7.10.2 FORMALISATION (FORMPS)

This factor determined how formalised procedures featured in accounting-marketing working relationship. Factor analysis adequacy to the data was achieved at KMO (.736) and Bartlett's test of spherictiy value (p=0.000). Statistically, (see Table 7.29), the extracted factor (**FORMPS**) accounted for eigenvalue of 2.824 and variance explained of 70.60%. Communalities were relatively high for all measures, accounting, expectedly for, high loading of all variables on the factor at .762, .893, . 769 and .695 for indicators V1 to V4. The factor mean of 4.258 (s.d. = 0.941) is well above mid-point of scale, suggesting a critical importance of formalization in the responding organisation. This factor mean evidence support results in Song (1991), Parry & Song (1993) and Song & Thieme (2006: China and Japan). Overall, individual item mean and standard deviation values corroborate results in previous studies that used the respective measures (e.g., Song, 1991; Parry & Song, 1993).

Table 7.29: Principal Axis Factoring Analysis of Formalisation

Measures of Formalisation	**V1**	**V2**	**V3**	**V4**	Loading **FORMPS**	Comm-unality
Staff Performance Appraisals are based on Written Performance Standards **(V1)**	1.000				**.762**	.580
Duties, Authority, and Accountability of Personnel are documented in Policies, Procedures, or Job Descriptions **(V2)**	.762	1.000			**.893**	.798
Written Procedures and Guidelines are available for most of the work situations**(V3)**	.513	.669	1.000		**.769**	.591
Formal Communication Channels are always followed **(V4)**	.506	.553	.637	1.000	**.695**	.483
Eigenvalue and % of variance explained					**2.824** and **70.60%**	

Note: Varimax orthogonal with Kaizer Normalization converged in 8 iterations. Solution not rotated.

7.10.3 CULTURE AND ORIENTATION DIFFERENCES (CODIFF)

Exploring R&D–Marketing integration, Gupta (1984) and Parry & Song (1993) captured culture, perception and orientation differences driven integration barriers. Harmonising evidence in above studies with accounting/marketing interface theoretical backgrounds, four measures, denoted by factor (**CODIFF**) represented the dimensions of differences that typify the accounting/marketing working relationship. The results confirmed factor analysis adequacy to the data at KMO (.756) and

Bartlett's test of sphericity value (p=0.000) for **CODIFF**. Evidenced in Table 7.30, all four measures converge well on the vector, and are core components of the conceptualised factor, generating an eigenvalue of 3.076 and variance explained of 76.91%. All variables are closely inter-correlated and thus share relative communality. Variables (1 to 4) load well on the factor at .760, .899, .885, and .784 respectively. The factor mean of 4.0370 (s.d. = 0.964) does suggest that the respondents are convinced these culture, perception and orientation dichotomies are highly common in the accounting - marketing working relationship.

Table 7.30: Principal Axis Factoring Analysis of Culture and Orientation Differences

Measures of Culture and Orientation Differences	**V1**	**V2**	**V3**	**V4**	Loading **CODIFF**	Comm-unality
Accounting and Marketing do not seem to understand each other **(V1)**	1.000				**.760**	.577
The Accounting Culture differs from that of Marketing **(V2)**	.669	1.000			**.899**	.808
Accounting Thinking Patterns - Orientation differs from those of Marketing **(V3)**	.622	.850	1.000		**.885**	.784
Accounting's Perception of Organisation's Objectives are different from those of Marketing) **(V4)**	.668	.657	.680	1.000	**.784**	.614
Eigenvalue and % of variance explained						**3.076 & 76.91%**

Note: Varimax orthogonal with Kaizer Normalization converged in 5 iterations. Solution not rotated

7.10.4 MANAGEMENT SUPPORT OF INTEGRATION (MANSFINT)

Management literature suggests that interdepartmental relationship effectiveness is achieved, when management supports departmental integration (Chimhanzi, 2004; Leenders & Wierenga, 2002; Xie *et al*, 2003; Dewsnap & Jobber, 2004). PAF Analysis (see Table 7.31) was undertaken to examine the four measures for this study. The results show measures convergence unto the vector, indicating significance of all measures to the factor (**MANSFINT**), and thus a clear conceptual association. At KMO (.827) and Bartlett's sphericity test value (p=0.000), factor analysis is adequate to the data, for **MANSFINT**. This factor accounted for variance explained of 81.19% and eigenvalue of 3.248. In this study, the management support factor is labelled **MANSFINT**. Respondents perceived the four measures as core management support dynamics: the highly above mid-point factor mean of 4.128 (s.d. = 0.959) clearly

indicates core importance. All four measures are communal, and load highly on **MANSFINT**, at .777, .888, .903 and .895 respectively. The mean and standard deviation values (factor and individual measures) conform to standards shown in respective previous studies that employed similar scales and measures (e.g., Song & Parry, 1993; Song & Parry, 1997; Xie *et al*, 2003).

Table 7.31: Principal Axis Factoring Analysis of Management Support of Integration

Measures of Management Support and Value of Integration	V1	V2	V3	V4	Loading **MANSFINT**	Comm-unality
Top Management promotes Team Loyalty over Functional Loyalty **(V1)**	1.000				**.777**	.603
Top Management promotes Performance measures that favour Integration of Accounting & Marketing **(V2)**	.700	1.000			**.888**	.788
Top Management encourages different Functions to work together **(V3)**	.726	.771	1.000		**.903**	.815
Top Management supports Integration of Accounting & Marketing **(V4)**	.659	.816	.818	1.000	**.895**	.801
Eigenvalue and % of variance explained						**3.248 & 81.19%**

Note: Varimax orthogonal with Kaizer Normalization converged in 5 iterations. Solution not rotated

7.10.5 ENCOURAGEMENT OF RISK TAKING BEHAVIOUR (RISKTBEH)

As intense competition increasingly becomes modern marketplace feature, organisations are compelled to be less risk averse. Consequently, risk taking propensity is encouraged. Researches have argued that encouragement of risk taking behaviour is associated with higher levels of achieved cross-functional integration (Gupta, 1984; Song, 1991; Parry & Song, 1993). To measure encouragement of risk taking behaviour, this study utilises four variables reflecting: incentives to work on new ideas despite uncertainty, desire for high risk (and or high return) investments, encouraging further risky strategic efforts despite previous failure(s), and reward of successful risky projects. The PAF analysis extracted one factor (**RISKTBEH**), and at KMO (.707) and Bartlett's test of sphericity value (p=0.000), factor analysis is adequate for this data. **RISKTBEH** generated an eigenvalue of 2.377 and explained variance of 59.41%. This factor is labelled **RISKTBEH**, in this study. Statistically (see Table 7.32), close communality between all four variables is evident. There is a clear association between the ingredients of this factor, each variable loading heavily onto

the vector at .713, .685, .734, and .578 respectively. At 3.566 (s.d. = 0.880) the factor mean is well above the mid-point of scale, an indication that respondent organisations perceived these variables to be core risk taking propensity features at their respective organisations. The mean and standard values (factor and individual variables) corroborate results in previous studies that used the respective measures (e.g., Gupta, 1984; Song, 1991; Parry & Song, 1993).

Table 7.32: Principal Axis Factoring Analysis of Encouragement of Risk Taking Behaviour

Measures of Encouragement of Risk Taking Behaviour	V1	V2	V3	V4	Loading **RISKTBEH**	Comm-unality
Management provides enough incentives to work on new ideas despite the uncertainty of their outcomes **(V1)**	1.000				**.713**	.508
Management has a strong desire for high-Risk, high-Return Investments **(V2)**	.434	1.000			**.685**	.469
Management encourages you to keep trying even if you fail in the Strategic process**(V3)**	.631	.443	1.000		**.734**	.538
The Management rewards Successful Risky Projects **(V4)**	.339	.537	.362	1.000	**.578**	.334
Eigenvalue and % of variance explained					**2.377** and **59.41%**	

Note: Varimax orthogonal with Kaizer Normalization converged in 6 iterations. Solution not rotated

7.10.6 DECENTRALISATION (DCENT)

This factor determined the extent to which decision making authority is decentralised, i.e., are departmental personnel empowered to take decisions without prior approval from a superior (even for small matters)? One factor was extracted from the four items used, at p = 0.00 (Bartlett's test of sphericity) and .817 (Kaiser-Meyer-Olkin Measure of Sampling adequacy – KMO) suggesting high and significant adequacy of factor analysis for the data. From PAF Analysis evidence, all variables were highly communal (see Table 7.33). Expectedly thus, all variables loaded highly on the extracted factor at .777, .835, .876 and .797 for V1 to V4, in that order. Labelled **DCENT**, this factor accounted for eigenvalue of 3.024 and variance explained of 75.59%. The factor mean is 3.105 (s.d. = 0.949) and reported variable means are congruent with previous studies that used similar measures (e.g., Song, 1991; Parry & Song, 1993; Song & Parry, 1993; Song & Dyer, 1995; Song & Thieme, 2006).

Table 7.33: Principal Axis Factoring Analysis of Decentralisation

Measures of Decentralisation	V1	V2	V3	V4	Loading **DCENT**	Communality
Very few actions are taken without the approval of a superior **(V1)**	1.000				**.777**	.604
Even small matters on the job have to be referred to someone higher up for a final answer **(V2)**	.702	1.000			**.835**	.697
Individuals don't feel empowered to make Decisions in their jobs **(V3)**	.685	.256	1.000		**.876**	.767
Employee participation is encouraged in Strategic Decision making **(V4)**	.588	.630	.430	1.000	**.797**	.636
Eigenvalue and % of variance explained					**3.024** and **75.59%**	

Note: Varimax orthogonal with Kaizer Normalization converged in 6 iterations. Solution not rotated.

7.10.7 JOINT REWARD SYSTEM (REWARD)

Joint reward between interface members has received reasonable attention in the consideration of cross-functional relationships (e.g., Song, 1991; Parry & Song, 1993; Song *et al*, 2000; Xie *et al*, 2003; Chimhanzi, 2004). Generally, it is argued that effective reward practices facilitate effective integration. The PAF Analysis (see Table 7.34) of the measures for this construct captured two factors. Though least in magnitude, amongst all extracted factors, the **REWARD** factors satisfied the .5 cut-off (Kaiser, 1970), achieving factor analysis adequacy at KMO (.585) and value of Bartlett's test of sphericity (p=0.000). The results, identification and labelling of the two extracted factors (**REWARDM** and **REWARDP)** are now discussed.

7.10.7.1 Reward – Monetary Dimension (REWARDM)

REWARDM (monetary reward dimension), emphasises equality between accounting and marketing staff in (1) successful strategic marketing effort rewards, and (2) salary structures across ranks. **REWARDM** accounts for eigenvalue and explained variance of 1.495 and 37.37%. The two measures are highly communal and load strongly at .821 and.869 on the factor, evidencing clear conceptual association. The slightly above mid-point factor mean of 3.046 (s.d. = 0.918) however implies respondents perceived these measures not to be core in their organisations. Overall, mean and standard deviation statistics (factor and individual measures) are congruent with past studies that employed similar metrics (e.g., Parry & Song, 1993; Mollenkopf

et al, 2000; Xie *et al*, 2003). Given elaborated statistics of this factor, it was believed that the derived solution was logical, thus factor was accepted and designated "Reward Monetary Dimension", with the acronym "**REWARDM**".

7.10.7.2 Reward Performance Dimension (REWARDP)

REWARD (performance dimension) factor, composed of two questions, measured whether formal evaluation criteria for accounting–marketing teamwork exists, and the extent to which team performance is prioritised over individual performance in team members' evaluation. Table 7.34 evidences close communality between the two variables, and a balanced loading of .797 and .813 respectively on the extracted factor, indicating conceptual congruence. **REWARDP** generated eigenvalue of 1.362 and explained variance of 34.05%. At 3.213 (s.d. = 0.890), the mean score for the **REWARDP** scale on the six-point scale, is slightly above mid-point of scale, indicating that the respondent firms were fairly agreeable about **REWARDP**. The close correlation between the measures thus confirms conceptual significance of these measures to **REWARD** (performance dimension). The mean and standard deviation values (factor and individual measures) are congruent with previous studies that employed similar scales (e.g., Mollenkopf *et al*, 2000; Xie *et al*, 2003)

Table 7.34: Principal Axis Factoring Analysis of Reward

Measures of Reward (Monetary and Performance)		Loading **REWARDM**	Factor Loading **REWARDP**	Communality
Accounting & Marketing staff share equally in the rewards from a successful Strategic Marketing Effort	**(V1)**	**.821**		.569
Accounting and Marketing Executives of the same rank are on the same Salary Level	**(V2)**	**.869**		.569
Team members Evaluations are based on Team Performance instead of individual performance	**(V3)**		**.797**	.491
Formal Evaluation Criteria for Accounting - Marketing inter-departmental Teamwork exist	**(V4)**		**.813**	.466
Eigenvalue		**1.495**	**1.362**	
% of variance explained		**37.37%**	**34.05%**	

Note: Varimax orthogonal rotation with Kaizer Normalization converged in 3 iterations.

7.10.8 ROLE FLEXIBILITY (ROFLEX)

The importance of cross-functional role performance as a tool for managing negative implications of knowledge background dichotomies, towards effective inter-dependence relationships, has been emphasised in several studies (e.g., Song *et al*, 2000; Xie *et al*, 2003). The PAF results confirm factor analysis adequacy to the data for **ROFLEX** at KMO (.704) and Bartlett's test of sphericity value (p=0.000). All factor variables are reasonably communal (at .870, .748 and .588) except (V3 at .137). The factor loadings are .933, .865, .370 and .767 for variables 1 to 4, in that order. V3, given scientific legitimacy, was, despite minimal insignificance, retained in the factor structure. Thus variable 3 (Accounting gather and contribute strategic marketing information to the marketing team) loading below .4 benchmark (Cappelleri *et al*, 2000) did not match Marketing – R&D context aligned results (e.g., Moenaert *et al*, 1994). The extracted factor (**ROFLEX**) accounts for 2.642 eigenvalue and explained variance of 66.06%. The measures on the vector reflect close entities, and evident measures communality is also reflected in the high factor loadings of .933, .865, .370 and .767. By implication, the high loadings of variables 1, 2 and 4 suggest these variables are more closely associated to the conceptualised factor. The factor mean of 2.3056 (s.d. = 0.956) is well below the mid-point of scale, indicating that respondent organisations perceived role flexibility behaviour not to be a feature of their inter-dependence relationships. The factor mean compares reasonably well against previous studies (Xie *et al*, 2003; and averagely with (US & UK) samples in Song *et al*, 2000 (using Rflex1 and 2). Moenaert *et al* (1994) did not report factor mean.

Table 7.35: Principal Axis Factoring Analysis of Role Flexibility

Measures of Role Flexibility	V1	V2	V3	V4	Loading **ROFLEX**	Commun-ality
A planned Job Rotation of Accounting & Marketing employees is emphasised as a device for developing their Capabilities **(V1)**	1000				**.933**	.870
Accounting & Marketing Functions do rotate Employees **(V2)**	.858	1.000			**.865**	.748
Accounting gather and contribute strategic marketing information to the marketing team **(V3)**	.284	.256	1.000		**.370***	.137
Some of the Accounting members also performed technical Marketing Tasks in the Strategic Marketing Process **(V4)**	.687	.630	.430	1.000	**.767**	.588
Eigenvalue and % of variance explained					**2.642** and **66.06%**	

Note: Varimax orthogonal with Kaizer Normalization converging in 9 iterations. Solution not rotated.
* Loading below .4

Variable 3 (see Table 7.35) loading below the .4 threshold (Hair *et al*, 1998; Cappelleri *et al*, 2000) was retained. Overall, retaining this loading did not impair results, and was scientifically legitimised thus:

a) The loading coefficient is minimally insignificant, and examination of the factor structure in relation to variable 3 captured no valid evidence to suggest that inclusion would influence predicting power.
b) This measure, though aligned to R&D–Marketing interface, has been previously validated (e.g., Moenaert *et al*, 1994), evidencing relevance to CFR studies.
c) When removed, the Cronbach's Alpha for the factor was not significantly affected, only from .81 to .88.
d) When ejected, change in grand mean was insignificant (from 2.306 to 2.058). As a matter of fact, when removed, factor mean falls. Discussing the grand mean statistics in line with the change in (3) above, retaining this indicator is scientifically valid, as significant Cronbach's alpha and higher factor mean are achieved.
e) The ejection of items exhibiting low (communality/loading) should be done with care (Lee & Hooley, 2005). The researcher found no conceptual justification for ejection of variable 3, as the researcher does not suspect that the error variance is high, nor was there any indication that the item may be tapping a substantially different construct or dimension.
f) When eliminated (separately or together) from the multi-variable analysis, no significant change in the regression results was evident.

Overall, retaining this item is valid, as doing the contrary would result in the loss of an important, and unique, contributing item. From the confirmatory factor

evidence, Roflex3, at 3.964 critical ratio (CR) is greater than the 1.96 benchmark for a significant regression weight on the factor RFLEX at the .05 level.

7.10.9 NON-DEPARTMENTAL PROXIMITY (NONDEPPROX)

Immense social capital (Adler & Kwon, 2002; Shipilov & Danis, 2006) or goodwill (Dore, 1983; Shipilov & Danis, 2006) can be derived through employee socialisation (Maltz & Kohli, 1996; Xie *et al*, 2003). Socialisation facilitates staff solidarity and compatibility upon which effective integration can be achieved and sustained (Gupta & Govindarajan, 2000; Adler & Kwon, 2002; Shipilov & Danis, 2006; Garrett *et al*, 2006). Aligning to this social capital theory, studies have argued a positive correlation between departmental proximity (or the reverse) and achieved integration (e.g., Leenders & Wierenga, 2002; Xie *et al*, 2003; Maltz, 1997). Non-departmental proximity between accounting and marketing is measured by four variables that sensitised whether: departments are physically separated, informal interactions are rare between both, chance meetings are rare between personnel, and physical separation reduces the chance for accounting and marketing to learn and understand each other. At KMO (.822) and Bartlett's test of sphericity value (p=0.000), **NONDEPPROX** evidenced high and significant factor analysis adequacy to the data. The results of the PAF Analysis (see Table 7.36) show that the extracted factor (**NONDEPPROX**) generated an eigenvalue of 3.253 and explained variance of 81.34%. The factor statistics evidence a strong conceptual association of all variables on the factor, loading highly at .749, .941, .899 and .878 respectively. The mean value for the factor was 3.738 (s.d. = 0.971) and well above the mid-point of the six-point scale employed, which suggests that the respondents attach high level of importance to this factor. The mean score of the factor compares reasonably well with past studies

as such (Xie *et al*, 2003 – GB sample). Mean statistics not compared with Leenders and Wierenga (2002) as they did not report the factor score.

Table 7.36: Principal Axis Factoring Analysis of Non-Departmental Proximity

Measures of Non Departmental Proximity	V1	V2	V3	V4	Loading **NONDEPPROX**	Comm-unality
Accounting & Marketing are physically Separated **(V1)**	1.000				**.749**	.561
Informal Interactions rarely happen between Accounting & Marketing **(V2)**	.699	1.000			**.941**	.885
Chance Meetings are rare between Accounting & Marketing Personnel **(V3)**	.639	.877	1.000		**.899**	.808
Physical Separation reduces the chance for Accounting & Marketing to learn & understand each other **(V4)**	.697	.799	.784	1.000	**.878**	.771
Eigenvalue and % of variance explained					**3.253** and **81.34%**	

Note: Varimax orthogonal with Kaizer Normalization converged in 6 iterations. Solution not rotated.

7.10.10 PARTICIPATION (EMPPASMS)

Inter-departmental integration literature suggests an association between employee participation in the pursuit of organisational targets (e.g., new Product development, marketing activities, and strategic marketing activities) and achieved integration (Gupta, 1984; Song, 1991; Parry & Song, 1993; Dewsnap & Jobber, 2004; Song & Thieme, 2006). This study follows Parry and Song (1993) and exploits four variables, reflecting employee participation at the four stages of strategic marketing process. For this factor (**EMPPASMS**), high and significant factor analysis adequacy to data is achieved at KMO (.809) and Bartlett's test of sphericity value (p=0.000). The PAF Analysis (see Table 7.37) produced a factor accounting for 3.085 eigenvalue and explained variance of 77.12%. All four variables are strongly communal and load heavily at (.911, .926, .844, and .652 respectively) onto the vector, indicating a clear conceptual association with the factor. The factor mean was 4.157 (s.d. = 0.965) and significantly above the mid-point of the scale, an evidence that respondents perceived this factor as important in their organisations. The factor mean (including individual variable means and standard deviation values) are consistent with results in respective previous studies using same variables (e.g., Gupta *et al*, 1986; Song, 1991; Parry & Song, 1993; Song & Parry, 1993; Song & Thieme, 2006).

Table 7.37: Principal Axis Factoring Analysis of Participation

Measures of Employee Participation	V1	V2	V3	V4	Loading **EMPPASMS**	Comm-unality
Participation of Employees of the Department (at **SMAS**) **(V1)**	1.000				**.911**	.829
Participation of Employees of the Department (at **SMPS**) **(V2)**	.865	1.000			**.926**	.858
Participation of Employees of the Department (at **SMIS**) **(V3)**	.746	.781	1.000		**.844**	.712
Participation of Employees of the Department (at **SMCS**) **(V4)**	.592	.576	.581	1.000	**.652**	.425
Eigenvalue and % of variance explained					**3.085** and **77.12%**	

Note: Varimax orthogonal with Kaizer Normalization converged in 5 iterations. Solution not rotated

7.11 Conclusions on the Exploratory Construct Validity

Following satisfactory correlation and instrument reliability evidence, a first-stage construct validity check was undertaken through exploratory factor analysis. On the exploratory evidence (results summarised in Table 7.38), conclusions of validity seem legitimate, despite one item loading minimally below .4 (Cappelleri *et al*, 2000).

However, since CFA is best for achieving uni-dimensionality efficacy and testing hypothesis (Byrne, 2001, p. 3; Field, 2005, p. 629), achieving parsimony through confirmatory technique is a *sine-qua-non*. Consequently, the measurement model was checked for validity, and the CFA process and results are explained in Section 7.12.

Table 7.38: The Reliability and Analyses Results of Dependent and Independent Variables

Factor	No. of Items	Cr. Alpha	Factor Mean	Std. Dev.	Eigen-value	Cumm. Variance Expl
Dependents						
DINV	4	.90	3.7130	0.936	3.142	26.19%
DMIS	4	.93	4.0478	0.922	2.807	23.39%
DUE	4	.87	4.0648	0.883	2.638	21.99%
AI@SMAS	6	.91	3.871	0.866	4.149	69.15%
AI@SMPS	6	.93	3.818	0.939	4.403	73.38%
AI@SMIS	6	.89	3.525	0.878	3.970	66.16%
AI@SMCS	6	.94	3.866	0.897	4.798	79.07%
Independents						
COMMGAP	4	.92	2.872	0.963	3.239	80.99%
FORMPS	4	.86	4.257	0.941	2.824	70.60%
CODIFFS	4	.86	4.037	0.946	3.076	76.91%
MANSFINT	4	.92	4.128	0.959	3.248	81.19%
RISTBEH	4	.77	3.565	0.880	2.377	59.41%
DCENTR	4	.88	3.105	0.949	3.024	75.59%
REWARDM	4	.85	3.046	0.918	1.495	37.37%
REWARDP	4	.80	3.213	0.890	1.362	34.05%
ROFLEX	4	.81	2.306	0.956	2.642	66.06%
NONDEPPROX	4	.92	3.738	0.971	3.253	81.34%
EMPPASMS	4	.90	4.157	0.965	3.085	77.12%

7.12 Confirmatory Factor Analysis (CFA)

Primarily, validating the measurement model is accomplished through confirmatory factor analysis (CFA), while fitting the structural model is done through path analysis with latent variables (Kline, 1998). Explaining the CFA procedures for this study is presented in three sections: (1) introduction, (2) preliminary data screening prior to model testing, and (3) explaining the goodness-of-fit results.

7.12.1 INTRODUCTION

Confirmatory factor analysis (Williams, 2005) is a statistical technique that uses the indicators to test the appropriateness of the full theoretical model. Byrne (2001), referenced in Williams (2005), notes that CFA is becoming increasing popular in the social sciences, given its hypothesis-testing utility (see also Field, 2005, p. 629) in the analysis of data. A hypothesized model can be tested statistically in a "simultaneous analysis of the entire system of variables to determine the extent to which it is consistent with the data" (Byrne, 2001, p. 3). Byrne (2001) further explains:

> Based on knowledge of theory, empirical research, or both, [the researcher] postulates relations between observed measures and underlying factors a priori and then tests this hypothesized structure statistically … to determine the adequacy of its goodness of fit to the sample data.

CFA depends on a model's specification, a statistical statement of relationships among variables, prior to data analysis (Hoyle, 1995; Kline, 1998). Since CFA offers researchers a viable method of evaluating construct validity (Byrne, 2001, p. 3), CFA was undertaken in this study to verify EFA results explicitly, and test hypotheses concerning the factor structure of the data due to having the predetermined model specifying the number and composition of the factors. Following Kline (1998), the measurement model underlying the full SEMs in Figures 6.3 and 6.4 were statistically examined, using AMOS 7 (Analysis of Moment Structures) package, for convergent and discriminant evidence.

Dozens of model goodness-of-fit indices are suggested in SEM literature (Lee & Scot, 2004). While there is no consensus on the appropriate index for assessing overall goodness-of-fit of a model (Ping, 2004), Hu and Bentler (1998) suggest four goodness of fit indices as ideal: chi-Square, Bentler's comparative fit index (CFI) , Bentler and Bonnett's non-normed fit index (NNFI), and standardised root-mean square residual (SRMR). Table 7.39 below highlights a few indices and their cut-offs.

Table 7.39: Description and thresholds of goodness-of-fit indices used in the assessment of measurement & structural models

Fit Index	Description	Cut-offs & Key notes
CMIN Model Fit Statistics: **Chi-Sq. (χ^2), DF & *P*** **CMIN/DF**	**Chi-Square** gives the most basic index, which reflects the sample size and the value of the maximum likelihood fitting function. Such maximum likelihood technique fits the interest of this research, as it is a crucial means for which the results can be generalised from the sample participants to a larger population (Field, 2005:629). **The model chi-square** should be non-significant to support a model, even though the chi-square is not considered as the absolute standard fit index due to its sensitivity to sample size. Kline (1998) proposed **X^2/df** ratio values of less than 3 are considered favourable for a large sample (1.e., sample sizes of 200 or more). A more liberal acceptable fit denoted by a ratio ranging from 2 to 5 is however suggested by Marsh and Hocevar (1983) in a SEM model. **Relative chi-square**, also called **normal chi-square** (**CMIN/DF**) is the chi-square fit index divided by the degrees of freedom, in an attempt to make it less dependent on sample size. For an acceptable model, CMIN/DF should be in the 2:1 or 3:1 range (Carmnes & McIver, 1981: 80) or 3 or less (Kline, 1998). Ullman (2001) says 2 or less reflects good fit. Some researchers allow values as high as 5 to consider a model adequate fit.	(χ^2): p >.05 (χ^2)/df : <3 (Kline, 1998), 2 to 5 (Marsh & Hocevar, 1983) CMIN/DF: 2:1 or 3:1 (Acceptable fit – (Carmines & McIver, 1981: 80) ≤ 3 (Acceptable fit – Kline, 1998) ≤ 2 (Good fit – Ullman, 2001) As high as 5 (Adequate fit – liberal)
Baseline Comparisons Stats: **NFI, IFI & CFI**	The **NFI** is also known as the *Bentler-Bonnet normed fit index*, or simply *DELTA1*. NFI reflects the proportion by which the researcher's model improves fit compared to the null model. By convention, NFI values above .95 are good, between .90 and .95 acceptable. Some authors have the more liberal cut-off of .80. According to Ullman (2001), NFI may underestimate fit for small samples. **IFI** (the incremental fit index), is also known as *DELT2*. By convention, IFI should be equal to or greater than .90 to accept the model. IFI can be greater than 1.0 under certain circumstances. The **Comparative fit index** (**CFI**) is also known as the Bentler Comparative fit index. The CFI compares the existing model fit with a null model which assumes the latent variables in the model are uncorrelated. CFI is similar in meaning to NFI but penalizes for sample size. CFI is also used in testing modifier variables (those which create a heteroscedastic relation between an independent and a dependent. By convention, CFI should be equal to or greater than .90 to accept the model, indicating that 90% of the covariation in the data can be reproduced by the given model.	NFI: >..95 = good fit Btw. 90 and .95 = acceptable fit .80 and above (liberal cut-off) IFI: ≥ .90, can be > 1 some times CFI: values close to 1 (very good fit) ≥. 90 (acceptable fit)
Parsimony Adjusted Measures: **PRATIO, PNFI & PCFI**	Parsimony measures penalize for lack of parsimony. The parsimony measures are used in this study, as they usually have interpretation links with RMSEA. The **parsimony ratio** (**PRATIO**) is the ratio of the degrees of freedom in the model to the degrees of freedom in the independence (null) model PRATIO is not a goodness-of-fit test itself, but is used in line with other measures like PNFI and PCFI which reward for parsimony. The parsimony measures do not use same cut-offs as the baseline comparison measures. The **parsimony normed fit index** (**PNFI**), is equal to PRATIO times NFI, and the parsimony comparative fit index (**PCFI**) is equal to PRATIO time CFI. Both have no commonly agreed-upon cut-off value for an acceptable mode but are examine in line with PRATIO.	
GFI	Goodness-of-fit index (GFI) is the percent of observed covariances explained by the covariances implied by the model. While some suggest .95 as GFI cut-out, conventionally GFI equal to or greater than .90 is deemed satisfactory for acceptable model.	GFI: ≥ .95 (Good fit) ≥ .90 (Acceptable fit)
RMSEA Statistics	**RMSEA**, also called RMS or RMSE or discrepancy per degree of freedom. RMSEA is a popular measure of fit, it does not require comparison with a null model. By convention, there is good model fit if RMSEA is less than or equal to .05, or there is adequate fit if less than or equal to .08. More recently, Hu & Bentler (1999) suggested a good fit of ≤ .06.	RMSEA: ≤ .05 (good fit) ≤ .06 (good fit) Hu & Bentler (1999) ≤ .08 (adequate fit)
SRMR	The standardized root mean square residual (SRMR) is the average difference between the predicted and observed variances and covariances in the model, based on standardized residuals. The smaller the SRMR, the better the model fit. SRMR tends to be lower simply due to larger sample size or more parameters in the model	SRMR = 0 (perfect fit) < .08 (good fit) < .10 (Good fit – Hu & Bentler, 1998; Kline, 1998)
HOELTER Stats	Hoelter's critical N is the size the sample size must reach for the researcher to accept the model by chi-square, at the .05 or .01 levels. This throws light on the chi-square fit index's sample size problem. Hoelter's N should be greater than 200. A Hoelter's N under 75 is considered unacceptably low to accept a model.	Hoelter's N: > 200 (good fit) < 75 (unacceptable fit)

Source: Author, Compiled from: (Kline, 1998; Bollen, 1989; Carmines & McIver, 1981; Ullman, 2001; Fan, Thompson & Wang, 1999; Hu & Bentler, 1999; Field, 2005; Marsh & Hocevar, 1983; Jaccard & Wan, 1996;

Additional to the examination of regression estimates of variables, this study applies six goodness-of-fit categories (CMIN model fit statistics, Baseline comparison statistics, parsimony adjusted measures, SRMR, RMSEA, and Goodness of fit index). Combining this broad mix of absolute and incremental fit indices suits the need to extensively examine the model.

7.12.2 DATA SCREENING BEFORE MEASUREMENT VALIDATION (CFA)

On the basis of theory, the author specified a model (see Figure 5.1 in page 122), and defined some variables (measured by multiple indicators). Indicators are observed variables, also called manifest or reference variables items in a survey instrument; Following Kline's (1998) recommendation, to exclude the danger of under-identification, convergence failure, and unreliable error estimates, four or more indicators were used in this study to measure each latent (independent and dependent) variable.

To ensure valid measurement though, data was examined for AMOS 7 suitability. Firstly, following the recoding to account for coding errors and reverse coded items, prior to the previously explained statistical procedures, data was checked for missing values. Given that AMOS 7 does not manage missing values, several steps were taken to achieve AMOS 7 suitability. Common approaches for managing missing values include substitution (e.g., case sub substitution and mean substitution), imputation (e.g., cold deck imputation, regression imputation, and multiple imputation), and model-based procedures (Hair *et al*, 1998), each having its pros and cons (Hair *et al*, 1998; Streiner, 2002).

Recognizing that the achievable solutions in statistical packages, e.g., from listwise and pairwise deletion, regression imputation, and expectation –maximization, included in missing value analysis in SPSS, are usually insufficient and introduce bias in the analysis (Von Hippel, 2004), this study prioritised the option of requesting missing values from survey respondents. Pairwise deletion is never recommended as it can substantially bias chi-square statistics, among other problems. Listwise case deletion is considered appropriate where the sample is fairly large and the proportion of missing values is not too high (Hair *et al*, 1998; Kline, 1998), and given the

missing value proportion of 6.1% (above the Kline, 1998 recommended 5% or less benchmark) and the relatively small sample in this study, list-or-pairwise deletion was not appropriate. The primary approach of obtaining missing values accounted for 4.5% reduction in missing value proportion. Selecting the 'linear trend at point' option in the SPSS package, 1.6% missing data was replaced, to yield a complete sample size of 162 for further analyses. For the 162 fully completed questionnaires used for further analyses, 75 dyads (paired responses) were found, i.e., responses from both accounting and marketing departments of 75 companies, yielding 150 responses. The balance of 12 (single) responses were accounted for by 9 (marketing) and 3 (accounting) more responses.

Having confirmed AMOS 7 suitability of data, the measurement model was examined through confirmatory factor analysis, and the results are explained in Section 7.13.

7.13 Assessment of the Measurement Model for Exogenous and Endogenous Variables

This section is explained in two parts:

a) justifying the goodness-of-fit measures used, and
b) explaining the measurement validation results.

7.13.1 JUSTIFYING GOODNESS-OF-FIT MEASURES REPORTED

Although chi-square fit results are the most common fit test (Bollen, 1990), it is not prioritised in this study. The χ^2 estimates for all but 3 variables are significant at the .05 level, suggesting badness-of-fit. However, rejecting a model due to lack of satisfactory chi-square fit is misleading, hence many researchers who use SEM believe that with a reasonable sample size (e.g., > 200) and good approximate fit as indicated by other fit tests (e.g., NNFI, CFI, RMSEA, and others …), the significance

of the chi-square test may be discounted and that a significant chi-square is not a reason by itself to modify the model (Kline, 1998).

Given that Hoelter's critical N, the size the sample must reach for the researcher to accept the model by chi-square at the .05 or .01 levels must be greater than 200 (Hoelter's, 1983), a condition not satisfied by the sample size of 162 in this study, discounting the significant chi-square test seemed valid.

Secondly, using the relative chi-square fit to validate chi-square results (Carmines & McIver, 1981, p. 80; Kline, 1998) did not seem applicable, given huge sample discrepancy, and slight divergence in data (Baumgartner & Homburg, 1996) trigger chi-square badness-of-fit. Thirdly, maximum likelihood estimation (MLE), the dominant method in SEM for estimating structure (path) coefficients, is conditioned on multivariate normal distribution of the indicators in the model (Bollen, 1989; Cortina *et al*, 2001). The Bootstrapping test results support the minimal deviation from normality at the .05 level, as reported in Section 6.12.2.1 which highlighted significant kurtosis for observed variables. However, with large sample sizes (Hair *et al*, 1998), potential bias in estimates, arising from violations of normality assumptions caused by excessive kurtosis, which according to Bollen (1989) is more problematic than skewness, is mitigated. Sample size is critical to achieving model fits (Jaccard & Wang, 1996, pp. 70-74), as SEM relies on tests which are sensitive to sample size. With over ten variables (Kling, 1998, p. 12), which is the case in this study, sample size under 200 generally means parameters are unstable and significance tests lack power. Consequently, researchers should go beyond minimum sample size recommendations particularly when data are non-normal (skewed, kurotic) or incomplete (Jaccard & Wan, 1996). Although violations of SEM assumptions of multivariate normality can be mitigated by calculating Bootstrapped estimates

(Bollen, 1989), the researcher, given the sample limitation in this study, found no justification to calculate the *Bollen-Stine bootstrap p* in adjusting for distributional misspecification, for bootstrapping in SEM does not solve this problem entirely as the larger the sample, the more the precision of the bootstrapped error estimates (Bollen, 1989).

