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Symbolic Uses of Export Information: Implications for Export Performance

By

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Doctoral Thesis

Submitted in partial fulfilment of the
requirements for the award of
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CERTIFICATE OF ORIGINALITY

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ABSTRACT

As export competition becomes more intense and export success vital for survival (Katsikeas, 1994), so the effective processing and use of information regarding the international environment becomes a critical prerequisite for gaining competitive advantage (Leonidou and Theodosiou, 2004). Symbolic use of information is one type of information use, which although relatively underexplored to date, may be the most prevalent form of information use within organisations – especially in an export setting (Beyer and Trice, 1982).

Symbolic use occurs when information is used for purposes other than the ones which led to its collection (Menon and Varadarajan, 1992). Symbolic use of information has been conceptualised as a multi-dimensional construct encompassing various dimensions (Vyas and Souchon, 2003). Examples include “exporters that engage in distorting market research findings, taking conclusions out of context, disclosing only the findings that confirm an executive’s predetermined position or consciously ignoring information” (Toften and Olsen, 2004, p. 106). Symbolic use can also legitimate decisions reached on the basis of intuition or managerial assumptions (Vyas and Souchon, 2003).

Although conceptual propositions of the potential relationship between each of the symbolic use dimensions and performance exist (Vyas and Souchon 2003), no empirical research has yet been undertaken. As a result, little is known about how and why symbolic use of export information may affect export performance, and under what circumstances. Furthermore, reliable and valid measures for each one of the symbolic use dimensions are absent in the literature. The purpose of this thesis is to fill in these research gaps. In so doing, a combination of both qualitative and quantitative methods is employed.

The exploratory phase takes the form of in depth interviews with export decision makers in the UK. The data collected in this exploratory phase are analysed through the use of within-case and cross-case displays as per Miles and Huberman (1994)

and are used not just for hypothesis development, but also to identify potential outcomes of using information symbolically in specific ways and to create pools of items for the development of measures of symbolic use. The results of the qualitative study also reveal decision quality as the appropriate mediator in the study of the relationship between symbolic use dimensions and export performance.

Next, a quantitative mail survey of export decision makers is conducted resulting in 189 usable responses from exporting firms around the UK. In order to develop the measures, psychometric testing is undertaken. Reliable and valid measures for each of the symbolic use dimension are developed and the model that emerges from the literature and the qualitative interviews is tested via hierarchical moderated regression.

There are two extremely important findings that the results reveal. First, some of the symbolic use dimensions are indeed related to export performance. These effects are direct for distortion, affective use, non-use and export power-seeking use, whereas social use is subject to the moderating effect of information quality. Second, decision quality is shown to be positively related to export performance. This is a unique finding that opens numerous future research avenues given that this is the first study to consider decision quality as an important antecedent to export performance. Managerial and theoretical implications, future research agenda and limitations of the study are then discussed in more detail.

Keywords: Decision Quality, Empirical, Export Information Use, Export Marketing, Export Performance, Hierarchical Moderated Regression, Symbolic Information Use.

TABLE OF CONTENTS

Chapter 1: INTRODUCTION.....	1
1.1 BACKGROUND.....	1
1.2 INFORMATION USE.....	2
1.3 SYMBOLIC INFORMATION USE.....	3
1.3.1 <i>Prevalence of Symbolic Use of Export Information.....</i>	3
1.3.2 <i>Importance of Studying Symbolic Use of Export Information.....</i>	5
1.4 IDENTIFICATION OF THE RESEARCH GAP.....	11
1.4.1 <i>Objectives of the Study.....</i>	14
1.5 THEORETICAL IMPLICATIONS.....	17
1.6 MANAGERIAL IMPLICATIONS.....	20
1.7 RESEARCH OVERVIEW AND STRUCTURE OF THE THESIS.....	22
Chapter Two: REVIEW OF THE LITERATURE.....	25
2.1 DEFINITIONAL ISSUES AND THEORETICAL CONSIDERATIONS.....	26
• <i>Definition of Information.....</i>	26
• <i>Information and Data.....</i>	27
• <i>Information and Knowledge.....</i>	28
• <i>Attributes of Information.....</i>	29
2.2 INFORMATION USE.....	34
2.2.1 <i>Definition of Information Use.....</i>	35
2.2.2 <i>Dimensions of Information Use.....</i>	36
2.2.3 <i>Measurement of Information Use.....</i>	42
2.3 THE STUDY OF INFORMATION USE IN AN EXPORT SETTING.....	54
2.3.1 <i>Definition of Export Information Use.....</i>	54
2.3.2 <i>Review of Previous Studies on Export Information Use.....</i>	55
a) <i>Background Forces on Export Information Use.....</i>	55
b) <i>Export Information Use per se.....</i>	60
c) <i>Relationship between Export Information Use and Export Performance.....</i>	60
2.3.3 <i>Symbolic Use of Export Information.....</i>	63
2.4 EXPORT PERFORMANCE.....	66
2.4.1 <i>Definition of Export Performance.....</i>	67

2.4.2 Conceptualisation and Operationalisation of Export Performance.....	68
2.4.3 Unit of Analysis.....	69
2.4.4 Measurement of Export Performance.....	70
2.4.5 The Need for a Contingency Theory Approach.....	73
2.5 DECISION QUALITY AS THE MEDIATOR BETWEEN SYMBOLIC USE AND EXPORT PERFORMANCE.....	76
2.5.1 Conceptualisation of Decision Quality.....	78
2.5.1.1. Conceptual Definitions.....	78
2.5.1.2. Operational Definitions.....	81
2.6 CHAPTER SUMMARY.....	83
Chapter Three: EXPLORATORY INVESTIGATION.....	84
3.1 METHODOLOGY.....	85
3.1.1 Objectives and Research Design Overview.....	85
3.1.2 Sample Design and Data Collection.....	85
3.1.3 Research Instrument.....	87
3.2 ANALYSIS STRATEGY.....	88
3.2.1 Within-case Analysis.....	89
3.2.2 Cross-case Analysis.....	89
3.3 FINDINGS AND DISCUSSION.....	91
3.3.1 Dimensions of Symbolic Use of Export Information.....	92
3.3.2 Relationship between Symbolic Use Dimensions and Decision Quality.....	100
3.3.3 General Assessments – Overall Conclusions.....	105
Chapter 4: CONCEPTUALISATION AND HYPOTHESES.....	107
4.1 UNIT OF ANALYSIS.....	107
4.2 DETERMINING THE APPROPRIATENESS OF SYMBOLIC USE DIMENSIONS.....	110
4.3 HYPOTHESES DEVELOPMENT.....	113
4.3.1. Legitimizing Use.....	114
4.3.2. Social Use.....	116
4.3.3 Non-Use.....	117

4.3.4 Affective Use.....	120
4.3.5 Distortion.....	121
4.3.6 Expert Power-seeking Use.....	122
4.3.7 Legitimizing Power-seeking Use.....	123
4.3.8 Haphazard Use.....	124
4.3.9 The Link Between Decision Quality and Export Performance.....	126
4.4 CHAPTER SUMMARY.....	130
Chapter Five: RESEARCH METHODOLOGY.....	131
5.1 RESEARCH DESIGN: AN OVERVIEW.....	131
5.1.1 Data Collection Method.....	132
5.2 QUESTIONNAIRE DESIGN.....	134
5.2.1 Question Sequence and Content.....	134
5.2.2 Considerations on Common Method Variance, Measurement and Design Error.....	145
5.2.3 Other Types of Error.....	149
5.2.4 Response Rate Enhancement.....	149
5.2.5 Physical Characteristics.....	150
5.3 PRELIMINARY DATA CLEANING.....	151
5.4 PRE-TESTING.....	152
5.4.1 Protocols/Debriefing.....	153
5.4.2 Questionnaire Revision.....	154
5.4.3 Pilot Study.....	155
5.5 THE MAIN SAMPLE SURVEY.....	157
5.5.1 Sampling Process.....	157
5.5.2 Definition of Target Population.....	158
5.5.3 Determination of Sampling Frame.....	160
5.5.4 Selection of Sampling Technique.....	160
5.5.5 Determination of Sample Size.....	161
5.5.6 Execution of the Main Mail Survey.....	162
5.5.7 Non-response Analysis and Response Rate Calculation.....	163
5.6 SAMPLE CHARACTERISTICS OF THE COMPANIES.....	166
5.6.1 Company Size.....	166
5.6.2 Company Age (Business Experience).....	168
5.6.3 Export Specificity.....	169