Justified as above, the χ^2 goodness-of-fit measures were discounted in this study in explaining the measurement model. Also, because RMSEA, amongst others, are related to the non-centrality parameter, and are thus biased (Raykov, 2005), it is also not prioritised in assessing the goodness-of-fit for the measurement and overall model. It is worth noting that RMSEA, like the chi-square measures, achieved satisfactory fit for only three variables (**DUE**, **C-GAP** and **PART**). Completing the tripartite rejection list, AGFI, given that it underestimates fit for small sample sizes (Bollen, 1990) is also not reported.

The goodness-of-fit measures reported in this study include, the standard regression estimates, NFI, IFI, CFI, SRMR, GFI, PRATIO, PNFI, PCFI.

7.13.2 THE MEASUREMENT VALIDATION RESULTS

Since unidimensionality is a crucial and necessary, but not sufficient condition for construct validity (Anderson & Gerbing, 1988), three construct validity steps were taken. Given this fact, this section is explained in two parts:

a) The goodness-of-fit validity, and
b) The convergent, and discriminant validity for all constructs.

Firstly, unidimensionality of constructs was checked using the 8 goodness-of-fit measures specified in Section 7.13.1 above. From the goodness-of-fit measure results in Table 7.40, a conclusion of unidimensionality of constructs is valid, as several good and acceptable goodness-of-fit estimates were achieved for each construct.

Secondly, two additional different validities of the scales and indicators were estimated to test the construct validity of the indicators and scales (i.e., if the indicators and scales measure the hypothesised links. First, convergent validity of each scale, defined by Bagozzi *et al* (1991), cited in Lee and Scott (2004), 'as the agreement among indicators of a scale', was assessed by inspecting the statistical significance of the factor loadings (Pearson correlation between a factor and a variable) of the indicators for each scale. T values of all factor loadings for each scale were statistically significant at a 0.5 level, indicating convergent validity for each scale.

Moreover, examining the measures and standard regression estimates achieved through CFA, the evidence of convergent validity is reinforced by the substantial, highly larger than .40 benchmark (Hair *et al*, 1998; Cappelleri *et al*, 2000) loadings for all items (except one). Using the .70 benchmark suggested for a parameter estimates indicating convergent validity (Garver & Mentzer, 1999), all but three (RiskTB2 at .624, RoFlex3 at .313 and PART4 at .637) exhibit substantial magnitude.

The discriminant validity of each scale, the degree to which measures of different constructs are unique (Campbell & Fiske, 1959, cited in Lee & Scott, 2004), was assessed by testing whether or not the square root of the average variance extracted for each of the factors (see factor analysis) was greater than the square of the correlations of the constructs (Hatcher, 1994; Petrick, 2002). It is achieved when the correlations between the indicators used to measure the different constructs are relatively weak (Lee & Scott, 2004). Given the inter-construct correlation evidence (see Table 8.2 in page 291), a conclusion of discriminant validity for this study is legitimate.

The construct validity results for dependent and independent variables are explained further below.

Table 7.40: Unidimensionality of Constructs

Factor	Model Fit Summaries							
	Baseline Comparisons Stats			Parsimony Adjusted Measures			GFI Stats.	SRMR Stats
	NFI	IFI	CFI	PRATIO	PNFI	PCFI	GFI	SRMR
DINTTOT	.920	.951	.950	.773	.711	.734	.882	.051
DINV	.967	.972	.972	.333	.322	.324	.958	.027
DMIS	.976	.980	.979	.333	.325	.326	.959	.023
DUE	.996	1.002	1.000	.333	.332	.333	.996	.010
AI@SMAS	.86	.87	.87	.600	.515	.521	.82	.06
AI@SMPS	.91	.93	.93	.600	.549	.556	.87	.04
AI@SMIS	.81	.82	.82	.600	.483	.489	.80	.07
AI@SMCS	.88	.89	.89	.600	.528	.532	.81	.05
COMMGAP	.994	.999	.999	.333	.331	.333	.992	.010
FORMPS	.917	.922	.921	.333	.306	.307	.925	.060
CODIFFS	.959	.964	.963	.333	.320	.321	.950	.042
MANSFINT	.979	.983	.983	.333	.326	.328	.972	.019
RISKTBEH	.890	.900	.898	.333	.297	.299	.941	.070
DCENT	.970	.975	.974	.333	.323	.325	.962	.029
REWARDM								
REWARDP								
ROFLEX	.950	.956	.955	.333	.317	.318	.950	.065
NONDEPPROX	.981	.984	.984	.333	.327	.328	.969	.025
EMPPASMS	.990	.994	.994	.333	.330	.331	.986	.019

7.13.2.1 Measurement Model Validity of Dependent Variables

Two levels of dependent variables were defined for this study:

a) The degree of achieved integration and
b) The extent of achieved integration during the strategic marketing process.

7.13.2.1.1 The Degree of Achieved Integration

The EFA results identified three factors (see Table 7.23) which are correlated and represent a higher-order construct, integration. Thus, the higher-order construct (**DINTTOT**) would account for the relation between the lower order factors (**DINV**, **DUE** and **DMIS**). The fit measures resulting from the model will be equivalent, whether parameterized as a first-order or a second order structure (Byrne, 2001). Modeling a measurement model as first- or second-order structure is a factor of theory (Byrne, 2001; Garver & Mentzer, 1999). Following conceptualisation for the study, both were tested, to achieve the total and dimensional integrations. Moreover, testing for both using SEM is

necessary, given that: 1) CFA is used to verify EFA results, and 2) EFA is not able to test models with higher-order factors (Hunter & Gerbing, 1982; Rubio *et al*, 2001).

Thus, a second-order factor structure composed by a higher-order construct (**DINTTOT**), comprising three lower dimensions, **DINV**, **DUE** and **DMIS** was examined through CFA to ascertain unidimensionality of each of the three first-order constructs. The CFA results revealed overall unidimensionality. The goodness-of-fit measures are within generally accepted thresholds, affirming unidimensionality for all three first order constructs at (NFI = .92; IFI = .95; CFI = .95; GFI = .88; and SRMR = .05). Unidimensionality is also supported by the parsimony adjusted measures evidence, the RMR (.05) and the chi-square statistics (χ^2 = 126.7, df = 51, χ^2/df = 2.48) p though at 0.000. At .09, the model failed marginally on the RSMEA measure.

To verify and strengthen the second-order evidence, the first-order constructs were separately scrutinized, using CFA.

For the **DINV** dimension of integration unidmensionality was also achieved, as results evidence good and acceptable goodness-of-fit results at (NFI = .97; IFI = .97; CFI = .97; GFI = .96; and SRMR = .027). The parsimony adjusted measures also support unidimensionality of this construct.

DMIS, being the second dimension of integration, achieved similar goodness-of-fit results as **DINV**, evidencing within threshold statistics of (NFI = .98; IFI = .98; CFI = . 98; GFI = .96; and SRMR = .023), and strong parsimony adjusted indices. These goodness-of-fit results thus indicate good fit and unidimensionality.

Completing the integration triangle, **DUE** registered higher goodness-of-fit results, achieving (NFI = .99; IFI = 1.00; CFI = 1.00; GFI = .99; and SRMR = .011). From the parsimony adjusted measures, there is a strong evidence of parsimony.

Overall, there are substantial absolute and comparative goodness-of-fit evidence for all three dimensions. Also, harmonising the goodness-of-fit results with the significant item loadings for each unique factor, substantial evidence of unidimensionality exists for each of the dimensions of integration.

The second-order and first-order fit results are largely congruent, thus supporting Byrne (2001) who noted that fit measures resulting from a model will be equivalent, whether parameterized as a first-order or a second order structure.

Examining standardized residual matrix and modification indices for **DINTTOT** and the three dimensions of integration, the researcher checked for potential threats to unidimensionality. Given that the standardized residual results for all items were low and within the <2 threshold (Joreskog & Sörbom, 1984), 1.775 (second-order model) and .585 (first-order model) being the highest and modification indices (MI) in the AMOS 7 defined default level (4), except in very few insignificant cases. No modification results were reported for the three dimensions, thus there was no evidence of a potential threat to unidimensionality, a conclusion also supported by the high and significant loading of all items on the latent factors.

All three dimensions were checked for convergent validity, examining the loading significance of each observable variable on the latent variable (Hair *et al*, 1998). The CFA results for all dimensions, reinforcing EFA evidence, generated standard regression estimates for all parameters well above the .40 benchmark (Hair *et al*, 1998; Cappelleri *et al*, 2000) and .70 loadings benchmark suggested for parameter estimation of convergent validity (Garver & Mentzer, 1999). At standardized regression weights of .916 (**DMIS**), .882 (**DUE**) and .750 (**DINV**), convergent validity is also achieved for first-order model, using the second-order CFA.

The unidimensional and convergent validity evidence for all dimensions of integration, given the second-order and first-order models, are congruent with the reliability results achieved (**DINV** = .90, **DMIS** = .93, and **DUE** = .87), thus affirming that the items are interrelated (internal consistency) and homogeneous (unidimensional) (Hulin *et al*, 2001).

Examination of factors for discriminant validity indicates satisfactory results. The correlation between the factors did not exceed .70, highlighting measure distinctness (Ping, 2004). The inter-construct correlation matrix displayed in Table 7.41 shows estimates that affirm discriminant evidence between all three extracted factors.

Table 7.41: Degree of Integration: Inter-Construct Implied Correlation

Dimensions of Integration	DUE	DMIS	DINV
Degree of Unified Effort (DUE)	1.000		
Degree of Mutual Information Sharing (DMIS)	.134	1.000	
Degree of Involvement (DINV)	.045	.074	1.000

7.13.2.1.2 The Achieved Integration at the Strategic Marketing Stages

Following the conceptual definition in chapter 4, all four-stages of the strategic marketing process were examined separately for unidimensionality, as well as convergent and discriminant validity. Consequently, first-order construct approach was used to check for unidimensionality. The extracted factors were labelled **AI@SMAS**, **AI@SMPS**, **AI@SMIS**, and **AI@SMCS**.

To verify EFA evidence and achieve unidimensionality for the analysis stage measurement model, all measures were analysed for CFA evidence. The model fit statistics for this model (**AI@SMAS**) suggest approximate fits for almost all goodness-of-fit indices. Interpreting the fit evidence (NFI = .86; IFI = .87; CFI = .87; GFI = .82; and SRMR = .06) and the analogous parsimony adjusted measures statistics, in harmony with AMOS 7 derived 'notes for model' which suggested minimum was achieved, a conclusion of unidimensionality is legitimate. The CFA results for this factor are highly affirmative of the EFA evidence which, at 69.15%, achieved an

approximate explained cumulative variance (70%) (Rietveld & Van Hout, 1993, pp. 273-274; Field, 2000, pp. 436-437).

As evidenced in Table 7.40, the CFA results corroborate the EFA results for the **AI@SMPS** factor. The model results suggest acceptable fit for NFI (.91) and approximate acceptable fit for GFI (.87), and good fit for (IFI = .93; CFI = .93; and SRMR = .04) as well as satisfactory parsimony adjusted measures statistics. Given these results, unidimensionality is confirmed.

Minimum was also achieved for the **AI@SMIS** measurement model. However, the CFA results indicate a high evidence of approximate acceptable fits at (NFI = .81; IFI = .82; CFI = .82; GFI = .80; and SRMR = .07), an evidence that is also replicated in the parsimony adjusted measures results.

Although the factor structure achieved when all six measures for the **AI@SMCS** factor were examined for unidimensionality, using the AMOS7 package, matched the EFA evidence, only approximate acceptable fit was achieved for all reported goodness-of-fit measures. Minimum was achieved at (NFI = .88; IFI = .89; CFI = .89; GFI = .81; and SRMR = .05). Similarly, the parsimony adjusted measures evidence is weak.

Analysing the unidimensionality evidence for all four strategic marketing factors, either separately, or comparatively with other extracted factors, an obvious fact is emergent, that explains the highly approximate acceptable results for the four factors: Despite the highly convergent evidence (explained below) amongst measures for the four factors (all measures above .7 benchmark except one), unidimensionality results are adversely affected by the sample size (162) for this study, given that all four models are measured by six items. When combinations of four measures (in

conceptualised spectrums) were applied for each factor, good fits were achieved for all factors, thus affirming the sample limitation emphasised in Section 7.13.1.

An examination of the four factors for possible threats to unidimensionality also highlighted critical explanations for the weak unidimensionality achieved.

The standardized residual results for most items were reasonably above the <2 threshold (Joreskog & Sörbom, 1984). Similarly, modification indices were mainly above the AMOS 7 defined default level (4). Although this evidence highlights threats to unidimensionality, it is very much congruent with the conceptualisation for the constructs, for, as explained earlier, the factors are not unique constructs. When factors are not contextually distinct, which is the case here, as the factors are selected combinations of the three dimensional constructs of integration, explained in the higher-order CFA above, considerable amount of shared variance is inescapable (Bagozzi & Heatherton, 1994). Expectedly thus, given this background, a reasonable number of standardized residuals were well above the <2 threshold (Joreskog & Sörbom, 1984) across all but **AI@SMPS** factors. Given this fact also, significant regression weight influences were evident across various parameters caused by high MI values.

The results for each of the examined stage models provide evidence of convergent validity, given that each item loaded strongly and significantly onto the respective latent variables. The standard regression estimates achieved from the CFA for each factor are well above the .7 benchmark (Garver & Mentzer, 1999), except for SMIS2 (**AI@SMIS** factor) loading at .608. Considering that each model contained six measurement parameters, this is high convergent evidence.

Following the integration conceptualisation at each strategic marketing stage, the measurement model for each stage contained the same context and parameter combinations. Given this homogeneity amongst factors, i.e., constructs are not

contextually distinct factors, rather capture same combination of integration dimensions at various stages of the strategic marketing process, a considerable amount of shared variance is evident (see Table 7.42), thus evidencing the presence of 'weak form' of discriminant validity (Bagozzi & Heatherton, 1994).

Further more, discussing this issue of discriminant validity along with unsatisfactory standardised residual covariances and modification indices results for the four factors of the strategic marketing process, the results thus on the one hand confirm the mixed factor elements constituting these factors, and on the other hand, affirm the unidimensionality and discriminant evidence for each dimension of integration, achieved both through second-order and first-order examinations. Given available facts, the results for all factors of the strategic marketing stages match conceptualisation.

Table 7.42 displays the inter-correlation statistics amongst all four stages of the strategic marketing process.

Table 7.42: Inter-Variables Correlation for all Strategic Marketing Stages – Pooled Sample

Achieved Degree of Integration at:	ßSMAS	ßSMPS	ßSMIS	ßSMCS
Strategic Marketing Analysis Stage (**SMAS**)	1.000			
Strategic Marketing Planning Stage (**SMPS**)	.851	1.000		
Strategic Marketing Implementation Stage (**SMIS**)	.840	.847	1.000	
Strategic Marketing Eva. & Control Stage (**SMCS**)	.854	.805	.852	1.000

7.13.2.2 Measurement Model Validity of Independent Variables

Following satisfactory EFA evidence, CFA was undertaken to check for unidimensionality of antecedent factors. Prompted by preliminary EFA evidence explained in Section 7.7.2, separate confirmatory factor check was deemed wise. From the results (see Table 7.40), satisfactory goodness-of-fit evidence has been achieved for all constructs. First, the unidimensional results for each independent variable (except the 2 reward dimensions) are explained separately and subsequently

convergent and discriminant results are explained jointly, highlighting the satisfactory and non-satisfactory elements.

COMMGAP, as evident in Table 7.40 achieved the most significant goodness-of-fit results amongst all independent variables. Considering generally accepted thresholds, this factor was identified at (NFI = .99; IFI = .99; CFI = .99; GFI = .99; and SRMR = .011). Analogous to other fit indices, the parsimony adjusted measures support satisfactory conclusions. This factor achieved good fit levels for all indices.

FORMPS: The exploratory evidence for this factor, suggesting homogeneity is largely supported by the confirmatory results. The model for **FORMPS** is identified at all levels of goodness-of-fit indices used in this study, affirming unidimensionality at (NFI = .91; IFI = .92; CFI = .92; GFI = .92; and SRMR = .06). Also, the parsimony adjusted measure results replicate the borderline acceptable fit evidence of other indices.

CODIFFS: The conceptual association captured amongst the measures of this factor in the EFA received strong validation through the CFA. The absolute and comparative goodness-fit-of indices evidence good fit. Unidimensionality is achieved for this factor at (NFI = .96; IFI = .96; CFI = .96; GFI = .95; and SRMR = .04). Comparing the parsimony adjusted measures, a strong parsimony is evident.

Showing closeness (in magnitude) with **COMMGAP**, the **MANSFINT** model is identified, achieving strong good fit for all goodness-of-fit indices at (NFI = .98; IFI = .98; CFI = .98; GFI = .97; and SRMR = .019). These unidimensional evidences are supported by the parsimony evident among the parsimony adjusted measures.

RISKTBEH: From the CFA results, goodness-of-fit is achieved but only marginally, except for (AGFI) that is well within the acceptable threshold. Analogous to these results, the parsimony adjusted measures indicate weak parsimony among the

measures for this factor. This factor, along with **FORMPS**, achieved borderline acceptable fit for all dimensionality indices.

From the EFA evidence, one factor (**DCENT**) was extracted from the 4-items measuring decentralisation of decision making authority, suggesting high and significant adequacy of factor analysis for the data at p = 0.00 (Bartlett's test of sphericity) and .817 (Kaiser-Meyer-Olkin Measure of Sampling adequacy – KMO). The CFA results support the conceptual evidence captured in the exploratory results. Unidimensionality is confirmed for this factor at (NFI = .97; IFI = .98; CFI = .97; GFI = .96; and SRMR = .02), and supported by a by a high parsimony adjusted evidence.

The CFA results for all four measures reflecting **ROFLEX** corroborates the EFA evidence for this factor. The notes to the model showed minimum was achieved at (NFI = .95; IFI = .96; CFI = .96; GFI = .95; and SRMR = .06). These good fit results are also supported by the parsimony adjusted measure evidence, thus confirming unidimensionality for this factor.

Following the EFA for this factor, the 4measures for **NONDEPPROX** were screened for unidimensionality through CFA. The overall model fit results suggested good goodness-of-fit evidence, achieving minimum at (NFI = .98; IFI = .98; CFI = .98; GFI = .97; and SRMR = .02). The parsimony adjusted measures also corroborate this good fit evidence.

A CFA, conducted on the four items measuring **EMPPASMS**, indicates minimum was achieved, evidencing absolute fit at (NFI = .99; IFI = .99; CFI = .99; GFI = .99; and SRMR = .01). Unidimensionality evidence for EMPPASMS is also supported by highly significant parsimony adjusted measures evidence.

To check for potential threats to unidimensionality, the matrix of standardized residuals and modification indices were examined for all factors. Absolute

standardized residual value for all independent factors, following the threshold of less than 2 (Jöreskog & Sörbom, 1984) are largely low, except for two items (2.391 for RiskTBeh2; and 2.537 for Roflex3), suggesting all measurement models are correct. At 1.942, the standardized residual for Form3 is marginally within the <2 cut-off.

Also, majority of modification indices were within the AMOS 7 default modification value (4) (Jöreskog & Sörbom, 1984), thus no threat. The modification index for a parameter is an estimate of the amount by which the discrepancy function would decrease if the analysis were repeated with the constraints on that parameter removed. No modification indices are displayed for (**COMMGAP, DCENT, MANSFINT, NONDEPPROX,** and **EMPPASMS**); this means that none exceeded the specified threshold. And since Amos computes modification indices not only for parameters that are explicitly constrained, but also for parameters that are implicitly assumed to be zero, while also computing modification indices for paths that do not appear in a model, giving the approximate amount by which the discrepancy function would decrease if such a path were introduced, modification induced threats did not exist.

However, the modification indices for **CODIFFS** show at (MI = 5.6) a par change effect of .144 from Codiff4 to Codiff1 and .125 for the reverse at (MI = 5.8) in the regression weight. While this is negligible, there is a par change of .158 between e1 and e4 caused by 13.4 (MI). For the **FORMPS** factor, a par change (.190) in covariance between e3 and e4 is caused by MI of 19.983. Covariances par change of .269 is evident at MI (17.06) between e2 and e2 for **RISKTBEH**. Also, there is a regression weight par change (.246) from RiskTBeh4 to RiskTBeh2 caused by MI (11.89), and . 196 caused by MI (9.135) of the reverse. While the covariances par change (.232) was caused by MI (16.57) between e3 and e4 for **ROFLEX**, a regression par change (.210) is evident from Roflex3 to Roflex4 at MI (14.85), with the reverse relationship

accounting for a par change (.214) at MI (7.545). Despite the MI results highlighted, given the lack of theoretical justification for the contrary, error covariances between items were ignored and the 'notes for model' evidences were duly accepted, thus modification induced threat is not a case in this study. Moreover, the strong and significant loading of items on the unique factors underlines conclusions of unidimensionality.

Again, since unidimensionality of measures is insufficient for conclusions of construct validity (Anderson & Gerbing, 1998), all nine models were examined for convergent and discriminant validity. The correlation between the variables for each factor (see respective EFA Tables), and results for convergent and discriminant validity tests, for each construct are largely within generally accepted thresholds.

Convergent validity of all factors was achieved by examining the loading significance of each observable variable on the latent variable (Hair *et al*, 1998). The standard regression estimates for all parameters achieved through the CFA for each model were well above the .40 benchmark (Hair *et al*, 1998; Cappelleri *et al*, 2000) (except one item) and .70 loadings benchmarks (except five items) for satisfactory estimation of convergent validity (Garver & Mentzer, 1999).

Absolute convergent validity is achieved for (**COMMGAP**, **CODIFF**, **MANSFINT**, **DCENT**, and **NONDEPPROX**). Absolute convergence is marginally not achieved for **FORMPS**, **RISKTBEH** and **EMPPASMS**, given below .7 loadings of Form4, RiskTBeh2 and 4, and Emppasms4. Although, given overall standard regression evidence, a conclusion of convergent validity is legitimate, it must also be emphasized that, additional to the 4-estimates above that failed on the .7 threshold (Garver & Mentzer, 1999), Roflex 3 failed on both .4 (Hair *et al*, 1998; Cappelleri *et al*, 2000) and .7 thresholds (Garver & Mentzer, 1999). This thus highlights weak validity. However,

this weakness for Roflex3 should not be accorded undue attention, given the overall fit of the model and the fact that Roflex3 at 3.964 accounted for above benchmark Critical Ratio.

Also all 9 independent factors were examined for discriminant validity evidence. To capture if each factor was unique and that all items that loaded on different factors measured different underlying constructs, two steps were taken: First the inter-construct correlation matrix (see Table 8.2) was inspected for high and significant cross-loadings. Cross-construct loadings did not violate the .8 benchmark (Field, 2005, p. 629). However, three average cross-factors loadings were captured between **CODIFFS** and **COMMGAP** (.570), **NONDEPPROX** and **COMMGAP** (.486) and **RISKTBEH** and **COMMGAP** (-.455). Secondly, to verify the correlation matrix evidence, towards strengthening evidence of discriminant validity, a series of complementary CFA models were executed for all variables. Constructs were examined in pairs to capture covariances between paired constructs. Given sample limitation in this study, as explained in Section 7.13.1, covariances estimates was prioritised over χ^2 as the statistic of interest. The covariances results for the combinations corroborate the evidence in Table 8.2, thus supporting discriminant validity.

Overall, despite the few cases of 'weak form' of discriminant validity (Bagozzi & Heatherton, 1994), which though corroborates conceptual definition, a conclusion of dimensionality, convergent validity, as well as discriminant validity, is deemed legitimate for all factors, thus permitting overall structural model examination.

7.14 Conclusion to the Chapter

This chapter has described the process of assessing the measurement models that make up the structural configuration. To check for unidimensionality, convergent

validity and discriminant validity, in that order, of the measurement items for each construct, this study combined exploratory and confirmatory analysis. The results for all examined factors are satisfactory, compared against generally accepted benchmarks. One higher-order structure was captured.

Having confirmed suitability of each model, in line with the aforementioned yardsticks, following the two-step approach (Kline, 1998), the overall structural model is the focus in chapter 8. Thus, chapter 8 centres on statistically testing the hypothesized model in a "simultaneous analysis of the entire system of variables to determine the extent to which it is consistent with the data" (Byrne, 2001, p. 3).

8 Data Analysis 2: Assessment of Structural Model & Discussion of Findings

Brief synopsis of Chapter 8

This chapter presents further analytical findings of this study. It displays the overall structural model (path analysis) results, as well as the hypotheses testing results. The linear regression estimates are reported, along with the collinearity diagnostics. Further, the outliers and influence diagnostics are reported, and the discussion of findings is also undertaken in this chapter.

8.1 Introduction

Having confirmed reliability (chapter 7) and validity of measurement models (chapter 7), this chapter explains the process of gauging the expressed hypothetical relationships, as well as presents and explains the empirical results from testing the hypotheses defined in Chapter 5.

Rose & Sullivan (1996) (quoted in Kutwaroo, 2002), stated:

> *"On the basis of theory, one can develop hypotheses about relationships which ought to exist, if the theory is valid."*

Explaining the 'hypotheses' concept within the social science research domain, Churchill (2001) mirrored the concept as "a statement that specifies how two or more measurable variables are related". The creation and testing of hypothetical relationships is essential to understand specific interrelationships between certain constructs of a study (Kutwaroo, 2002).

To do the above, this chapter is explained in 4 main sections:

a) Steps in the analysis and structural models
b) Regression analysis and hypotheses testing
c) Assessment of overall structural model
d) Discussion of results

8.2 Analytical Steps and Structural Models

The statistical analysis steps for exploring the dimensions emphasised in the framework (Figure 5.1 – page 122) are outlined in Table 8.1. Given complexity of

social science world, emergent knowledge of reality "is considered real but fallible" (Wollin, 1995, p. 80). To check this problem, structural equation modelling, which models structures with complex interdependencies, and explicitly allows for multi-item scales and some measurement error in its constructs, is pertinent (Hair *et al*. 1995).

The structural model representing the antecedent variables (organisational structure and climate) on the achieved degree of integration is derived from Figure 6.3 (page 191) and is expressed as:

Achieved Degree of Accounting – Marketing Integration
= α
+ β1 X1 + β2 X2 + β3 X3 + β4 X4 + β5 X5
+ β6 X6 + β7 X7 + β8 X8 + β9 X9 + β10 X10 + β11 X11
+ ϵ

(8.1)

where X1 = Communication gap; X2 = formalisation; X3 = management support of Accounting-Marketing integration; X4 = Risk taking encouragement; X5 = level of use of joint rewards (Monetary); X6 = Decentralisation of decision making authority; X7 = level of role flexibility; X8 = level of cultural and orientation differences; X9 = level of physical distance between departments; X10 = employee participation in strategic marketing decision making; and X11 = level of use of joint rewards (Performance).

Finally, the structural model of Figure 6.4 is operationalized as:

Achieved Accounting – Marketing integration at Strategic Marketing Stages
= α
+ β1 X1 + β2 X2 + β3 X3 + β4 X4 + β5 X5
+ β6 X6 + β7 X7 + β8X8 + β9 X9 + β10 X10 + β11 X11
+ ϵ

(8.2)

where X1 to X11 are as defined above.

The above models are estimated by linear regression for each integration dimension: Degree of involvement, Degree of united effort, and Degree of Mutual

information sharing; and the four strategic marketing process stages: the Analysis stage, the Planning stage, the implementation stage, and the Control stage. To test the variations in the impact of the independent variables on the dependent variables in the different stages, the estimation of a separate model for each stage of the strategic marketing process and the integration dimensions as well, was undertaken.

Table 8.1: Summary of Statistical Steps Taken in the Data Analysis

Analysis	Purpose
a) Constructs analysed using descriptive statistical tests (Chapter 7)	To check for response distribution for each item in each constructs
b) Compute Cronbach Alpha for each construct (Chapter 7)	To assess the reliability and validity of the original constructs and to revise the construct as necessary
c) Bivariate Tests: Kolmogorov-Smirnov test, T-test and Correlation Analysis tests (Chapter 6 & 7)	To check for normal distribution of data, and further validation of constructs through correlation tests, prior to factor analysis
d) Factor Analysis through Principal Axis Factoring (Chapter 7) Confirmatory Factor Analysis (Chapter 7)	Variables analysed to ensure all factors are distinct and measure distinct constructs Assessing measurement model for construct validity
e) Linear Regression estimates (Chapter 8)	To estimate the parameters
f) Outliers and influence diagnostics (compute the Cook's D scores) (Chapter 8)	To examine the impact of outlier, to measure the influence of each observation on the estimates, and to determine whether data transformation or the rejection of outlier is necessary
g) Collinearity diagnostics (calculate the condition number of the X matrix and the proportion of sampling variance of each variable), Tolerance and VIF statistics (Chapter 8)	To detect which coefficient estimates are most likely to be affected by collinearity
h) Examination of Residuals (Chapter 8) a. Overall plots of the residuals; b. Residuals against the fitted Yi; c. Residuals against the independent variables Xi)	a To check for the appropriateness of the assumptions of normality, linearity and homoscedasticity between predicted dependent, the scores and errors of prediction; b To asses the goodness to fit.
i) Path Analysis (Chapter 8)	To exhaustively explore the Structural Equation Modelling and overall relationship between the variables.

8.3 Reliability of Measures

Steps 1 and 2 of the statistical process were presented in chapter 7, confirming the reliability of measures employed in this study. The Cronbach's Alphas for the pooled sample, as well as the accounting and marketing samples have been reported in chapter 7. Also the descriptive statistics for each construct have been displayed in Sections 7.3.1 (Dependent Variables – Achieved Integration), 7.3.2 (Dependent Variables – Achieved Integration During the Strategic Marketing Stages), and 7.3.3 (Independent Variables – Antecedents of Integration).

8.4 The Relationship between Predictors and Outcomes – Correlation

Field (2005) recommends a correlation check of predictors and outcomes, prior to the regression analysis:

> "The correlation matrix is extremely useful for getting a rough idea of the relationships between predictors and the outcome, and for a preliminary look for multicollinearity. If there is no multicollinearity in the data then there should be no substantial correlations (R > .9) between predictors" (p. 185)

Following Field (2005), bivariate analyses were undertaken prior to factor analyses, examining the correlation between the independent and dependent variables. The correlation matrix (see Tables 8.2, 8.4 & 8.6) highlight the bivariate evidence for both dependent variable groups. Inter-item correlations have been reported in Chapter 7 along with the factor loadings and communalities for the respective factors. Data were examined for normality and consistency for parametric analyses.

8.5 Factor Analyses – The Dependent and Independent Variables

Combining EFA and CFA, items pertaining to same cluster (Hair *et al*, 1998) were proven to form a unidimensional set resulting in a certain summated scale for regression analysis. Eighteen factors were generated from the empirical data, namely DINV, DUE, DMIS, AI@SMAS, AI@SMPS, AI@SMIS, AI@SMCS, COMMGAP,

CODIFF, FORMPS, MANSFINT, RISKTBEH, ROFLEX, NONDEPPROX, DCENT, REWARDM, REWARDP, and EMPPASMS, where,

- dependent variables are:

DINV - Degree of involvement (DINV)
DUE - Degree of unified Effort (DUE)
DMIS - Degree of Mutual Information Sharing (DMIS)
DINTTOT - Degree of Total Integration (DINTTOT = DINV + DUE + DMIS)
AI@SMAS - Achieved Integration at Strategic Marketing Analysis Stage (SMAS)
AI@SMPS - Achieved Integration at Strategic Marketing Planning Stage (SMPS)
AI@SMIS - Achieved Integration at Strategic Marketing Implementation Stage (SMIS)
AI@SMCS - Achieved Integration at Strategic Marketing Control Stage (SMCS)

- and independent variables are:

COMMGAP - Communication Gap (CG)
CODIFF - Culture and Orientation Differences (COD)
FORMPS - Formalised Procedures and Structures (FO)
MANSFINT - Management's Support for Integration (MS)
RISKTBEH - Encouragement of Risk Taking Behaviour (RI)
ROFLEX - Role Flexibility (RF)
NONDEPPROX - Non-Departmental Proximity (NDP)
DCENT - Decentralisation of Decision Making Authority (DC)
REWARDM - Employee Reward (Monetary Dimension) (RM)
REWARDP - Employee Reward (Performance Dimension) (RP)
EMPPASMS - Employee Participation across Strategic marketing Stages (PA)

The respective factor loadings and communalities are detailed out in Chapter 7, as well as the regression estimates for each factor, achieved through CFA.

8.6 The Multivariable Regression – The Results

Steps 5 to 9 in Table 8.1 form the core of Chapter 8. To estimate the parameters, linear regression estimates were calculated for all relationships. Statistical analyses were undertaken to check the estimates, confidence intervals, model fit, R^2 change, descriptives, collinearity diagnostics, and residuals – case wise diagnostics (outliers)

and standard deviation. The regression statistics are presented in Tables 8.8 and 8.9 (in page 292 and 293 respectively). The individual models of hypothesised relationships were also examined using path analysis (AMOS 7) for overall fit. The model results for each are reported in Table 8.15 (see p. 308).

Several diagnostic tests were conducted to determine the appropriateness of the linear regression coefficients:

Influence diagnostics indicated that the coefficient estimates reported in Tables 8.8 and 8.9 (see pp. 292 and 293) were not affected by outliers (Cook, 1977; Cook, 1979; 1984; Parry, 1991; Parry & Song, 1993).

Inspecting residual plots, conclusions of normality, linearity & homoscedasticity are appropriate (Draper & Smith, 1981, 1984; Parry & Song, 1993). Achieved homogeneity of variance evidences homoscedasticity in this study (Field, 2005, p. 97).

All predictors were also examined for multicollinearity evidence. "There should be no perfect linear relationship between two or more of the predictors; i.e. the predictor variables should not correlate too highly" (Field, 2005, p. 170). Perfect collinearity (inter-correlation coefficient of 1) between predictors eliminates the chance to obtain unique estimates of regression coefficients, Field further noted.

Several multicollinearity checks were undertaken. For a preliminary check for multicollinearity (Field, 2005, p. 185), the correlation matrix was examined to capture roughly the relationships between predictors and outcomes. If there is no multicolinearity in the data then there should be no substantial correlations (*R* above . 8 or .9) between predictors (pp. 175 & 185). From the correlations coefficients (see Table 8.2 in p. 291), only one inter-variable correlation of above **.50** was evident (namely; **CC** inter-correlating at **.570** with COD). Since the correlations are

substantially below the above **.80** mark (Field, 2005, p. 175), multicollinearity is not an issue nor is the validity of the multiple regression analysis threatened.

Additionally, to ensure regression estimates free from collinearity pollution, a sensitivity analysis, to investigate the significance of influence of the inter- construct-correlation (as shown in the multi-variable regression table) on the individual constructs' coefficient and P values, was undertaken. The univariate and multivariate results were compared, in tandem with collinearity results (see Tables 8.3, 8.5 & 8.7), in pp. 291 and 292 a multicolinearity problem occurs if an estimated coefficient with a condition index higher than 20 contributes strongly to the variances of two or more variables (Belsley *et al*, 1980).

Exploiting Belsley, Kuh and Welsch test for multicollinearity, the condition index for all independent variable was less than 15, for pooled and individual samples of the two dependent variable groups. On that evidence, the regression coefficients reported in Tables 8.8 & 8.9 (in pp. 292 and 292) were not seriously distorted (or impaired) by multicollinearity (Belsley & Welsch, 1980; Johnston, 1984; Parry & Song, 1993).