5.7 ANALYTICAL PROCEDURE.....	171
5.8 CHAPTER SUMMARY.....	173
Chapter Six: SCALE DEVELOPMENT.....	174
6.1 MISSING VALUE ANALYSIS.....	174
6.1.1 <i>Missing Data Processes</i>	175
6.1.2 <i>Selection of Imputation Method</i>	176
6.2 DIMENSIONALITY AND RELIABILITY.....	180
6.3 FACTOR ANALYSIS.....	182
6.3.1 <i>Exploratory versus Confirmatory Factor Analysis</i>	182
6.3.2 <i>Exploratory Factor Analysis</i>	183
6.3.2.1 <i>Common Factor Analysis versus Principal Component Analysis</i>	183
6.3.2.2 <i>Factorability of the Scale Items and Criteria for Factor Extraction</i>	185
• <i>Latent Root Criterion</i>	186
• <i>Scree Test Criterion</i>	186
• <i>Percentage of Variance Criterion</i>	187
6.3.2.3 <i>Rotation of Factors</i>	187
6.3.2.4 <i>Interpretation of Factors</i>	188
6.4 RELIABILITY ANALYSIS.....	189
6.5 RESULTS OF DIMENSIONALITY AND INTERNAL CONSISTENCY RELIABILITY.....	192
6.5.1 <i>Dimensionality and Internal Consistency Reliability of Symbolic Use Dimensions</i>	193
6.5.2 <i>Dimensionality and Internal Consistency Reliability of the Mediators and Moderators</i>	197
<i>Information Quality</i>	197
<i>Export Experience</i>	198
<i>Inter-functional Coordination</i>	199
<i>Export Commitment</i>	200
<i>Decision Quality</i>	201
<i>Decision Speed</i>	202
<i>Environmental Turbulence</i>	203
<i>Information Overload</i>	205
6.5.3 <i>Dimensionality and Internal Consistency Reliability of the Export Performance</i>	

<i>Indicators.....</i>	206
6.5.4 <i>Dimensionality and Internal Consistency Reliability of the Social Desirability Indicators.....</i>	206
6.5.5 <i>Dimensionality and Internal Consistency Reliability of the Instrumental and Conceptual Use Indicators.....</i>	208
6.5.6 <i>Dimensionality and Internal Consistency Reliability of the Symbolic Use Indicators..</i>	209
6.5.7 <i>Internal Consistency Reliability Results.....</i>	210
6.6 CREATING SUMMATED SCALES.....	212
6.7 COMMON METHOD VARIANCE.....	213
6.8 VALIDITY.....	215
6.8.1 <i>Content Validity.....</i>	216
6.8.2 <i>Criterion-related Validity.....</i>	216
6.8.3 <i>Construct Validity.....</i>	218
6.8.4 <i>Nomological Validity.....</i>	219
6.8.5 <i>Cross-validation of the Study.....</i>	220
6.9 CHAPTER SUMMARY.....	222
Chapter Seven: HYPOTHESES TESTING.....	223
7.1 SAMPLE SIZE IN MULTIPLE REGRESSION ANALYSIS.....	223
7.2 ESTIMATION OF THE REGRESSION MODEL AND OVERALL MODEL FIT ASSESSMENT.....	224
7.2.1 <i>Presentation of the Interaction or Moderator Effects.....</i>	224
7.2.2 <i>Presentation of the Regression Equations.....</i>	227
7.2.3 <i>Assumptions in Multiple Regression.....</i>	228
7.2.3.1 <i>Linearity.....</i>	229
7.2.3.2 <i>Multicollinearity Assessment.....</i>	229
7.2.3.3 <i>Homoscedasticity.....</i>	230
7.2.3.4 <i>Independence of the error terms.....</i>	230
7.2.3.5 <i>Normality Assessment.....</i>	231
7.2.4 <i>Detecting Outliers.....</i>	231
7.3 RESULTS AND DISCUSSION.....	232
7.4 CHAPTER SUMMARY.....	246

Chapter Eight: CONCLUSIONS.....	247
8.1 THEORETICAL CONTRIBUTION.....	247
8.2 MANAGERIAL IMPLICATIONS.....	248
8.3 LIMITATIONS AND FUTURE RESEARCH DIRECTIONS.....	253
8.4 CONCLUDING REMARK.....	262

LIST OF REFERENCES.....	264
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APPENDICES.....	328
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LIST OF TABLES

Table 2.1 – Information Use Dimensions.....	40
Table 2.2 – Measures of Information Use and Related Dimensions.....	45
Table 2.3 – Influences on Export Information Use.....	59
Table 2.4 – Dimensions of Symbolic Use as per Vyas and Souchon, (2003).....	65
Table 2.5 – Examples of Export Performance Measures.....	73
Table 2.6 – Conceptual Definitions of Decision Quality.....	80
Table 2.7 – Operational Definitions of Decision Quality.....	82
Table 3.1 – Managerial Quotes for Symbolic Use.....	96
Table 5.1 – Questionnaire Items – Section One.....	136
Table 5.2 - Questionnaire Items – Section Two.....	142
Table 5.3 - Questionnaire Items – Section Three.....	144
Table 5.4 - Questionnaire Items – Section Four.....	145
Table 5.5 – British Chambers of Commerce – Table A.....	159
Table 5.6 - British Chambers of Commerce – Table B.....	159
Table 5.7 - British Chambers of Commerce – Table C.....	159
Table 5.8 – Early versus Late Respondents.....	163
Table 5.9 – Main Survey Non-Response Analysis.....	164
Table 5.10 – Company Size.....	167
Table 5.11 – Company Age.....	168
Table 6.1 – Percentages of Missing Values.....	180
Table 6.2 – Dimensionality Analysis for the Symbolic Use Dimensions.....	193
Table 6.3 – Deleted Items for Symbolic Use.....	197
Table 6.4 - Dimensionality Analysis for Information Quality.....	198

Table 6.5 - Dimensionality Analysis for Export Experience.....	199
Table 6.6 - Dimensionality Analysis for Inter-functional Coordination.....	200
Table 6.7 - Dimensionality Analysis for Export Commitment.....	201
Table 6.8 - Dimensionality Analysis for Decision Quality.....	202
Table 6.9 - Dimensionality Analysis for Decision Speed.....	203
Table 6.10 - Dimensionality Analysis for Environmental Turbulence.....	204
Table 6.11 - Dimensionality Analysis for Information Overload.....	205
Table 6.12 - Dimensionality Analysis for Export Performance.....	206
Table 6.13 - Dimensionality Analysis for Social Desirability.....	207
Table 6.14 - Dimensionality Analysis for Instrumental/Conceptual Use.....	209
Table 6.15 - Dimensionality Analysis for Symbolic Use.....	210
Table 6.16 – Internal Consistency Reliability Results (Cronbach Alphas).....	211
Table 6.17 – Correlations of Symbolic Use Dimensions with Social Desirability.....	214
Table 6.18 – Correlations of Symbolic Use Dimensions with Symbolic Use Measure as per Diamantopoulos and Souchon, (1999).....	217
Table 6.19 - Correlations of Symbolic Use Dimensions with Information Overload.....	220
Table 6.20 – Cross-validation of the Study.....	221
Table 7.1 – Regression for Export Commitment.....	232
Table 7.2 – Regression for Decision Quality.....	234
Table 7.3 – Regression for Export Performance.....	241

LIST OF FIGURES AND DIAGRAMS

Figure 1 – Research Overview.....	22
Figure 2 – Attributes of Information.....	30
Cross-case display 1 – DECISION QUALITY/ DECISION-MAKING.....	103
Cross-case display 2 – SYMBOLIC USE DIMENSIONS AND DECISION QUALITY.....	104
Figure 3 – Analytical Procedure.....	91
CONCEPTUAL DIAGRAM.....	129
Figure 5.1 – Factors Influencing Response Rate.....	150
Figure 5.2 - Company Size.....	168
Figure 5.3 - Company Age.....	169
Figure 5.4 - Export Specificity.....	170

LIST OF APPENDICES

Appendix 3.1 – Contact Letter.....	329
Appendix 3.2 – Interview Guide.....	331
Appendix 3.3 – Contact Summary Form.....	339
Appendix 3.4 – Within-case Displays (Quotes Matrices).....	341
Appendix 3.5 - Within-case Displays (Networks).....	388
Appendix 5.1 – Introductory Letter.....	413
Appendix 5.2 – Questionnaire and Cover Letter.....	416
Appendix 5.3 – Reminder Card.....	430
Appendix 5.4 – Reminder Cover Letter.....	432
Appendix 5.5 – Follow-up Letters.....	434
Appendix 5.6 – Armstrong and Overton (1977) Test Results.....	437
Appendix 6.1 – Harman’s One-factor Test.....	446
Appendix 6.2 – Histograms and Basic Descriptive Statistics for Symbolic Use Dimensions.....	449
Appendix 7 - Residual Plots for Regressions.....	454

Chapter One: INTRODUCTION

1.1 BACKGROUND

Globalisation is intensifying in world business, and renders internationalisation an essential prerequisite for ensuring long-term viability (Katsikeas, 1994; Leonidou and Theodosiou, 2004). In this global environment, exporting plays a significant role as the most common form of internationalisation (Leonidou and Adams-Florou, 1999; Robson et al., 2008) as it can be less resource-intensive than other forms of foreign market entry and can enable firms to penetrate new foreign markets quickly (Leonidou, 1995).