To strengthen the validity of the multiple regression analysis, and account for 'more subtle forms of multicollinearity that are usually ignored by the ball park approach of scanning a correlation matrix (Field, 2005, p. 175), augmenting collinearity diagnostics were checked: 1) an examination of the Variance inflation factor (VIF) to capture if any strong linear relationship existed showed no predictor had a value close to **10** (Myers, 1990), thus no cause for worry; 2) the tolerance statistics (i.e. the reciprocal – 1/VIF) measure above **.2** (Menard, 1995), thus further evidencing non-collinearity.

The inter-construct correlation and the collinearity diagnostics reported in Tables 8.2 and 8.3 (pooled sample) and Tables 8.4, 8.6 as well as 8.5 and 8.7 (departmental

samples) are uniform for the achieved degree of integration equation and the achieved degree of integration at the strategic marketing stages equation.

Table 8.2: Inter-Constructs Correlation For both Achieved Integration Equations – Pooled Sample

	CG	FO	COD	MS	RI	DC	RM	RP	RF	NDP	PA
CG	1.000										
FO	-.262	1.000									
COD	.570	-.166	1.000								
MS	-.345	.153	-.176	1.000							
RI	-.455	.289	-.305	.361	1.000						
DC	.245	-.161	.147	-.375	-.412	1.000					
RM	-.310	.351	-.269	.307	.346	-.208	1.000				
RP	-.267	.113	-.268	.057	.299	-.077	.093	1.000			
RF	-.251	.237	-.164	.101	.260	-.137	.290	.223	1.000		
NDP	.486	-.193	.304	-.295	-.353	.304	-.344	-.153	-.286	1.000	
PA	-.198	.163	-.149	.295	.159	-.238	.201	.084	.139	-.232	1.000

Table 8.3: Collinearity Diagnostics For both Achieved Integration Equations – Pooled Sample

Dime-nsion	Eigen-value	Cond. Index	Proportion of Variance of the Estimate accounted for by the Variables										
			(Const-ant)	CG	FO	COD	MS	RI	DC	RM	RP	RF	NDP	PA
1	3.582	1.000	.00	.02	.01	.02	.02	.02	.02	.02	.01	.01	.02	.01
2	1220	1.714	.00	.02	.00	.07	.12	.00	.11	.00	.18	.04	.00	.09
3	1.041	1.855	.10	.03	.24	.06	.03	.00	.02	.09	.01	.16	.00	.00
4	.997	1.895	.88	.00	.02	.00	.00	.00	.01	.02	.01	.02	.00	.00
5	.887	2.010	.01	.05	.01	.12	.00	.06	.12	.06	.30	.08	.02	.00
6	.850	2.052	.00	.00	.02	.00	.00	.09	.06	.01	.03	.04	.00	.69
7	.788	2.132	.00	.00	.30	.01	.00	.01	.00	.00	.08	.30	.22	.05
8	.655	2.339	.00	.01	.17	.01	.30	.00	.19	.29	.07	.00	.06	.02
9	.583	2.478	.00	.00	.03	.22	.00	.00	.08	.00	.14	.26	.51	.00
10	.570	2.507	.00	.07	.10	.04	.35	.00	.15	.42	.02	.09	.00	.02
11	.482	2.725	.00	.01	.05	.03	.10	.73	.21	.00	.14	.00	.01	.11
12	.345	3.222	.00	.79	.03	.41	.07	.08	.05	.08	.01	.00	.16	.00

Table 8.4: Inter-Constructs Correlation For both Achieved Integration Equations – Marketing Sample

	CG	FO	COD	MS	RI	DC	RM	RP	RF	NDP	PA
CG	1.000										
FO	-.331	1.000									
COD	.683	-.188	1.000								
MS	-.533	.286	-.322	1.000							
RI	-.473	.341	-.266	.486	1.000						
DC	.279	-.282	.193	-.397	-.483	1.000					
RM	-.315	.388	-.291	.358	.426	-.239	1.000				
RP	-.303	.078	-.178	.220	.275	-.150	.154	1.000			
RF	-.337	.325	-.170	.302	.260	-.228	.353	.209	1.000		
NDP	.526	-.289	.379	-.398	-.389	.315	-.378	-.134	-.340	1.000	
PA	-.141	.394	-.126	.346	.256	-.472	.175	.049	.210	-.249	1.000

Table 8.5: Collinearity Diagnostics For both Achieved Integration Equations – Marketing Sample

Dime-nsion	Eigen-value	Cond. Index	Proportion of Variance of the Estimate accounted for by the Variables										
			(Const-ant)	CG	FO	COD	MS	RI	DC	RM	RP	RF	NDP	PA
1	4.020	1.000	.00	.01	.01	.01	.02	.02	.01	.02	.01	.01	.02	.00
2	1.821	1.486	.09	.00	.01	.01	.00	.00	.01	.00	.01	.01	.00	.07
3	1.072	1.937	.02	.05	.09	.14	.00	.01	.02	.06	.03	.08	.00	.00
4	.956	2.051	.00	.00	.05	.04	.01	.04	.06	.03	.48	.00	.04	.00
5	.871	2.149	.02	.00	.02	.00	.02	.06	.19	.03	.25	.21	.00	.00
6	.693	2.408	.00	.00	.12	.01	.01	.05	.04	.21	.03	.39	.11	.00
7	.643	2.500	.02	.02	.41	.03	.03	.01	.05	.31	.01	.00	.10	.00
8	.568	2.661	.00	.01	.00	.01	.59	.00	.12	.01	.05	.02	.25	.00
9	.531	2.752	.00	.00	.12	.17	.02	.02	.16	.14	.02	.12	.38	.00
10	.434	3.043	.05	.03	.02	.00	.16	.65	.09	.07	.10	.12	.04	.00
11	.238	4.110	.12	.57	.00	.42	.03	.13	.17	.08	.01	.02	.03	.15
12	.154	5.105	.69	.31	.14	.16	.11	.00	.07	.06	.00	.02	.03	.77

Table 8.6: Inter-Constructs Correlation For both Achieved Integration Equations – Accounting Sample

	CG	FO	COD	MS	RI	DC	RM	RP	RF	NDP	PA
CG	1.000										
FO	-.202	1.000									
COD	.447	-.151	1.000								
MS	-.165	.042	-.058	1.000							
RI	-.429	.238	-.356	.244	1.000						
DC	.212	-.052	.110	-.355	-.344	1.000					
RM	-.306	.329	-.246	.265	.247	-.179	1.000				
RP	-.225	.139	-.356	-.088	.334	-.007	.029	1.000			
RF	-.145	.165	-.150	-.071	.250	-.057	.226	.237	1.000		
NDP	.435	-.105	.225	-.202	-.305	.296	-.306	-.173	-.226	1.000	
PA	-.422	.023	-.333	.359	.330	-.160	.356	.185	.357	-.386	1.000

Table 8.7: Collinearity Diagnostics For both Achieved Integration Equations – Accounting Sample

Dime-nsion	Eigen-value	Cond. Index	Proportion of Variance of the Estimate accounted for by the Variables											
			(Const-ant)	CG	FO	COD	MS	RI	DC	RM	RP	RF	NDP	PA
1	3.233	1.000	.00	.03	.01	.02	.01	.03	.01	.02	.01	.01	.03	.01
2	1.635	1.406	.09	.00	.01	.02	.06	.01	.01	.00	.05	.03	.00	.05
3	1.337	1.555	.07	.00	.00	.02	.10	.01	.11	.01	.08	.02	.01	.03
4	1.072	1.736	.00	.01	.33	.03	.00	.01	.03	.18	.06	.04	.01	.00
5	.922	1.873	.00	.03	.13	.10	.01	.00	.01	.00	.00	.42	.08	.01
6	.838	1.964	.02	.10	.10	.05	.01	.10	.15	.07	.11	.02	.09	.00
7	.709	2.135	.02	.05	.11	.08	.22	.01	.08	.06	.00	.05	.27	.01
8	.609	2.304	.01	.01	.01	.17	.21	.00	.24	.00	.30	.05	.17	.00
9	.565	2.392	.00	.21	.01	.10	.02	.21	.19	.21	.18	.03	.03	.01
10	.468	2.629	.01	.00	.20	.22	.18	.29	.00	.42	.02	.11	.03	.00
11	.416	2.787	.01	.48	.00	.16	.01	.32	.11	.01	.18	.02	.27	.00
12	.194	4.080	.76	.07	.08	.02	.19	.00	.04	.02	.00	.21	.01	.88

The multivariable regression results for the two dependent variable equations (see Tables 8.8 and 8.9), detail out the coefficients, significance levels and collinearity statistics. Tables 8.10 & 8.11 (in pp. 295 & 296) display the departmental samples results.

Table 8.8: Multivariable Regression: Coefficients & Significance Level: Achieved Degrees of Integration – The Dimensions of Integration

Variables	DINV		DUE		DMIS		DINTTOT		Collinearity Stats	
	Std. *B*	Sig.	Std. *B*	Sig.	Std. *B*	Sig.	Std. *B*	Sig.	Tolerance	VIF
(Constant)										
CG	**-.270**a	**.001**	-.135	.151	**-.378**a	**.000**	**-.421**a	**.000**	.500	2.001
FO	.077	.233	.040	.586	.105	.160	**.120**b	**.014**	.819	1.221
COD	-.059	.420	**-.168**c	**.042**	-.006	.946	**-.122**c	**.026**	.648	1.542
MS	**.286**a	**.000**	.022	.781	.074	.357	**.208**a	**.000**	.715	1.399
RI	.139	.066	-.079	.354	.070	.418	.073	.194	.604	1.641
DC	-.094	.167	-.009	.910	**.163**c	**.040**	.031	.537	.742	1.348
RM	-.127	.069	**.327**a	**.000**	.122	.129	**.165**b	**.002**	.714	1.401
RP	.099	.123	-.005	.944	-.078	.293	.010	.840	.843	1.186
RF	-.030	.641	-.117	.111	.060	.421	-.044	.359	.823	1.215
NDP	.079	.270	**-.258**b	**.002**	-.073	.357	**-.129**b	**.017**	.673	1.486
PA	**.243**a	**.000**	-.135	.060	-.012	.867	.057	.233	.861	1.161
R^2	**.486**		**.344**		**.314**		**.712**			
Adjusted R^2	**.448**		**.295**		**.264**		**.691**			
Regression F-Value	**12.877 (.000)**		**7.139 (.000)**		**6.250 (.000)**		**33.73 (.000)**			

(Pooled Sample: N = 162)
Note: a. Correlation is significant at the 0.001 level (2-tailed). b. Correlation is significant at the 0.01 level (2-tailed), c. Correlation is significant at the 0.05 level (2-tailed).

Table 8.9: Multivariable Regression: Coefficients & Significance Level: Achieved Degrees of Integration – The Achieved Integration @ the Strategic Marketing Stages

Variables	SMAS		SMPS		SMIS		SMCS		Collinearity Stats.	
	Std. *B*	Sig.	Std. *B*	Sig.	Std. *B*	Sig.	Std. *B*	Sig.	Tolerance	VIF
(Constant)										
CG	**-.163**b	**.018**	**-.197**b	**.006**	**-.258**a	**.000**	**-.298**a	**.000**	.500	2.001
FO	-.018	.741	-.057	.306	.046	.403	.084	.153	.819	1.221
COD	**-.169**b	**.005**	**-.204**b	**.001**	-.104	.098	**-.150**c	**.023**	.648	1.542
MS	**.392**a	**.000**	**.314**a	**.000**	**.270**a	**.000**	**.181**b	**.004**	.715	1.399
RI	.095	.126	.050	.442	.053	.413	.017	.804	.604	1.641
DC	-.008	.890	-.075	.198	.030	.604	-.071	.245	.742	1.348
RM	**.110**c	**.055**	.111	.063	**.134**c	**.026**	-.021	.741	.714	1.401
RP	-.040	.445	.098	.104	.085	.122	.042	.465	.843	1.186
RF	**.212**a	**.000**	**.145**b	**.010**	**.160**b	**.004**	**.198**a	**.001**	.823	1.215
NDP	**-.143**b	**.016**	-.058	.345	**-.132**c	**.032**	**-.143**c	**.027**	.673	1.486
PA	-.009	.869	**.109**c	**.046**	.082	.133	.088	.124	.861	1.161
R^2	**.653**		**.623**		**.623**		**.583**			
Adjusted R^2	**.627**		**.595**		**.596**		**.553**			
Regression F-Value	**25.651 (.000)**		**22.521 (.000)**		**22.554 (.000)**		**19.095 (.000)**			

(Pooled Sample: N = 162)
Note: a. Correlation is significant at the 0.001 level (2-tailed). b. Correlation is significant at the 0.01 level (2-tailed), c. Correlation is significant at the 0.05 level (2-tailed).

Reported below are the regression coefficients, significance levels and collinearity diagnostics for the two groups of dependent variables and their sub-dimensions for each departmental sample. While Table 8.10 presents the results for the marketing sample, Table 8.11 details out the accounting sample results.

To aid adequate explanation of the multivariable regression results shown in Tables 8.8 and 8.9, and also capture critical salient predicting evidence of each antecedent factor at each dependent variable level, two steps were taken. First, stepwise regression procedure (SPSS 14) was adopted to rigorously define levels of significance for each retained variable and thus flag the predicting factors that explained the best models. To capture the best model that reveals the variables that are most significantly predictors of the outcomes, various combinations of stepwise regression methods (forward, backward, stepwise or remove) were adopted.

Secondly, the t-values for all predicting factors were examined along with significance levels. In this context, the t-test results were used to gauge if regression coefficient b is significantly different from zero (Field, 2005, p. 747). Following Field

(2005, p. 287), the *t*-test statistics (checking the null hypothesis that the value of *b* is zero) for all models was calculated using the *t*-test equation:

$$t = \frac{B_{observed} - B_{expected}}{SE\,B} = \frac{\text{Observed difference between sample means} - \text{Expected difference between population means (if null hypothesis is true)}}{\text{Estimate of the standard error of the difference between the two sample means}}$$

$$= \frac{B_{observed}}{SE\,B} \qquad \textbf{(8.3)}$$

Where $B_{observed} = B$ (Constant).

As evidenced in Table 8.12 (in p. 297), the t-test statistics are significantly different from zero, and parameters are adequate for estimating outcome values (Field, 2005, p. 151).

Examining the pooled sample t-test values with the individual samples, controlling for sample size, no significant differences were evident, hence only the pooled sample t-test statistics of all antecedent variables for all models are reflected in Table 8.12).

Table 8.10: Multivariable Regression: Coefficients & Significance Level for the two spectrums of Regression Equations - (Marketing Sample)

Variables	Degree of Achieved Integration								Achieved Integration During the Strategic Marketing Process								Collinearity Statistics	
	DINV		DUE		DMIS		DINTTOT		SMAS		SMPS		SMIS		SMCS			
	Std. *B*	Sig.	Std. *B*	Sig.	Std. *B*	Sig.	Std. *B*	Sig.	Std. *B*	Sig.	Std. *B*	Sig.	Std. *B*	Sig.	Std. *B*	Sig.	Toler-ance	VIF
(Constant)																		
CG	**-.427**b	**.003**	-.046	.762	**-.481**b	**.006**	**-.483**a	**.000**	-.085	.431	-.075	.520	-.130	.286	-.236	.074	.325	3.081
FO	.129	.182	.062	.556	-.046	.696	.076	.272	-.062	.404	-.102	.209	.011	.898	-.032	.721	.675	1.481
COD	-.016	.886	**-.395**b	**.002**	.121	.376	-.144	.076	**-.243**b	**.006**	**-.316**a	**.001**	**-.202**c	**.042**	-.178	.094	.499	2.004
MS	.114	.278	.049	.667	-.001	.992	.084	.267	**.375**a	**.000**	**.371**a	**.000**	**.282**b	**.003**	.105	.285	.571	1.752
RI	.109	.310	-.097	.408	.027	.835	.023	.764	**.162**c	**.054**	.130	.152	.130	.167	.090	.373	.547	1.829
DC	.001	.995	-.038	.729	.216	.081	.087	.227	.119	.129	.008	.921	.141	.110	.127	.180	.622	1.608
RM	-.040	.683	**.284**b	**.009**	.210	.082	**.222**b	**.002**	.119	.119	.090	.274	.100	.243	-.039	.669	.655	1.526
RP	.144	.092	-.014	.878	-.066	.527	.037	.545	-.003	.966	.055	.444	**.143**c	**.057**	.060	.453	.863	1.158
RF	-.071	.435	-.117	.241	.076	.495	-.058	.375	**.252**a	**.001**	**.171**c	**.029**	**.206**b	**.011**	**.266**b	**.003**	.753	1.329
NDP	.073	.463	**-.252**c	**.023**	-.151	.217	**-.160**c	**.028**	-.108	.166	-.023	.787	-.051	.557	-.142	.133	.630	1.588
PA	**.313**b	**.002**	-.194	.073	.075	.530	.107	.131	.035	.643	.087	.292	.145	.093	**.299**b	**.002**	.653	1.532
R^2	**.567**		**.483**		**.351**		**.777**		**.738**		**.691**		**.668**		**.618**			
Adjusted R^2	**.499**		**.402**		**.249**		**.742**		**.697**		**.643**		**.616**		**.558**			
Regression F-Value	**8.329(.000)**		**5.956(.000)**		**3.436(.001)**		**22.158(.000)**		**17.905(.000)**		**14.243(.000)**		**12.797(.000)**		**10.279(.000)**			

(Marketing Sample: N = 84)

Note: a. Correlation is significant at the 0.001 level (2-tailed). b. Correlation is significant at the 0.01 level (2-tailed), c. Correlation is significant at the 0.05 level (2-tailed).

Table 8.11: Multivariable Regression: Coefficients & Significance Level for the two spectrums of Regression Equations - (Accounting Sample)

Variables	Degree of Achieved Integration								Achieved Integration During the Strategic Marketing Process								Collinearity Statistics	
	DINV		DUE		DMIS		DINTTOT		SMAS		SMPS		SMIS		SMCS			
	Std. *B*	Sig.	Std. *B*	Sig.	Std. *B*	Sig.	Std. *B*	Sig.	Std. *B*	Sig.	Std. *B*	Sig.	Std. *B*	Sig.	Std. *B*	Sig.	Tole-rance	VIF
(Constant)																		
CG	-.140	.188	-.140	.283	**-.399**b	**.002**	**-.394**	**.000**	-.170	.093	**-.213**c	**.037**	**-.297**b	**.002**	**-.382**a	**.000**	.598	1.672
FO	.067	.462	.002	.987	.189	.084	**.151**	**.052**	.056	.516	.015	.859	.109	.182	.152	.062	.814	1.229
CO	-.020	.841	-.024	.846	-.095	.420	-.081	.337	-.137	.147	-.115	.221	-.070	.428	-.148	.092	.690	1.449
MS	**.280**b	**.006**	.064	.598	.164	.168	**.291**	**.001**	**.379**a	**.000**	**.252**b	**.009**	**.231**b	**.011**	**.217**b	**.015**	.686	1.457
RI	.135	.195	.031	.805	.121	.328	.166	.062	.053	.591	-.040	.683	-.001	.992	-.017	.856	.624	1.602
DC	-.164	.084	.021	.855	.142	.207	.002	.979	-.115	.200	-.167	.064	-.032	.705	**-.175**c	**.038**	.761	1.314
RM	**-.221**b	**.027**	**.393**b	**.002**	.059	.609	.123	.139	.063	.500	.099	.289	.119	.177	-.014	.871	.703	1.422
RP	.073	.440	.034	.768	-.114	.312	-.008	.924	-.080	.374	.145	.108	.022	.790	.051	.543	.759	1.317
RF	-.121	.207	-.019	.868	.104	.357	-.017	.832	.169	.064	.086	.339	.098	.252	.145	.086	.746	1.340
NDP	.140	.156	**-.284**c	**.020**	-.029	.803	-.092	.271	-.171	.069	-.069	.462	**-.212**b	**.018**	-.129	.137	.700	1.428
PA	**.489**a	**.000**	**-.323**b	**.018**	-.133	.309	.024	.797	.065	.531	**.231**c	**.029**	.157	.113	.054	.577	.560	1.786
R^2	**.546**		**.322**		**.358**		**.674**		**.593**		**.592**		**.637**		**.647**			
Adjusted R^2	**.473**		**.212**		**.254**		**.622**		**.527**		**.526**		**.578**		**.590**			
Regression F-Value	**7.439(.000)**		**2.935(.000)**		**3.450(.000)**		**12.802(.000)**		**8.990(.000)**		**8.979(.000)**		**10.847(.000)**		**11.337(.000)**			

(Accounting Sample: N = 78)

Note: a. Correlation is significant at the 0.001 level (2-tailed), b. Correlation is significant at the 0.01 level (2-tailed), c. Correlation is significant at the 0.05 level (2-tailed).

Table 8.12: Construct T-Test Values and Significance levels for Independent Variables in relation to Achieved Integration Equations(DV) – Pooled Sample

		DV – Degree of Achieved Integration								DV – Degree of Achieved Integration During Strategic Marketing Process							
		DINV		DUE		DMIS		DINTTOT		SMAS		SMPS		SMIS		SMCS	
Independent Variables		**t-test values**	**Sig.**	**t-test values**	**Sig.**	**t-test values**	**Sig.**	**t-test values**	**Sig.**	**t-test values**	**Sig.**	**t-test values**	**Sig.**	**t-test values**	**Sig.**	**t-test values**	**Sig.**
(Constant)		-.147	.883	-.112	.911	-.117	.907	-.293	.770	93.302	.000	81.488	.000	80.510	.000	82.107	.000
CG	**.92***	-3.266	.001	-1.445	.151	-3.949	.000	-6.799	.000	-2.394	.018	-2.777	.006	-3.645	.000	-4.000	.000
FO	**.86***	1.197	.233	.545	.586	1.411	.160	2.474	.014	-.331	.741	-1.027	.306	.838	.403	1.436	.153
COD	**.89***	-.808	.420	-2.049	.042	-.068	.946	-2.245	.026	-2.822	.005	-3.274	.001	-1.664	.098	-2.294	.023
MS	**.92***	4.130	.000	.278	.781	.924	.357	4.005	.000	6.883	.000	5.302	.000	4.557	.000	2.899	.004
RI	**.77***	1.855	.066	-.930	.354	.811	.418	1.306	.194	1.540	.126	.771	.442	.822	.413	.249	.804
DC	**.88***	-1.389	.167	-.113	.910	2.071	.040	.619	.537	-.139	.890	-1.293	.198	.519	.604	-1.167	.245
		-1.830	.069	4.174	.000	1.525	.129	3.185	.002	1.936	.055	1.873	.063	2.256	.026	-.332	.741
RP	**.80***	1.552	.123	-.070	.944	-1.056	.293	.202	.840	-.765	.445	1.636	.104	1.553	.123	.733	.465
RF	**.81***	-.467	.641	-1.602	.111	.806	.421	-.920	.359	4.000	.000	2.627	.010	2.888	.004	3.403	.001
NDP	**.92***	1.108	.270	-3.195	.002	-.889	.375	-2.420	.017	-2.441	.016	-.948	.345	-2.162	.032	-2.232	.027
PA	**.90***	3.851	.000	-1.897	.060	-.168	.867	1.197	.233	-.165	.869	2.010	.046	1.509	.133	1.545	.124
		.90**		**.87****		**.93****		**.71****		**.91****		**.93****		**.89****		**.94****	

Pooled Sample (N = 162)
* = Independent Variables Cronbach's alpha; ** = Dependent Variables Cronbach's alpha

8.7 The Determinants of the Achieved Degree of Integration

In this section the overall regression summaries for the two regression equations specified in 8.1 and 8.2 are highlighted. Further more, the extent to which each conceptualised dimension of integration is embraced at the various stages of the strategic marketing process is summarised.

8.7.1 THE DIMENSIONS OF ACHIEVED INTEGRATION

The hypotheses regarding the antecedents of achieved degree of integration were tested by regressing each of the dimensions of achieved integration, as well as the integration summation, on the measures of communication, organisational structure and climate. Table 8.8 contains the pooled sample results, while the results for the marketing and accounting samples are presented in Tables 8.10 and 8.11 respectively. However, given the homogeneity in t-test evidence of all three samples, as highlighted in Section 8.6 above, only the pooled sample summary is reported here.

Table 8.8 indicates that, for all dimensions of integration and the integration summation, the overall regression F-statistic is highly significant (at $\alpha = .000$). The estimated model explains 48.6% of the variance in the **DINV** dimension, 34.4% of the variance in the **DUE** dimension, and 31.4% of the variance in the **DMIS** dimension and 71.2% of the variance of the **DINTTOT** (summation of integration). As elaborated in Section 8.6, diagnostic statistics are satisfactory, thus regression coefficients were unaffected by the deletion of outliers or by multicollinearity, and the assumptions of normality, linearity, and homoscedasticity were not violated.

The departmental samples also achieved significant results: the overall regression F-statistics for the marketing (see Table 8.10) and accounting (see Table 8.11) samples are also highly significant at (at $\alpha = .000$).

8.7.2 THE ACHIEVED INTEGRATION DURING THE STRATEGIC MARKETING PROCESS

Statistically (see Table 8.9 in page 293), the overall regression F-statistic is highly significant (at α = .000) for all strategic marketing stage model. The estimated model explains 65.3% of the variance in the **SMAS**, 62.3% of the variance in the **SMPS** , 62.3% of the variance in the **SMIS** and 58.3% of the variance in the **SMCS**. Diagnostic statistics for all stages are also satisfactory: regression coefficients are not affected by the deletion of outliers or by multicollinearity, neither were the assumptions of normality, linearity, and homoscedasticity violated.

The overall regression F-statistics for the marketing (see Table 8.10) and accounting (see Table 8.11) samples are also highly significant at (at α = .000).

8.7.3 THE DIMENSIONS OF INTEGRATION ACROSS THE STRATEGIC MARKETING STAGES

Given that task connectivity dictates and shapes the dimension and degree thereof at individual stage of the entire task process (Gupta, 1984; Olson *et al*, 2001; Kahn, 1996; Song *et al*, 1996; Kahn & Mentzer, 1998; Song *et al*, 2000; Moenaert *et al*, 1995; Song *et al*, 1998; Mollenkopf *et al*, 2000; Chimhanzi, 2004), the three dimensions of integration were examined for potential differential evidence, across all 4-stages of the strategic marketing process. The regression estimates for each dimension of integration were homogeneous along the four strategic marketing management stages, suggesting importance of all dimensions at all strategic marketing stage.

The regression coefficients for all three dimensions are positive and highly significant across all strategic marketing management stages for all 3 samples, and with almost uniform R^2 values. The regression statistics for the pooled sample show R^2 values of .496 (Analysis Stage), .501 (Planning Stage), .585 (Implementation

Stage), .559 (Control & Evaluation Stage); while the regression F values are 47.246 (Analysis Stage), 48.267 (Planning Stage), 67.633 (Implementation Stage), and 60.787 (Control & Evaluation Stage). For all four equations, the overall regression F-value is highly significant (at $\alpha = .000$).

Although the regression coefficient values for the pooled sample reflect the most achievable significance levels for all dimensions of integration across all stages of strategic Marketing process, some minimal differences are evident in the significance levels for the marketing and accounting samples.

Statistically, however, there is conclusive evidence that the three dimensions of integration (**DINV**, **DUE** and **DMIS**) are crucially important for effective strategic marketing process.

8.8 Summary of Hypotheses

Tables 8.13 and 8.14 (in pp. 301 & 302), supported by Figures 8.1 and 8.2 (in pages 303 & 304), summarise the findings in relation to hypotheses proposed for this study. While the first Table and Figure relate to achieved integration outside the strategic marketing stages, the latter relates to the opposite. The conclusions as to the directions of influence, prompting affirmation or negation of hypotheses, were based on regression statistics of the pooled sample. However, since the analysis of departmental statistics (see Tables 8.10 and 8.11) highlight evidence of parsimony across both departments, some degree of inference was drawn from the department samples, in not making, assertive conclusions, but in flagging directions for future research.

Table 8.13: Summary of Hypotheses Testing: Statistics for all three Samples

	DINV (Degree of Involvement)			DUE (Degree of Unified Effort)			DMIS (Degree of Mutual Info. Sh.)			DINTTOT (Degree of Total Int.)		
	Pooled	Marketing	Accounting	Pooled	Marketing	Accounting	Pooled	Marketing	Accounting	Pooled	Marketing	Accounting
H1 CG	Y (-)	Y (-)	N	N	N	N	Y (-)	Y (-)	Y (-)	Y (-)	Y (-)	Y (-)
H2 FO	N	N	N	N	N	N	N	N*	NS*	Y (+)	N	Y(+)
H3 MS	Y (+)	N	Y(+)	N	N	N	N	N	N	Y (+)	N	Y(+)
H4 RI	NS*	N	N	N*	N*	N	N	N	N	N	N	NS*
H5 RM	NS**	N*	N**	Y (+)	Y(+)	Y(+)	N	NS*	N	Y (+)	Y(+)	N
H5 RP	N	NS*	N	N*	N*	N	N*	N*	N*	N	N	N
H6 DC	N*	N	NS**	N*	N*	N	Y(+)	NS*	N	N	N	N
H7 RF	N*	N*	N*	N*	N*	N	N	N	N	N*	N*	N
H8 COD	N	N	N	Y (-)	Y(-)	N	N	N*	N	Y (-)	NS*	N
H9 NDP	N*	N*	N	Y(-)	Y (-)	Y(-)	N	N	N	Y (-)	Y (-)	N
H10 PA	Y (+)	Y(+)	Y(+)	NS**	NS**	N**	N*	N	N	N	N	N

Note: N = the hypothesis was not supported by the data at $\alpha < 0.05$, Y = the hypothesis was supported by the data at $\alpha < 0.05$,
+(-) = directional influence, + (-) = The hypothesized construct has positive (negative) effect on the dependent variables,
NS* = Marginally Not –significant, NS** = Marginally Not –significant and contrasting directional influence,
N* = Hypothesis not supported + contrasting directional influence, N** = Significant coefficient contrasting hypothesised direction.

Table 8.14: Summary of Hypotheses Testing: Statistics for all three Samples

	SMAS			SMPS			SMIS			SMCS		
	Pooled	**Marketing**	**Accounting**	**Pooled**	**Marketing**	**Accounting**	**Pooled**	**Marketing**	**Accounting**	**Pooled**	**Marketing**	**Accounting**
H1 CG	**Y (-)**	**N**	**NS***	**Y (-)**	**N**	**Y (-)**	**Y(-)**	**N**	**Y (-)**	**Y (-)**	**NS***	**Y (-)**
H2 FO	**N***	**N***	**N**	**N***	**N***	**N**	**N**	**N**	**N**	**N**	**N**	**NS***
H3 MS	**Y (+)**	**Y (+)**	**Y(+)**	**Y(+)**	**Y (+)**	**Y(+)**	**Y (+)**	**Y (+)**	**Y(+)**	**Y (+)**	**N**	**Y(+)**
H4 RI	**N**	**Y (+)**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**	**N**
H5 RM	**Y (+)**	**N**	**N**	**NS***	**N**	**N**	**Y (+)**	**N**	**N**	**N***	**N***	**N**
H5 RP	**N***	**N***	**N**	**N**	**N**	**N**	**N**	**Y(+)**	**N**	**N**	**N**	**N**
H6 DC	**N***	**N**	**N**	**N***	**N**	**NS****	**N**	**N**	**N**	**N***	**N**	**N****
H7 RF	**Y (+)**	**Y (+)**	**NS***	**Y (+)**	**Y (+)**	**N**	**Y (+)**	**Y (+)**	**N**	**Y (+)**	**Y (+)**	**NS***
H8 COD	**Y (-)**	**Y (-)**	**N**	**Y (-)**	**Y (-)**	**N**	**NS***	**Y (-)**	**N**	**Y(-)**	**NS***	**NS***
H9 NDP	**Y (-)**	**N**	**NS***	**N**	**N**	**N**	**Y (-)**	**N**	**Y(-)**	**Y(-)**	**N**	**N**
H10	**N***	**N**	**N**	**Y (+)**	**N**	**Y(+)**	**N**	**NS***	**N**	**N**	**Y(+)**	**N**

Note: N = the hypothesis was not supported by the data at $\alpha<0.05$, Y = the hypothesis was supported by the data at $\alpha<0.05$,
+(-) = directional influence + (-) = The hypothesized construct has positive (negative) effect on the dependent variables,
NS* = Marginally Not-significant, NS** = Marginally Not –significant and contrasting directional influence,
N* = Hypothesis not supported + contrasting directional influence, N** = Significant coefficient contrasting hypothesised direction.