Many exporters tend to experience uncertainty stemming from lack of knowledge of the potentially unfamiliar, turbulent and complex foreign environment (Reid 1984; Crick et al., 1994). In order to reduce this uncertainty, organisations can acquire and use export-specific information (Koh et al., 1993). Indeed, in order to “gain familiarity, increase understanding and cope effectively with the export environment, it is essential to have the right information, from the right sources, directed to the right people, and used in the right way” (Leonidou and Theodosiou, 2004, p. 30). Sufficient acquisition and effective use of relevant information about foreign markets are crucial for the firm’s export initiation, expansion and survival (Johanson and Vahlne, 1977; Leonidou and Katsikeas, 1996).

Acquisition of export information, specifically, has received much academic attention in the past (e.g. Souchon and Diamantopoulos, 1996). Sinkula and Hampton (1988), however, state that information acquisition is different from information utilisation taking place within organisations. While acquiring information may be crucial for achieving high performance (Yeoh, 2000), little will be accomplished unless this information is actually put to into use (Fletcher and Wheeler, 1989). According to Zaltman and Moorman (1988), competing firms have simultaneously almost the same information at their disposal. As a result, the way information is put into use is likely to provide them with a competitive advantage (or not). Organisations which have learned how to quickly and effectively react to

information tend to develop a deeper understanding of their markets (Day and Glazer, 1994). In that way, they are more likely to achieve a sustainable competitive advantage through the creation of superior customer value (Narver and Slater, 1990). The same is true in an export context as well, where export success is more likely to be influenced by the extent to which, and ways in which, information is used rather than acquired (Diamantopoulos and Souchon, 1998).

1.2 INFORMATION USE

It has been argued that “there is no clear and obvious relationship between the development of the marketing information function and commercial success...To look for immediate ‘bottom-line’ impacts is to take a simplistic view of how marketing information is used, and to assume that an activity like market research makes decisions rather than simply supporting the decision-making process” (Piercy, 1987, pp. 207-208). Thus, the importance of information lies not in its existence or acquisition, but in its use. Indeed, information use has the primary purpose of aiding decision-making and as such is likely to affect aspects of the marketing decision-making process (Deshpande and Zaltman, 1982). In an export setting specifically, effective use of export information is essential in helping the firm to develop a better understanding of its foreign markets (Cadogan et al., 2002; Cadogan et al., 2006, Cadogan et al., 2009) and in this way enables it to deliver superior customer value (Diamantopoulos and Souchon, 1999). Furthermore, there is empirical evidence suggesting that effective export information use is linked to higher export performance levels (e.g. Cadogan et al. 1999; Brouthers, 2002).

Information use can be defined as the extent to which research findings, for example, influence decision-making (Moorman et al, 1992). Export information use has been defined as: “*Organised data about a firm’s export activities and international customers, applied in an instrumental/conceptual manner and/or symbolic manner, with the ultimate goal of increasing export knowledge and/or perceived export performance*” (Toften, 2005, p. 202).

According to Caplan et al. (1975), instrumental use occurs when there is a direct application of research findings to solve a specific problem. An example of instrumental use of knowledge is when a decision to expand into a new market is based on the analysis of specific marketing research results.

Conceptual use is based on indirect applications of research findings (Menon and Varadarajan, 1992). It could also be defined as “the use of knowledge for general enlightenment rather than specific action” (Deshpande and Zaltman, 1981, p. 273), as well as the storage of information for future use (Rich, 1977). As such it could be seen as future instrumental use. Indeed, in their empirical study, Diamantopoulos and Souchon (1999) reached the conclusion that instrumental use and conceptual use were actually aspects of a single dimension.

Regardless of whether instrumental use and/or conceptual use comprise different facets of the same dimension or not, they are both contrasted to using information symbolically by decision makers. Symbolic use describes a number of information use activities which are not based on rational application of the information used. They rather involve the use of information for essentially political purposes, such as justifying actions already taken on the basis of instinct or intuition or distorting information (Williams, 2003). It has also been associated with ignoring information, oversimplifying (Toften and Olsen, 2003) and in general using information in ways inconsistent with its intended purpose (Menon and Varadarajan, 1992).

1.3 SYMBOLIC INFORMATION USE

1.3.1 Prevalence of Symbolic Use of Export Information

Although the main bulk of the literature advocates in favour of using information in a manner consistent with the intended purpose (e.g. Hart et al. 1994; Richey and Myers, 2001), reality sometimes diverges. Indeed, “empirical studies have shown that the evaluation of the limited set of alternatives arising largely from past experience and the selection of a course of action is not carried out through formal

analysis but through managerial judgement (influenced by the organisational paradigm) and political bargaining” (Heracleous, 1994, p. 18).

In this context, Beyer and Trice, (1982), claim that symbolic use may be the most prevalent form of information use within organisations, and it appears to be particularly rife in exporting firms (Diamantopoulos et al., 2003) for two main reasons.

First, many companies start their exporting activities without any significant prior consideration (e.g. while responding to unsolicited orders from abroad) or formal investigation of their exporting environment, and without much rational analysis and planning (McAuley, 1993). Indeed, “fully rational decision-making in the wake of all relevant information is not the typical mode of the international decision-making process” (Cavusgil and Godiwalla, 1982, p. 48), and there is always a strong element of intuition especially in export decision-making (Souchon and Diamantopoulos, 1996). The use of export information to justify decisions made predominantly on instinct/intuition with the intention to legitimise those decisions in the eyes of superiors, for example, is an occurrence of symbolic use (Sabatier, 1978).

Second, “the firm’s export function operates in a political environment in which work groups, functions, departments and business units jockey for power and resources” (Cadogan et al., 2005, p. 54). This type of intra-organisational competition can lead to inter-functional conflicts (Jaworski and Kohli, 1993). In turn, the potential conflicts between export and non-export departments enhance the likelihood for political behaviour to arise (Vyas and Souchon, 2003). In general, organisational decision-making processes are highly political as they are characterised by decisions with uncertain outcomes and actors with conflicting views (Eisenhardt and Bourgeois, 1988). An important component of organisational politics is the role of interest groups or coalitions, the purpose of which is to control resource allocation and influence the decision-making process (Pettigrew, 1973; Bacharach and Lawler, 1981). Furthermore, “although members of a firm's dominant coalition - especially the chief executive - are presumed to have a generalist's view, each brings to his or her job an orientation that usually

has developed from experience in some primary functional area” (Menguc and Auh, 2005, p. 4). On the basis that in many firms this primary functional area will be a function other than exporting and also that a passive attitude towards exporting is maintained (Leonidou, 1995), political behaviour (in the export context) is likely to ensue. One way for the export department to gain power could be through the use of export information (Vyas and Souchon, 2003). In this context, information can be used in such a way as to increase the perceived competence of the export department with little or even no regard for the information’s actual meaning (Beyer and Trice, 1982). An example of how information in the form of research results can be taken out of context in order to gain power is provided by Weiss (1979, p. 430) who states that “...advocates of almost any policy prescription are likely to find some research generalisations in circulation to support their point of view”. In addition, political behaviour often involves distortion of information (Cyert and March, 1963) and the deliberate restriction (Pettigrew, 1973) of information use and flow. In a highly-charged political environment one way that information distortion can occur is when the sender deliberately alters the meaning of specific pieces of information with the sole intention to make other departments look incompetent and less effective. This practice will most likely make the distorter look better to the eyes of superiors for example (Bettis-Outland, 1999). Pettigrew (1973), in his study of decision-making within a British firm, provides a number of examples of political activity including withholding information and behind-the-scenes coalition formation. Distortion and intentional non-use of information are, as explained previously, manifestations of symbolic use.