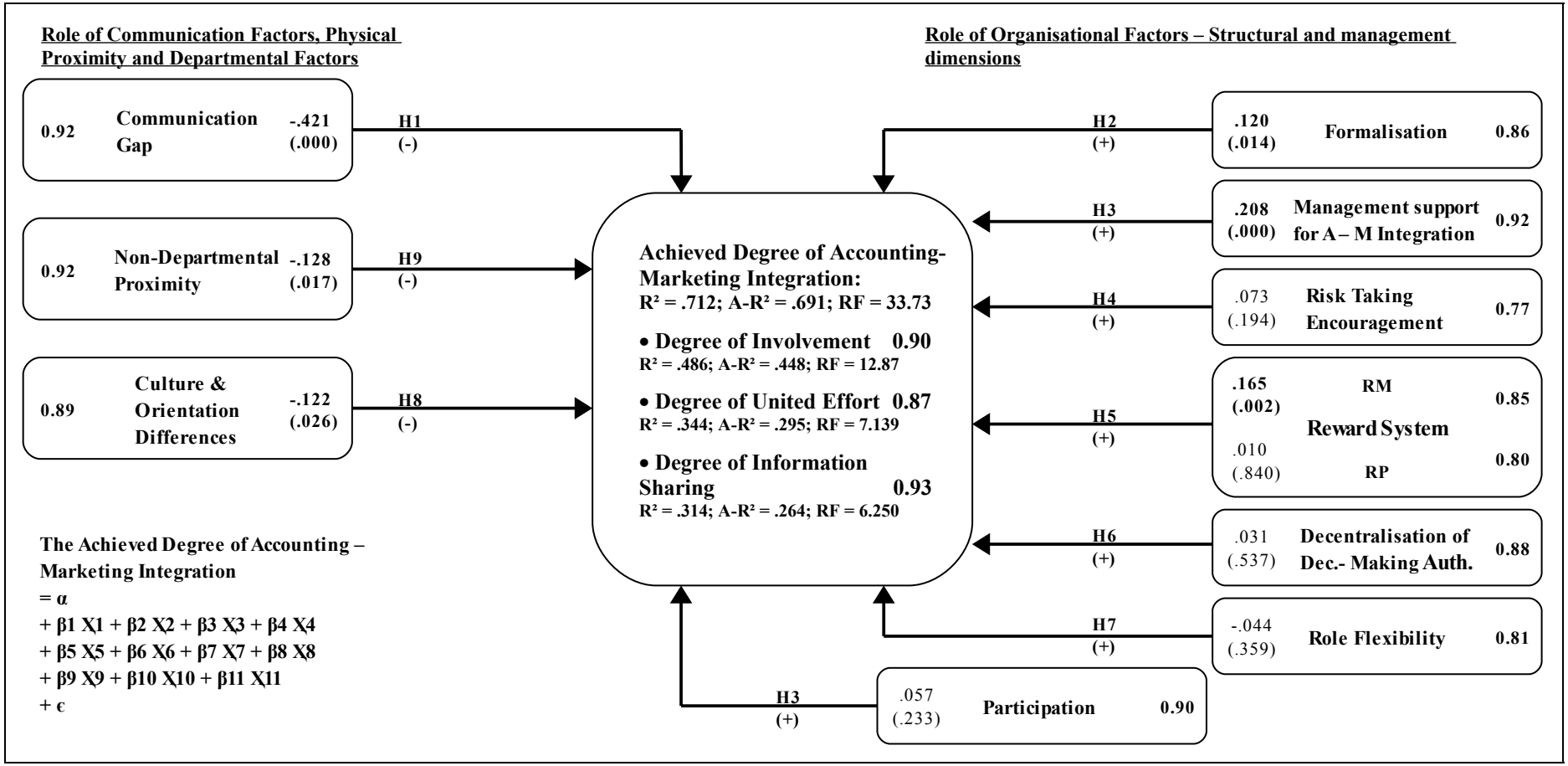


Figure 8.1: Regression Coefficients and significance levels of the influence of Organisational Factors, Communication Factors and Departmental Factors on the Achieved Degree of Accounting – Marketing

The above regression result were achieved through Structural Equation Modeling

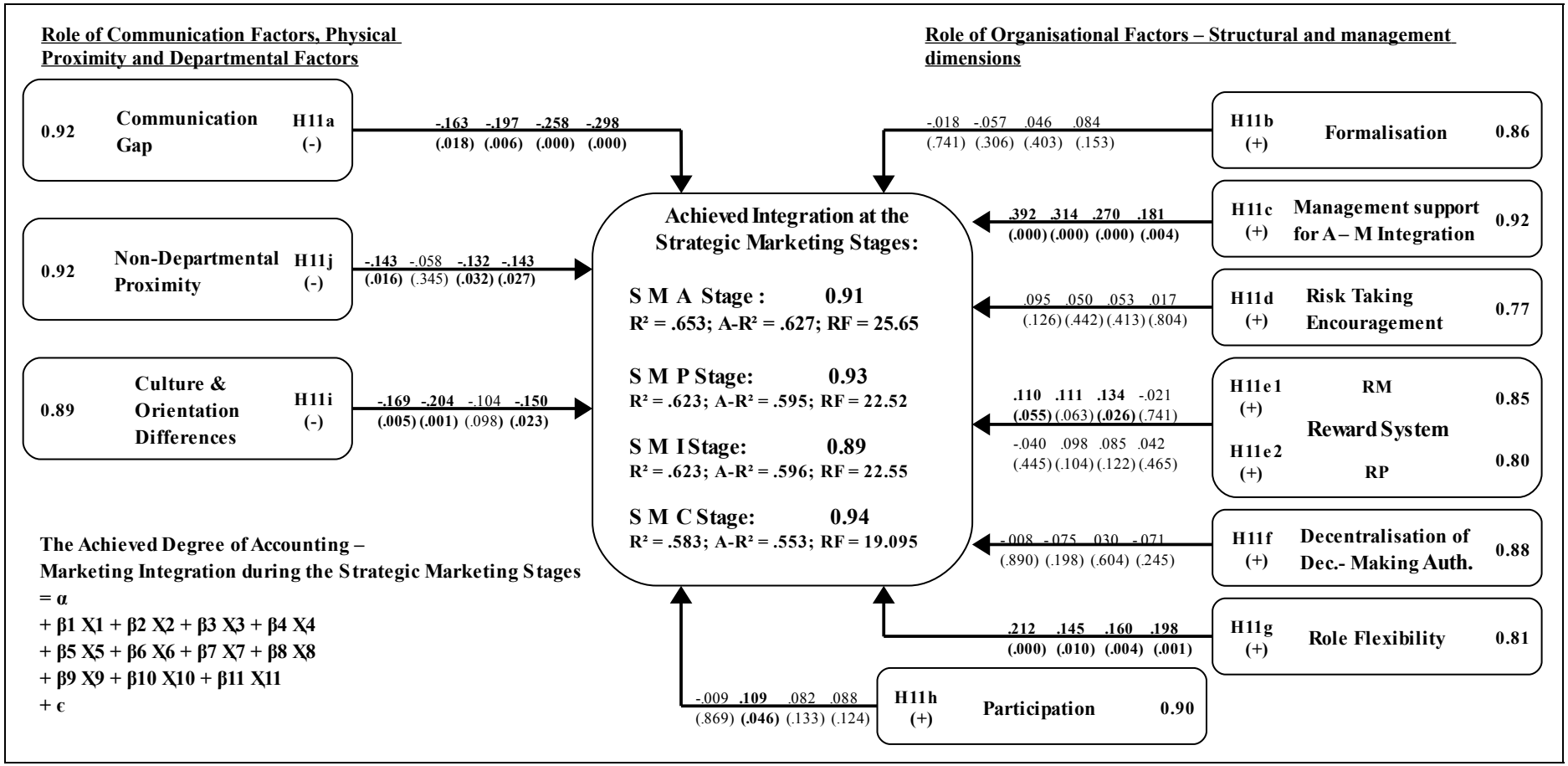


Figure 8.2: Regression Coefficients and significance levels of the influence of Organisational Factors, Communication Factors and Departmental Factors on the Achieved Degree of Accounting – Marketing Integration During the Strategic Marketing Process

The regression result above were Achieved through Structural Equation Modeling

Note: Only significant regression statistics across all stages of the strategic marketing process (1, 2, 3, or 4) are highlighted. Results presented in the order Stage 1 to 4.

8.9 Explaining the Overall Structural Model

Chapter 7 described the process of assessing the measurement component of the posited model. Combining exploratory and confirmatory factor analyses, construct measurement items were examined and evaluated for dimensionality, convergent validity, reliability, and discriminant validity. The results of the analyses are congruent with requirements and are satisfactory.

Following Kline's (1998) two steps structural equation modeling process, the first explained above, fitting the structural model was achieved through path analysis with latent variables. Adhering to Cheng (2001), establishing the fit-of-the-model was undertaken to support multiple regression results. Prior to elaborating the results of hypothesised relationships (see Tables 8.13 & 8.14), the analyses of measurement models (SEM) for model structures in Figures 8.1 and 8.2 are explained here. Assessing the measurement model was undertaken to ensure validity of the full structural equations.

Given exploratory factor analyses evidence, which captured two dimensions of the reward factor, each measured by two indicators, it was legitimate, prompted by indicator limitation, to exclude the reward factors in testing overall structural model.

Using path analysis to fit the structural model, the goal was, (as is generally the case in SEM), to see how the proposed model, depicting a set of specific relationship among variables, accounts for the observed relationships among the variables.

To fully explore the framework in Figure 5.1, two measurement models were evaluated; one includes the elements of achieved integration, and the other reflecting achieved integration at each individual stage of the strategic marketing process. Overall, 5 models were tested (**DINTTOT**, **AI@SMAS**, **AI@SMPS**, **AI@SMIS** and **AI@SMCS**) and each model contained all variables with proven unidimensionality

(Hair *et al*, 1998) as shown in Table 7.40 (p. 271). In SEM, a simultaneous analysis of all variables in the model is undertaken to ascertain consistency with data goodness-of- fit). The higher the goodness-of-fit, the stronger the statistical confidence in the hypothesised associations among variables (Byrne, 1998). Following outlined parameters and thresholds (see Table 7.39), the comparative fit index (CFI), the goodness of fit index (GFI), and the standardized root mean square residual (SRMR) statistics for both models are reported in Table 8.15 (in p. 308).

A structural model with linear relations is only an approximation, and not only is the world unlikely to be linear, but many statistical assumptions are somewhat questionable as well (Byrne, 1998). The real question is not so much, "Does the model fit perfectly?" but rather, "Does it fit well enough to be a useful approximation to reality, and a reasonable explanation of the trends in our data (op. cit.).

The overall fit for each model is summarised in Table 8.15 (in page 308). Except for **AI@SMPS** (acceptable fit) the goodness of fit indices for other models indicate approximate fit. Acceptable fit was achieved for all models on the SRMR criterion.

The overall fit for **DINTTOT** model fit approximately at NFI = .87, IFI = .89, CFI = .89, SRMR = .07 and GFI = .82, evidence reinforced by the weak parsimony adjusted measures results for the model.

The overall model goodness of fit indices for **AI@SMAS** and **AI@SMCS** are very similar and approximately within acceptable fit thresholds except for the goodness of fit index (GFI). For the former, the goodness of fit statistics are NFI = .86, IFI = .87, CFI = .87, SRMR = .06 and GFI = .82, while the latter accounted for NFI = .88, IFI = .89, CFI = .89, SRMR = .05 and GFI = .81. The parsimony adjusted measures statistics for both models are also similar, evidencing low parsimony.

The fit statistics for **AI@SMPS** model indicate that the model fits the data well: NFI = .91, IFI = .93, CFI = .93, SRMR = .04 and GFI = .87. Also the parsimony adjusted measures suggest acceptable parsimony.

Although the SRMR statistic for **AI@SMIS** (.07) indicates acceptable fit, the other goodness of fit indices for the model are substantially below recommended acceptable benchmarks at NFI = .81, IFI = .82, CFI = .82, and GFI = .80. Also, the parsimony adjusted measures do not indicate parsimony. Justifiably, thus, approximate fit conclusion would seem inappropriate.

The summary for all reported structural models indicated 'solution is not admissible'. From the results, some exogenous variables have an estimated covariance matrix that is not positive definite, suggesting that the sample is too small (Jöreskog & Sörbom, 1984), which aligns with the argument for a reasonable sample size benchmark of > 200 (Byrne, 1998). Following LISREL-VI user's guide, it is possible to prevent the occurrence of negative variance estimates or prevent the occurrence of inadmissible solutions in general, by restricting the search for a solution to admissible parameter values. However, as AMOS 7 does not do this, it was not possible to enhance the admissibility of model solutions.

Overall, on the SEM evidence, (except for **AI@SMIS**) approximate fit conclusion is legitimate for all models given: 1) the sample induced limitation; 2) adequate SRMS fit statistics; 3) highly close to 'acceptable' fit statistics for NFI, IFI and CFI; and level of parsimony amongst PRATIO, PNFI and PCFI; and close to 'acceptable' fit (**AI@SMPS**). Thus, models for both phenomena fit approximately to be useful approximation to reality, except for **AI@SMIS** where fit was not achieved.

Table 8.15: Structural model fit statistics for all models

Model	Measures & Standard Regression Estimates						Model Fit Summaries							
							Baseline Comparisons Stats			Parsimony Adjusted Measures			SRMR Stats	GFI
							NFI	IFI	CFI	PRA-TIO	PNFI	PCFI	SRMR	GFI
	V1	V2	V3	V4	V5	V6								
DINTTOT							.87	.89	.89	.730	.590	.652	.07	.82
AI@SMAS	.800	.722	.794	.728	.870	.831	.86	.87	.87	.600	.515	.521	.06	.82
AI@SMPS	.783	.830	.706	.840	.865	.910	.91	.93	.93	.600	.549	.556	.04	.87
AI@SMIS	.727	.608	.816	.769	.833	.853	.81	.82	.82	.600	.483	.489	.07	.80
AI@SMCS	.892	.863	.920	.920	.817	.799	.88	.89	.89	.600	.528	.532	.05	.81

Overall, combining evidence in Table 8.15 with supporting scientific argument, a substantive interpretation of the previously explained analytical procedures is legitimate. On this background, the hypotheses are discussed below.

8.10 Specification and Discussion of Hypotheses

In the following sections, the results are explained in relation to the hypotheses defined for this study. The (pooled and departmental samples) results for all hypothesised relationships are presented in Tables 8.13 and 8.14 (see pp. 301 & 302). However, when critically inspected, accounting for sample size difference, the accounting and marketing results did not reflect significant differences. Given this evidence, conclusions bias is not a concern; hence conclusions are legitimised on the pooled sample. For this reason, thus, only the pooled sample results are extensively discussed.

Scientifically, significance value (Field, 2005, p. 126) tells us that the probability of a correlation being a 'fluke' is very low (close to zero in fact), and social scientists accept probability values below .05 as statistically significant and indicative of genuine effect.

The multivariable regression results (see Tables 8.8 and 8.9, in pp. 292 & 293) captured varying degrees of predicting influence of the 10 independent variables for the two levels of dependent variables. Consequently, the hypotheses are discussed

separately for each dependent variable group (see Sections 8.10.1 and 8.10.2). Section 8.10.3 summarises a few departmental differences.

8.10.1 DISCUSSION OF HYPOTHESES – ACHIEVED INTEGRATION

The first hypotheses (*H1*) stated that the more the communication gap (**COMMGAP**) between Accounting and Marketing the less the achieved accounting-marketing integration. The regression statistics for this hypothetical relationship highlight highly negative and significant coefficients for **DINTTOT** and integration dimensions, except **DUE**.

H2 (**FORMPS**), suggesting that the higher the perceived level of formalisation in an organisation, the greater the achieved level of accounting-marketing integration**,** is supported. Fully supported results were obtained for **DINTTOT** but not for the integration dimensions.

Evidence was also found to support the third hypothesis (*H3*), proposing a positive association of senior management support of integration (**MANSFINT**) on achieved integration. However, not all three dimensions corroborate the evidence in **DINTTOT**.

H4 (**RISKBEH**) postulated that encouragement of risk taking behaviour is positively related to the achieved integration. The regression statistics for this variable are positive but not significant, thus *H4* is not supported.

The fifth hypothesis (*H5*) positively correlated joint reward and achieved integration. The results obtained from the study displayed partial support of this relationship. The hypothesis is supported for the monetary dimension (**REWARDM**) but not for the performance dimension (**REWARDP**).

The regression statistics for decentralisation (**DCENT**) are insignificant, thus *H6* concerning a positive link of decentralisation to achieved integration is rejected.

Hypothesis seven (*H7*) postulates that role flexibility is positively related to achieved integration. The results for (**ROFLEX**) not only contrasts hypothesised directional influence but also insignificant.

H8 suggested that the more the culture and perception differences between marketers and accountants at the accounting-marketing interface the less the degree of achieved integration. The regression coefficient for **CODIFF** is significant, thus *H8* is supported.

H9 (**NONDEPPROX**), suggesting a negative link between non-departmental proximity (**NDP**) and achieved integration is supported.

The final hypothesis (*H10*) suggested higher participation would foster higher achieved integration. This hypothesis (**EMPPASMS**) did not receive support. However, whilst the **DINTOT** is not supported, the integration dimensions highlight interesting features.

The above outlined hypothetical findings are now elaborated individually.

8.10.1.1 Communication Gap and Achieved Integration

H1 (COMMGAP): The more the communication gap between Accounting and Marketing the less the achieved accounting/marketing integration

8.10.1.1.1 Introduction

Using integrating style within an organisational context encourages *inter alia*, open communication (Holker & Wilmot, 1998), and communication as a confrontation tool leads to creative problem solving (Rahim *et al*, 2000). 'The intensity of interaction between departments is associated with inter-dependence and similarity of functions' (Ruekert & Walker, 1987a). When perceived degree of inter-dependence is high, managers must realise that they need each other in order to fulfil objectives (Rubbin *et al*, 1994). Several firms have capitalised on integration by stimulating inter-functional communication flows (Fisher *et al*, 1997), and inter-functional

communication has been linked to positive outcomes such as, amongst others, increased understanding and harmony between functions (Souder, 1988), inter-functional integration (Gupta *et al*, 1985). Obviously then, if gaps are evident in such inter-functional communications, i.e., there is lack of communication, too little and or inaccurate transfer of information, or non-engagement in discussion of ideas, achieving such positive outcomes becomes impossible.

8.10.1.1.2 Communication Gap and Achieved Integration

The regression estimates suggest negative correlation between communication gap and achieved accounting–marketing integration. Communication gap has a highly significant negative relationship with achieved integration at three points of the explored relationship. Thus, the hypothesis that the more the communication gap between accounting and marketing the less the achieved **AMI**, is highly supported. Communication correlates negatively to **DINTTOT** at (ß = -.421, *P* = .000), **DINV** at (ß = -.270, *P* = .001), and **DMIS** at (ß = -.378, *P* = .000). However at (ß = -.135, *P* = . 151) it is not significant for **DUE**, though at -1.442 the t-value is fairly close to the 1.9 mark (Field, 2005, p. 291).

Increasing overall accounting–marketing integration is associated with decreasing communication gap. On the above significance evidence, organisations seeking to achieve the full model of integration, must cross discuss strategic marketing issues and engage in regular and accurate transfer of information. Such communication practices are central to effective interaction (information sharing), involvement and potentially, unified effort.

Interpreting the findings for **DINV** and **DUE** in conjunction, there is support that disciplined communication (Kotler *et al*, 2006) is a key step for improving relations and collaboration between functions, though not significant for facilitating team

culture (Souder, 1988). The significant estimates for **DMIS** does suggest that improved communication amongst integrating partners would foster effective integration between accounting and marketing, a suggestion that finds theoretical support in this interface.

The significant evidence of communication gap thus underlines the critical importance of communication to organisational effectiveness: communication is the central nervous system of any organisation (Blackstead & Cooper, 1995). Effective integration is thus a function of effective communication.

The results of this study suggest that, *ceteris paribus*, effective communication fosters integration. However, establishing congruency of these results with previous results was difficult, given the specificity of the construct and the lack of precedence within the literature. As Chimhanzi (2004) noted, marketing has generally tended to treat communication generically, not differentiating the various forms. Studies have considered interpersonal and written communication (e.g. Moenaert & Souder, 1990a, and b) but communication gap had not been previously considered with measurement precision (Parry & Song, 1993). Justified by interface specific literature suggesting communication gap between accounting and marketing, the measures for **COMMGAP** were derived from Parry and Song's (1993) analysis of non measurement precision questions, which supported the results in Gupta (1984).

Overall, the regression results for this factor are consistent with theoretical foundations (e.g., Gupta *et al*, 1985).

8.10.1.2 Formalisation and Achieved Integration

H2 (FORMPS): The higher the perceived level of formalisation in an organisation the greater the achieved accounting/marketing integration

8.10.1.2.1 Introduction

Drawing on well-established and valid scales, formalisation (**FORMPS**) constituted 4 items that captured the extent to which formalised processes and structures were emphasised in the working relationship between accounting and marketing. Formalisation will assist in the removal of barriers, such as: organisational responsibilities, through clear articulation of roles and tasks that each responsibility has to fulfil; language, through the use of standard forms and technical terms; and thought worlds, through formalising the levels and degrees that the functions have to integration (Griffen & Hauser, 1996)

8.10.1.2.2 Formalisation and Achieved Integration

From the regression estimates, **FORMPS** was significant for the full model (**DINTTOT**) at (ß = .120, *P* = .014) but not for the individual dimensions of integration, a result that supports Mollenkopf *et al* (2000). The results thus suggest that the level of achieved integration is positively related to the degree of formalisation, for **DINTTOT** (degree of total integration achieved). This **DINTTOT** evidence is consistent with Moenaert *et al* (1994 – studied cross-functional communication), and Garrett *et al*'s (2006) exploration of R&D–Marketing integration in Singapore and New Zealand. This thus supports the 'right wing' view that formalisation assists in the removal of barriers (Griffen & Hauser, 1996) and that clearly denoted task responsibility negate ambiguity (Garrett *et al*, 2006).

Statistically, **FORMPS** has no significant effect on the achieved degrees of involvement (**DINV**), unified effort (**DUE**) and mutual information sharing (**DMIS**). The three dimensions results are congruent with Song and Thieme's (2006) investigation

of R&D – Marketing interface in the product innovation process in United States, Japan and China. Also, the results for **DINV** and **DUE** lend support to Mollenkopf *et al*'s (2000) coefficients for coordination of activities (marketing sample) for this variable.

Overall, the results indicate that although **FORMPS** is significant and positive for the full model, it is may be, given dimension dynamics, weak predictor of the dimensions, an evidence that supports Mollenkopf *et al* (2000 – Logistics sample, for full model, information dissemination and coordination of activities). Though estimates are insignificant, the results tend to indicate that formalisation has the tendency to enhance integration. Although no meaning is really apparent, the researcher is tempted to believe that formalisation may be required for the individual dimensions but not in same magnitude as the full model. Secondly, these results might highlight interface dynamics that account for non significance of formalised procedures. In general, the results on this variable are consistent with previous researches (Parry & Song, 1993; Mollenkopf *et al*, 2000; and Song & Thieme, 2006). Conclusions drawn here however need to be considered cautiously, for as Mollenkopf *et al* (2000) rightly noted, 'the formalisation variable had mixed results in previous studies' (see also Song & Thieme, 2006). Aligning with Mollenkopf *et al* (2000) and Parry and Song (1993), more enquiries into this variable are necessary.

8.10.1.3 Management Support of Integration and Achieved Integration

H3 (MANSFINT): The more management supports Accounting/Marketing integration, the more the achieved integration between the functions.

8.10.1.3.1 Introduction

Explaining the managerial implications of their findings, Kahn (1996) emphasised that top management should consider programs that encourage departments to achieve goals collectively, have mutual understanding, work informally together, ascribe to

the same vision, and share ideas/resources. Because these activities are strategic (op. cit.), and interfunctional integration should not only focus on interfunctional collaboration, but along with it a certain level of interfunctional interaction (op. cit.), this study prioritised both in the three dimensions contextualisation of accounting–marketing integration (**DINV**, **DUE** and **DMIS**). With the **MANSFINT** factor, this study captured the extent to which accounting–marketing integration was, following hypothesised influence, enabled by management practices of promoting team over functional loyalty, integration friendly performance measures, support of integration, and encouraging different functions to work together.

8.10.1.3.2 Management Support of Integration and Achieved Integration

The regression results for **MANSFINT** are positive and partially support the hypothesis. However, despite positive coefficients for all equations, *H3* is supported only for **DINTTOT** at (ß = .208, *P* = .000) and **DINV** at (ß = .286, *P* = .000). This evidence thus suggests that though **MANSFINT** is a significant predictor of achieved integration, extent of influence would potentially vary across various integration dimensions. The results, despite insignificance at two points, support the contention that management support is important in improving achieved integration (Dewsnap & Jobber, 2000; Kotler *et al*, 2006; Parry & Song, 1993; and Le Meunier-FitzHugh & Piercy, 2007).

With regards to **DINV**, the empirical results suggest that management support is associated with greater interfunctional involvement.

The hypothesis positing a positive association between senior management support and degree of unified effort (**DUE**), and degree of mutual information sharing (**DMIS**) is however rejected. Contrasting body of literature, the regression estimates for the two dimensions are not only insignificant but negative. Considering the measures used to

capture **DUE** and **DMIS**, and at t-statistics of .278 and .924 respectively, it might seem reasonable to conclude that the members are not likely to feel at ease with each other in their work roles in response to management directives, in which case, suggesting **MANSFINT** may not foster *esprit de corps*. Or possibly, the results for these two constructs could be highlighting some insights about the accounting – marketing interface, which we are not able to explain. The results for **DUE** and **DMIS** however are consistent with the findings in Chimhanzi's (2004)[65] examination the relationship between senior management support and (1) connectedness and (2) written communication frequency[66].

8.10.1.4 Encouragement of Risk-Taking Behaviour and Achieved Integration

H4 (RISK): The more senior management encourages risk-taking from the accounting and marketing managers, the greater the degree of achieved integration

8.10.1.4.1 Introduction

Risk taking behaviour reflects the propensity that risk-taking is promoted in the interfunctional relationship between the two departments. Organizational systems and routines, in subtle ways, tend to dampen risk taking and the pursuit of exciting new ideas and approaches (Cyert & March, 1963; van de Ven, 1986). Encouraging risk taking rather than conservative behaviour galvanises a climate where novel ideas are valued and actively sought. When risk taking is encouraged, a team is likely to simply feel "freer" to try new ideas, an environment that will contribute to excited, committed, driven teams - charged teams (Sethi & Nicholson, 2001).

[65] Chimhanzi's (2004) conceptualisation of communication of connectedness and communication frequency share commonality with conceptualisation of DUE and DMIS in this study.

[66]

8.10.1.4.2 Encouragement of Risk-Taking behaviour and Achieved Integration

Evident in Table 8.8, while **RISKTB** is highly insignificant for **DINTTOT** at (ß = .073, *P* = .194) and **DMIS** at (ß = .070, *P* = .418), it is not only highly insignificant for **DUE** but also contrasts hypothesised directional influence at (ß = -.079, *P* = .354).

Though positive, the coefficient for **DINV** is also not significant. However, there is need for a cautionary interpretation of **DINV** evidence, considering the marginally insignificant coefficient at (ß = .139, *P* = .066), and following closer inspection, the marginally below level of significance t-statistic of 1.855.

Overall, to sum up, a conclusion of no support of *H6* is legitimate. Given the competitive dynamism that characterises today's marketplace, it would seem rational to expect a positive correlation between encouragement of risk taking behaviour and achieved degree of integration, an expectation which found no empirical support in this study. What this explains of the accounting–marketing interface is hard to tell, considering that this variable has received, surprisingly, little mention, in the broad domain of cross-functional relationship studies. The evidence could suggest that risk propensity is low in this interface, i.e., managers are not so open to new and creative ideas, and so less willing to take risks.

Apart from the negative (**DUE**) and close to significant (**DINV**) coefficients, the results in this study match Gupta (1984 - did not measure the dimensions of integration) and Parry and Song's (1993) examination of R&D–Marketing integration. Clearly, this is an area for further studies.

8.10.1.5 Joint Rewards and Achieved Integration

H5 (EMPRWD): The more the accounting and marketing managers are equally rewarded for the integration outcomes, the greater the degree of integration that will be achieved

8.10.1.5.1 Introduction

Employee reward, whether monetary or contrary, is a crucial motivation factor. Consistent with this theoretical substance, joint reward of integrating personnel is increasingly advocated, as a tool to galvanise and bolster sustainable team commitment. Studying channel – member cooperation, Ballou *et al* (2000) argue that joint reward of members eliminates friction gaps, as members feel better off through their cooperation. Unequal distribution of benefits, they maintained, potentially triggers economic imbalance, detrimental to the goal of ensuring that the coalition remains intact and benefits of the multiple enterprise cooperation are realised. This view reinforces Chimhanzi (2004) who suggests that joint reward has the capacity to sustain desired behaviours and discourage those that are detrimental to organisational functioning, such as conflict, a statement that is in line with the key premises of control literature. Interfunctional integration researches also concur to this viewpoint that integrating partners should be jointly rewarded (e.g. Xie *et al*, 2003; Song *et al*, 1997; Chimhanzi, 2004).

8.10.1.5.2 Joint Rewards and Achieved Integration

Statistically, this study suggests a mixed support for the connectedness of joint rewards to the achieved integration. The regression statistics for **REWARDP** (the performance dimension of reward) contrasts hypothesis: 1) all coefficients are not significant, and 2) the coefficients for **DUE** and **DMIS** are negative.

On the other hand, **REWARDM**, measuring monetary dimension of reward, achieved substantial support for *H5*. However, though positive at three points, coefficients are only significant for **DINTTOT** at (ß = .165, *P* = .002) and **DUE** at (ß = .

327, *P* = .000). The **DUE** evidence supports Xie *et al*'s (2003 – all samples) study on goal incongruity. Also, **REWARDM** is marginally insignificant and contrasts hypothesised directional influence for **DINV** at (ß = -.127, *P* = .069, t-statistics = -1.830). On this evidence, H5 (monetary) is supported. The **REWARDM** evidence is consistent with literature that suggests that collective reward motivates people whose tasks are interdependent, and thus facilitates cooperation among such (e.g. Parry & Song, 1993; Song *et al*, 1997; Leenders & Wierenga, 2002, Xie *et al*, 2003 – for China; and Chimhanzi, 2004). That said, the negative and almost significant coefficient of this factor on **DINV** might highlight a unique feature of the accounting–marketing interface: it could indicate that joint reward provokes anti-involvement behaviours, but it could also be explained in line with Chimhanzi's (2004) suggestion that financial incentives do not affect the extent to which integrating partners feel at ease with each other, as may be the case for **DMIS** with insignificant coefficient. Overall, the conclusion of a positive correlation between joint reward (monetary dimension) and achieved integration is legitimate, given additional insights from responses to Q11.10. This question measured the extent to which respondents believed the personnel of both departments had equal chances on the issues of salary, power, career prospects, and future in the organisation. The results suggest equality for all but salary: 30.6%, 47.6%, 69.2%, and 65.1%, in that order respectively. 63.2% of the respondents believed that Accounting had better salary, supporting the descriptive evidence in Table 7.18. Given these additional facts, considering salary imbalance, a possible explanation could be that people feel de-motivated to engage in active involvement, due to salary related issues.

Contrastingly, **REWARDP** (performance dimension) is insignificant for all levels and negative for **DUE** and **DMIS**. This hypothesis thus did not find support. Although

the estimates lack statistical significance and reinforce Mollenkopf *et al* (2000), there is a cause for worry, given coefficient levels and negativity reported. While this might highlight accounting–marketing interface specificities, further research is called for to clarify the role of performance dimensions of joint reward in the integration process.

8.10.1.6 Decentralisation of Decision Making Authority and Achieved Integration

H6 (DCENT): The more decentralised the decision making process of an organisation, the more the achieved Accounting – Marketing integration

8.10.1.6.1 Introduction

Complexity theory, an extension of systems theory that originated in the natural sciences and recently gaining increasing acceptance in the social sciences, is utilized to show theoretically how distributing power within an organisation can lead to more successful outcomes. Utilising contingency theory, decentralisation of decision making has received increased emphasis as a tool for responding to the demands of the ever changing marketplace. Decentralisation is seen as a mechanism for exploiting opportunities and responding to the challenge of, in the words of Roslender and Hart (2002) profitably satisfying customers. Consequently, given this relevance to organisational prospects, considerable attention is being focused on exploring its link to cross-functional relationships. Recognising this growing importance, this study explored this link in relation to accounting – marketing integration.

8.10.1.6.2 Decentralisation of Decision Making Authority and Achieved Integration

Decentralisation (**DCENT**) was composed of elements that captured the extent to which employees can take decisions without a superior's influence.

On pooled sample results, the incremental F-test indicates that **DCENT** does not have a statistically significant effect on the achieved level of integration, both for the integration summation (**DINTTOT**) and the individual dimensions of **DINV** and **DUE**.

The regression results show significance for **DMIS** at (ß = .163, *P* = .040), and though not significant the results for **DINV** and **DUE** tend to suggest a tendency for a negative correlation of this factor. By implication, the results might suggest that **DCENT** is not a common practice in this interface. Overall, the results support (**DINTTOT**, **DINV** and **DUE** - for insignificance) and contrast (**DMIS**) Parry and Song (1993) which, in the R&D–Marketing interface, found no support for the hypothesis that decentralisation of decision-making authority is associated with higher levels of achieved integration. The evidence (**DINTOT**, **DINV** and **DUE** - for insignificance) also compares with Dewsnap and Jobber (2004) which explored Sales–Marketing relationship.

Examining regression estimates for **DINTTOT** vis-à-vis **DINV** and **DUE**, further consideration of this variable is pertinent, for literature flags this variable, along with formalisation, as the most opaque in the exploration of cross-functional relationships. Although a conclusive judgement might be empirically premature, given significance levels, the vis-à-vis relationship might suggest the existence of personality issues, which though have no obvious negative implications on **DMIS** impact highly negatively on the collaboration dimensions (**DINV** and **DUE**): as literature shows, culture, orientation and perception differences are common in this interface.

8.10.1.7 Role Flexibility and Achieved Integration

H7 (ROFLEX): The more the cross-functional role performance between Accounting and Marketing personnel, the more the achieved Accounting/Marketing integration

8.10.1.7.1 Introduction

Additional to the cross-functional structure mandatory for effective inter-functional information sharing, Roslender and Hart (2006) posit higher order cooperation between accounting and marketing. 'Both sets of practitioners need to fully immerse themselves in their colleagues' knowledge, and in effect begin to become functionally interchangeable with them' (op. cit.). This logic resonates with inter-dependence

arguments of cross-functional relationships that suggest integrating partners must draw close to each other, a lens that flags complementary understanding contingency of integration efficacy. Literature (e.g., Ratnatunga *et al*, 1989; Parry & Song, 1993; Mollenkopf *et al*, 2000) however evidences that achieving a suitable complementary modus is contingent also, among others, on educational orientation of integrating personnel. Increasingly, researchers posit role flexibility as a knowledge and culture gaps bridging (e.g. Kotler *et al*, 2006) and facilitating integration tool.

8.10.1.7b Role Flexibility and Achieved Integration

The role flexibility construct was composed of 4 measures, and following body of literature on interfunctional integration, a positive correlation was suggested. From the regression results for **ROFLEX**, *H7* is not supported, both for **DINTTOT** and the individual dimensions. Counter to hypothesis, regression coefficients for all models are not only highly insignificant but negative. At (ß = -.117, *P* = .111, t-statistics = -1.602) for **DUE ROFLEX** is fairly close to achieving contrasting significance. Overall, directional results for this factor purely contrast established literature. These results contradict the findings in Moenaert *et al* (1994 – studied cross-functional communication) and Garrett *et al*, (2006 – NZ sample), Cespedes (1993 – studied coordination), Kotler *et al* (2006 – studied collaboration) and Wilson and Bancroft (1983). Kotler *et al* (2006, p. 9) state that: "as functions become better aligned, it's important to create opportunities for marketers and salespeople to work together. This will make them more familiar with each other's ways of thinking and acting." They should cross role perform, and in so doing cross share knowledge (op. cit.). This argument harmonises established theoretical foundations.

By this study's evidence, the above theoretical foundation is not tenable in the accounting–marketing interface. The core take then, is that role flexibility is negatively correlated to achieved accounting–marketing integration, highlighting a

non-commodious influence of the factor, an evidence that supports Krohmer *et al*'s (2002) study of sales and marketing integration (all organisations studied did not practice job rotation). Thus, role flexibility is not a feature of accounting–marketing interface, a trend that might be explained by the evident culture, perception and orientation dichotomies that typify the dyad. Given contrast to hypothesised direction, this study's results are consistent with Garrett *et al*'s (2006) study of R&D – marketing integration, which suggested high task connectivity role flexibility influence in Singapore, i.e., role flexibility only occurs when it is related to the task to be done. Secondly, the results for this variable could also be explained in line with literature suggesting that role flexibility is contingent on the markets that the organisation serves (e.g., Moenaert *et al*, 1994). Thirdly, the overall evidence could be reinforcing Rouzies *et al* (2005) who, studying sales-marketing integration, flagged the U-shaped relationship consequences of increasing levels of formal communication and job rotation, which analysed in line with the communication evidence in this study, is valid. Finally, blind use of role flexibility could trigger conflicts, and such involvement induced conflicts (Song *et al*, 1998) can disrupt work patterns and consume inordinate amount of time for those involved.

Considering sharp contrast of regression results to extant literature, along with other variables, the researcher conducted further telephone interviews with 20 firms, randomly selected from the previously defined sample of 300. The emergent evidence was further explored through a 90 minutes semi-structured interview with the responsible personnel of one of the companies that participated in the main survey. The key findings from the interview are summarised in Section 8.12.

8.10.1.8 Culture and Orientation Differences and Achieved Integration

H8 (CODIFF): The more the culture and perception differences between Marketers and Accountants at the Accounting/ Marketing Interface the less the degree of achieved integration

8.10.1.8.1 Introduction

Functional units within the organisation are usually characterised by 'Thought World Differences' (Griffen & Hauser, 1996; Maltz, 1997; de Ruyter & Wetzels, 2000). A common price for such differences is usually interpretative diversities, a development (de Ruyter & Wetzels, 2000) that often form the root cause for dependence and communication barriers in the marketing–finance interface. Culture conflicts trigger development of strains in the working relationship between sales and marketing, leading to dysfunctional outcomes (Kotler *et al*, 2006). These views reinforce Song (1991) and Parry and Song (1993). Recent studies reiterate this logic: e.g., culture bias and perception and orientation differences impede social capital or social goodwill (Adler & Kwon, 2002; Shipilov & Danis, 2006), and thus have the potency to hinder integration.

8.10.1.8.2 Culture and Orientation Differences and Achieved Integration

From the regression results, culture and orientation differences (**CODIFF**), measured with four variables, correlated negatively at all levels. However, statistical significance of **CODIFF** is only found for **DINTTOT** at (ß = -.122, *P* = .026) and **DUE** at (ß = -.168, *P* = .042), thus evidencing partial support of the hypothesis. Although *H8* is supported (**DINTTOT**), the **DINV** and **DMIS** results, contrasting interface culture walls evidence, are surprisingly highly insignificant. Despite this, on overall evidence, *H8* is largely supported. Though insignificant, the regression estimates for **DINV** might indicate the tendency that, despite the evident culture dichotomies (see Table 8.16), accounting and marketing do engage in effective involvement, when required. Following theoretical foundation, it would seem rational to expect that culture and

orientation biases or 'Though World Differences' (Maltz, 1997; de Ruyter & Wetzels, 2000) impede effective cross-functional relationship, for such departmental biases trigger rifts and emotional behaviours that endanger interaction and collaboration.

Table 8.16: Descriptive Statistics: Culture differences between Accounting and Marketing

Variables		Pooled Sample %age	Marketing Sample %age	Accounting Sample %age
Both departments do not understand each other	**V1**	45.2%	44.4%	45.7%
Accounting and Marketing cultures differ	**V2**	86.3%	86.1%	87.2%
Accounting and Marketing thinking patterns differ	**V3**	88.4%	91.1%	85.7%
Views of organisational objectives differ	**V4**	36.3%	35.4%	35.8%

Shown in Table 8.16, culture and thinking patterns of accounting and marketing are highly parallel, and the extent to which they understand each other is relatively week, which is consistent with literature (Field & Gabhart, 1971; Harrison, 1979; Foster & Gupta, 1994; Wilson, 2000). However, it is also evident that views of organisational objectives differ minimally, a possible explanation for the insignificant coefficient levels achieved. Considering contrasting evidence vis-à-vis body of literature, telephone interviews with 20 firms, randomly selected from the initial sample of 300, to investigate results, were carried out. From the interview results, it was evident that the negative effects of culture walls were minimised by the use of the management mechanism of cross-functional bridge in most of the firms explored.

Though not significant, a critical evaluation of statistical and interview evidence leads to a legitimate conclusion that **CODIFF**, *ceteris paribus*, would correlate negatively to achieved integration, a conclusion that lends support to the pioneering work of Gupta (1984) and Parry and Song (1993), which flagged the measures for this study as barriers to R&D–Marketing integration. Thus, on the combined evidence, the hypothesis that **CODIFF** correlates negatively to the achieved accounting-marketing integration is supported. However, harmonising the combined evidence, accounting and marketing are moving beyond the days of 'non-integrated as cats and dogs' as suggested by Field and Gabhart (1971). This evidence is elaborated in Section 8.12. That said, improving our understanding requires further examination of this variable.

8.10.1.9 Non-Departmental Proximity and Achieved Integration

H9 (NONDEPPROX): The more the Non-departmental proximity of Accounting and Marketing, the less the integration between accounting and marketing.

8.10.1.9.1 Introduction

Within the interfunctional relationship context, physical proximity appears to be the least explored amongst the management elements of organisational antecedents of integration. Contextually, non-departmental proximity construct in this study reflects the extent to which both departments are separated, the non-propensity for chance meetings/contacts and informal interactions, and the extent to which the perceived separation reduces the chance to learn and understand each other.

Following social capital theory, inter-personal social contacts lubricate cooperative behaviour. Social capital is a force that binds, lubricates, and promotes collective action and cooperation (Shipilov & Danis, 2006), and regular informal interactions promote goodwill (Adler & Kwon, 2002; Shipilov & Danis, 2006). Such regular informal interactions improve staff compatibility towards full leveraging of integration synergies. Physical proximity enables '*socialisation*', a concept (Gupta & Govindarajan, 2000) that refers to the level of interaction between, and communication of, various actors that leads to the building of personal familiarity, improved communication, and problem solving.

8.10.1.9.2 Non-Departmental Proximity and Achieved Integration

The findings for this variable largely reinforce body of literature. The regression coefficient for **NONDEPPROX** is negative and significant at (ß = -.129, *P* = .017) for **DINTTOT**. Given statistical evidence, one very practical means to improve integration may be to ensure spatial proximity between integrating departments. The result for **DINTTOT** corroborates Leenders and Wierenga (2002) and Xie *et al*'s (2003 – for US, UK and Japan samples) examination of this variable's influence on goal incongruity.

An inspection of statistical evidence for the individual dimensions however highlights dimensional differentials. While the regression coefficients are negative for **DMIS** and **DUE**, supporting literature, significance is achieved for only **DUE** at (ß = -.258, *P* = .002).

The significance levels for **DINTTOT** and **DUE** are strong and reinforced by responses to Q10.4. Analysing responses to Q10.4 (see Table 8.17), checking for physical distance between accounting and marketing, 51.7% of respondents perceived both departments to be located in different buildings. These statistics corroborate descriptive results for this factor (see Chapter 7). Overall, the highly significant coefficients support the expectation that when integrating members socially interact, they are more likely to feel at ease with each other and integrate. For **DINV**, **NONDEPPROX** is not only insignificant but also positive. This could suggest that the positives of informal social interaction are negated by deeply-rooted rifts that account for impasse in relations.

The finding for **NONDEPPROX** demonstrates that the more the spatial distance between accounting and marketing, the less the propensity to achieve effective overall integration. Similarly too, less effective *esprit de corps* is achieved if both department are separated. The insignificant coefficient for **DMIS** is comparable to de Ruyter and Wetzel's (2000) insignificant correlation between inter-functional distance and relational attitude. The **DMIS** evidence highlight contemporary feature of information sharing that may not be sustained on physical proximity of participants, which is rational considering the conceptualisation of information sharing dimension in this study. Not significant and contrasting directional influence, **DINV** might highlight accounting–marketing elements that may not have been captured within this data.

Table 8.17: Physical Distance between Accounting and Marketing Departments – Pooled Responses

Options	Frequency	%age
A & M are on the same floor of the building	30	20.1
A & M are on same building but separated by 1 or 2 floors	34	22.8
A & M are on same building but separated by more than 2 floors	8	5.4
A & M are in different buildings but within 5miles reach	50	33.6
A & M are in different buildings and are not within 5miles reach	17	11.4
A & M are geographically wide apart	10	6.7

8.10.1.10 Employee Participation and Achieved Integration

H10 (EMPPASMS): The more accounting and marketing employees participate in the strategic marketing process, the more the achieved integration

8.10.1.10.1 Introduction

According to Mitchell (1973), participation is defined within the participative decision making (PDM) framework, as a process in which influence is shared between superiors and teams or sole subordinates. The development of participative management contributes effectively to the integration of procedures and processes (Shaw & Shaw, 1998).

In this study, following established precedence (e.g., Parry & Song, 1993; Gupta, 1986; Song & Parry, 1993; Song & Thieme, 2006), participative decision making reflects the extent to which accounting and marketing departments' personnel participate in decision making along the four stages of strategic marketing process.

8.10.1.10.2 Employee Participation and Achieved Integration

The regression estimates for participative decision making are insignificant in all but one case. Very few studies have considered this construct in the examination of interfunctional relationships. While Parry and Song (1993) suggest non-significant effect of participative decision making on integration, Song and Thieme (2006) found support in just one of two samples. Strangely, both studies considered, amongst others, the Japanese R&D–Marketing integration. The results in this study are, but for **DINV**, congruent with Parry and Song (1993). The regression coefficients (except for **DUE**) are largely insignificant for **DMIS** and **DINTTOT**, and capture negative correlation for **DUE** and **DMIS**.

While **DINV** is highly significant at (ß = .243, *P* = .000) **DUE** is marginally insignificant (but negative) at (ß = -.135, *P* = .060, and t-statistics = -1.897). This hypothesis is thus only supported for **DINV** dimension, evidence which suggests that direct involvement between accounting and marketing is only practiced, when driven by necessity. These largely non-significant estimates are particularly surprising, given the importance of participative decision making in the U. S. findings of Gupta *et al* (1987). Although not significant, the results for **DUE** and **DMIS** could suggest that cross participative behaviour along the strategic marketing stages has no acceptance in the accounting marketing interface, and imposing such practice might trigger negative outcomes. At t-statistics of -1.897, the coefficient for **DUE** is very marginally insignificant. This could be flagging a critical feature of this interface, which might connect with the non-acceptance argument. This tendency is also captured in the marketing and accounting samples. It might also be that these results, including the significant effect on **DINV**, are the extended implications of huge culture walls in this interface.

8.10.2 DISCUSSION OF HYPOTHESES – ACHIEVED INTEGRATION AT THE STRATEGIC MARKETING STAGES

Adopting a strategic perspective is critical in today's marketplace:

> "Markets are more dynamic now than ever before in the history of capitalism and the need for a strategic perspective on how to compete successfully has never been more acute." **(**Egan, C., CIM Handbook, 2003, p.1**)**

Given above strategic argument, in alignment with numerous, though largely anecdotal, advocacy for exploiting the potential strategic marketing synergies of effective marketing-accounting integration, this study, utilising the definition in *H11*, also explored the antecedents of integration during the strategic marketing process.

The respective hypotheses for the antecedents of achieved integration at the strategic marketing stages were tested by regressing each of the 4-stages of the

strategic marketing process on the measures of communication, organisational structure and climate. While Table 8.9 shows the pooled sample results, the marketing and accounting samples statistics are captured in Tables 8.10 and 8.11 respectively.

Following suggested hypothetical positions (see Figure 4.1, Figure 5.1 (Part B) and Figure 6.4), the relational link of the 10 independent variables on achieved integration across the strategic marketing stages, was investigated, to verify the propositions that:

H11a: The more the communication gap between Accounting and Marketing the less the achieved accounting/marketing integration at the strategic marketing stages

H11b: The higher the perceived level of formalisation in an organisation the greater the achieved accounting/marketing integration at the strategic marketing stages.

H11c: The more management supports Accounting/Marketing integration, the more the achieved integration at the strategic marketing stages.

H11d: The more senior management encourages risk-taking from the accounting and marketing managers, the greater the degree of achieved integration at the strategic marketing stages.

H11e: The more the Accounting and marketing managers are equally rewarded for the integration outcomes, the greater the degree of integration that will be achieved at the strategic marketing stages.

H11f: The more decentralised the decision making process of an organisation, the more the achieved Accounting – Marketing integration at the strategic marketing stages.

H11g: The more the cross-functional role performance between Accounting and Marketing personnel, the more the achieved Accounting/Marketing integration at the strategic marketing stages.

H11h: The more the culture and perception differences between Marketers and Accountants at the Accounting/ Marketing Interface the less the degree of achieved integration at the strategic marketing stages.

H11i: The more the Non-departmental proximity of Accounting and Marketing, the less the integration between accounting and marketing at the strategic marketing stages.

H11j: The more accounting and marketing employees participate in the strategic marketing process, the more the achieved integration at the strategic marketing stages.

The hypothetical conclusions for the strategic marketing stages are outlined under *H11* (a – j).

H11a (**COMMGAP**) is supported for all stages of the strategic marketing process.
The regression statistics for all four stages were not significant for **FORMPS**, thus

H11b not supported. Though not significant, the directional influence of this variable varied across stages.

H11c (**MANSFINT**) is supported for all four stages of the strategic marketing process, while

H11d (**RISKBEH**) is not supported across all stages.

H11e (**REWARD**) is very minimally supported. While **REWARDP** received no support, **REWARDM** was supported at two stages.

H11f (**DCENT**) is not supported at all stages of the strategic marketing process.
The regression statistics for **ROFLEX** were positive and significant for all stages.

H11g was thus overwhelmingly supported.

H11h (**CODIFF**) suggesting non-complementary influence of culture and orientation differences was supported for three stages.

The results of this study evidenced support for *H11i* (**NONDEPPROX**) at three stages, but found support for *H11j* (**PART**) for only one stage.

Capitalising the theoretical foundations in the subsections of 8.10.1 *H11a –H11*j were examined for all respective strategic marketing equations. The hypothetical findings for the strategic marketing stages are elaborated in the following sections.

8.10.2.1 Communication Gap and Achieved Integration at the Strategic Marketing Stages

H11a: The more the communication gap between Accounting and Marketing the less the achieved accounting/marketing integration at the strategic marketing stages

Examining communication and team working through an interdisciplinary lens, Peters and Fletcher (2004) argue that marketing managers must relate consumer needs and project development operations effectively if they are to succeed in developing new and profitable offerings in the marketplace. This approach, they maintained, is market based; and with a communication network that facilitates exchange of knowledge, the expression of desires, and the dissemination of information. To achieve these critical communication nodes of information and behavioural patterns, and consumers cum business needs, this study posited that communication must be regular, comprehensive, reflect accurate information exchange, and of course be consumer – business aligned (strategic marketing interest in this study).

Communication facilitates CFR (Massey & Dawes, 2007); a critical factor for efficient operation of firms (Ballantyne, 1997; Kohli & Jaworski, 1990). Strategic marketing being the organisational operation in focus here, empirical evidence supports the above substance: The findings suggest that organisation's communication culture has immense influence on achieved integration at all strategic marketing stages. As one of only three factors (including **MANSFINT** and **ROFLEX**) significant at all stages, and in the anticipated direction, **COMMGAP** is a high predictor of achieved integration during the strategic marketing process. Given the negative and significant regression estimates for **COMMGAP** (all stages), hypothesis 11a is supported. The high and significant regression coefficients for all stages [**SMAS** at (ß = -.163, *P* = .018); **SMPS** at (ß = -.197, *P* = .006); **SMIS** at (ß = -.258, *P* = .000); and **SMCS** at (ß = -.298, *P* = .000)] not only add support to the results for the dimensions of integration explained earlier, but corroborates the results in the pioneering studies of Gupta 1984 and Parry and Song (1993) that identified the instrument for this factor as core barriers to integration. Also, the results for **COMMGAP** strengthen the contention that interfunctional integration, a consequence of interfunctional dependencies (Larson & Gorbeli, 1987), is sustained through effective horizontal communication linkages (Moenaert & Souder, 1990; Song *et al*, 1998).

8.10.2.2 Formalisation and Achieved Integration at the Strategic Marketing Stages

H11b (FORMPS): The higher the perceived level of formalisation in an organisation the greater the achieved accounting/marketing integration at the strategic marketing stages.

Utilising scale specified in *H2* (**FORMPS**), formalisation's predicting influence across the four stages of strategic marketing process was examined. *H11b* is unsupported for all strategic marketing process stages, given highly non-significant regression estimates. Directionally, **SMAS** and **SMPS** estimates contrast hypothesised

predicting influence. Summarizing the results for 'formalisation' Song and Thieme (2006) not only emphasised the 'not supported' findings for all countries, but also pinpointed that formalisation has received mixed support in previous studies, thus legitimising conclusion that their results are consistent with previous researches. In this study of accounting–marketing integration, the formalisation findings resonate with Song and Thieme's (2006) study of R&D–Marketing interface: the contrasting to hypothesis results for **SMAS** and **SMPS** reinforce contradictory direction for U.S., Japan and pooled samples, and the not significant regression results for all considered strategic marketing stages agree with the 'not supported' findings for the U.S., China, Japan and pooled samples in same study.

Inspecting integration summation and dimensions results in tandem, but also in alignment with existing empirical contentions of opaqueness of **FORMPS** in relation to integration (e.g., Mollenkopf *et al*, 2000; Song & Thieme, 2006; Gupta, 1984; Parry & Song, 1993), the researcher is unable to draw any conclusion on likely implications.

8.10.2.3 Management Support and Achieved Integration at the Strategic Marketing Stages

H11c (MANSFINT): The more management supports Accounting/Marketing integration, the more the achieved integration at the strategic marketing stages.

The results for **MANSFINT** not only support *H11c* but also body of literature. The regression coefficients are high and significant at **SMAS** (ß = .392, *P* = .000), **SMPS** (ß = .314, *P* = .000), **SMIS** (ß = .270, *P* = .000) and **SMCS** (ß = .181, *P* = .004). This evidence thus suggests strong management support for the integration efforts. Additional to the **DINTTOT** and **DINV** evidences (see Section 8.10.1.3.2), the highly significant coefficients achieved for all strategic marketing stages underline the critical importance of management support to effective symbiotic interrelating amongst functional areas.

Given that no previous study had explored CFR in connection with strategic marketing activity, results are only compared with empirical evidence from other interface and considered synergistic organisational activities. The results compare well with Parry and Song's (1993) examination of this factor along the new product development process (confirmed for 3 but 1 stage(s).

8.10.2.4 Encouragement of Risk-Taking Behaviour and Achieved Integration at the Strategic Marketing Stages

H11d (RISKTB): The more senior management encourages risk-taking from the accounting and marketing managers, the greater the degree of achieved integration at the strategic marketing stages.

Sethi and Nicholson (2001) reported that senior management's encouragement of risk approaches was not related to teams' charged behaviour[67]. The regression coefficients for **RISKTBEH** for all strategic marketing process equations are insignificant at **SMAS** (ß = .095, *P* = .126), **SMPS** (ß = .050, *P* = .442), **SMIS** (ß = .053, *P* = .413), and **SMCS** (ß = .017, *P* = .804) and support Sethi and Nicholson (2003).

Comparing the results for **RISKTBEH** with Parry and Song (1993), a study that used three of the parameters in this study in the exploration of R&D–Marketing integration across the new product development stages, substantial contrast is evident: regression coefficients are positive and significant for all equations.

The evidence in this study might be flagging core issues in this interface. On this study's evidence, it seems legitimate to conclude that, even when given green light to be risk (friendly) and innovative, teams rarely do. Exploiting existing logic (Sethi & Nicholson, 2003), it could be true that team members in some firms discount this kind of encouragement because they know that failure or risk will not really be tolerated. Thus, despite permission to be risk open, the attached costs are, in reality, considered too high. On contextual logic, it is also possible that if this study had sensitized

[67] Conceptualised to include excited, committed and team driven behaviour (Sethi & Nicholson, 2001).

encouragement to take risk in general rather than encouragement to pursue new approaches to the development of the product, there may have been a different effect. Future research may want to focus on the effect of general encouragement to take risk construct on charged behaviour and outcomes.

8.10.2.5 Joint Rewards and Achieved Integration at the Strategic Marketing Stages

H11e (EMPRWD): The more the accounting and marketing managers are equally rewarded for the integration outcomes, the greater the degree of integration that will be achieved at the strategic marketing stages.

Reasonable support for *H11e* is found for the strategic marketing process. The regression coefficients for **REWARDM** are positive and significant, **SMAS** at (ß = .110, *P* = .055) and **SMIS** at (ß = .134, *P* = .026). While **SMPS** is marginally insignificant at (ß = .111, *P* = .063, t-statistics = 1.873) **SMCS** contrast *H11e*, in significance and directional influence. Thus **REWARDM** is a significant predictor of achieved strategic marketing process integration, evidence that reinforces argument that collective reward motivates people with interdependent tasks (Leender & Wierenga, 2002).

The evidence for **REWARDP** suggests a contrast: the regression coefficients are insignificant for all four stages of the strategic marketing process, while also being negative for **SMAS**. However, the **REWARDP** evidence must be considered with caution, considering the relatively high t-statistics for **SMPS** (1.636) and **SMIS** (1.553). Drawing on the evidence in Parry and Song (1993), the **REWARDP** evidence might reflect a general absence of team performance specific rewards.

From the evidence in this study, it seems legitimate to conclude that monetary reward elements are more likely to improve achieved accounting-marketing integration during the strategic marketing process. This evidence might highlight potential differential issues.

Given lack of precedence on the examined context, the **REWARD** results are only compared with evidence in other contexts. Overall the evidence for both dimensions of reward compare favourably with past studies (Chimhanzi, 2004; Parry & Song, 1993) that also reported a combination of positive and negative, as well as significant and insignificant evidences.

8.10.2.6 Decentralisation of Decision Making Authority and Achieved Integration at the Strategic Marketing Stages

H11f (DCENT): The more decentralised the decision making process of an organisation, the more the achieved Accounting – Marketing integration at the strategic marketing stages.

Though neither expected nor significant, the regression coefficients for **DCENT** are negative at three strategic marketing process stages (**SMAS**, **SMPS**, and **SMCS**). While the *H11f* evidence is homogeneous with *H6*, which is expected, it is surprising that *H11f* not only lacked support for all levels but showed high statistical insignificant coefficients. An inspection of t-statistics for all model [-.139 (**SMAS**), -1.293 (**SMPS**), . 519 (**SMIS**), and -1.167 (**SMCS**)] reinforce statistical insignificance.

There are some plausible explanations for the results during the strategic marketing process. First, the results might suggest that despite importance of decentralisation of decision making authority to effective information sharing (*H6*), it may not be relevant during the strategic marketing process, for the pooled parameters for each model. An examination of each pool of dimensions at each stage however highlighted significance levels of *H11f* at several points. Again, given the lack of empirical precedence in relation to the organisational activity context examined in this study, *H11f* evidence was compared against Parry and Song's (1993) exploration of R&D–marketing integration during the new product development process. The evidences for *H11f* are congruent with Parry and Song (1993).

8.10.2.7 Role Flexibility and Achieved Integration during the Strategic Marketing Stages

H11g (ROFLEX): The more the cross-functional role performance between Accounting and Marketing personnel, the more the achieved Accounting/Marketing integration at the strategic marketing stages.

With rapidly changing organisational environment, the exclusive jurisdictions traditionally associated with different professional functions have been replaced by greater levels of interfunctional cooperation in the pursuit of delivering value to the customer (Roslender & Hart, 2006). While CFR literature (e.g., Souder, 1987; Xie *et al*, 2003 – US sample) suggests a positive link between role flexibility and achieved integration, *H7* above suggests the contrary.

The strategic marketing findings support the 'intuitive appeal' (Song *et al*, 2000) of role flexibility to cross-functional integration. The regression evidence for **ROFLEX** at the strategic marketing stages is congruent with existing precedence that suggests positive link. *H11g* is thus supported for **SMAS** at (ß = .212, *P* = .000), **SMPS** at (ß = .145, *P* = .010), **SMIS** at (ß = .160, *P* = .004) and **SMCS** at (ß = .198, *P* = .001). Evidently, **ROFLEX** is a critical integrating mechanism during the strategic marketing process. Analysed vis-à-vis the integration dimensions, the strategic marketing evidence lends support, not only to Garrett *et al*'s (2006) which suggested high task connectivity role flexibility influence in Singapore, i.e., role flexibility only occurs when it is related to the task to be done, but also to Moenaert *et al* (1994), Garrett *et al*, (2006 – NZ sample) and Wilson and Bancroft (1983). On this emerging fact, better understanding and interpretation of the result in *H7* is also enabled. Role flexibility is thus commodious to accounting-marketing interface, given task relevance.

8.10.2.8 Culture and Orientation Differences and Achieved Integration at the Strategic Marketing Stages

H11h (CODIFF): The more the culture and perception differences between Marketers and Accountants at the Accounting/ Marketing Interface the less the degree of achieved integration at the strategic marketing stages.

The findings for this study flag **CODIFF** as one of the core antecedents of integration during the strategic marketing process. The regression coefficients for all strategic marketing equations are negative and significant (except one). While *H11h* is supported for **SMAS** at (ß = -.169, *P* = .005), **SMPS** at (ß = -.204, *P* = .001) and **SMCS** at (ß = -.150, *P* = .023), it is marginally insignificant for **SMIS** at (ß = -.104, *P* = .098). Given the t-statistics for **SMIS** (-1.664), the result must be interpreted with caution.

The *H11h* evidence is broadly supportive of Parry and Song (1993) and Gupta (1984) who identified the parameters for this factor as barriers of integration in the R&D/Marketing interface. Additionally, the statistical significance of this factor is reinforced by the evidence in Table 8.18 that summarised responses to Q9a, which sensitized the barriers of integration during the strategic marketing process.

Overall, the findings reveal that 'thought worlds' differences (Griffen & Hauser, 1996; Maltz, 1997; de Ruyter & Wetzels, 2000) are critical impediments to accounting-marketing integration. Consequently, accounting and marketing, as partners, must minimize the culture walls, to achieve effective integration.

8.10.2.9 Non-Departmental Proximity and achieved Integration at the Strategic Marketing Stages

H11i (NONDEPPROX): The more the Non-departmental proximity of Accounting and Marketing, the less the integration between accounting and marketing at the strategic marketing stages.

The findings for **NONDEPPROX** largely support theoretical contention that non-departmental proximity correlates negatively with achieved integration (Xie *et al*, 2003 – diversely, though across samples, Leenders & Wierenga, 2002). Though negative for all strategic marketing equations, **NONDEPPROX** coefficient is only

significant for **SMAS** at (ß = -.143, *P* = .016), **SMIS** at (ß = -.132, *P* = .032) and **SMCS** at (ß = -.143, *P* = .027). These findings indicate that proximity between accounting and marketing departments is critical for effective integration during the analysis, implementation and control stages of the strategic marketing process.

It is difficult to explain the highly insignificant coefficient for **SMPS**, given 1) existing empirical contention on the predicting role of the examined construct, and 2) lack of empirical research on integration during the strategic marketing process.

8.10.2.10 Employee Participation and Achieved Integration at the Strategic Marketing Stages

H11j (EMPPASMS): The more accounting and marketing employees participate in the strategic marketing process, the more the achieved integration at the strategic marketing stages.

For **EMPPASMS**, the regression coefficients achieved are **SMAS** (ß = -.009, *P* = .869), **SMPS** (ß = .109, *P* = .046), **SMIS** (ß = .082, *P* = .133), and **SMCS** (ß = .088, *P* = .124).

From the evidence thus, there is no support for the hypothesis that higher levels of employee participation are associated with higher levels of achieved integration at the **SMAS**, **SMIS** and **SMCS** stages, evidences that corroborate Parry and Song' (1993) examination of integration predictors during the various stages of new product development, and all samples in Song and Thieme's (2006) exploration of the R&D-Marketing interface in the production innovation process in three countries.

The evidence for **SMAS** (ß = -.009, *P* = .869), though not significant, might suggest that imposing employee participation might potentially trigger negative integration, a fact supported for two equations (Budgeting stage and Product development stage) in Parry and Song (1993). This pooled sample (**SMAS**) evidence is interesting and difficult to explain, given 1) that the individual samples coefficients, though not

significant, are positive, and 2) the increased emphasis on the use of participative decision making in organisations.

The overall results might thus suggest that participation in decision making is more relevant in the planning stage of the strategic marketing process.

Although, given reasonable homogeneity in the departmental results, the findings for this study were concluded based on the pooled sample, a few differential evidences between the departmental samples are summarised in Section 8.10.3.

8.10.3 ACCOUNTING VIS A VIS MARKETING REGRESSION RESULTS

The regression F-value for all equations was significant (P =.000) for both samples, except for **DMIS** equation (marketing sample). The multivariable regression differentials for the two dependent variable groups are summarised in Sections 8.10.3.1 (**DINTTOT**, **DINV**, **DUE** & **DMIS**) and 8.10.3.2 (**AI@SMAS**, **AI@SMAS**, **AI@SMAS** & **AI@SMAS**).

8.10.3.1 The Achieved Integration

While both marketing and accounting samples captured 3 significant and 1 marginally insignificant predictors for integration summation (**DINTTOT**), predicting factor mix and significance levels differed. Although highly insignificant, two variables negated hypothesised directional influence: **ROFLEX** (both samples) and **REWARDP** (accounting sample).

When **DINTTOT** was dissected and inspected, the individual integration dimensions (except **DINV**) also reflected strong homogeneity across both samples, in terms of number of significant predictors captured. However, the factor significance mix, harmonising the **DINTTOT** evidence, also varied. The significant and marginally insignificant variables for all equations are highlighted in Tables 8.10 (marketing) and 8.11 (accounting) in pages 295 and 296 respectively.

For **DMIS**, 1 significant and 2 marginally insignificant (marketing) and 1 significant and 1 marginally insignificant (accounting) predicting factors are captured. While both samples highlighted 3 predicting factors for **DUE**, the marketing sample also highlighted a case of 1 marginally insignificant factor. Although the marketing regression evidence is congruent with accounting's, highlighting 1 case of marginally insignificant predictor, marketing and accounting responses suggest 2 and 3 (in that order) significant predictors.

All coefficients (significant and marginally insignificant) for both samples are in the hypothesised directions except in 3 cases: 1) **EMPPASMS** contrasts posited direction of influence for **DUE**, and is significant (accounting sample) at (ß = -.323, *P* = .018) and marginally insignificant (marketing) at (ß = -.194, *P* = .073, t-statistics = -1.820); 2) **DCENT** contrasts directional influence for **DINV** and coefficient is marginally insignificant (accounting) at (ß = -.164, *P* = .084, t-statistics = -1.756); and 3) **REWARDM** contrasts hypothesised direction and is significant (accounting sample) for **DINV** at (ß = -.221, *P* = .027).

All three samples examined jointly, the **EMPPASMS** evidence for **DUE** highlights critical issues in the working relationship between accounting and marketing. More investigation of this variable is necessary to improve our understanding of this relationship.

8.10.3.2 The Achieved Integration at the Strategic Marketing Stages

The multivariable regression results for the **SMAS** equation, given sample size disparity, are relatively uniform. However, while the marketing sample evidenced 4 significant coefficients, the accounting sample captured 1 significant and 3 marginally insignificant predictor(s). On the **SMAS** coefficient evidence for **COMMGAP** (ß = -.170, *P* = .093, t-statistics = -1.702), **ROFLEX** (ß = .169, *P* = .064, t-statistics =

1.885), and **NONDEPPROX** (ß = -.171, *P* = .069, t-statistics = -1.850), the accounting evidence is very minimally different from the marketing sample.

While both samples captured 3 significant coefficients for the **SMPS** equation, **DCENT** factor negates hypothesised direction of influence and is very marginally insignificant at (ß = -.167, *P* = .064, t-statistics = -1.882) for the accounting sample.

There is a fairly significant differential in the regression results for the **SMIS** equation: while the marketing sample indicates 4 significant and 1 marginally insignificant predictor(s), only 3 significant predictors are captured in the accounting sample. At (ß = .145, *P* = .093, t-statistics = 1.703) **EMPPASMS** is close to significance for the marketing sample.

A fairly significant differential is also captured in the regression estimates for the **SMCS** equation, but in this case, in the reverse formation for **SMIS**. The accounting sample captured 3 significant and 3 marginally insignificant predictors while marketing indicates 2 of each. Additional to the evidence in Tables 8.10 and 8.11, the t-statistics for **FORMPS** (1.902), **CODIFF** (-1.710) and **ROFLEX** (1.741) for the accounting sample, and **COMMGAP** (-1.816) and **CODIFF** (-1.697) for the marketing sample, suggest relatively close to significance evidence.

Overall, despite the highlighted cases of regression differentials between the two samples, for both groups of dependent variables, pooled sample conclusions are unimpaired and scientifically legitimate: 1) T-test and mean values for both samples are very similar, and thus support the evidence in Parry & Song (1993), 2) similarity in the aforementioned values, thus evidence uniformity in distribution, and legitimise the use of the pooled sample.

Having presented and discussed the statistical evidence from the study, Sections 8.11.1 and 8.11.2 highlight the evidence gathered using two open-ended questions.

8.11 The Results from the Open-Ended Questions

Two open-ended questions (Q9a & Q9b) sensitizing major integration barriers and critical lessons from failed strategic marketing plans were used in the study.

8.11.1 BARRIERS TO ACCOUNTING – MARKETING INTEGRATION

Both accounting and marketing managers were asked to list what they perceived to be the major barriers in achieving effective integration between accounting and marketing during the strategic marketing process in their organisations. Examination of responses captured 245 statements (marketing managers) and 208 (accounting managers). Following (Miles & Huberman, 1994), the statements were content analysed, using a literature review aligned coding, to determine the underlying barriers to accounting – marketing integration. The make-up of the final categories was verified by 3 randomly selected managers from each functional area that participated in the survey.

Table 8.18 (in page 345) presents the barriers to integration in descending critical order. The core barrier elements for each stage of the strategic marketing process are also highlighted.

Culture differences are perceived by both accounting and marketing managers as the core barrier to integration between both functions. This evidence is congruent with accounting–marketing literature. Although in the contrasting end of the table in hindrance capacity, the evidence for culture as integration barrier, in this study, supports the evidence of history of adversarial relations in Gupta (1984) and Parry (1993). The two departments are culturally separate and also think differently, thus supporting Parry and Song's (1993) study of R&D–Marketing interface.

In Table 8.18, communication related issues are highlighted as the second most critical barrier of **AMI**. This evidence lends further support to Gupta (1984) and Parry

and Song (1993), which sensitizing same context as Q9a in this study, captured communication issues as critical integration barrier.

Respondents also identified lack of cross-technical knowledge background and lack of boundary spanning as third and fourth most critical barriers of integration. These perceptions were supported by 12.8 % (marketing) and 11.9 % (accounting) for the former and 11.2% (marketing) and 13.7% (accounting) for the latter. The **FB** evidence matches some personal problems components in Gupta (1984). On the other hand, the **LCTKB** evidence supports Ratnatunga *et al*'s (1989) contention that marketing and finance's cross-knowledge awareness was lower than required for adequate cross-fertilisation to take place, but contrasts de Ruyter and Wetzels (2000) that suggest that marketing and finance might share a common educational background.

While the **FSBP** evidence is supported by accounting-marketing interface literature, the **OB** evidence lends support to Gupta (1984) and Parry and Song (1993). **MB**, reflecting management's failure to prioritise cross-boundary technical knowledge training and inter-personal skills in staff selection, was ranked as seventh most critical barrier of **AMI**. The **MB** evidence however contrasts de Ruyter and Wetzels (2000) that suggested cross-training opportunities in marketing-finance relationship.

Table 8.18: Barriers to Accounting–Marketing Integration – Open Ended Question Evidence

Barrier categories	Marketing's Perception[1]	Accounting's Perception[2]	Pooled Sample Distribution of Barriers at all Stages			
			SMAS	SMPS	SMIS	SMCS
a) Culture and orientation differences **(CD)** a. Culture gaps exist between Accounting and marketing* b. Accounting & Marketing have different thinking patterns* c. Stereotypes in perceptions about each other* d. Orientation biases	43.5%	41.7%	A, b and c	A, b, c and d	A, b, c and d	A, b, c and d
b) Communication Problems **(CP)** a. Poor Communication b. Limited exchange of ideas (fear to step beyond borders) c. Long time in processing plans prior to decisions	16.7%	15.2%	A, b and c	A, b, and c	A and b	A, b and c
c) Lack of cross-technical knowledge background **(LCTKB)** a. Hugely diverse technical background* b. Lack of awareness & understanding of financial marketing elements* c. Understanding and pursuit of marketing concept*	12.8%	11.9%	A, b and c	A, b and c	A, b and c	A and b
d) Almost impermeable functional boundaries **(FB)** a. 'Keep to your territory' behaviour* b. Fear of blame apportionment	11.2%	13.7%	A	A and b	A and b	A
e) Failure to see the big picture **(FSBP)** a. Defending the functional interest, not wanting to lose face* b. Failure to appreciate each other's technical limits* c. Failure of Accounting to release funds for marketing* d. Short-termism –Accounting over-emphasis on quick returns e. Accounting tends to be too risk-averse f. Goal incongruity	7.5.%	7.8%	A, b and c	A, c, d, e and f	A, c and d	A, d, e and f
f) Organisational Barriers **(OB)** a. Role conflicts* b. Authority level ambiguities*	4.7%	6.7%		B	A	A and b
g) Management barriers **(MB)** a. Non-appreciation of need for cross-boundary technical knowledge training* b. Non-emphasis of interpersonal skills in job selections*	3.6%	3.0%	A and b	A and b	A	A and b

a) Percentage based on 317 statements about barriers
b) Percentage based on 268 statements about barriers
* indicates those barriers accounting for most of the frequency

8.11.2 CRITICAL LESSONS FROM FAILED STRATEGIC MARKETING PLANS

The second open-ended question (Q9b) sought to highlight the most important lessons from unsuccessful strategic marketing plans. While 195 responses were received from marketing managers, 178 accounting responses were recorded.

Analysing the responses, four categories of lessons were identified (see Table 8.19). In descending critical order, the four major lessons learned from failed strategic marketing plans, as perceived by accounting and marketing managers, included need to/for: 1) intensify project feasibility checks, 2) effective integration between departments, 3) better strategic marketing direction, and 4) financial brevity.