1.3.2 Importance of Studying Symbolic Use of Export Information

According to Vyas and Souchon (2003), symbolic use of export information seems to be related to export performance in a variety of ways. The varying direction of the relationship between symbolic use and export performance lies in the fact that symbolic use is a multi-faceted construct itself (Larsen, 1980). The first team of researchers to provide a multidimensional conceptualisation of symbolic use of export information are Vyas and Souchon (2003). More specifically, they identify eight dimensions of this type of information use, namely social use, power-seeking

use, affective use, legitimising use, self-promoting use, symbolic non use, haphazard use and distortion of export information.

Social use occurs when managers use information in such a way as to secure ongoing relationships with their information providers and/or to keep them happy (Menon and Varadarajan, 1992). The exchanges and relationships between export information providers and users can sometimes be fraught with misunderstandings due to the cultural differences between them (Vyas and Souchon, 2003). In this context, a reduced extent of information use (on the basis of the relevance of information or the need to act quickly) may be perceived by information providers as a lack of trust in either themselves or the information they provide, or both (Moorman et al., 1992). In turn, this can lead to the provision of lower quality information from them in the future (with adverse effects on the future decision-making process) (Menon and Varadarajan, 1992). Therefore, visibly using export information can sometimes be the only way to mitigate or circumvent potential conflicts with information providers and avoid longer-term side-effects.

Power-seeking use takes place when information is used to enhance the power of the export department (Vyas and Souchon, 2003). Sometimes information can be used in order to shift or consolidate the balance of power within the organisation (Brown, 1994), with little or no regard for the information's real meaning (Beyer and Trice, 1992). In many cases, exporting's asymmetrical dependence on other functions' coordinated activities and goodwill places it in a vulnerable position to other departments' opportunistic behaviour (e.g. Jap and Ganesan, 2000). Using information in a way such as to enhance the power of the export department may enhance other peoples' perceptions within the firm that the export people are knowledgeable, and that they know exactly what they are doing (Vyas and Souchon, 2003). Furthermore, given the export-non-export dichotomy that often exists within exporting firms (Samiee and Walters, 1990), this type of symbolic use may increase export commitment and secure the funds needed for a smooth and uninhibited adaptation of the product mix to foreign needs and wants (Vyas and Souchon, 2003).

Affective use occurs when information is used to create positive emotions and to increase the decision maker's confidence with the decision made (Menon and Wilcox, 2001). In an export context where levels of unfamiliarity with the environment are likely to be high, decision-making may be characterised by fear of failure and higher stress levels (Vyas and Souchon, 2003). Affective use is tied to the 'feel good' factor from using information to make decisions (Menon and Varadarajan, 1992). Indeed, "information from research results can be used to lower any cognitive dissonance effects that can occur with decisions not yet taken and thereby increase overall satisfaction with the decisions when they are made, or they can be used to feel more comfortable with a decision made prior to the conclusion of a study" (Menon and Wilcox, 2001, p. 62). What significantly differentiates affective use from instrumental use is the fact that the former is likely to be present under extreme conditions where the confidence and/or stress levels are much lower than usual.

The situation when information is used by decision-makers to legitimate decisions reached on grounds other than the direct application of research findings to address specific problems (Sabatier, 1978) is called legitimating use. These grounds, for example, may include intuitive decision-making deriving from practical experience (Knorr, 1977; Crossan and Sorrenti, 1997; Schoemaker and Russo, 1993) and/or sustaining previously held positions (Beyer sand Trice, 1982).

Self-promoting use is reflected by the desire to use information to fulfil personal rather than organisational goals (Feldman and March, 1981). In this case, information is more likely to be used for appearance's sake rather than for straightforward problem solving (Menon and Wilcox, 2001). The ultimate purpose of the individual engaged in self-promoting use would be to portray competence to others in the firm (Vyas and Souchon, 2003). Indeed, as Feldman and March (1981, p. 175) state, "decision-makers and organisations establish their legitimacy by their use of information...these symbols of competence are simultaneously symbols of social efficacy".

Symbolic information non-use occurs when readily available information is deliberately ignored by the decision-maker (Souchon and Diamantopoulos, 1997).

The choice to deliberately avoid using information altogether can be made “on rational, instrumental grounds (i.e. after having assessed the intrinsic usefulness of the information and finding it lacking) or on political, symbolic grounds unrelated to the information usefulness (e.g. because it disconfirms pre-established beliefs)” (Vyas and Souchon, 2003, p. 81).

In addition, the use of export information on the basis of its availability or accessibility rather than its relevance is labelled haphazard use (Glazer et al., 1992). More specifically, managers do not always have the time to make well-informed decisions and use information in a systematic way (Rich, 1991). This is because, for example, there is a discrepancy between information acquisition and use in that the majority of organisations and individuals tend to constantly ask for more information than they can effectively and realistically use (e.g. Feldman and March, 1981).

Ultimately, distortion can be defined as the incorrect reproduction of objectively correct information and can result from either conscious or unconscious manipulation (O’Reilly, 1978). Distortion can take place, for example, when information contradicts an executive’s preconceptions (Toften, 2005). As Larsen (1980, p. 428) states, “a considerable degree of adaptation, reinvention, or modification may take place in the utilisation process. Users may adapt the knowledge to fit their own needs”. Indeed, it is not uncommon for managers who have already predetermined their decision, to distort information in order to portray to superiors that the decision has been made on well-informed grounds (Knorr, 1977).

Vyas and Souchon (2003), suggest that while some dimensions of symbolic use of export information are likely to be beneficial to export performance, others are more likely to be detrimental. The following examples are provided in support of the above argument.

The exporter’s ability to build and sustain effective information provider-user relationships is one path to competitive advantage (Zaltman and Moorman, 1988; Piercy, 1997). Visibly using information for the social purpose of consolidating

better relationships with information providers can increase the level of trust perceived by them (Moorman et.al., 1992). This, in turn, is likely to lead to the provision of better quality information in the sense that the information provided will be up to date and relevant for decision-making (Vyas and Souchon, 2003). Furthermore, companies operating in complex and volatile environments (such as the export one) face greater uncertainty and, therefore, require more and diverse information (Menon and Varadarajan, 1992). Bearing this in mind, social use of export information is likely to result in optimising decision-making (Souchon and Diamantopoulos, 1997) ensuring, at the same time, that export opportunities are not missed (Craig and Douglas, 2000). As Vyas and Souchon (2003, p. 73) state “an organisation which is able to react quickly to new opportunities and make relevant export decisions would perform better than its less knowledgeable counterparts”.

On a different front, information distortion is likely to have a negative relationship with export performance (Vyas and Souchon, 2003). It is very prevalent in the decision-making process (Larsen, 1985) and can result from market uncertainty and/or intra-firm politics (Bettis-Outland, 1999) or when the available information contradicts existing managerial preconceptions (Deshpande and Jeffries, 1981). It has been characterised as incongruous because of its adverse effects on decision-making (Menon and Varadarajan, 1992). Managers will tend to distort information rather than change their preconceptions and will tend to do so primarily for more malicious purposes (Knorr, 1977; Vyas and Souchon, 2003). Bearing in mind that information use and decision-making are seen as closely related issues (Nonaka and Nicosia, 1979), distortion should be recognised as a factor impeding the organisation’s responsiveness to information and, consequently, the process of sustaining a market orientation (Bettis-Outland, 1999). In turn, market orientation has been empirically linked to higher performance levels (e.g. Cadogan et al., 2002), so distortion is more likely to be negatively related to performance.

Using information to legitimate decisions reached on the basis of intuition or managerial preconceptions (Sabatier, 1978) is a very common practice in exporting (Vyas and Souchon 2003). These grounds can include past experience and intuition (e.g. Knorr, 1979; Zanna and Rempel, 1988). This is confirmed by

Parikh (1994) who states that the number of top managers admitting the use of gut-feeling is constantly increasing. Eisenhardt (1989) has argued that formal planning in high-turbulence markets is suboptimal because it slows down the process and interferes with environmental requirement for faster, 'real time' decision-making. Given the fact that export environment is very complex and turbulent (Leonidou and Theodosiou, 2004), reliance on intuition can be the optimal solution (Sinclair and Ashkanasy, 2005). According to Vyas and Souchon (2003, p. 76), "in this context, using information to support this intuition will legitimate the decision in the eyes of superiors and subordinates, increasing the latter's confidence in the decision to be made. In turn, this may well contribute to an enhanced sense of shared vision and commitment, reducing inter-functional conflict and enhancing organisational coordination...". All the above may increase export market orientation and ultimately export performance (Cadogan et al., 1999).

On the other hand, many researchers view intuition as an experience-based phenomenon that draws on tacit knowledge (e.g. Isenberg, 1984; Simon, 1987; Klein, 1998). Furthermore, the use of intuition seems to be differentiated by job category, culture and personal characteristics (Parikh et al., 1994). These differences are likely to impede the application of specific experiential knowledge from the domestic market to a foreign one (Johanson and Vahlne, 1977). In addition, reliance on intuition based on experience could be dangerous in the following circumstances: a) when the level of managerial experience is low (Vyas and Souchon, 2003), and b) for specific types of decisions such as export expansion and initiation (Morgan and Katsikeas, 1997; Katsikea et al., 2005). Thus, as Vyas and Souchon, (2003, p. 77) state "while directors' and subordinates' confidence in the decision may be heightened in the short term (prior to the outcome feedback of implementation), the long term effects are most likely to entail decision failure".

To conclude, different dimensions of symbolic use of export information seem to be related to export performance in different ways. Furthermore, the relationship between specific symbolic use dimensions and export performance can vary from negative to positive (and vice versa) under changing circumstances. Yet, these

relationships have not been empirically examined in the literature as will now be explained.

1.4 IDENTIFICATION OF THE RESEARCH GAP

According to Diamantopoulos and Souchon (1996), different export decisions are based on different types of information use. Furthermore, the different types of information use are linked with export performance through the export decision-making process (Vyas and Souchon, 2003). Indeed, given that information use in general refers to whether or not information is actually taken into account during the decision-making process (Souchon and Diamantopoulos, 1996), quality decisions should be the immediate outcome of any type of (effective) use of information. An indirect potential relationship between export information use (thus symbolic use as well) and export performance is, therefore, detected through the mediating effect of high quality decisions. The following hypothetical example provides more support on why it would seem more appropriate to argue an indirect rather than a direct link between symbolic use and export performance (and also on why decision quality is the most appropriate mediator in that respect). If it is assumed that a UK exporting firm would like to expand to a new European market, then a number of interrelated issues/questions are raised such as, for example: a) which country-market should be selected and why?, b) in line with the long-term strategic objectives and cost and time constraints, which entry mode should be employed?, and, c) how should the export market be segmented? While this set of questions is not exhaustive, and the example in itself is very simplistic, it does, nonetheless, illustrate all the points discussed above. First of all, in order for the questions posed to be answered in the most effective way, information will need to be used within certain decision-making processes (Sankar, 2003). Secondly, the outcome of the information used should be high quality decisions that should be implemented in a high quality manner – otherwise overall performance may suffer (e.g. Simons, 1996; Hough and White, 2003; Vroom, 2003; Sepucha et al., 2004; Ozimec et al., 2010). In this specific example different potential performance outcomes have been argued (e.g. effective segmentation and entry modes

selection). In any case, the common underlying cause for any effective outcome will be good decisions and the way they are implemented.

This is a unique contribution of this study as decision quality has never been explored before as a mediator in any export information use study. The qualitative study that follows in chapter 3 provides more insights on this matter and indeed identifies decision quality as the appropriate mediator between symbolic use and export performance. Given the decision-making perspective and the inclusion of decision quality as the logical intermediate outcome, symbolic use could have been examined in relation to other outcomes pertaining, for example, to decisions on export market initiation, expansion and entry modes. However, because a) all the aforementioned can be subsumed under a broader and more 'generic' export performance outcome and, b) export performance is the ultimate and most important final outcome in an export setting (e.g. Katsikeas et al., 2000), export performance has been chosen as the dependent variable.

Furthermore, the export performance literature has over the years examined a plethora of antecedents to export performance. Examples of such antecedents are the following: export knowledge (e.g. Toften, 2005), product quality (e.g. Lages et al., 2009), structure (e.g. Townsend et al., 2004), standardisation of marketing programs (Cavusgil and Zou, 1994), product innovation (e.g. Lages et al., 2009) and export-market-oriented behaviours (e.g. Cadogan et al., 2002). The list is not exhaustive and is only provided as an indication of the conceptually different antecedents employed each time. To the author's best knowledge, decision quality has never been examined as an antecedent to export performance although its relevance and importance has already been demonstrated. This is another contribution that this study is likely to offer.

As already argued, effective use of export information has been empirically linked to higher export performance levels (e.g. Cadogan et al. 1999). Yet, conceptual work has so far maintained a rather negative stance towards using export information symbolically and has characterised it as potentially dangerous for the export department (e.g. Hart et al, 1994). However, as explained before, it is possible for certain dimensions, under specific circumstances, to be benign or

even positive in their relationship with export performance. Although conceptual propositions of the potential impact of symbolic use on performance exist (Vyas and Souchon 2003), no empirical research has been undertaken in terms of examining the potential relationship between the different symbolic use dimensions and export performance. As a result, little is known about how and why symbolic use of export information is likely to be related to export performance. Furthermore, empirical studies on information use have not tended to focus exclusively on symbolic use and as a result, measures of symbolic use so far give us only a broad picture of this concept: no measures exist of the different hypothetical dimensions of symbolic use. This is an impediment to a) increasing our understanding of the theoretical entity of symbolic use, and, b) providing an assessment of the symbolic use – decision quality - export performance relationship.

As Souchon and Diamantopoulos (1996, p. 56) explain, “the distinctions among instrumental, conceptual and symbolic dimensions have direct implications for measure development”. In terms of measurement, much of the previous work has focused on a single type of information use, namely instrumental use (Deshpande and Zaltman, 1982, 1984, 1987). Souchon and Diamantopoulos’s (1999) study provides the most comprehensive measurement instrument that has been developed so far, encompassing all types of use and tested/developed in an export context. More specifically, they develop multi-item scales of export information use specific to the different sources of export information. These measures however, later replicated by Williams (2003) and Toften (2005) for the purposes of their own studies, do not capture the various and distinct facets of symbolic use (Vyas and Souchon, 2003). They use a composite scale of symbolic use that does not consider separately the positive and/or benign dimensions from the negative ones. Given the multidimensional conceptual nature of symbolic use (as per Vyas and Souchon, 2003), a multidimensional operationalisation also seems to be required if one wishes to isolate the positive, benign and negative dimensions of symbolic use (Souchon et al., 2004). Empirical research has so far failed to consider the potential relationship between the different dimensions of symbolic use and export performance. This study is intended to fill this gap. In fact

the whole model and the set of hypotheses developed for the purposes of this study (see chapter 4) is brand new and original.

Given, a) that using export information symbolically may have a positive or negative relationship to export performance, b) that it appears to be a common type of information use in exporting firms (Vyas and Souchon, 2003), and c) there are difficulties and costs associated with acquiring export information (Cavusgil, 1984; Guynes et al., 1990), it is essential that information is used optimally. Practical recommendations on how and when to use export information symbolically from a managerial standpoint are also required. Thus, the practical significance of this study cannot be overlooked.

Therefore:

The overall aim of this study is to investigate the relationship between symbolic use of export information, decision quality and export performance.

1.4.1 Objectives of the Study

In order to fulfil the above aim, the objectives of the current study are threefold. The first objective is to develop a theoretical framework for the study of symbolic use. Contingency theory is used to develop this model. Contingency theory is an appropriate theoretical lens from which to study the relationship between symbolic use of export information and export performance. If the context of contingency theory is applied in an export setting then it can be supported that “each firm’s export performance is dependent on the context in which the firm operates” (Robertson and Chetty, 2000, p. 211). This theoretical platform is particularly suitable for studies of export performance, due to the existence of a plethora of contextual factors on which export performance levels depend (Katsikeas, Leonidou and Morgan, 2000). Indeed, according to Walters and Samiee (1990, p. 35), “perspectives that emphasise the importance of the exporter’s contextual situation offer a fruitful approach to a better understanding of determinants of export success. This implies that universally valid prescriptions for success are

unlikely to be found, and that account needs to be taken of the nature of the firm's business position and the environmental context". Thus, export performance will be maximised when given contingency variables have reached an appropriate level (Donaldson, 2001). In other words, different solutions are appropriate under different internal and/or external conditions (Wright and Ashill, 1996). A contingency factor is "any variable that moderates the effect of an organisational characteristic on organisational performance" (Donaldson, 2001, p. 7). Contingencies include organisational strategy (Chandler 1962), organisational size (Child 1975), and the environment (Burns and Stalker 1961). Because the fit of organisational characteristics to contingencies leads to high performance, organizations seek to attain fit.