Examining the overall evidence in Table 8.19, the highlighted issues are congruent with accounting-marketing interface literature and broad domain theoretical foundations. Individual parameters inspection for each contextualised group of lessons, reflect reasonable support for the findings in Gupta (1984) and Parry and Song (1993).

Table 8.19: Lessons learned from failed Strategic marketing Plans

Lessons Learned	Responses (%)[1]	Responses (%)[2]
Need to intensify project feasibility checks (**NIFC**) a. Set concise and achievable goals* b. Regular use of the evaluation and control tool to check progress and deviations from targets* c. Undertake realistic SWOT assessment* d. Intensified analysis of customer segments* e. Regular monitoring of changes in customer preferences*	**37.2%**	**35.6%**
Need for effective integration between departments (**NEID**) f. Prioritise esprit d corps behaviour* g. Minimization of departmental stereotype induced conflicts* h. Provide opportunities for cross-boundary knowledge training* i. Increase social capital awareness / improve inter-personal skills* j. Departmental proximity	**32.5%**	**33.7%**
Need for better strategic marketing direction (**NSMD**) a. Consistent marketing scheme* b. More marketing information exchange and utilization to aid evaluation*	**18.5%**	**20.3%**
Need for financial brevity (**NIFB**) c. Minimize risk-averse approach* d. Timely and adequate funding for projects*	**11.8%**	**10.4%**

a) Percentage based on 195 (marketing) statements about lessons learned.
b) Percentage based on 178 (accounting) statements about lessons learned.
* Lessons which contributed most to the frequency count

8.12 Further Interviews: Motivations and Results

Section 8.12 is explained in three subsections, highlighting further interview motivation (8.12.1), interview focus (8.12.2) and findings – CFB (8.12.3).

8.12.1 FURTHER INTERVIEW MOTIVATION

In a Harvard Business Review article published 32 years ago, Shapiro (1977) posed the question "can marketing and manufacturing co-exist?". Accounting-marketing interface literature suggests relevance of this question in relation to accounting: studies suggest accounting and marketing do not work together (e.g., Field & Gabhart, 1971; Downie, 1997; Wilson, 2000; *inter alia*).

Empirically, however, this study supports but also contrasts interface literature: while departmental culture differences contention is reinforced, non-integration between accounting and marketing is contrasted.

Evidently, culture walls typify this interface (see Table 8.20). Though minimal, sample differentials are evident, evidence also supported when predicting factors were examined for both groups of dependent variables for both samples (see Section 8.10.3).

Table 8.20: Descriptive Statistics: Culture differences between Accounting and Marketing

Variables		Pooled Sample %age	Marketing Sample %age	Accounting Sample %age
Both departments do not understand each other	**V1**	45.2%	44.4%	45.7%
Accounting and Marketing cultures differ	**V2**	86.3%	86.1%	87.2%
Accounting and Marketing thinking patterns differ	**V3**	88.4%	91.1%	85.7%
Views of organisational objectives differ	**V4**	36.3%	35.4%	35.8%

Note: The percentages reported reflect respondents in agreement.

Additional to the descriptive evidence (see Table 8.20), responses to Q9a (see Table 8.18) strongly corroborate accounting–marketing interface literature. Inspection of regression statistics suggests border tension as a likely spill over of such culture walls; hence only task-connectivity based cross-boundary involvement.

Despite culture biases and 'keep to your territory' behaviour evidence, accounting and marketing engage in positive 'symbiotic interrelating' (Souder & Chakrabarti, 1978) towards 'strategic linking' (Plakoyiannaki & Tzokas, 2002) of their functional tasks to direct strategic marketing focus, for satisfying customers.

Considering 'inter-functional rivalry' (Maltz *et al*, 2001), a realm that embraces functional cultural diversity, impedes interfunctional relationship (op. cit.; Parry & Song, 1993), and role flexibility's utility to interfunctional integration (Xie *et al*, 2003), this study results seem to pinpoint a likely accounting-marketing interface feature, an evidence that reinforces interface specificity view (e.g., Fisher *et al*, 1997; Houston, 1994). In light of above combined facts, further interviews were conducted to closely investigate phenomenon and flag explanations, underlying motives and benefits. To achieve these targets, a two-stage interview tool, explained in Section 8.12.2 below, was employed.

8.12.2 THE INTERVIEW FOCUS

Firstly, aiming to explain culture bias and integration evidence, a number of 'after analysis' telephone interviews (with 20 firms, randomly selected from the initial sample of 300), were carried out, to clarify the similarities in these values. The emerging evidence suggests that, despite strong culture walls, firms mitigate negative effects via the use of cross-functional bridge tool (see Section 8.13). Each telephone interview lasted between 5 and 10mins. Overall 35 (with 15dyads) interviews were conducted, and emergent evidence reinforce factor means of 4.037 (departmental culture differences), 3.713 (degree of involvement), 4.048 (degree of information sharing) and 4.065 (degree of unified effort) as reported in chapter seven.

The first stage interview results reaffirm previously highlighted statistical findings, as well as flag explanations: accounting and marketing achieve harmonious integration through a cross functional bridge mechanism. The negativities of culture conflicts and non exploitation of social capital potentials through boundary spanning are mitigated by the facilitating input triggered by the 'translator' machinery.

Drawing on the empirical evidence from the first phase interview, a second phase interview, using the combination of questions in Appendix 10, was undertaken, to examine in detail the cross-functional bridge tool (CFB), with intent, to highlight modus operandi, underlying motivator and benefits. This interview, lasting 90 minutes, was conducted with a top manager of one of the responding companies, whose main responsibility was to ensure effective integration between the two explored departments. The researcher followed the qualitative mechanism defined in Section 6.10.2.

8.12.3 THE CROSS-FUNCTIONAL BRIDGE (CFB) FINDINGS

The Accounting-Marketing dyad bridge model, as captured from the interview (phase two), is presented in Figure 8.3, and the emerging evidence is explained in three subheadings; 1) Motivators for the use of CFB, 2) The structure of CFB and role of facilitator, and 3) The benefits of the CFB. These three targets are explained in Section (and subsections of) 8.13.

8.13 Cross-Functional Bridge in the Accounting – Marketing Interface

To launch the discussion of a critical finding of this study, the researcher highlights a critical value-based argument:

> *Creating value for buyers is much more than a "marketing function" rather a seller's creation of value for buyers is analogous to a symphony orchestra in which the contribution of each sub group is tailored and integrated by a conductor […].*
>
> **(Narver & Slater, 1990:22).**

Empirically, the evidence from this exploration of accounting-marketing dyad reinforce above value rationality. To optimise accounting-marketing working relationship, towards ensuring and maximising strategic marketing fit, a cross-functional bridge is employed. Emergent results flag the utility of this mechanism in mitigating culture and boundary spanning tension contingencies in interfunctional relationship (see Section 8.13.1).

8.13.1 MOTIVATING REASONS FOR THE USE OF CFB

Accounting and marketing practitioners' perceptions are supportive of literature suggesting tension between the parties to the dyad. Classically, there is high tension between these two departments, and the personnel are not only culturally different but also very boundary defensive, a tendency that supports Field and Gabhart's (1971) use of 'cats and dogs' to describe Accounting and Marketing relationship.

Conflict is present in interpersonal relations (Pruitt & Carnevale, 1993), in intragroup and intergroup relations (Jehn, 1995), in strategic decision-making (Amason, 1996) and other organisational episodes (Medina *et al*, 2005). Interview evidence flags positive connectivity of cultural and orientation diversity to 'relationship conflict' (De Dreu & Van Viannen, 2001) such as affective reactions like satisfaction (op. cit.; De Dreu & Weingart, 2003) and climate (Medina *et al*, 2005), in this case interpersonal incompatibility (annoyance and animosity) among individuals (op. cit), 'task conflict' (Jehn, 1995), in this case conflicts about the distribution of resources, and procedures and guidelines (Medina *et al*, 2003). Contrary to the optimistic task conflict view (e.g., Jehn, 1994; Nijdam, 1998; Tjosvold *et al*, 1999), interview results also suggest that both task and relationship conflict consequences of aforementioned diversities 'are equally disruptive' (Dreu & Weingart, 2003) to performance, a performance lens that reinforces contemporary contentions (e.g., De Dreu & Weingart, 2003; Medina *et al*, 2005), though task conflict evidence in the latter is contingent on high relationship conflict.

Given evident strong culture and orientation gaps (see Table 8.20), boundary loyalty (see Table 8.21) and conflict outcomes in this dyad, participating organisations embrace internal mechanisms to mitigate the obvious consequences. As the respondent noted, 'to match competition in the marketplace, i.e., achieve customer value at a profit, alignment of resources (material and manpower) is critical.'

Consequently, these organisations analysing the culminating effects of tension and conflict elements, prioritise the need for effective liaising and achieving 'trade off' between the two departments. Aiming for this, a cross-functional bridge was created.

Table 8.21: Descriptive Statistics: Role Flexibility between Accounting and Marketing

Variables	Pooled Sample %age	Marketing Sample %age	Accounting Sample %age
A planned job rotation of accounting & marketing employees is emphasised as a device for developing their capabilities **V1**	91.3%	91.5%	91.4%
Accounting and Marketing functions do rotate employees **V2**	90.1%	92.7%	87.6%
Accounting gather and contribute strategic marketing information to the marketing team **V3**	63.3%	60.9%	63.8%
Some of the accounting members also performed technical marketing tasks in the strategic marketing process **V4**	90.1%	90.3%	90.1%

Note: Sample percentages are summations of 'strongly disagree', 'disagree' and 'slightly disagree' scores for each parameter

8.13.2 STRUCTURE OF CFB AND ROLE OF FACILITATOR

Over the years, the company has intensified its drive to boost performance. For this goal, unity of purpose was identified as a critical necessity. This in mind, evaluation of accounting-marketing working relationship was undertaken. Obviously, accounting and marketing, as highlighted in Section 8.13.1, are not only culturally diverse but also boundary minded. Group *esprit de corps* (Boyt *et al*, 2005) efforts were then intensified, towards harmonising accounting – marketing, as well as sales – marketing relationships. As the respondent noted, 'the purpose is to drive business into the organisation, towards ultimate performance objective.

To achieve penultimate and final targets, a CFB plan was initiated. The CFB, as shown in Figure 8.3, interacts with both the board level and the functional levels, feeding and transmitting across the tripartite parties.

As the head of the taskforce, s/he is the centre of the entire interfunctional relations. The CFB (see Figure 8.3), s/he said, is an established business model used in the company; and it is called 'the Business Partner Model' (BPM). When asked, what the role of the BPM head is, s/he responded; 'I am the intercessor, the intermediary, the message carrier.' The BPM head thus liaises, transmits, connects

and coordinates accounting-marketing inter-dependence behaviour to achieve group and organisational *esprit de corps* (Boyt *et al*, 2005).

Both departments, s/he said, feed into them – the bridge. S/he liaises. The personnel of both departments (especially for Accountants who in their jobs usually focus on finance issues) are keen to know how the business works, and it is her/his role to function also in that wise. S/he functions as the translator; s/he translates message back and forth. S/he liaises with both departments, manages conflicts and disagreements, and prompts them to act in the best interest of the organisation. S/he seeks to achieve a common ground - prompt accounting and marketing to understand the interpretation and explanation of metrics critical to achieving organisational goals.

From the emerging evidence, acting in the translator role, and prompting marketing and accounting personnel to act in the best interest of the organisation, suggests a direct link with strategy making quarters.

Essentially thus, the CFB interacts also with the board level, liaising with respective executives for strategic marketing and staff training and development. In doing this, s/he receives messages but also updates the executives with relational developments and flags critical strategic marketing and staff development needs, for meeting organisational targets. On this evidence, the head of the CFB taskforce plays a vital role in critical decisions like strategic marketing direction and employee recruitment.

According to the respondent, critical factors to her/his appointment as the head of the BPM included, 1) long-term service, having served as accountant for 30years, prior to appointment, 2) technical knowledge awareness in the area of marketing 3) previous role in project management looking at financial performance.

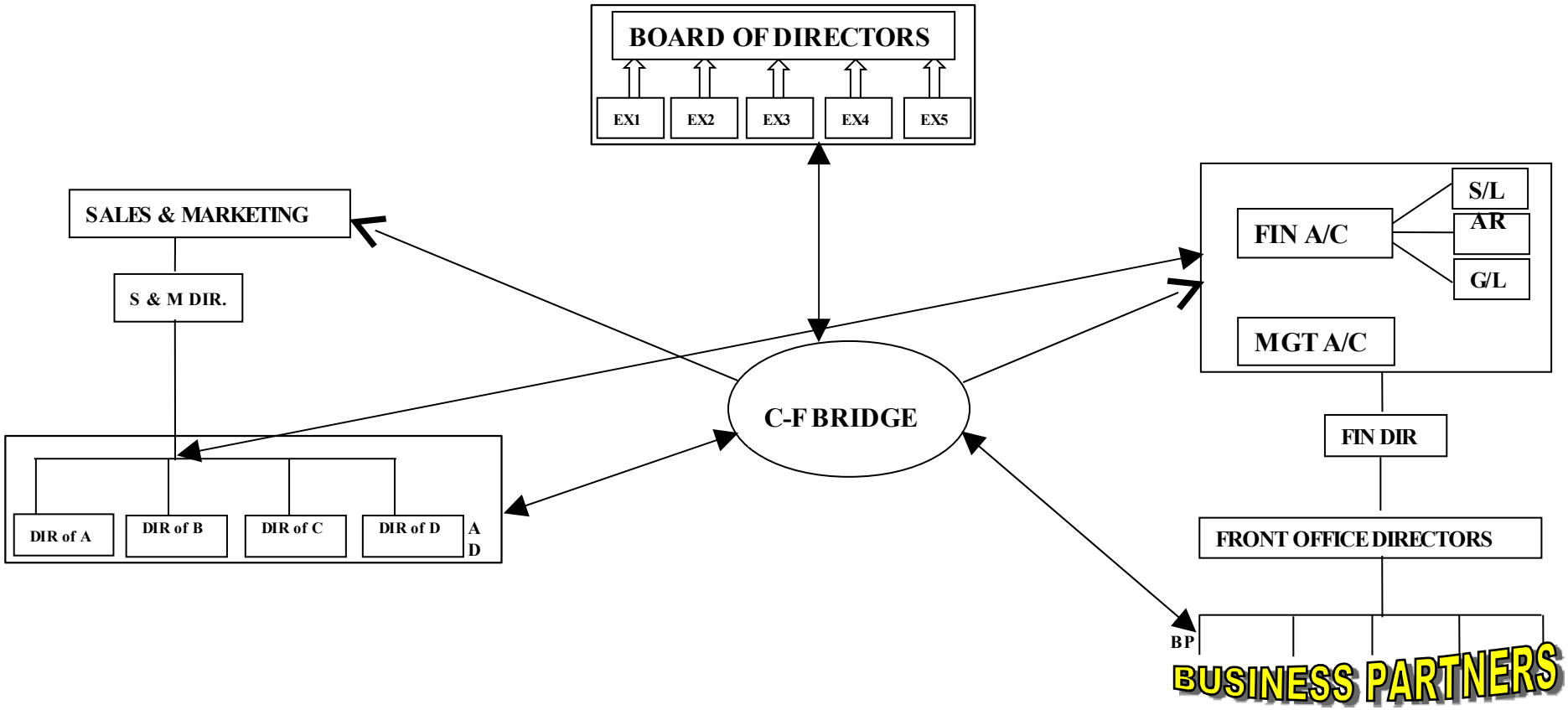


Figure 8.3: The Accounting –Marketing dyad Bridge
Source: Author.

8.13.3 BENEFITS OF CFB

Designed to contribute to narrowing highlighted interfunctional relationship research gap, Maltz *et al* (2001), sensitizing R&D/marketing integration, developed and tested a model that describes the multiple ways interfunctional rivalry negatively affects interfunctional working relationship. While not reminiscent with any of three techniques for improving interfunctional relationship studied in Maltz *et al* (2001)[68], BPM is flagged as a critical tool for achieving interfunctional harmony. The BPM has had immense positive implications for the organisation, the respondent noted. These are explained under psychological and financial benefits.

8.13.3.1 Psychological benefits

To highlight the BPM – teamwork psychology link, the respondent re-emphasised the accounting – marketing conflict:

> 'It is not an overstatement that diversely driven tensions characterise accounting – marketing relationship. For example, accountants always tend to be objective and overcautious in money spending, a priority that tends to hinder marketing's effort to embrace 'marketing concept'. Culture, orientation and perception differences are other conflict factors.'

Addressing compatibility in buyer-supplier relationships, Koulikoff-Souviron and Harrison (2006) highlight the unavoidability of operational and cultural differences in such collaboration. Relationship (see Jehn, 1995; Jehn & Mannix, 2001; Surra & Longstreeth, 1990) and task conflicts decrease employees' psychological well-being (Medina *et al* (2005). Empirically too, task conflict decreases group cohesion (Jehn & Mannix, 2001) and high task conflict during low levels of psychological safety arouse relationship conflict intensity (Edmonson, 1999; De Dreu & Weingart, 2003; Medina *et al*, 2005).

[68] 'Several techniques commonly employed to improve interfunctional relations are studied in the model (e.g., co-locating functions, cross-functional teams, joint customer visits.'

In such dyadic relationships, cultural 'bridge building' is pertinent (Koulikoff-Souviron & Harrison, 2006), as it minimises frictions and smoothens operations in that people involved in the relationships are willing to develop the necessary skills to bridge cultures (Kanter, 1994) . The results from this study reinforce the operational validity of this viewpoint. The BPM has been a critical facilitator in managing emotions and behaviour between departments, thereby enabling team awareness and acceptance. Additional to the acceptance significance, the BPM evidence highlights its importance to facilitating some measure of 'psychological safety' (De Dreu & Weingart, 2003; Medina *et al*, 2005) and 'within-team trust' (De Dreu & Weingart, 2003) amongst functional silos. This theoretical trust contention resonates with Maltz *et al* (2001). Although accounting-marketing conflict was highly dysfunctional, unity of purpose and organisational goal congruity was achieved and sustained through an effective CFB process. The consequences of strong cultural walls and non-exploitation of social capital avenues (e.g., through role flexibility) are mitigated via the CFB. Critically, the CFB input promotes teamwork psychology, enabling members to understand the implications of their individual actions to overall organisational targets.

The psychological benefit, as the respondent noted, feeds largely on the intermediary role of the CFB team. Through the translating function, the CFB head gets critical insights on what the interfacing departments deal with by actually engaging with them, and where necessary analysing their raw data. S/he gets a deeper perspective of the classical details of each department.

8.13.3.2 Financial Benefits

The end product of her/his role, the respondent noted, is that you help the participants understand why they need to work together for profitable business. Thus,

leveraging on CFB conflict management gains, group and organisational esprit de corps are achieved, a circumstance that sustains positive financial outcomes, through:

a) Better direction of strategic marketing efforts,
b) Positive realisation of on-going organisational goals,
c) Expanding the ability to identify exploitable business opportunities and useful and efficient direction of resources.

Analysing the interview and statistical evidences in tandem, the researcher found support for the psychological and extendedly, performance benefits suggested by the interview respondent. Although role flexibility is not commonly embraced, i.e., it is task-connectivity contingent, in this dyad, examination of the parameter 3 of the construct highlights evidence of unity of purpose behaviour (see Table 8.22). Given the overall percentage for this parameter for all samples, there is no support that accounting gathers and contributes strategic marketing information to the marketing team. However, inspecting the 'slightly disagree' and 'slightly agree' statistics, there is the tendency and potential possibility that the reverse might marginally be the case, which then flags the psychological and extended performance benefits suggested. There is the likelihood of more positive evidence, if this study had employed a definite mid-point scale.

Concluding on the financial benefits of the CFB, a composite analysis of interview evidence in tandem with the psychological, strategy and personnel training, development and recruitment results supports recent research (Le Meunier-FitzHugh & Lane, 2009, p. 303) that argues that "if senior managers adopt a positive approach towards coordination between functions and encourage *them*[69] to focus on the customers, their competitors, and build on coordinated activities they should

[69]Them represents sales and marketing

experience improvements not only in their market orientation, but also directly in their business performance".

Further more, explained beyond the accounting-marketing interface, the combined CFB results lend support to R&D/Marketing dyad literature that emphasizes team spirit (Kahn, 1996) and goal congruity (Kahn, 1996; Xie *et al*, 2003) in inter-functional integration.

Table 8.22: Descriptive Statistics: ROFLEX - A & M relationship towards strategic marketing

Variables	Pooled Sample %age	Marketing Sample%age	Accounting Sample %age
V3	63.3%	60.9%	63.8%
Percentage response for **V3** at score 3 (slightly disagree)	36.4%	34.1%	38.8%
Percentage response for **V3** at score 4 (slightly agree)	33.3%	35.4%	31.3%

Note: A & M = Accounting and Marketing.
V3 = Accounting gather and contribute strategic marketing information to the marketing team

8.14 Conclusion to the Chapter

Overall, this chapter sought to gauge the suggested hypothetical relationships.

Firstly, the statistical process for achieving that goal was explained.

Bivariate and multivariate analyses were undertaken to examine relevant statistical relationships. Using a combination of metrics, data was statistically confirmed free from multicollinearity pollution.

Also, the overall structural model was assessed for goodness-of-fit evidence. The results for all models, examined in consideration of sample limitation, are assumed approximately satisfactory to permit a conclusion that the amount of variance in the endogenous variables explained by the respective proposed determinant variables was accepted.

Having confirmed suitability (though approximately) of each model, and collinearity diagnostics conformity for all dependent variables in the models, the multivariable regression coefficients were inspected. Six of the hypothesised associations were supported for achieved integration (**DINTTOT**). For achieved

integration during the strategic marketing process, six hypotheses were supported for **SMAS**, while each of the other three stages received five supports.

The results for two open-ended questions highlighted critical barriers to accounting – marketing integration and critical lessons learned from failed strategic marketing plans.

Also, prompted by statistical evidence considered in tandem with relevant literature, supplementary interviews were conducted to clarify accounting-marketing integration.

From emergent evidence **AMI** is enhanced via a cross-functional bridge mechanism.

Following the evidence in this chapter, chapter 9 summarises the conclusions to this study and highlights the theoretical and managerial implications of this study. Also, this chapter will state the limitations to the study and flag directions for future research.

9 Conclusions, Contributions, Study Limitations and Future Research

Brief synopsis of Chapter 9

Chapter 9 has four main sections. First, it summarises the conclusions of this study. Following that, the study contributions are flagged, distinguishing the theoretical and managerial implications. Subsequent to this, the study limitations are highlighted, and thereafter, the future research issues are pinpointed.

9.1 Introduction to the Chapter

This chapter is composed of four sections. Section 9.2 summarises the conclusions while Section 9.3 highlights the theoretical and managerial implications of the study. The limitations of the study are discussed in Section 9.4 and avenues for future research are flagged in Section 9.5.

9.2 Conclusions of the Study

This study was purposed to investigate and enhance understanding of accounting – marketing working relationship. Targeting this goal, quantitative methodology was adopted to explore accounting-marketing integration, its dimensions and antecedents. Seeking to accomplish the specified targets, the investigation of the dyadic relationship aimed to address the questions: 1) What are the antecedents of **AMI**, and 2) What are the antecedents of **AMI** during the strategic marketing process. Consequently, conclusions were structured to reflect both questions and in defined order, and flag differentials, given evidence legitimacy.

The three conceptualised dimensions of integration are critical in the accounting–marketing dyad, and answers to Q1 above highlight the summation and dimensional integration evidence. Conversely, answers to Q2 highlight the evidence across all four stages of the strategic marketing process. The conclusions are summarised in the below subsections:

9.2.1 EXTENT OF ACCOUNTING-MARKETING INTEGRATION

The first major conclusion in this study is that accounting and marketing, despite diversely induced conflicts, and contrary to body of literature (Field & Gabhart, 1978; Wilson, 2000, Abdel-Kader & Luther, 1994; Drury *et al*, 1993; and Zinkhan & Verbrugge, 2000) engage in effective integration. Majority of respondents, at least 63.5% (**DMIS**), 63.6% (**DUE**), except for **Inv3** (at 40.1%), amongst all construct parameters suggest effective integration. Integration efficacy is however achieved through a **CFB** support mechanism. Thus, despite 'cats and dogs' behavioural tendencies (Field & Gabhart, 1978), disastrous results are avoided by exploiting 'lay down your swords'[70] tools of joint resolving of problems, appointment of a liaison that helps to resolve conflicts and shares with each group the tacit knowledge from the other group (Kotler *et al*, 2006), and messaging.

Across the strategic marketing process, the patterns of integration dimensions largely match interdependence relationship expectations. From the evidence (see Table 9.1) the parameters for all three conceptualised dimensions picture significantly in the strategic marketing integration context for sampled organisations, except for two parameters. However, checking for activity contingent variances, the researcher, given the combined parameter average for each construct, concludes that: 1) all three dimensions are highly critical for **SMCS**, 2) information sharing is highly critical for all strategic marketing stages, and 3) Unified effort is critical to the analysis and planning stages, additional to the control stage. The average involvement pattern across all stages (except control stage) is relatively low, conforming also to resource dependency theory that suggests diversely driven relationship tensions in the interface, a possible factor of non-involvement.

[70] 'Lay down your swords' – adopted from Kotler et al, 2006.

Also, it is legitimate to conclude that dimensional relationship between both departments changes contingent on strategic marketing evolvement.

Table 9.1: Respondents' perception of Dimensions of Integration during the Strategic Marketing Stages

Strategic Marketing Integration	Analysis Stage %	Planning Stage %	Implementation Stage %	Control Stage %
Strategic Marketing Unified Effort 1	70%	59.9%	76%	67.9%
Strategic Marketing Unified Effort 2	72.2%	76.7%	30.2%	72.3%
Strategic Marketing Info. Sharing 1	65.4%	81.7%	74%	67.9%
Strategic Marketing Info. Sharing 2	77.8%	60.5%	67.9%	67.3%
Strategic Marketing Involvement 1	50.6%	59.1%	50%	61.7%
Strategic Marketing Involvement 2	56.1%	52.5%	43.2%	68.3%

Summarizing the evidence from this study, the researcher concludes that management support and reward (monetary dimension) are enablers, while communication gap, culture and orientation differences, and non-departmental proximity are disablers of accounting-marketing integration. Also, the researcher advances same conclusions for communication gap, management support, culture and orientation differences, reward (monetary dimension), non-departmental proximity for all stages of the strategic marketing process, except for **CODIFF** (**SMIS**), **REWARDM** (**SMPS & SMCS**) and **NONDEPPROX** (**SMPS**), Further more, the conclusion of a positive correlation of role flexibility (all strategic marketing stages) and employee participation (**SMPS**) is legitimate.

9.2.2 COMMUNICATION GAP

The statistical evidence from this study rationalise a number of communication based conclusions. First, contrary to interface literature, this study contends that accounting-marketing interface is not characterised by communication gap, a contention supported by majority of respondents (73.4%, 67.9%, 74.1% and 70.3%) for parameters 1 to 4 (in that order). Secondly, communication is a critical factor of accounting-marketing integration, both integration summation and the individual dimensions. Also, the level of achieved **AMI** during the strategic marketing process is

critically dependent on accuracy and frequency of information communicated, as well as the joint discussion of strategic marketing issues by the integrating partners. Thus, minimisation of gaps associated with such communication targets must be prioritised.

Overall, the empirical evidence supports theoretical contention that communication is the central nervous system of any organisation (Blackstead & Cooper, 1995). Explained along individual dependent model groups, the routine integration evidence, despite minimal insignificance for **DUE** (t-value = -1.442), corroborates theoretical logic that *disciplined communication* (italics relates to Kotler *et al*, 2006) enables increased understanding and harmony between functions (Souder, 1988), improved relations and collaboration between functions (Kotler *et al*, 2006), inter-functional integration (Gupta *et al*, 1985) or facilitates CFR (Massey & Dawes, 2007).

Conversely, the strategic marketing evidence is consistent with the theoretical lens that advocates critical alignment of communication nodes of information and behavioural patterns with consumers' and business needs (Peters & Fletcher, 2004).

9.2.3 MANAGEMENT SUPPORT

This study has flagged management support as a core positive predictor of higher levels of **AMI**. Given the empirical evidence, the researcher concludes that the endorsement and support of senior management is critical to achieving increased integration levels. Senior management must thus promote and support integration between concerned functional areas. This pioneering **AMI** - management insight is congruent with overall CFR – management literature (e.g., Parry & Song, 1993; Leenders & Wierenga, 2002; Chimhanzi, 2004; Xie *et al*, 2003; Perks & Riihela, 2004; Dewsnap & Jobber, 2000 & 2004; Kotler *et al*, 2006; Meunier-FitzhHugh & Piercy, 2007; Dawes & Massey, 2005 – studied conflict).

9.2.4 CULTURE AND ORIENTATION DIFFERENCES

Another conclusion that can be drawn from this study is that, consistent with interface literature, 'sociocultural characteristics' (Song & Parry, 1997) typify accounting-marketing relationship. These departments are culturally diverse, a behavioural feature that triggers and sustains conflicts and tension that account for negative variations in the achieved level of integration, following combined evidence from regression results and sections 8.11.1 and 8.11.2. Beyond the accounting-marketing interface, this conclusion resonates with the evidence in Gupta (1984) and Parry and Song (1993) that utilised open-ended format question. Managers in the financial services industry must, as a priority, be aware of this feature, and the relational implications.

9.2.5 JOINT EMPLOYEE REWARD

The data for this study highlighted two reward perspectives. Following this dimensional evidence, the researcher concludes a monetary and performance reward dichotomies in the accounting-marketing interface. Inspecting the regression results in tandem with Q11.10 evidence, the researcher found legitimacy to conclude thus: 1) joint monetary reward is necessary for effective **AMI**, during and outside the strategic marketing process. However **REWARDM** effectiveness may be contingent on task on hand. This conclusion of **REWARDM** alignment supports body of literature (e.g., Parry & Song, 1993; Song *et al*, 1997; Leenders & Wierenga, 2002; and Chimhanzi, 2004). 2) performance-based reward of employees is not necessarily essential to improving **AMI**. Conclusively, the researcher suggests a likelihood of the contrast, a conclusion, which given overall evidence for this factor, matches Meunier-FitzHugh and Piercy's (2007) contention that if over-used, rewards may be obstructive to creating collaboration.

9.2.6 FORMALISATION

While positive for all integration dimensions and summation but only significant for summation, the strategic marketing evidences are statistically insignificant but reflects negative and positive coefficients. Putting overall evidence together, the researcher concludes that formalised procedures are only critical for routine integration that may not exert direct implication on strategic marketing activities. This evidence thus suggests that while formalised roles and procedures might pay off for routine relationship it might undermine the flow of information between departments (Parry & Song, 1993) and extendedly the chance to exploit strategic marketing opportunities. Given the tricky and largely supportive of broad CFR literature evidence suggesting opaqueness, the researcher admits a weak and unclear picture, thus the conclusion for this variable must be applied with optimum caution.

9.2.7 DECENTRALISATION OF DECISION MAKING AUTHORITY

This study offers evidence that highlights the pertinence for further examination of correlation between decentralisation of decision making and integration. Significant only for one model, the regression coefficients suggest tendency for both positive and negative influence. While a preliminary conclusion suggesting non-use of decentralised decision making in the accounting-marketing interface might seem wise, dimensional examination of this variable for all strategic marketing stages flags the need for caution, given cases supportive of hypothesis. Given the congruity of (exclusive dimensional) evidence to empirical precedence (Parry & Song, 1993), no clear conclusion, other than the opaqueness of the variable is advanced.

9.2.8 ENCOURAGEMENT OF RISK-TAKING BEHAVIOUR

This study suggests that the level of achieved accounting-marketing integration is not a factor of encouraged risk-taking behaviour in the financial services industry.

Interpreted in harmony with interface literature, the statistical evidence legitimise this conclusion: risk-averse propensity is high amongst accounting and marketing personal, even when the contrary is encouraged. This evidence supports accounting-marketing literature suggesting orientation biases as core problem of accounting-marketing interface. Such orientation biases induced risk averse behaviour supports the contention that internal environment might trigger a feeling of risk of failure and a fear of losing face (Perks & Riihela, 2004).

9.2.9 ROLE FLEXIBILITY

Given the overall evidence for this construct, two conclusions are advanced. Firstly, the researcher concludes the existence of tight functional silos in the accounting-marketing interface in UK financial services organisations. Secondly, task connectivity, driven by 'meet customers' needs profitably' is a contingency for boundary spanning in their relationship.

Elaborated, accounting and marketing maintain their 'keep to your territory' culture (see Table 8.13) except during the strategic marketing process (see Table 8.14). Overall, the statistical evidence upon which these conclusions are grounded suggest that a blind adoption of job rotation may obstruct collaboration (Meunier-FitzHugh & Piercy, 2007) and that task connectivity is a critical condition for the use of role flexibility (Garrett *et al*, 2006 – Singapore sample).

9.2.10 NON-DEPARTMENTAL PROXIMITY

Also, this study concludes that non-departmental proximity is a critical factor underlying lower levels of achieved integration in the UK financial services industry. Analysing the four parameters for this factor jointly with the responses to Q10.4, substantial agreement with social capital theory was captured. Thus, to optimise integration, organisations must exploit social capital or goodwill (Adler & Kwon,

2002) through spatial nearness enforcement. While the overall conclusion for this factor supports empirical precedence (Fisher *et al*, 1997; Xie *et al*, 2003; Dawes & Massey, 2005), attention is drawn to the potential obstructive influence on **DINV**.

9.2.11 EMPLOYEE PARTICIPATION

One final conclusion advanced by this study is that employee participation during the strategic marketing process must be aligned to task suitability, as doing the contrary might trigger negative consequences. Overall, this construct's evidence contrasts expectations for both dependent model groups. The largely insignificant and varying directional influence across the models present intriguing evidence, considering the identification of participative components as integration approach (Peterson *et al*, 1994). Drawing on Perks and Riihela (2004), the negative coefficients might prompt the conclusion that persistent emphasis on participation across all stages might complicate the integration process, in UK financial services organisations. Despite the contrasting evidence, however, the conclusion is congruent with the contention in existing literature for this variable (Parry & Song, 1993; Song & Thieme, 2006).

The implications of the above summarised conclusions and overall findings of this study are highlighted in Section 9.3.

9.3 Implications of the Study

This study offers numerous theoretical and managerial implications. Offering a number of pioneering evidence, the findings provide useful insights to academics and practitioners.

9.3.1 THEORETICAL IMPLICATIONS

The results from this study have theory testing and theory building relevance.

The broad conceptualisation of integration in this study has highlighted not just the importance for dimensional analysis of integration, but also the pertinence for adequate contextualisation. Although composite integration is gaining increasing recognition (e.g., Parry & Song, 1993; Kahn & Mentzer, 1998; Mollenkopf *et al*, 2000; Chimhanzi, 2004; Song & Thieme, 2006; Xie *et al*, 2003), only few have examined the dimensions separately (e.g., Kahn & Mentzer, 1998; Chimhanzi, 2004; Mollenkopf *et al*, 2000; Xie *et al*, 2003) or explored both summation and dimensions of integration (e.g., Mollenkopf *et al*, 2000). Examining integration through a broad lens this study highlights accounting-marketing theoretical insights about UK financial services organisations (and adds new insights to general understanding of the concept), generates theory testing, but also theory building evidence. Also, using a robust analytical tool to examine the integration (summation and dimensions) instruments, this study flagged the core parameters that are of theoretical relevance in the conceptualisation of Accounting-Marketing integration in the financial service industry. These insights enable better understanding of the explored relationship.

Secondly, examining the conceptualised relationship from a two dependent variable group provides important avenue for improving theoretical knowledge. Through this approach, task contingent dimensions of the relationship are highlighted, emergent evidence that offers critical theoretical relevance to accounting-marketing, as well as broad CFR domain literature, and understanding of integration context in UK financial services industry..