In an export context, different export decisions are based on different types of information use. Furthermore, different export decisions are linked with export performance through the export decision-making process (Vyas and Souchon, 2003). While symbolic information use has traditionally been perceived as a negative firm activity, Vyas and Souchon (2003) have argued that the different dimensions of symbolic use of export information can be related to export performance either positively or negatively depending on different circumstances.

Furthermore, Rogers et al. (1999, p. 567) explain that "viewing organisations as information-processing systems requires a contingency approach to theory development". Information processing is performed by all organisations and is a process unfolding through stages including information generation, dissemination and utilisation (Leonidou and Theodosiou, 2004). An organisation will be more effective when there is a match between the information processing within the organisation, its strategy and the environment (Sankar, 2003). Rogers et al. (1999) claim that information utilisation within a firm is "contingent upon the combination of strategy/strategic decision processes, structure and the environment of that firm" (p. 567). In turn, the congruence between the different ways in which information is used and the associated strategic decisions adopted is likely to affect performance depending on the level of marketplace turbulence (Glazer and Weiss, 1993). Therefore, linking symbolic use to decision quality as well as

studying the relationship of the latter with export performance seems to require a contingency theory perspective.

In this context, environmental turbulence has been argued to moderate the relationship between export decision-making outcomes and export performance (e.g. Cavusgil and Zou, 1994; Richey and Myers, 2001). Environmental turbulence is defined as the degree to which technological, competitive, regulatory and customer levels within the industry change and affect the managerial decisions of the firm (Calantone et al., 2003; Kuivalainen et al., 2004).

The size of an organisation particularly affects the way it is structured. For example, a large organisation tends to have a more bureaucratic structure and be more rule-based (Donaldson, 2001). The bureaucratic structure fits a large organization, because large size leads to repetitive operations and administration so that much decision making can be by rules, rendering decision making inexpensive and efficient (Child, 1975). In contrast, a simple structure which is centralised and not rule-governed fits a smaller organisation because top managers can make almost all the decisions personally (Weber, 1968). The strategy contingency affects whether the structure will be functional or divisional (Donaldson, 2001). Most organisations begin with a simple structure in which every member does everything. As the organisation grows, its operations and scope require to be organised according to functional lines with marketing, production and finance operations (Chandler 1962). With continuing success and growth strategy, the organisation may add new services, expand into different locations or even venture out into entirely new and unrelated products and services. This diversified strategy requires a divisional structure because it has diverse activities serving various product-markets, so effectiveness is enhanced by coordinating each product or service in its own division (Galbraith 1973). Finally, Burns and Stalker (1961) demonstrated that the rate of technological and market change in the environment of the organization affects whether its structure is mechanistic (i.e., hierarchical) or organic (i.e., participatory). The mechanistic structure fits a stable environment because a hierarchical approach is efficient for routine operations (Pennings, 1992). Given the routine nature of operations, “the managers at upper levels of the hierarchy possess sufficient knowledge and

information to make decisions, and this centralized control fosters efficiency. In contrast, the organic structure fits an unstable environment, because a participatory approach is required for innovation” (Donaldson, 2001, p. 2).

In order to examine the relationship between symbolic use and export performance, full scale measurement of symbolic use will be needed (Vyas and Souchon, 2003). Thus, the second objective of this study is to develop reliable and valid measures of each symbolic use dimension. For the fulfilment of this objective, past measures of (export) information use are reviewed. This review is complemented by an exploratory study mainly designed to gather more insights into what causes managers use information symbolically and also to create pools of items for the symbolic use dimensions.

The third objective is testing the soundness of the proposed theoretical model using quantitative analysis. More specifically, the use of sophisticated multivariate methods that increase the generalisability of findings is employed. Furthermore, “quantitative methods are appropriate for testing hypotheses synthesising a large number of variables to determine associations (and the strength of associations), controlling for generalisability” (Hart, 1987, p.30).

1.5 THEORETICAL IMPLICATIONS

On a theoretical front, this thesis is likely to contribute to the body of knowledge in the export information use area by increasing understanding of how symbolic information use behaviour can enhance or impede export performance and under what circumstances. Export information use should facilitate decision-making, as it affects managers' orientations toward priorities, the manner in which they formulate problems, the range of solutions they convey and the criteria of choice they apply" (Menon and Varadarajan, 1992, p. 56). In this context, while our understanding of information use has certainly increased since the 1970s, little evidence exists of the relationship between the utilisation of information in making marketing decisions and performance (Souchon et al., 2004). As a result, marketing scholars are in a weak position to provide export managers with clear

practical recommendations on how to use export information optimally (Diamantopoulos and Souchon, 1996) Lack of detailed knowledge on how to use export information optimally also includes, and particularly highlights, lack of knowledge on the consequences of using export information symbolically (e.g. Toften and Olsen, 2003; Vyas and Souchon, 2003).

By developing reliable and valid measures and explicating the multidimensional nature of symbolic use, the current research seeks to complement the broader export decision-making literature. For example, a concept closely related to information use is knowledge utilisation which can be conceptualised "in terms of the underlying forms or types of use and their extent of use in the decision-making process" (Menon and Varadarajan, 1992, p. 61). Firms accumulate knowledge and expertise by integrating and incorporating information that has been processed and used (Toften, 2005). Miller and Shamsie (1996) argue that knowledge resources are likely to contribute most to performance especially in changing and turbulent environments. This is achieved through learning and innovation which have become a critical determinant for international success (Calantone et al., 2002). The concept of 'learning orientation' refers to a "commitment to learning, shared-vision, open-mindedness, and intra-organisational knowledge sharing which facilitate the generation of essential resources and capabilities" (Kuivalainen et al., 2004, p. 37). Given that using information to support one's prejudices or even distorting information is the opposite of learning (Feldman and March, 1981), one would expect a negative relationship between symbolic use and learning and knowledge. To the author's best knowledge so far in an export context only Toften (2005) empirically looked at the potential effect of symbolic use on export knowledge and performance. Their results indicate that no such effect exists. However, this could lie in the fact that the multidimensional nature of symbolic use was not taken into account and that the overall measure used was based on the one developed by Diamantopoulos and Souchon (1999). The latter did not consider the benign or even positive aspects of symbolic use separately from the negative ones. Thus, the reality of the relationship between symbolic use, export knowledge and export performance may have been obscured by the use of a composite scale of symbolic information use.

Furthermore, this study also aims to be a springboard and foundation for further research into the export information use area. For example, the measures that are developed can be used by future researchers to assess drivers of symbolic use of export information. A further study incorporating the antecedent effects is likely to provide more insights into what causes exporters to use information symbolically. According to Vyas and Souchon (2003) a framework encompassing the effects of symbolic use antecedents is likely to enhance the explanatory power of the proposed model. This enhanced knowledge is, in turn, likely to guide recommendations to export decision-makers not only on which types of information to use (or avoid) but also under which circumstances.

In addition, the identification of decision quality as the appropriate mediator between symbolic use and export performance is also a unique theoretical contribution as it consists of a pioneering attempt in the export information use literature. Decision-making and information use are primary functions performed by any organisation, which are likely to affect every aspect of organisational life (Sankar, 2003), including every kind of performance outcome as well. For example, the export performance of an organisation may improve/deteriorate as a result of a prior decision to expand to a foreign market. This, in turn, will be a function of another decision on the entry mode to be employed and the decision of the amount of resources to be allocated for the specific venture. All these decisions will be the outcome of information-processing (thus use as well) under a number of different constraints that need to be taken into account each time. Therefore, it becomes apparent that any performance outcomes will be maximised if they are based on high quality decisions which in turn, should be based on effective use of information. It should be noted that the quality of the decisions cannot be implicitly assumed as a definite outcome of a decision-making process. One way in which decision quality can be defined is according to “the degree to which the best decision alternative is identified and selected based on the effective gathering and utilisation of relevant, available information” (Pasewark and Strawser, 1994, p. 283) (for more information on the definition of decision quality see section 2.5). However, in reality many managers will satisfice. This means that they will choose certain decisions without examining all alternatives (Souchon et al., 2004). Apart from the fact that decision quality has never been explored as a

mediator in exporting, it also follows that linking each of the dimensions separately to decision quality is another major contribution of this study. Ultimately, decision quality has never been examined as a mediator in any export performance research. Thus, researchers can incorporate and further delineate this important construct of decision quality in future studies of export information use and export performance.

1.6 MANAGERIAL IMPLICATIONS

Important managerial implications also exist. For example, building a sound export information system is crucial in developing the export side of a business (Douglas and Craig, 1983). To achieve this, managers should be in position to systematically assess the exact types of information required, identify the various sources available to collect this information, disseminate the information collected to the right people, in the right place and at the right time and, ultimately, properly utilise the information for sound decision-making (Leonidou and Theodosiou, 2004). However, it seems that the export marketing information system is not properly used by the majority of export managers due to the diversity and complexity of the business environment (Czinkota and Ronkainen, 2001; McNaughton, 2003) and the lack of knowledge on how different types of export information affect different export decisions (Souchon and Diamantopoulos, 1996; Vyas and Souchon, 2003; Leonidou and Theodosiou, 2004) and ultimately, export performance (Mohamad et al., 2009). Given that our knowledge on symbolic use is still unexplored in both absolute and relative terms (i.e. when compared to instrumental/conceptual use), there is a need for the effects of this particular and idiomorphic type of information use to be delineated and incorporated in marketing information systems. Even if the administrators of a system cannot always know which information is biased or not, they will at least be in a position to know that a multifaceted type of information exists which is highly likely to allow for biased information in the system. A detailed knowledge of which type of export information to use, and under which circumstances is likely to enable export managers to exploit foreign marketing opportunities in a more effective way,

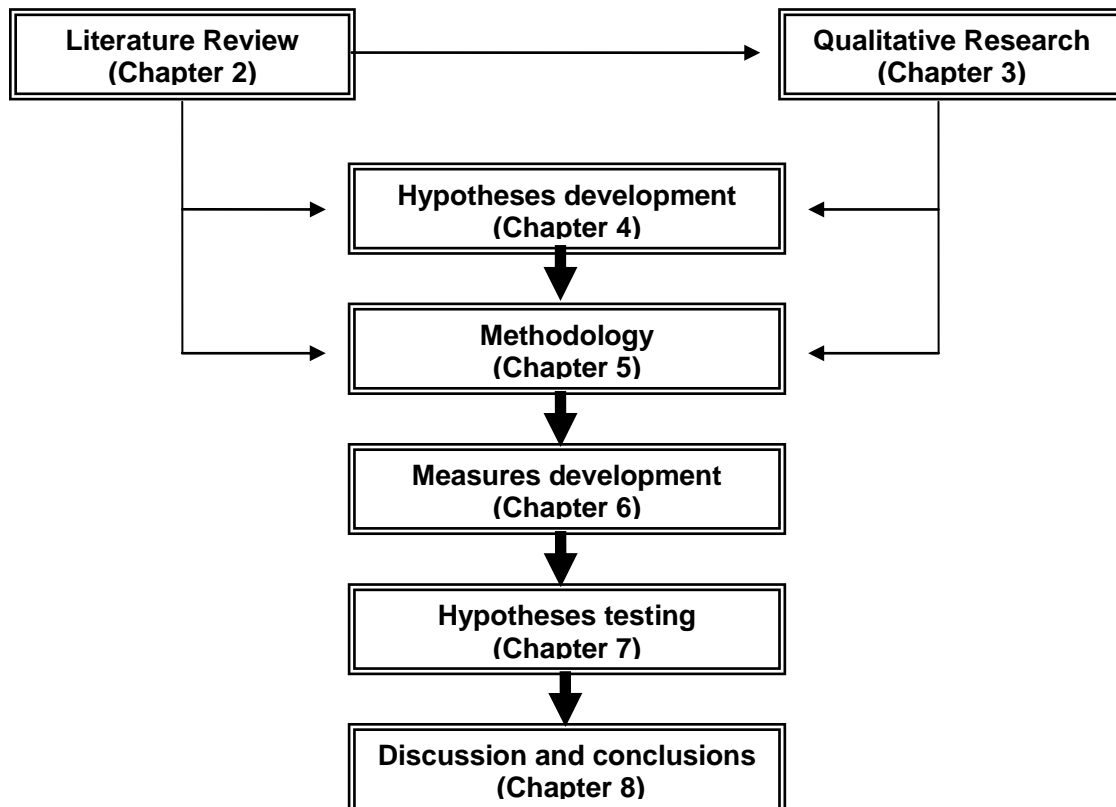
improve the quality of their decisions and, ultimately, enhance export performance of their firms (Vyas and Souchon, 2003; Leonidou and Theodosiou, 2004).

Export decision-makers will benefit from practical guidelines on when and how to use export information symbolically. There are occasions where export decision makers use information symbolically without consciously realising it. This is particularly true, for example, for those decision makers who rely heavily on their intuition for making decisions (e.g. Vyas and Souchon, 2003). Thus, by mapping the concept of symbolic use, this study is likely to help managers and organisations in general “tap the tacit and often highly subjective insights, intuitions and hunches of individual employees and make those insights available for testing and for use in the company as a whole” (Nonaka, 1991, p. 97). Furthermore, an inexperienced manager may fail to take into account important information or even accidentally use information in a haphazard way (Vyas and Souchon, 2003). By developing a clear and unambiguous understanding between the relationship of certain symbolic use dimensions and performance, export managers are likely to be in position to know which manifestations of symbolic use to encourage and which to avoid altogether in the decision-making culture and practices of their export function and also in their own information use practices.

1.7 RESEARCH OVERVIEW AND STRUCTURE OF THE THESIS

The following figure shows the steps undertaken in the fulfilment of the objectives discussed above:

Figure 1: Research Overview



In chapter Two, a multidisciplinary literature review is presented. The chapter begins with a detailed exploration of the concept of information: a definition of information is provided and its main characteristics are discussed. Thereafter, past conceptualisations and operationalisations of information use are presented, not only in marketing but in various contexts such as, for example, social policy

decision-making, mental health research and organisational behaviour among others. The major part of chapter Two is a detailed description of the literature pertaining to export information use in general and symbolic use specifically. The chapter continues with a discussion of export performance issues and contingency theory as the core theory of the current study. Finally, the chapter concludes with the presentation of an initial, literature-based model of symbolic use of export information.

Chapter Three is dedicated to the qualitative phase of this study. Exploratory research is deemed necessary for gaining more insights into symbolic use of export information, a topic relatively underexplored. First the qualitative methodology is presented, followed by some preliminary research findings. These findings, alongside the ones from the literature review, enhance the knowledge of symbolic use. Furthermore, they are intended to be used for developing a pool of items for each of the symbolic use dimensions.

Chapter Four draws on the two previous chapters to provide a solid conceptualisation of symbolic use based on a combination and synthesis of the literature review and the exploratory research findings. An overall symbolic use framework and a conceptual diagram depicting all the relationships to be studied are presented. The chapter concludes with specific hypotheses for use in subsequent quantitative testing.

Chapter Five presents a description of the methodology employed to investigate symbolic use of export information in a quantitative manner. The chapter begins with the presentation of the research design. The questionnaire development process is then outlined. Next, the pilot study methodology is presented, including the sampling procedure, data collection method and non-response analysis. The methodology used for the main mail survey is then described, followed by a discussion of its results and the overall response rate the study achieved. The chapter concludes with a discussion of possible analytical procedures, resulting in the identification of hierarchical regression as the most appropriate data analysis technique to adopt for testing the model.

Chapter Six commences with a discussion on the missing value replacement strategy applied. Next, measures for each one of the different symbolic use dimensions are developed. Prior to scale development, exploratory factor analysis is performed followed by reliability and validity analysis. Summated scales are then created in order to be used with the multiple regression outlined in the next chapter.

Chapter Seven is dedicated to the testing of the hypotheses linking symbolic use of export information to export performance via hierarchical moderated regression. The residual centering approach is employed in order to overcome multicollinearity problems. Multiple regression assumptions are discussed and the final model to be tested is specified. The chapter concludes with a discussion of the results.