Theoretically, this study contributes further to the understanding of accounting-marketing integration, a dyadic domain that has mainly received conceptual mention. Viewing this phenomenon from a comprehensive lens that combines structural contingency, management, social capital, communication and ‘thought world

differences' perspectives, provides diverse opportunities for contributing to filling the huge theoretical void in this domain. The composite antecedent theoretical contributions are demarcated below along the above defined sub-lenses:

Management: Given lack of empirical evidence concerning the influence of management related factors on achieved level of **AMI**, this study offers further theoretical significance. Supportive of broad CFR theory, this study enhances theoretical understanding of accounting-marketing integration, and in the financial services industry, in relation to effective management climate. While the management evidence supports largely previous contentions in other dyads (e.g., Parry & Song, 1993; Xie *et al*, 2003, Dewsnap & Jobber, 2004; Chimhanzi, 2004; Meunier-FitzHugh & Piercy, 2007), further accounting-marketing dyad theoretical features of this factor are flagged. The descriptive evidence shows that majority of respondents (70.9% to 86.5%) perceive the four items for this construct to be of critical theoretical management relevance to accounting-marketing integration and achieving strategic marketing benefits.

Elaborating above theoretical management relevance, close examination of statistical evidence highlights important insights about the explored dyadic and industry context: First, while prioritising the management metrics enables integration summation, relevance may not apply for all integration dimensions. Essentially thus, there is integration-activity relevance of this management foundation. The **DINV** evidence of this theoretical relevance analysed, prioritising the management parameters is critical to enabling involvement dimension of **AMI** in UK financial services organisations, a theoretical logic that is understandable, given the 'boundary fencing' feature of the explored relationship. The second theoretical take of this management evidence is that financial services organisations aiming to optimise their

strategic marketing operations must enforce the four conceptualised parameters of this construct at all stages of the strategic marketing process. These insights flag theoretical context of this construct, which prior to this study, were non-existent about this dyadic, industry and country contexts.

A further theoretical insight from this study relates to the reward construct. Statistically, joint reward, as a predictor of achieved integration, connects differently in the Accounting-Marketing integration in UK financial services organisation. This study flags key features of the reward construct that have not been captured in previous studies. Theoretically, there is need for two dimensional conceptualisation of the reward construct in the Accounting-Marketing integration in the financial services industry. Additional theoretical insights to this construct is captured when the predicting influence of the reward dimensions is inspected. While the monetary dimension of reward is relevant for ordinary and strategic marketing process integration, the contrast is the case for the performance dimension. Theoretically too, while largely relevant in the conceptualised (dyadic and industry) context, a blind adoption of the monetary reward dimension might trigger negative integration.

Though largely unexplored in CFR, R&D and marketing literature (Song, 1993) suggests that positive link between participation in decision making and integration is contingent on optimizing socialisation goodwill through technical knowledge homogeneity. The participation evidence in this study reinforces this theoretical logic. Although this reinforcement is advanced, there is need to avoid blind adoption of this participation logic, to avoid negative integration.

Further more, this study offers critical insights on the connectivity between role flexibility and achieved integration. For the accounting-marketing interface and broad CFR domain, the role flexibility evidence enriches theoretical foundations. On the

accounting-marketing platform, the comparative evidence from both dependent model groups flags the interface features of this construct. While the role flexibility evidence reinforces broad CFR theoretical contention of task connectivity of role flexibility influence (Wilson & Bancroft, 1983; Moenaert *et al*, 1994; Garrett *et al*, 2006 – NZ sample), it also highlights accounting-marketing integration, strategic marketing and UK financial services organisations specificities. An additional element to the task connectivity feature of this construct in the explored dyadic, country and strategic marketing contexts is captured when the ordinary and strategic marketing evidence of this variable is closely examined. Given tight boundaries between explored departments, a core theoretical insight emerges. Thus a careful adoption of this variable is necessary. Further more, the exploratory factor analysis evidence of this factor might flag issues of theoretical importance that could not be explained in this study. Parameter 3 of this construct which loaded below the .4 threshold (see Table 7.14) was retained, given scientific justification (see Section 7.8.8). This statistical evidence might point to theoretically relevant issues about accounting-marketing integration or services industry or strategic marketing activity, that need to be addressed in the future.

This study also offers theoretical relevance in the examination of 'Thought world differences' (Griffen & Hauser, 1996; Maltz, 1997; de Ruyter & Wetzels, 2000) and inter-dependence relationships. Although that construct and inter-dependence link is not new, evidence from this study offer Accounting-Marketing integration theoretical insights. This contributes to theory in several ways: First, it enhances the understanding of this construct in relation to Accounting-Marketing integration, the strategic marketing evidence, and in the financial services organisation. Second, it improves understanding of culture and orientation bias theory in the Accounting-

Marketing dyad. While existence of culture and orientation rift has been previously flagged in Accounting-Marketing interface literature, no constructive empirical measurement of this construct had been undertaken prior to this study. Thus, theory is enhanced through this study by reinforcement of this existence, empirically identifying parameters (and measuring this construct) and highlighting the integration and strategic marketing process evidence, in the UK financial services industry context. Third, through the empirical findings, further theoretical insights of this phenomenon in the UK financial services industry are evident concerning integration and strategic marketing process implications of this construct.

Highlighted above, theoretical issues of 'culture and orientation differences' and 'keep to your territory' behaviour have been flagged as key features of Accounting-Marketing integration in the UK financial services industry. Through a robust methodological approach, this study examined closely the existent integration, and statistically confirmed that, despite highlighted culture and boundary barriers, effective Accounting-Marketing integration is practised in UK financial services organisations. While this knowledge, in itself, is a theoretical highlight, given Accounting-Marketing interface literature that suggests the contrary, a further critical theoretical insight is flagged, on further examination: a cross-functional bridge (CFB) mechanism is used to ensure effective integration.

This study, given emergent empirical evidence, suggests a theoretical foundation that cross-functional bridge is a critical tool for mitigating the consequences of culture biases between departments and failure to exploit socialisation goodwill. Through this CFB mechanism financial services organisations achieve effective Accounting-Marketing integration, exploiting liaison, intercessory and coordination tools.

Analysing the cultural and CFB evidences, the former offers theory testing and building substance while the later offers theory building.

While the CFB theory is not entirely new, it's mention in relation to Accounting-Marketing integration is pioneering, and more so, it highlights critical relevance that flags directions towards improving the understanding and use of this mechanism. It essentially adds a new brick to the existing background about cross-functional bridge. This finding is critical to understanding how this relationship works. There is a valid contribution here, and it points to critical organisational issues towards theoretical development of CFB and interfunctional relationships:

Mediating and transmitting role of the CFB*:* Empirically, this study evidences the relevance of this tool to mediating, conflict management, transmitting and enabling cross-functional understanding. Responding to the question of what his/her role was in the CFB plan, the interviewed respondent noted; 'I am the intercessor, the intermediary, the message carrier.' In that capacity as the head of the CFB, s/he liaises, transmits, connects and coordinates accounting-marketing inter-dependence behaviour to achieve group and organisational *esprit de corps* (Boyt *et al*, 2005).

From the financial services organisations evidence, both departments, s/he said, feed into them – the bridge. S/he liaises. In this context, the CFB receives, translates and transmits ideas and information back and forth. Personnel of both departments occasionally request information, for example, accountants who in their jobs usually focus on finance issues) are keen to know how the business works, and it is her/his role to function in that wise.

Often, as is usually the case in interfunctional relationships, there are disagreements and conflicts. Empirical evidence from this study also flags the theoretical relevance of the CFB in managing disagreements and conflicts, and

prompting accounting and marketing personnel to act in the best interest of the organisation. One typical example of such is prompting accounting and marketing to understand the interpretation and explanation of metrics critical to achieving organisational goals. This context summarised, the CFB is used for bridge building and achieving a common ground, as statistical evidence reinforce the view that "the goals of different functional areas and their personnel are rarely consonant" (Ruekert & Walker, 1987b, p. 2).

Theoretically, prompting integrating partners to act in the best interest of the organisation aligns with strategic orientations. Thus the findings from this study highlight ***the strategic relevance of CFB***. In the financial services industry, the CFB interacts with the board level, liaising with respective executives for strategic marketing, as well as the functional quarters. Through this direct link with strategy making quarters, the CFB is involved in setting strategic marketing priorities, communicating them to integrating partners and giving departmental feedbacks to the strategic quarters. Essentially, this theoretical insight resonates with resource-based theories of strategy implementation, for example, (Barney, 1991) that stresses that different types of capabilities, organisational processes and systems need to be adjusted, in the implementation of chosen strategy. Further more, this insight reinforce the two perspectives view of how strategic and organisational factors are related (Homburg *et al*, 2003, p. 2): "*strategy formulation perspective*, where organisational variables influence the formulation of strategy, and a *strategy implementation perspective*, where the strategy has an impact on organisational variables."

Additional and connected to the above strategic relevance, accounting-marketing integration evidence from this study of UK financial services organisations suggests

staff development theoretical relevance of CFB. Given the tripartite liaising link with the board and the accounting and marketing departments, the CFB, combining knowledge from the mediating and strategic roles, advice on job specifications (including qualities) for employee recruitment and training and development of existing staff. Core emphasis, in the case of the latter, as the interviewed respondent commented, is to achieve common ground between both departments and ensure prioritisation of organisational goals. Though it did not measure marketing effectiveness, combined strategy and staff training, development and recruitment evidence from this study, lend support and also add a brick to the literature (Chimhanzi, 2004) that reminds of "the centrality of human resource and marketing effectiveness" (p. 75).

This insight of CFB relevance to personnel training and recruitment reinforces and extends existing literature on marketing and HR integration's link to customer focused marketing strategies (Gratton, 1994; Piercy, 1997a, b). This 'alignment of workforce capabilities' (Chimhanzi, 2004, p. 76) view was further emphasised by (Piercy, 1998a, b), who noted that where successfully managed, marketing/HR integration would achieve amongst others, the realignment training process with customer issues. Other commentators on this premise (Glassman & McAfee, 1992; Kotler, 1991) suggest that this synergy will be achieved when marketing/HR collaboration is tailored towards developing job descriptions, screening candidates and designing training programmes, a synergistic view which is supported by the emergent statistical evidence of this study of accounting-marketing integration.

These CFB insights from this study point ways to theoretical development.

Methodologically, this study also offers some contribution. Although composite integration has been addressed in previous studies, this study makes a contribution by

its clear demarcation of conceptualised dimensions of integration, an approach that has been lacking in previous studies.

Also, the two stage conceptualisation of dependent variables, enables a clearer understanding of the task connectivity feature of integration. For example, statistically, a blind adoption of integration tools might be counter-productive.

Lastly, the robust analytical approach used in this study enabled a better identification of theoretical and managerial (discussed below) implications of this study. Amongst others, this study employed regression analysis, exploratory factor analysis, confirmatory factor analysis, an a two-step structural equation modeling

9.3.2 MANAGERIAL IMPLICATIONS

Explaining the managerial implications of their study of R&D/Marketing integration in Japanese High-Technology firms, (Song & Parry, 1992, p. 110) asked: "Given the pervasive dissatisfaction with current levels of integration, what activities deserve top priority in any attempt to raise the level of current integration?"

This study offers critical knowledge wherewithal to effectively achieve the appropriate mix for addressing such circumstances. This study has obvious managerial implications. Additional to the inputs inferentially extractable from the theoretical implications above, a number of managerial implications are summarised below:

Understanding the dimensions and predicting power of integrating mechanisms critical to effective **AMI**, would enable senior managers achieve better alignment of both departments and eventual performance in the financial services industry. This study supports the importance of understanding and prioritizing the critical parameters for achieving the three dimensions of integration. Managers must be conscious of the activity implications of the integration relationships. Also, the antecedent insights

emergent from this study offer managers a comprehensive perspective for achieving a suitable mix of management, structural, communication and social capital factors necessary for effective integration. Moreover, the results provide managers valuable insights for understanding the dimensions and critical parameters to achieve positive cross-functional behaviour during the strategic marketing process. Relevant managerial implications of each individual antecedent are highlighted separately.

The results have flagged critical tools for achieving optimum alignment in the accounting-marketing integration of financial services organisations. These have managerial implications. The captured positive and negative determinants of **AMI** largely reinforce interface literature and broad domain recommendations for improving integration. Managers can exploit this reinforced knowledge to promote effective integration. The significant determinants of **AMI** (summation) includes communication gap, Culture and orientation differences, management support, joint reward (monetary) and non-departmental proximity. While this evidence provides managers a guideline for achieving effective integration (**DINTTOT**), positive dimensional outcomes could be achieved by drawing on the dimensional empirical evidences.

Empirically, the conceptualised integration dimensions are of theoretical relevance in the accounting-marketing integration of UK financial service organisations (see Table 6.8). However, combining diverse statistical evidence, managers are reminded of key issues to be considered to ensure optimisation of this relevance in their organisations. Statistically, interfunctional involvement is not a common practice, hence embraced when task relevant. Statistical evidence examined, there is the indication that 'culture walls' and 'boundary fencing' (both discussed next) explain this circumstance. Managers must ensure careful adoption of parameters 1 and 3 of the

'Involvement' instrument (see Table 7.7). Further, examining the strategic marketing evidence of involvement, managers are also reminded to avoid blind enforcement of the involvement dimension at all stages of the strategic marketing process. Cautionary approach is advised concerning this factor in relation to strategic marketing planing integration (**SMPS6** -see Table 7.9) and strategic marketing implementation integration (**SMIS2** and **6** – see Table 7.10). Managers in the financial services organisations must remain conscious of the task relevance of this integration dimension.

Also, managers in the financial services organisations, wishing to exploit the potentials of accounting-marketing integration, must essentially be conscious of the cultural diversity and boundary issues that characterise accounting-marketing working relationship. Statistically, there are strong culture walls that reflect in their diverse thinking, cross-perceptions, and orientations. Also, accounting and marketing personnel in UK financial services organisations, would normally maintain their tight boundaries, which means no cross-functional role performance. The direct consequence of these is evident rift and conflict between accounting and marketing, culminating in ineffective integration. Empirically, evidence from this study reinforce theoretical contention from other dyads which suggest that such biases trigger and sustain conflicts and tensions (Parry & Song, 1993; Wilson, 2000; Kotler *et al*, 2006), and impede social capital or social goodwill (Adler & Kwon, 2002; Shipilov & Danis, 2006). Consequently, managers in the UK financial services industry must be conscious of these culture and perception diversities and enforce adequate mechanisms for mitigating the consequences on team effectiveness and extendedly organisational performance. Financial services organisations managers must manage these cultural diversity issues towards ensuring amicable interfunctional relationship between these departments.

Mentioned earlier, another rift and conflict factor is boundary fencing. Ordinarily, boundary spanning is not practised in the accounting-marketing dyad. While role flexibility aids social capital networking (Maltz & Kohli, 1996; de Ruyter & Wetzels, 2000), it is also a tool for mitigating the negativities of 'thought Worlds differences` (Griffen & Hauser, 1996; Garrett *et al*, 2006) and knowledge gaps (Jaspers & van den Ende, 2006). Jointly analysed, the two dependent variable components of this study legitimise the conclusion of task connectivity influence of role flexibility to integration. On the one hand, to achieve effective accounting-marketing integration, financial services industry managers must be aware and device functional means of mitigating such boundary defence driven conflict issues. Also, exploiting evidence from the two dependent variable tests, one that offers a broad perspective that is vital for managers, managers are reminded of the critical need to ensure task relevance, in order to achieve positive role flexibility.

Prompted by evidence of cultural diversity and boundary fencing and the contrasting evidence of effective integration between accounting and marketing in the explored country and industry context, further methodological steps were undertaken to ensure appropriate explanation of findings. The results highlighted the use of CFB to enhance accounting-marketing integration in UK financial services industry. Managers in this industry are reminded of the pertinence of understanding the importance of this tool, given already highlighted conflict connectivity of cultural diversity and boundary fencing.

As evidenced in this study, the CFB tool offers mediating and transmitting utility. The CFB is a tool for ensuring 'goal-congruity' driven interfunctional harmony. Managers can exploit this tool, given liaising function and capacity, to manage conflict issues between and accounting and marketing personnel, towards achieving

effective integration and goal congruity. In doing this, managers must critically examine the interdependence circumstance between the integrating partners, to clearly identify the problems and establish and design the CFB towards mitigating the conflict effects.

Extending the conflict management utility background of the CFB tool, evidence from this study flags staff recruitment, training and development relevance of this tool. Managers in this industry can enhances integration and organisational performance by exploiting knowledge from this CFB tool, through the 'transmitting' and 'translating' functions to identify issues to prioritise in the training and development of staff. This is a vital tool to manage conflict by ensuring cross-boundary knowledge for minimizing culture, perception and orientation biases towards each other. Essentially too, managers in this industry, must also draw from this knowledge background to define appropriate job specifications and appropriate recommendations for new staff.

From a management and strategy perspective, the CFB tool offers managerial relevance. In the explored context, the CFB liaises and interacts with the board as well as the functional areas. Through this role, s/he communicates (back and forth, given information relevance) relational issues to the board, strategic goals to the integrating departments, and strategic marketing developments and staff training and development needs. Managers in this industry are reminded of this strategy relevance of the CFB, keeping this in mind is vital not only to achieving effective integration and better strategic marketing results, but overall performance of the organisation.

Summarizing a conference on interfunctional interfaces sponsored by the Marketing Science Institute, Montgomery and Webster (1997, p. 15), commenting in relation to the importance of organisations to be more market-oriented and responsive

to customer needs and market conditions (e.g., Day, 1994; Slater & Narver, 1995), note that "there was a strong consensus that issues at the interface of marketing with other management processes, functions, and disciplines are among the most important managers are dealing with". Supporting (and enhancing knowledge of) both the organisational and interfunctional importance, this study flags valuable insights for managers towards achieving this market orientation target. Managers in this industry must be aware of the critical importance of the CFB tool. It will enable organisations achieve and sustain a consistent personnel and organisational performance, both in the short- and in the long-terms. If well utilised, this tool would enable psychological and financial benefits(psychological, strategy, and staff recruitment, training and development benefits), performance targets which benefit from careful identification and mitigation of conflict drivers in the relationship between both departments. Extendedly, if the organisations consistently enforce a regular and active CFB plan for this conflict management target, then in the long run, a continuously stable personnel and organisational performance will be achieved, a consequence of the over time transition from mitigating to minimizing function on conflict drivers.

Supporting social capital theory, this study indicated a negative correlation between non-departmental proximity and achieved level of integration. Social capital or social goodwill (Adler & Kwon, 2002; Shipilov & Danis, 2006) are thus exploited, given spatial proximity (Shipilov & Danis, 2006). This research points managers to the need for harnessing socialisation (Gupta & Govindarajan, 2000) potentials by ensuring accounting-marketing proximity.

This study has also highlighted interesting perspectives of joint reward as integrating factor. The double factor evidence potentially flags accounting- marketing features of this variable. Managers in the financial services industry are alarmed of the

potential differential connectivity of both dimensions to effective integration. Also, analysing this variable from a two-dependent lens has enabled the understanding of the dimensional and strategic marketing stages implications of both reward groups.

9.4 Limitations of the Study

A number of factors limited the capacity to detect significant relationships.

Despite all efforts to increase the generalisability of the findings in this study, the validity of the findings is restricted, given: 1) interface explored, 2) country studied (culture and management practices), and 3) sample size (below 200) and company size.

This study, the first (to the researcher's best knowledge) of its kind, to examine accounting-marketing working relationship in the conceptualised context provides critical insights about this dyad. However, the results should be interpreted with caution; generalisation beyond the accounting-marketing interface should be done with utmost care, given that each interface has its core features (Fisher *et al*, 1997), for example, attitudinal affinities, tension elements, and task connectedness, to mention a few. "With few exceptions (cf. Wind 1981), most of the literature on the relationship between marketing and other functions addresses the specific problems associated with one particular functional area, such as production or R&D, in a manner not generalizable across other functions (cf. Gupta *et al*, 1986)", an argument that is supported by the contention that integration outcomes are contingent on functional areas considered (e.g., Fisher *et al*, 1997; Houston, 1994).

Secondly, a cautionary generalisation of the results in this study is advised considering country context limitation. This study focused on the United Kingdom. Countries are usually characterised by different management and attitudes towards marketing (Workman *et al*, 1998; Krohmer *et al*, 2002). Findings may not be valid for

all cultures (Krohmer *et al*, 2002; Song & Thieme, 2006), and considering a core finding that is congruent with accounting-marketing literature suggesting strong culture walls between the considered departments, cautionary interpretation of this study's findings beyond national boundaries is logical.

Further more, attention is drawn to the fact that the test model was conducted in the financial services industry. While the studied firms matched the organisational dynamics for considerable investigation of hypothesised relationships, and though the researcher does not see any a-priori reasons for critical industry related differentials, attention is drawn to the potentials for company size-induced actual effect differentials. Embraced in this study are large and medium firms, a deviation from this typology might trigger commensurate changes. Most importantly, results from this study may have no validity for small businesses, as they most likely may not afford a separate marketing department (Krohmer *et al*, 2002). Further down this line, drawing on Leenders and Wierenga's (2002) analysis of R&D type induced changes, this researcher anticipates strategic marketing induced variances, given varying strategic marketing focus.

Another limitation of the study worth highlighting is the sample size. At 162, the sample size is below the reasonable sample size of > 200 (Byrne, 1998). The researcher not only flags the potential for sample induced differentials if n was to be > 200, but also departmental evidence variances, given either sample size increase or equity in the two samples.

Although the results from this study provide acceptable support for theoretical reasoning, attention is drawn to the contextualisation based limitation. The contextualisation of integration though aligns with the composite School of thought, and though combining numerously validated parameters, and the dimensions

considered, offer a new conceptual perspective. There are well-documented differences in the "world views" of integration constructs (Fisher *et al*, 1997). Integration as a construct has often been conceptualised differently (Krohmer *et al*, 2002; Olson *et al*, 2001; Dewsnap & Jobber, 2004) and consequently measured, to some degree, diversely (Olson *et al*, 2001), a practice, which most times, is rationalised on research problem or according to Fisher *et al* (1997) on preferred solutions and trade-offs. Despite the valuable insights this study offers, generalisation in the conceptualised context is recommended.

Finally, no single research is all embracing, and given this obvious research limitation, this research did not embrace a number of integration critical variables, e.g., national culture (e.g., Xie *et al*, 2003), environmental dynamism (e.g., Maltz, 1997; Cardogan *et al*, 2005) or other potential antecedents of **AMI**. Triggered by this universal research limitation, this research did not explore the link between accounting-marketing integration and strategic marketing competences, a synergistic argument that has incrementally gained recognition (Roslender & Hart, 1999; 2002 & 2003; Foster & Gupta, 1994; Stephen & Archambault, 1998; Downie, 1997; Wilson, 2000; Zinkhan & Verbrugge, 2000; de Ruyter & Wetzels, 2000), even though mainly conceptually and anecdotally). Additional to the synergistic target, future researchers might incorporate further determinants as well as theoretically plausible moderators.

9.5 Directions for Future Research

In its pioneering capacity, this study of accounting-marketing integration has offered valuable insights in understanding this relationship, but also flags critical directions for advancing understanding and enhancing accounting-marketing effectiveness. While a few research premises are inferentially extractable from limitations highlighted above, further research areas are flagged below:

Although this study used multiple respondents, the researcher, given the respondent size (162), recognises the potentials for sample-size induced limitations. To validate the findings in this study and improve understanding of accounting-marketing interface, future researches involving larger participants' size are necessary. Further more, accounting-marketing insights would be enhanced if such researches prioritise dyadic equity in response.

This study has highlighted a number of critical issues in relation to accounting-marketing interface. Given the lack of prior empirical insights about this dyad, cautionary interpretation of results is advised. Following this advice, the cross-national stability of the results (Cardogan *et al*, 2005) must be examined in future studies, for national-context moderate inter-functional relationships (Xie *et al*, 2003).

Also, the culture and orientation differences evidence from this study supports the call for a cross-national examination of the dyad. Despite insignificance at some points, the regression results, largely supported by the evidence from Q9a which identified major barriers of **AMI**, suggest critical negative correlation of this factor to level of achieved integration. Additional to improving understanding of the factor's link to achieved integration, future researches adopting a cross-national examination might capture national differentials. Also, such studies might offer new insights, explanations, and or suggestions in relation to the cultural and orientation tensions between both departments, emphasised as one of the major barriers of integration.

The culture rift and boundary fencing evidence from this study reinforce the theoretical importance of diversity in team relationships. "Diversity is a fundamental fact in today's business organisations, and it is the heart- of multidisciplinary teams" (Jackson, 1996, p. 68). Given "the complexity of diversity and its myriad consequences, a complete understanding of the phenomenon awaits many more years

of research" (op. cit.). Theoretically, this study is not only consistent with existing literature but also, reinforcing Jackson's (1996) research advocacy, unlocks a myriad of critical research directions. For the former, the evidence from this study identifies cultural diversity (dewsnap & Jobber, 2002; Jackson, 1996; De Dreu &Weingart, 2003; Griffen & Hauser, 1996; Maltz, 1997; de Ruyter & Wetzels, 2000) and boundary fencing (Workman *et al*, 1998; Kotler *et al*, 2006) as team conflict drivers. Further examination of combined variable evidence justifies further research.

To effectively manage the complexity of diversity's effects of multidisciplinary teams, organisations must go beyond simply following a few specified rules (Jackson, 1996, pp. 68-69). To mitigate dysfunctional conflict outcomes (Kotler *et al*, 2006) in the accounting-marketing integration, UK financial services organisations employ a CFB mechanism. This finding offers critical theoretical and managerial insights about the explored context (dyadic and country), foundations that should be validated through further studies. Empirically, UK financial services organisations optimize personnel and organisational performance through the CFB. This points to a critical research development direction in this dyadic context, one that may offer extended knowledge for other intragroup but also intergroup relationships.

The preliminary CFB finding in this study highlights the potential importance of CFB to achieving (1) awareness and communication of strategy, (2) goal driven accounting-marketing effectiveness, and (3) recruitment of new staff as well as training and development of existing staff, despite strong culture differences between these departments. Current knowledge on accounting-marketing dyad would be enriched through more exploration of the cross-functional bridge. The pioneering finding in this study requires validation through rigorously testing of the phenomenon. More critically, further researches should aim at (but not limited to) highlighting the

psychological and performance implications of the CFB mechanism. Researches should seek to highlight: 1) the motivators, 2) the scale of use, and 3) the critical integration factors that feed on this mechanism. A key question to address in this connection is: what are the 'mitigating' and 'minimizing' implications of the CFB on dysfunctional conflicts in the accounting-marketing dyad? Further more; embracing a large sample size would aid the delineation of the circumstance along organisational typologies.

To improve accounting-marketing dyad knowledge, future studies embracing other industries, either including other services related firms that align to the features of accounting-marketing relationship, and or other distinct industrial sectors, to capture sectors dichotomies, using same data are recommended.

A number of studies have emphasised the importance of cross-functional (technical) knowledge background to effective integration (e.g., Maltz, 1997 – propositional; Parry & Song, 1993; Kotler *et al*, 2006). Tables 8.18 and 8.19 lend credence to that logic. However, very little is known about the influence of knowledge background on accounting-marketing integration. Although technical knowledge boundaries are evident in this dyad (see Table 7.4), link to achieved integration was not examined. Future research should also aim to fill this gap.

In responding to Q9b, over 32% of respondents (for each case and department), who commented, stressed ‘need to intensify project feasibility checks’ and ‘need for effective integration between departments’ as the most important lessons learned by their firms from the strategic marketing plans that failed. Inspecting the components for each cluster, though no empirical argument is deemed statistically logical, a potential synergy between accounting-marketing integration and strategic marketing success is indicated. This indication corroborates anecdotal and normative

accounting-marketing literature suggesting potential strategic marketing synergies in the accounting-marketing interface. While this study has empirically captured the levels and nature of **AMI** across the strategic marketing stages, the strategic marketing potency of accounting-marketing integration remains a conceptual contention. This void offers a critical avenue for future studies.

Induced by the emergent statistical evidence, the study suggested a strong negative correlation between communication gap and the level of achieved **AMI**. However, while a conclusion of non-existence of communication gap in the accounting-marketing interface seemed wise, given highly consistent respondent evidence (at least 67.9% for each parameter), responses to Q9a (sensitizing major barriers in achieving effective **AMI** during the strategic marketing process) flag communication related issues as a critical barrier. These contrasting evidences might suggest potential communication differentials between routine **AMI** and **AMI** during the strategic marketing process. Future studies might provide valuable insights for legitimate conclusions.

Inspecting the pooled sample regression results for all four strategic marketing stages for task connectivity differentials across the three dimensions of integration, little evidence was found (see Table 9.1). Consequently, it was legitimate to conclude that the three dimensions are differentially critical for effective strategic marketing process. Although the pooled sample regression coefficients reflect the most achievable significance levels for all dimensions of integration across all strategic marketing stages, some differences are evident in the significance levels for the marketing and accounting samples, differential evidences that could be contingent on sample size or perception differences. Perception differences may not only have organisational attributes, but also indicators of socio-cultural characteristics of the

explored departments (Shin *et al*, 2007). Further studies in this direction would enhance our understanding.

Numerous CFRs investigations have flagged the opaque evidence of formalisation's connectivity to achieved inter-departmental integration (e.g., Gupta, 1984, Parry & Song, 1993; Mollenkopf *et al*, 2000; Song & Thieme, 2006). Analysing the evidence in the study for both dependent models, either jointly or independently, substantial evidence supporting the fuzziness of this factor was found. Aligning with the advocacy of Mollenkopf *et al* (2000) and Parry and Song (1993), this study makes a case for more enquiries into this variable.

Empirical evidence (Gupta, 1984; Parry & Song, 1993; Mollenkopf *et al*, 2000; and Song & Thieme, 2006) also highlights decentralisation as one other integration factor that is surrounded by fuzziness. Give that evidence, one that is strongly supported in this study, further examinations of this variable's link to cross-functional integration, is suggested, to improve our understanding.

Critically inspecting the reward evidence for both dependent variable clusters, strong contrasts are evident between the monetary and performance dimensions of reward. Previous researches have not highlighted this potential division. The conclusion drawn in this study suggests monetary equity is more critical than team performance based rewards, in achieving effective integration in UK financial services organisations. More researches are required to validate this evidence.

Critically also, while this research provides some insights into how to achieve effective accounting-marketing integration during the strategic marketing process, it does not address a critical link between **AMI** and strategic marketing competencies. Thus, while this study has advanced understanding on this dyadic relationship, the strategic marketing argument (Roslender & Hart, 1999; 2002 & 2003; Foster &

Gupta, 1994; Stephen & Archambault, 1998; Downie, 1997; Wilson, 2000; Zinkhan & Verbrugge, 2000; de Ruyter & Wetzels, 2000) still lacks scientific support. To fill this void, further research efforts should seek to heed the Journal of Marketing Management's (2006) call for the exploration of the synergies of accounting-marketing integration between.

Employee participation has been scarcely accorded empirical attention as a predictor of achieved level of integration (Parry & Song, 1993; Song & Thieme, 2006). Although this study makes some contributions in the effort to fill this void, the findings are no less intriguing to the little available empirical evidence (Parry & Song, 1993; Song & Thieme, 2006). Further investigation of this variable's link to integration would expand accounting-marketing, but also overall cross-functional relationship knowledge.

Although Maltz (1997) highlighted the research void between environmental dynamism and inter-functional cooperation, not much empirical evidence exist yet about this link. Future accounting-marketing (and beyond) researches could capitalise on this opportunity.

Finally, accounting-marketing literature would benefit from future efforts to consider the international implications of the model used in this study.

9.6 Conclusions to the Chapter

This chapter has summarised the conclusions for this study and also highlighted, given limitations of the research, the theoretical and managerial implications of the study. Aiming to aid further expansion of knowledge of accounting-marketing dyad, some future research directions have been suggested.

Overall, this study has offered vital insights to understanding accounting-marketing relationship and financial services organisations. This study has responded

to research needs in the explored domain, and thus improved understanding concerning critical questions of 1) Do accounting and marketing actually integrate? 2) What are the critical components in their integration? and 3) what factors influence the degree of integration, routinely and during the strategic marketing stages.

Conversely, this study, through its results, has flagged critical research questions for improving knowledge, for example; 1) what is the extent and implication of boundary spanning in the accounting-marketing interface? and 2) How is cross-functional bridge contextualised, and what are the core motivators and outcomes in the accounting-marketing interface? Future researches should also aim to validate the 'mitigating' influence on dysfunctional conflict, as well as highlighting the dysfunctional conflict 'minimizing' function of the CFB tool. Finally, the 'strategic', and 'staff recruitment as well as employee training and development' implications offer other critical research avenues.

Appendices

APPENDIX 1: LETTER FOR PILOT-TESTING OF QUESTIONNAIRE

PhD Research Student
Norwich Business School
University of East Anglia
Norwich, NR4 7TJ
E-mail: a.opute@uea.ac.uk
Tel: 01603591040 or
07957743619.

The Head of Marketing/Accounting (Finance)
……..
……..
……..

Date:

Dear Mr/Mrs/Miss/Dr/Prof…,

I am writing to kindly ask for your help with my doctoral project. I am researching into how the Accounting and Marketing functional areas work together in contemporary financial organisations, and how this cooperation enhances their strategic marketing competencies.

Accounting – Marketing integration is of immense importance to organisations in deriving and implementing a sound marketing strategy. Consequently, the outcome of this research would enable organisations to improve their performance by means of achieving a closer Accounting and Marketing integration.

Based on a substantial literature review I have devised a questionnaire which addresses the factors that affect the Accounting – Marketing integration. The next stage of my research requires a careful testing of this questionnaire through brief personal interviews with Accounting and Marketing managers. I need to ascertain that all questions are easily understood and relevant to the topic under investigation.

Therefore I am asking for your permission to test my questionnaire at your firm. The testing session will last about 20minutes.

My research needs your support to progress. I have invested considerable time, effort and money into this research and your support in enabling the next stage of my research is greatly appreciated.

The Code of Conduct of the Marketing Research Society applies to this research, therefore all the information provided will be held **strictly confidential**.

In return for your help at this stage I will provide you with a copy of the executive report of the aggregated and fully anonymous results and recommendations, which would include responses from over 200 firms from the financial sector in the UK. This would allow you to benchmark your company's practices with those of the whole sector organisation would like to have it.

My contact details are stated in this letter and I would be glad if your secretary could contact me to arrange a meeting.

Kind regards.

Abdullah Promise Opute.

APPENDIX 2: APPRECIATION LETTER TO PILOT-TESTING PARTICIPANTS

The Head of Marketing/Accounting (Finance
…….
…….
…….

PhD Research Student
Norwich Business School
University of East Anglia
Norwich, NR4 7TJ
E-mail: a.opute@uea.ac.uk

Date:

Dear Mr/Mrs/Miss/Dr/Prof…,

Thank you so much for kindly participating in the questionnaire testing stage of my research and thereby enabling my PhD.

Drawing from the inputs generated through the interviews and questionnaire testing exercise, the questionnaire has been revised. The next stage of this research is the actual survey.

I would be very grateful if you could kindly participate in this stage of my research and enable my research one step further.

Further details to this survey are enclosed in the envelope.

Many thanks in advance for your help.

A. Promise Opute

APPENDIX 3: LETTER TO SOLICIT PARTICIPATION IN THE SURVEY

The CEO
……
……
……

PhD Research Student
Norwich Business School
University of East Anglia
Norwich, NR4 7TJ
E-mail: a.opute@uea.ac.uk

Date:

Dear Dr./Mr/Mrs/Miss/Dr/Prof….,

I am writing to kindly ask for your help with my doctoral project. I am researching into how the Accounting and Marketing functional areas work together in contemporary financial organisations, and how this cooperation is reflected during the organisation's strategic marketing process.

This study adopts a dyadic approach to explore the factors which may hinder or enable cooperation as has been emphasised in existing literature. In doing so, I need to contact the managers in Accounting and Marketing areas of financial services organisations. Therefore I am kindly asking for two such contacts from your organisation and your permission to contact them. If you are a multidivisional firm, I would appreciate the names of the managers for the two departments in more of your registered sectors. A form is attached for your convenience.

My research really needs your support to progress. I have invested huge amount of time, effort and money into this project and your support in enabling this stage of my research is greatly appreciated and very much needed. **Please help me to complete my PhD**.

The information will be collected via a brief questionnaire. The Code of Conduct of the Market Research Society applies to this research, therefore all the information will be held confidential.

I would be pleased to send you and the participating managers an executive report of the aggregated and fully anonymous results and recommendations, which would include responses from over 200 firms from the financial services sector in the UK.

The questionnaire for this study has been tested with several companies in the financial services sector and will take about 15minutes to complete.

I will appreciate your effort to enable this study. If you have any questions about the study I would be most pleased to discuss them with you. Please feel free to call me on 01603-591040 OR 07957743619, or email me on a.opute@uea.ac.uk

Thank you so much in advance for your support.

A. Promise Opute

APPENDIX 4: NOMINATION FORM

Study of Accounting – Marketing Integration and Strategic Marketing Management in U.K. Financial Services Firms

Nomination Form

Yes, we are interested in participating in this study.

Company's Name: _____

You should contact the following two executives:

1. From Accounting Department

   Title: _____

   Name: _____

   Address: _____

   _____

   City _____ Post code _____

   Telephone: _____

2. From Marketing Department

   Title: _____

   Name: _____

   Address: _____

   _____

   City _____ Post code _____

   Telephone: _____

Please return this form to:

A. Promise Opute
PhD Research Student
Norwich Business School
University of East Anglia
Norwich NR4 7TJ

Thank you for participating in this study

APPENDIX 5: COVER LETTER SENT ALONG WITH QUESTIONNAIRES

INTEGRATION BETWEEN ACCOUNTING & MARKETING IN FINANCIAL SERVICES ORGANISATIONS IN THE UK.

PhD Research Student
Norwich Business School
University of East Anglia
Norwich, NR4 7TJ
Email: a.opute@uea.ac.uk

The Head of Marketing/Accounting (Finance)
…….
…….
…….
…….

Date:

Dear Mr/Mrs/Miss/Dr/Prof…,

I am writing to kindly ask for your help with my doctoral project. I am researching into how the Accounting and Marketing functional areas work together in contemporary financial organisations, and how this cooperation pictures out during the organisation's strategic marketing process.

This study adopts a dyadic approach to explore the factors which may hinder or enable cooperation as has been emphasised in existing literature. I would appreciate if you could complete the attached questionnaire.

My research really needs your support to progress. I have invested huge amount of time, effort and money into this project and your support in enabling this stage of my research is greatly appreciated and very much needed. **Please help me to complete my PhD**.

The Code of Conduct of the Market Research Society applies to this research, therefore all the information provided will be held confidential.

I would be pleased to send you an executive report of the aggregated and fully anonymous results and recommendations, which would include responses from over 200 firms from the financial services sector in the UK.

The questionnaire for this study has been tested with several companies in the financial services sector and will take about 15minutes to complete. If I could receive the completed questionnaire by the 4th week of November 2006 that will immensely enable the research analysis stage.

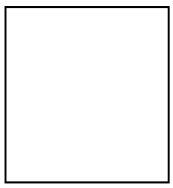
I will appreciate your effort to enable this study. If you have any questions about the study I would be most pleased to discuss them with you. Please feel free to call me on 01603-591040 OR 07957743619, or email me on a.opute@uea.ac.uk

Thank you so much in advance for your support.

A. Promise Opute

APPENDIX 6: FIRST REMINDER LETTER

INTEGRATION BETWEEN ACCOUNTING & MARKETING IN FINANCIAL SERVICES ORGANISATIONS IN THE UK.



The Head of Marketing/Accounting
.....
.....
Date .....

PhD Research Student
Norwich Business School
University of East Anglia
Norwich, NR4 7TJ
Email: a.opute@uea.ac.uk

Dear Sir/Madam,

Over two months ago, I mailed to you a questionnaire relating to the above titled study. I am still awaiting your completed questionnaire. The objective of this study is to explore Accounting-Marketing integration in contemporary financial organisations, and how this integration is reflected during the organisations' strategic marketing process.

This study adopts a dyadic approach to explore the factors which may hinder or enable integration as has been emphasised in existing literature. I would appreciate if you could complete the attached questionnaire.

Thus far, over 62 completed questionnaires have been received. Your response is very important to this study as it is very important to have a representative sample for analysis. Your support in enabling this stage of my research is greatly appreciated and very much needed. **Please help me to complete my PhD**.

The Code of Conduct of the Market Research Society applies to this research, therefore all the information provided will be held confidential.

I would be pleased to send you an executive report of the aggregated and fully anonymous results and recommendations, which would include responses from over 200 firms from the financial services sector in the UK.

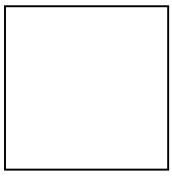
The questionnaire for this study has been tested with several companies in the financial services sector and will take about 15 minutes to complete. If I could receive the completed questionnaire by the 2nd week of April 2007 that will immensely enable the research analysis stage.

I will appreciate your effort to enable this study. If you have any questions about the study I would be most pleased to discuss them with you. Please feel free to call me on 01603-591040 OR 07957743619, or email me on a.opute@uea.ac.uk

Thank you so much in advance for your support.

A. Promise Opute

APPENDIX 7: SAMPLE OF QUESTIONNAIRE FOR SURVEY



Accounting Questionnaire

SURVEY OF ACCOUNTING – MARKETING INTEGRATION

GENERAL INSTRUCTIONS

1. The purpose of this study is to explore how Accounting and Marketing people work together. The results would enable firms understand how to **stimulate, facilitate and consolidate integration between them and enhance strategic marketing performance**

2. Integration relates to all interaction and cooperation activities that characterise the working relationship between Accounting and Marketing.

3. **Please** try to answer all questions. If anything is unclear to you, or doesn't fit your firm's experience, please answer as best as you can.

4. Questions are grouped into four parts. The first deals with general demographics about the company. The second asks questions about the characteristics of integration of the firm. While the third part looks at the variables that may influence the degree of achieved integration, part four asks questions relating to the synergies of Accounting – Marketing integration in relation to Marketing. Part four also asks questions relating to departmental and employee issues.

5. The Code of Conduct of the Market Research Society applies to this research, therefore all the information provided will be held **strictly confidential**.

PART 1: COMPANY DEMOGRAPHICS

Q1. Under which sector is your firm registered. Please, tick the applicable box.

Banking sector	□	Brokerage sector	□
Insurance sector	□	Risk Assessment	□
Auditing and Accounting sector	□	A combination of sectors	□
		Please specify sectors: _____	

_____

Q2. How old is your firm? Please tick the box below that indicates applicable years.
1 to 10 □ 11 to 20 □ 21 to 30 □ 31 to 40 □ 41 to 50 □ 51 and above □

Q3. What is the number of full-time employees in your firm? Please write below
……..Employees

Q4. What is the number of support employees in your firm? Please write in the space
……Employees.

Q5. For how many years has your firm been engaged in its registered sector(s)?
Please write in the space ……..years

PART 2: INFORMATION ABOUT THE NATURE OF INTEGRATION

The scale to be used in parts 2 to 4 are defined below:

1	2	3	4	5	6
Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree

Q6. Listed below are issues relating to the characteristics of Accounting – Marketing integration. Please indicate the characteristics as you perceive them to be in your firm.

In this firm, the Accounting – Marketing integration is characterised by:	Strongly Disagree 1	2	3	4	5	Strongly Agree 6
Unified efforts	**1**	**2**	**3**	**4**	**5**	**6**
a. Give-and-take attitude	□	□	□	□	□	□
b. Willingness to listen to criticisms from each other	□	□	□	□	□	□
c. Swift resolving of conflicts	□	□	□	□	□	□
d. Mutual support of each other	□	□	□	□	□	□
e. Few disagreements in strategic marketing decisions	□	□	□	□	□	□
Information sharing	**1**	**2**	**3**	**4**	**5**	**6**
f. Awareness of the information needs of each other	□	□	□	□	□	□
g. Awareness and sharing of customer perspectives	□	□	□	□	□	□
h. Effective information exchange	□	□	□	□	□	□
i. Accurate and timely exchange of information	□	□	□	□	□	□
j. Awareness of each other's goals	□	□	□	□	□	□
k. Awareness of organisational strategic goals	□	□	□	□	□	□

Involvement	Strongly Disagree 1	2	3	4	5	Strongly Agree 6
l. Involvement of both in strategic marketing decisions	□	□	□	□	□	□
m. Engaging in open discussion from both perspectives	□	□	□	□	□	□
n. Joint involvement in analysing customer needs	□	□	□	□	□	□
o. Joint participation in responding to market changes	□	□	□	□	□	□
p. Joint involvement in defining the strategic marketing priorities	□	□	□	□	□	□

PART 3: ORGANISATIONAL DYNAMICS

Q7. Please indicate to what extent you perceive the following statements to be true in your firm.

In my firm

Communication Gap	Strongly Disagree 1	2	3	4	5	Strongly Agree 6
a. There is lack of communication between marketing & accounting	□	□	□	□	□	□
b. Marketing information is not transferred accurately to accounting	□	□	□	□	□	□
c. There is too little information exchange between marketing and accounting	□	□	□	□	□	□
d. Marketing has no discussion with accounting regarding Strategic Marketing issues	□	□	□	□	□	□
Formalisation						
a. Staff performance appraisals are based on written performance standards	□	□	□	□	□	□
b. Duties, authority, and accountability of personnel are documented in policies, procedures, or job descriptions	□	□	□	□	□	□
c. Written procedures and guidelines are available for most of the work situations	□	□	□	□	□	□
d. Formal communication channels are always followed	□	□	□	□	□	□
Departmental differences						
a. Marketing people do not seem to understand accounting people	□	□	□	□	□	□
b. The marketing culture differs from that of accounting	□	□	□	□	□	□
c. Marketing thinking patterns differ from those of accounting	□	□	□	□	□	□
d. Marketing's view of organisation's objectives are different from those of accounting	□	□	□	□	□	□
Management support						
a. Top management promotes team loyalty over functional loyalty	□	□	□	□	□	□
b. Top management promotes performance measures that favour integration of accounting and marketing	□	□	□	□	□	□
c. Top management encourages different functions to work together	□	□	□	□	□	□
d. Top management supports integration of accounting and marketing	□	□	□	□	□	□

PART 4: THE LINK BETWEEN ACCOUNTING – MARKETING INTEGRATION AND STRATEGIC MARKETING MANAGEMENT

Q8 Listed below are some statements relating to **the link between Accounting/Marketing Interaction and Strategic Marketing Management (SMM)**. Please indicate the extent of agreement or disagreement **on whether in your firm you do things in the way the statements describe**.

In this firm,	Strongly Disagree					Strongly Agree
Strategic Marketing Analysis stage	**1**	**2**	**3**	**4**	**5**	**6**
a. Accounting and Marketing support each other mutually in the joint effort to ascertain the changes taking place in the trading environment and assessing how these changes affect the firm and its activities	☐	☐	☐	☐	☐	☐
b. Accounting and Marketing are willing to listen to criticisms from each other in the effort to analyse the **SMM** issues	☐	☐	☐	☐	☐	☐
c. Accounting and Marketing exchange accurate and timely information in the effort to effectively ascertain the changes taking place in the trading environment and assess how these changes affect the firm and its activities	☐	☐	☐	☐	☐	☐
d. Accounting and Marketing information exchange practices reflect common strategic goals between the functions	☐	☐	☐	☐	☐	☐
e. Accounting and Marketing jointly participate in the entire process of ascertaining the changes taking place in the environment and assessing how these changes affect the firm and its activities	☐	☐	☐	☐	☐	☐
f. Accounting and Marketing are jointly involved in considering the resources available for responding to the identified changes	☐	☐	☐	☐	☐	☐
Strategic Marketing Planning stage	**1**	**2**	**3**	**4**	**5**	**6**
a. Accounting and Marketing support each other mutually in establishing strategic marketing schedules	☐	☐	☐	☐	☐	☐
b. Accounting and Marketing show united team spirit and openness to criticisms in their effort to set strategic marketing goals and priorities	☐	☐	☐	☐	☐	☐
c. Accounting and Marketing willingly share information in their effort to generate strategic marketing ideas	☐	☐	☐	☐	☐	☐
d. Accounting and Marketing share accurate and timely information to aid Marketing mix Planning	☐	☐	☐	☐	☐	☐
e. Accounting and Marketing participate jointly in deciding on the strategic marketing goals and priorities	☐	☐	☐	☐	☐	☐
f. Accounting and Marketing participate jointly in decisions concerning apportionment of resources to Strategic marketing efforts	☐	☐	☐	☐	☐	☐

	Strongly Disagree					Strongly Agree
Strategic Marketing Implementation stage	**1**	**2**	**3**	**4**	**5**	**6**
a. Accounting and Marketing depict team spirit in the execution of the strategic marketing Plans	☐	☐	☐	☐	☐	☐
b. Accounting and Marketing are willing to perform cross-functional roles in ensuring effectiveness and efficiency of strategic marketing plans	☐	☐	☐	☐	☐	☐
c. Accounting and Marketing are aware of the information needs of each other in the execution of strategic marketing plans	☐	☐	☐	☐	☐	☐
d. Accounting and Marketing share accurate and timely information in the execution of strategic marketing plans	☐	☐	☐	☐	☐	☐
e. Accounting and Marketing jointly identify the specific tasks to be performed and execute actual strategic marketing plans	☐	☐	☐	☐	☐	☐
f. Accounting and Marketing are jointly involved in the allocation of resources to the courses of **SMM** action	☐	☐	☐	☐	☐	☐
Strategic Marketing Control stage						
a. Accounting and Marketing mutually support each other in the process of monitoring the transformation of **SMM** plans	☐	☐	☐	☐	☐	☐
b. Accounting and Marketing show unity in the process of analysing performance to identify deviations from plans and areas of variances	☐	☐	☐	☐	☐	☐
c. Accounting and Marketing share accurate & timely information to aid monitoring of transformation of **SMM** Plans	☐	☐	☐	☐	☐	☐
d. Accounting and Marketing share accurate and timely information and aid evaluation of performance and identification of variances	☐	☐	☐	☐	☐	☐
e. Accounting and Marketing jointly participate in the monitoring of the transformation of **SMM** plans	☐	☐	☐	☐	☐	☐
f. Accounting and Marketing jointly participate in identifying and evaluating courses of action in the event of a variance or variances	☐	☐	☐	☐	☐	☐

Q9 Please, answer the following questions about your job, Accounting – Marketing relationships and your firm's strategic marketing success.

a. Please, list below the **factors** you perceive to be the **major barriers in achieving an effective integration between Accounting and Marketing** during the Strategic Marketing Process in your firm.

b. What do you consider to be the most important lesson(s) learned by your firm from the Strategic Marketing plans that have failed? Please list below

Q10 Listed below are some statements relating to **your department**. By ticking the appropriate box, please indicate what you perceive is the practice in your firm.

1. Please, indicate your perception of the degree of participation of employees in your department on the following stages of the **SMM** process.

1 None	2 Little	3 Some	4 Quite a bit	5 A great deal	6 Extensive

	1	2	3	4	5	6
▪ During the Strategic Marketing Analysis stage	□	□	□	□	□	□
▪ During the Strategic Marketing Planning stage	□	□	□	□	□	□
▪ During the Strategic Marketing Implementation stage	□	□	□	□	□	□
▪ During the Strategic Marketing Evaluation & Control stage	□	□	□	□	□	□

2. Does your department organise self-development courses for its staff? Please, tick the applicable box. □Yes □No

3. If the answer to the above question is yes, is marketing contents emphasised in those courses? Please, tick the appropriate box.
   □Yes □No

4. What is the physical distance between Accounting and Marketing departments in your firm? Please, tick one of the following boxes.
   □ We are on the same floor of the building
   □ We are in the same building but separated by _____ floors
   □ We are in different buildings, each separated approximately by _____ yards/miles.
   □ Other _____

Q11 Please give the applicable information below as **they relate to you** and **your department**.

1. Your age _____ Years.

2. Total work experience _____ years. Out of this _____ years in the present firm.

3. Your educational qualifications. Please, tick all boxes applicable to you.
   B.Sc □ MBA □ M.Sc □ Doctorate □
   Professional Qualification □ , Please specify ( ) Other □, Please specify
   Qualifications other the above, in □Marketing □Accounting

4. What is your job title in your firm? Please write below
   ……
5. For how many years have you worked for the firm in that role. Please write below
   ……..years

6. Are you a member of a professional body? □No □Yes: How many _____

7. What is the number of employees in your department? Please write below
   …….Full-time employees, ……Support employees

8. What percent of employees in your department is educated to tertiary level?
   _____%

9. What percent of department employees have the following qualifications?

   Professional Qualifications only_____%
   Non-Professional Qualifications_____ %

10. How do you perceive the position of an executive of your rank in Marketing in terms of his/her:

	The Same	Marketing is better	Accounting is better
a. Salary	☐	☐	☐
b. Power	☐	☐	☐
c. Future in the organisation	☐	☐	☐
d. Career prospects	☐	☐	☐

If you would like to have an executive report of the aggregated and fully anonymous results and recommendations of this study please provide your name and address below:

Thank you for helping to complete this study.
Please, send the completed questionnaire in the enclosed return envelop to:

A. Promise Opute
PhD Research Student
Norwich Business School
University of East Anglia
Norwich, NR4 7TJ.

APPENDIX 8: SAMPLE OF QUESTIONNAIRE FOR SURVEY

Marketing Questionnaire

SURVEY OF ACCOUNTING – MARKETING INTEGRATION

GENERAL INSTRUCTIONS

1. The purpose of this study is to explore how Accounting and Marketing people work together. The results would enable firms understand how to **stimulate, facilitate and consolidate integration between them and enhance strategic marketing performance**

2. Integration relates to all interaction and cooperation activities that characterise the working relationship between Accounting and Marketing.

3. **Please** try to answer all questions. If anything is unclear to you, or doesn't fit your firm's experience, please answer as best as you can.

4. Questions are grouped into four parts. The first deals with general demographics about the company. The second asks questions about the characteristics of integration of the firm. While the third part looks at the variables that may influence the degree of achieved integration, part four asks questions relating to the synergies of Accounting – Marketing integration in relation to Marketing. Part four also asks questions relating to departmental and employee issues.

5. The Code of Conduct of the Marketing Research Society applies to this research, therefore all the information provided will be held **strictly confidential**.

PART 1: COMPANY DEMOGRAPHICS

Q1. Under which sector is your firm registered. Please, tick the applicable box.

Banking sector	□	Brokerage sector	□
Insurance sector	□	Risk Assessment	□
Auditing and Accounting sector	□	A combination of sectors	□
		Please specify sectors: _____	

Q2. How old is your firm? Please tick the box below that indicates applicable years.
1 to 10 □ 11 to 20 □ 21 to 30 □ 31 to 40 □ 41 to 50 □ 51 and above □

Q3. What is the number of full-time employees in your firm? Please write below
……..Employees

Q4. What is the number of support employees in your firm? Please write in the space
……Employees.

Q5. For how many years has your firm been engaged in its registered sector(s)?
Please write in the space ……..years

PART 2: INFORMATION ABOUT THE NATURE OF INTEGRATION

The scale to be used in parts 2 to 4 are defined below:

1	2	3	4	5	6
Strongly Disagree	Disagree	Slightly Disagree	Slightly Agree	Agree	Strongly Agree

Q6. Listed below are issues relating to the characteristics of Accounting – Marketing integration. Please indicate the characteristics as you perceive them to be in your firm.

In this firm, the Accounting – Marketing integration is characterised by:	Strongly Disagree					Strongly Agree
Unified efforts	**1**	**2**	**3**	**4**	**5**	**6**
a. Give-and-take attitude	□	□	□	□	□	□
b. Willingness to listen to criticisms from each other	□	□	□	□	□	□
c. Swift resolving of conflicts	□	□	□	□	□	□
d. Mutual support of each other	□	□	□	□	□	□
e. Few disagreements in strategic marketing decisions	□	□	□	□	□	□
Information sharing	**1**	**2**	**3**	**4**	**5**	**6**
f. Awareness of the information needs of each other	□	□	□	□	□	□
g. Awareness and sharing of customer perspectives	□	□	□	□	□	□
h. Effective information exchange	□	□	□	□	□	□
i. Accurate and timely exchange of information	□	□	□	□	□	□
j. Awareness of each other's goals	□	□	□	□	□	□
k. Awareness of organisational strategic goals	□	□	□	□	□	□

Involvement	Strongly Disagree 1	2	3	4	5	Strongly Agree 6
l. Involvement of both in strategic marketing decisions	□	□	□	□	□	□
m. Engaging in open discussion from both perspectives	□	□	□	□	□	□
n. Joint involvement in analysing customer needs	□	□	□	□	□	□
o. Joint participation in responding to market changes	□	□	□	□	□	□
p. Joint involvement in defining the strategic marketing priorities	□	□	□	□	□	□

PART 3: ORGANISATIONAL DYNAMICS

Q7. Please indicate to what extent you perceive the following statements to be true in your firm.

In my firm

Communication Gap	Strongly Disagree 1	2	3	4	5	Strongly Agree 6
a. There is lack of communication between marketing & accounting	□	□	□	□	□	□
b. Accounting information is not transferred accurately to marketing	□	□	□	□	□	□
c. There is too little information exchange between marketing and accounting	□	□	□	□	□	□
d. Accounting has no discussion with marketing regarding Strategic Marketing issues	□	□	□	□	□	□
Formalisation						
a. Staff performance appraisals are based on written performance standards	□	□	□	□	□	□
b. Duties, authority, and accountability of personnel are documented in policies, procedures, or job descriptions	□	□	□	□	□	□
c. Written procedures and guidelines are available for most of the work situations	□	□	□	□	□	□
d. Formal communication channels are always followed	□	□	□	□	□	□
Departmental differences						
a. Accounting people do not seem to understand marketing people	□	□	□	□	□	□
b. The Accounting culture differs from that of marketing	□	□	□	□	□	□
c. Accounting thinking patterns differ from those of marketing	□	□	□	□	□	□
d. Accounting's view of organisation's objectives are different from those of marketing	□	□	□	□	□	□
Management support						
a. Top management promotes team loyalty over functional loyalty	□	□	□	□	□	□
b. Top management promotes performance measures that favour integration of accounting and marketing	□	□	□	□	□	□
c. Top management encourages different functions to work together	□	□	□	□	□	□
d. Top management supports integration of accounting and marketing	□	□	□	□	□	□

	Strongly Disagree					Strongly Agree
Reward system	**1**	**2**	**3**	**4**	**5**	**6**
a. Accounting and Marketing staff share equally in the rewards from a successful strategic marketing effort	□	□	□	□	□	□
b. Accounting executives of the same rank in marketing are on the same salary level	□	□	□	□	□	□
c. Team members evaluations are based on team performance instead of individual Performance	□	□	□	□	□	□
d. Formal evaluation criteria for Accounting – Marketing inter-departmental teamwork exist	□	□	□	□	□	□
Risk taking behaviour						
a. Management provides enough incentives to work on new ideas despite the uncertainty of their outcomes	□	□	□	□	□	□
b. Management has a strong desire for high risk, high return investments	□	□	□	□	□	□
c. Management encourages you to keep trying even if you fail in the strategic process.	□	□	□	□	□	□
d. The management rewards successful risky projects	□	□	□	□	□	□
Decision Making Patterns						
a. Very few actions are taken without the approval of a superior	□	□	□	□	□	□
b. Even small matters on the job have to be referred to someone higher up for a final answer	□	□	□	□	□	□
c. Individuals feel empowered to make decisions in their jobs	□	□	□	□	□	□
d. Employee participation is encouraged in strategic decision making	□	□	□	□	□	□
Role Flexibility						
a. A planned job rotation of Accounting and Marketing employees is emphasised as a device for developing their capabilities	□	□	□	□	□	□
b. Accounting and Marketing functions do rotate employees	□	□	□	□	□	□
c. Accounting gather and contribute strategic marketing information to the marketing team	□	□	□	□	□	□
d. Some of the Accounting members also performed technical marketing tasks in the strategic marketing process	□	□	□	□	□	□
Physical Proximity						
a. Accounting is physically separated from marketing	□	□	□	□	□	□
b. Informal interactions rarely happen between accounting and marketing	□	□	□	□	□	□
c. Chance meetings are rare between accounting and marketing personnel	□	□	□	□	□	□
d. Physical separation between accounting and marketing reduces the chance to learn and understand each other	□	□	□	□	□	□

PART 4: THE LINK BETWEEN ACCOUNTING – MARKETING INTEGRATION AND STRATEGIC MARKETING MANAGEMENT

Q8 Listed below are some statements relating to **the link between Accounting/Marketing Interaction and Strategic Marketing Management (SMM)**. Please indicate the extent of agreement or disagreement **on whether in your firm you do things in the way the statements describe**.

In this firm,	Strongly Disagree					Strongly Agree
Strategic Marketing Analysis stage	**1**	**2**	**3**	**4**	**5**	**6**
a. Accounting and Marketing support each other mutually in the joint effort to ascertain the changes taking place in the trading environment and assessing how these changes affect the firm and its activities	☐	☐	☐	☐	☐	☐
b. Accounting and Marketing are willing to listen to criticisms from each other in the effort to analyse the **SMM** issues	☐	☐	☐	☐	☐	☐
c. Accounting and Marketing exchange accurate and timely information in the effort to effectively ascertain the changes taking place in the trading environment and assess how these changes affect the firm and its activities	☐	☐	☐	☐	☐	☐
d. Accounting and Marketing information exchange practices reflect common strategic goals between the functions	☐	☐	☐	☐	☐	☐
e. Accounting and Marketing jointly participate in the entire process of ascertaining the changes taking place in the environment and assessing how these changes affect the firm and its activities	☐	☐	☐	☐	☐	☐
f. Accounting and Marketing are jointly involved in considering the resources available for responding to the identified changes	☐	☐	☐	☐	☐	☐
Strategic Marketing Planning stage	**1**	**2**	**3**	**4**	**5**	**6**
a. Accounting and Marketing support each other mutually in establishing strategic marketing schedules	☐	☐	☐	☐	☐	☐
b. Accounting and Marketing show united team spirit and openness to criticisms in their effort to set strategic marketing goals and priorities	☐	☐	☐	☐	☐	☐
c. Accounting and Marketing willingly share information in their effort to generate strategic marketing ideas	☐	☐	☐	☐	☐	☐
d. Accounting and Marketing share accurate and timely information to aid Marketing mix Planning	☐	☐	☐	☐	☐	☐
e. Accounting and Marketing participate jointly in deciding on the strategic marketing goals and priorities	☐	☐	☐	☐	☐	☐
f. Accounting and Marketing participate jointly in decisions concerning apportionment of resources to Strategic marketing efforts	☐	☐	☐	☐	☐	☐

	Strongly Disagree					Strongly Agree
Strategic Marketing Implementation stage	**1**	**2**	**3**	**4**	**5**	**6**
a. Accounting and Marketing depict team spirit in the execution of the strategic marketing Plans	□	□	□	□	□	□
b. Accounting and Marketing are willing to perform cross-functional roles in ensuring effectiveness and efficiency of strategic marketing plans	□	□	□	□	□	□
c. Accounting and Marketing are aware of the information needs of each other in the execution of strategic marketing plans	□	□	□	□	□	□
d. Accounting and Marketing share accurate and timely information in the execution of strategic marketing plans	□	□	□	□	□	□
e. Accounting and Marketing jointly identify the specific tasks to be performed and execute actual strategic marketing plans	□	□	□	□	□	□
f. Accounting and Marketing are jointly involved in the allocation of resources to the courses of **SMM** action	□	□	□	□	□	□
Strategic Marketing Control stage						
a. Accounting and Marketing mutually support each other in the process of monitoring the transformation of **SMM** plans	□	□	□	□	□	□
b. Accounting and Marketing show unity in the process of analysing performance to identify deviations from plans and areas of variances	□	□	□	□	□	□
c. Accounting and Marketing share accurate & timely information to aid monitoring of transformation of **SMM** Plans	□	□	□	□	□	□
d. Accounting and Marketing share accurate and timely information and aid evaluation of performance and identification of variances	□	□	□	□	□	□
e. Accounting and Marketing jointly participate in the monitoring of the transformation of **SMM** plans	□	□	□	□	□	□
f. Accounting and Marketing jointly participate in identifying and evaluating courses of action in the event of a variance or variances	□	□	□	□	□	□

Q9 Please, answer the following questions about your job, Accounting – Marketing relationships and your firm's strategic marketing success.

a. Please, list below the **factors** you perceive to be the **major barriers in achieving an effective integration between Accounting and Marketing** during the Strategic Marketing Process in your firm.

b. What do you consider to be the most important lesson(s) learned by your firm from the Strategic Marketing plans that have failed? Please list below.

Q10 Listed below are some statements relating to **your department**. By ticking the appropriate box, please indicate what you perceive is the practice in your firm.

1. Please, indicate your perception of the degree of participation of employees in your department on the following stages of the **SMM** process.

1 None	2 Little	3 Some	4 Quite a bit	5 A great deal	6 Extensive	1	2	3	4	5	6
▪ During the Strategic Marketing Analysis stage						□	□	□	□	□	□
▪ During the Strategic Marketing Planning stage						□	□	□	□	□	□
▪ During the Strategic Marketing Implementation stage						□	□	□	□	□	□
▪ During the Strategic Marketing Evaluation & Control stage						□	□	□	□	□	□

2. Does your department organise self-development courses for its staff? Please, tick the applicable box. □Yes □No

3. If the answer to the above question is yes, is accounting contents emphasised in those courses? Please, tick the appropriate box.
   □Yes □No

4. What is the physical distance between Accounting and Marketing departments in your firm? Please, tick one of the following boxes.
   □ We are on the same floor of the building
   □ We are in the same building but separated by _____floors
   □ We are in different buildings, each separated approximately by_____ yards/miles.
   □ Other_____

Q11 Please give the applicable information below as **they relate to you** and **your department**.

1. Your age _____ Years.

2. Total work experience_____years. Out of this _____years in the present firm.

3. Your educational qualifications. Please, tick all boxes applicable to you.
   B.Sc □ MBA □ M.Sc □ Doctorate □
   Professional Qualification □ , Please specify ( ) Other □, Please specify
   Qualifications other the above, in □Marketing □Accounting

4. What is your job title in your firm? Please write below
   ……

5. For how many years have you worked for the firm in that role. Please write below
   …….years

6. Are you a member of a professional body? □No , □Yes: How many _____

7. What is the number of employees in your department? Please write below
   …….Full-time employees, ……Support employees
8. What percent of employees in your department is educated to tertiary level?
   _____%
9. What percent of department employees have the following qualifications?

   Professional Qualifications only_____%
   Non-Professional Qualifications _____%

10. How do you perceive the position of an executive of your rank in Accounting in terms of his/her:

	The Same	Marketing is better	Accounting is better
a. Salary	☐	☐	☐
b. Power	☐	☐	☐
c. Future in the organisation	☐	☐	☐
d. Career prospects	☐	☐	☐

If you would like to have an executive report of the aggregated and fully anonymous results and recommendations of this study please provide your name and address below:

Thank you for helping to complete this study.
Please, send the completed questionnaire in the enclosed return envelop to:

A. Promise Opute
PhD Research Student
Norwich Business School
University of East Anglia
Norwich, NR4 7TJ.

APPENDIX 9: SAMPLE OF REMINDER LETTER NR. 2

The Head of Marketing/Accounting
.....
.....
Date .....

Norwich Business School
University of East Anglia
Norwich, NR4 7TJ
E-mail: a.opute@uea.ac.uk

Dear Dr./Mr/Mrs …..,

About four months ago, I mailed to you a questionnaire concerning the study of Accounting/Marketing integration. Also six weeks ago, I sent you a remainder. I am still awaiting your completed questionnaire. The objective of this study is to explore Accounting/Marketing integration in financial Services organisations and how such integration is reflected during the strategic marketing process.

Adopting a dyadic approach, this study explores the factors that may hinder or enable cooperation as has been emphasised in existing literature. I would appreciate if you could complete the attached questionnaire.

About 100 completed questionnaires have been received so far. Your response is very important to this study as it is crucial to have a representative sample for analysis. Your kindness to enable this stage of my research would be much appreciated. **Please help me to complete my PhD**.

The Code of Conduct of the market Research Society applies to this research, therefore all information provided will be held confidential.

I would be pleased to send you an executive report of the aggregated and fully anonymous results and recommendations emerging from the study.

The questionnaire for this study has been tested with several companies in the financial services industry and will take about 15minute to complete. If I could receive the completed questionnaire within the next four weeks that will immensely enable the research analysis stage.

I would appreciate your effort to enable this study. If you have any questions about the study I would be most pleased to discuss them with you. Please feel free to call me on 01603-591040 OR 07957743619, or email me on: a.opute@uea.ac.uk

Thanks very much in advance for your support.

Abdullah Promise Opute

Researcher.

APPENDIX 10: SAMPLE OF QUESTIONS FOR FOLLOW-UP INTERVIEW

CROSS-FUNCTIONAL BRIDGE IN THE ACCOUNTING – MARKETING INTERFACE

The following outlined questions were used during the interview to conduct a foundational enquiry into the use of cross-functional bridge in Contemporary Financial Services organisations to mitigate peculiar bottlenecks of the Accounting – marketing interface, and enhance integration:

1. Is your role as the cross-functional bridge between Accounting and Marketing your first engagement with this company?
2. What prompted the use of cross-functional bridge?
3. What is your experience on it so far?
4. What, in your opinion, are the benefits there from?
5. What are the difficulties you have encountered so far?
6. What is your general assessment of the Accounting – Marketing working relationship now vis-à-vis the time before the introduction of the cross-functional bridge culture?
7. Are you aware of other organisations that practice this culture?
8. If answer to Q7 is yes, which ones?
9. What is your role in the cross-functional bridge? Could you please provide me a copy of your job description?
10. Could you please give me an example of where your role/position has
11. made difference?

APPENDIX 11: JUSTIFICATION FOR THE USE OF EFA

Why Exploratory Factor Analysis is preferred over Principal Component Analysis

Through factor analysis (Field, 2005, p. 619), we are able to ascertain if the different variables are driven by the same underlying variable. These underlying dimensions are also known as factors or latent variables (Field, 2005, p. 620). However, there are numerous variants of factor analysis techniques, namely, *principal-axis factoring with iterated communalities (a.k.a. least squares), unweighted least squares, generalised least squares, maximum likelihood (a.k.a. canonical factoring), alphas factoring* and *image factoring* (Norusis/SPSS Inc., 1994a, Costello & Osborne, 2005), but one of the most frequently used in social sciences disciplines is the principal component analysis type of factor modelling (Bryman and Cramer, 1994). Each factor extraction procedure has its possibilities and its advocates (Gorsuch, 1983, p. 120). Empirical studies in the broad cross-functional domains (e.g., Parry & Song, 1993, Song & Parry, 1993; Song et al, 1996) have largely favoured factor analysis, also called principal factor analysis (Field, 2005, p. 629). Although both principal component analysis and principal factor analysis usually result in similar solutions (Field, 2005, p. 629), principal factor analysis is preferred in this study, in alignment with trend in the broad cross-functional relationships domain, given the followings reasons:

1. "Theoretically, factor analysis is more correct, though more complicated (Rietveld & Van Hout, 1993, p. 268);
2. PCA, unlike PFA, does not discriminate between common and unique variance (i.e., ignores the unique components (Field, 2005, p. 630; Costello & Osborne, 2005), and thus produce inflated values of variance accounted for by the components when the factors are uncorrelated and communalities are moderate (Gorsuch, 1997; McArdle, 1990; Snook & Gorsuch, 1989);
3. PFA derives a mathematical model from which factors are estimated, whereas PCA merely decomposes the original data into a set of linear variates (Field, 2005, p. 630; Dunteman, 1989);
4. See justification of exploratory factor analysis technique.

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