Conclusions are proposed in Chapter Eight followed by an enumeration of theoretical and managerial implications, a presentation of the study's strengths and weaknesses and suggestions for future research.

Chapter Two: REVIEW OF THE LITERATURE

The aim of this chapter is to increase our knowledge of symbolic use and other related constructs, in order to seek and develop an appropriate theoretical framework within which symbolic use can be adequately conceptualised. As a result, a cross-disciplinary literature review of information, information use, and export information use is presented. This approach is necessary because the aforementioned constructs have been widely examined in many different fields (such as, for example social policy decision-making, mental health research, marketing and export marketing) and have resulted in different conceptualisations and operationalisations (e.g. Caplan et al., 1975; Larsen, 1981; Menon and Varadarajan, 1992; Goodman, 1993; Vyas and Souchon, 2003). Furthermore, given that information utilisation and export information utilisation share a common ground at least as critical determinants of successful decision-making (e.g. Tookey, 1964; Goodman, 1993), the use and readjustment of theoretical and/or empirical findings from one discipline to another has not been a rare occurrence at all (e.g. Beyer and Trice, 1982; Vyas and Souchon, 2003).

The clarification of the existing interrelations between information, information use and export information use is intended to further aid the delineation of symbolic use of export information.

This chapter is divided into five major parts. The first one is dedicated to the description and clarification of the key theoretical constructs 'information' and 'knowledge'. Some of the main characteristics of information are discussed and a definition of marketing information is also put forward. The second part focuses on the concept of marketing information use. An investigation of how the study of information use emerged and why it is important for marketing is presented. Marketing information use has been categorised as instrumental, conceptual and symbolic. These are discussed in turn. The third part further explicates the study of information use in an export setting with a particular focus on symbolic use as the focal construct of this study. Since this study focuses on consequences of

symbolic use, the fourth part focuses *de jure* on export performance. The fifth and last part introduces an initial model of symbolic use of export information.

2.1 DEFINITIONAL ISSUES AND THEORETICAL CONSIDERATIONS

- ***Definition of information***

The concept of information etymologically derives from the Greek word “form”. To in-form is to shape a matter, energy or feeling and, in that way, place the recipient in a new state (San Segundo, 2002). Trying to define information is not an easy task at all. Indeed, information has an extremely heterogeneous character (Nanus, 1981) and a multiplicity of concepts has been and continues to be applied to the term (Shenton, 2004). Vakkari (1997) detects a paradox with regard to the term “information” and other related terms such as “information need” and “information seeking”. The fact that these words are used so often without definition “implies that most of the research community take their meaning as given, yet, most of the community agrees that their meaning is quite vague” (Vakkari, 1997, p. 460). Hord (1995) has gone as far as to argue that no consensus exists as to the meaning of this word. In a very broad approach, Buckland (1991) explains that it is possible to regard as information everything that is informative. More specifically, he suggests that “if anything is, or might be, informative, then everything is, or might be information. In that case, calling something information does little or nothing to define it” (Buckland, 1991, p. 50). Although this may be an extreme view, Buckland’s argument still serves to highlight how difficult it is to construct a uniform definition of what information is. This does not mean that no definitions of information exist in the literature, but rather that information is defined each time according to the purpose of the particular study (Shenton, 2004). For example, in the context of decision making-processes, Faibisoff and Ely (1976) write that information is that which is used to resolve uncertainties and is employed by someone to achieve a specific purpose. Poston-Anderson and Edwards (1993) on the other hand, define information for their purposes as any idea, opinion, fact, belief, or imaginative message that helps informants make sense of their world. These two definitions, among the plethora of others available, have deliberately

been cited because they highlight two very important aspects of information. The first definition highlights information as what is required by an individual to meet a need of some kind (Shenton, 2004) and the second one emphasises the role of information as a recorded message (see Nitecki, 1985) whether subjective (e.g. an idea or opinion) or objective (e.g. when it concerns facts). Therefore, for the purposes of the current study the following definition is proposed:

Information is any communicated message, objective or subjective, that has some meaning and is intended to be used by someone to achieve a specific purpose.

- **Marketing Information and Data**

With the focus revolving around marketing, Glazer (1991, p. 2) defines marketing information as “data that have been organised or given structure – that is, placed in context – and endowed with meaning”. On the other hand, Moorman (1995) defines market information as data concerned with a firm’s current and potential external stakeholders. Marketing information has been linked to sustainable competitive advantage and the creation of superior value to its customers (Narver and Slater, 1990). This is achieved through market orientation, an information-specific construct defined as “the generation and dissemination of market intelligence that is composed of information about customers’ current and future needs and exogenous factors that influence those needs” (Slater and Narver, 1994, p. 46). Within the domain of consumer behaviour, marketing information is defined as a product-relevant datum or a product-relevant linkage which may be derived by a marketer-controlled source of communication such as an advertisement (Hirschman and Wallendorf, 1982). According to Ashill and Jobber (1999), marketing information is broad in scope, encompassing, for example, information on competitor actions, consumer tastes and shifting demographic characteristics. According to Souchon et al. (2004), marketing information is often cited as an extremely important ingredient of decision-making and inextricably related to competitive advantage.

Export marketing information has similar functions to the ones described above. The main difference is that this particular type of information use is applicable specifically to an export setting. Export is defined conceptually as ‘the international, marketing-related decisions and activities of internationally active firms (Cavusgil and Nevin, 1981). Export information use is also integrally linked with increased export knowledge (e.g. Toften, 2005). Given the central role export information has in this study, a detailed definition and a more in-depth analysis of export information follows in a coming section of this chapter.

Both the above definitions of market information include the word data, implying likewise, that data could be the building-blocks of higher-order constructs (Davis and Olson, 1985) such as information (Bierly et al., 2000). Indeed, “data have been defined as being context-free and the smallest piece of material that can be detected by our senses” (Toften and Olsen, 2003, p. 99). But unless data are filtered and organised in a useful and meaningful manner they cannot be termed information.

- ***Information and Knowledge***

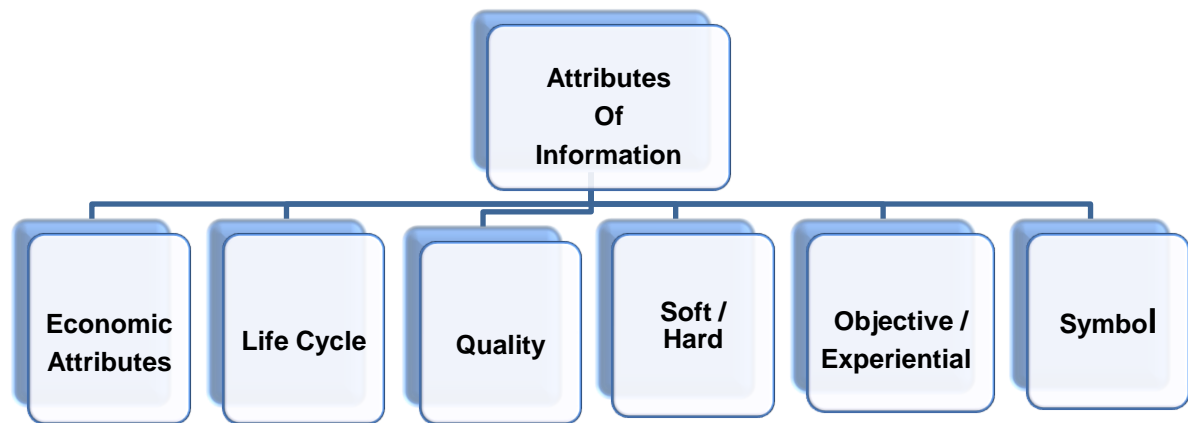
In the context described above, knowledge “builds on information that is extracted from data” (Boisot, 1998, p. 12). Although the terms “information” and “knowledge” are often used interchangeably and in some cases are presented as synonyms (San Segundo, 2002), information and knowledge are two different but related concepts (Bierly et al., 2000; Boisot, 1998; Nonaka, 1994). For some researchers information is a broader term (e.g. Goldhaber et al., 1979) that “includes all knowledge” (Havelock 1986, p. 14). Some definitions of knowledge are related to information. For instance, Elliot (1996) has defined knowledge as information that has value, whereas Bierly et al. (2000) define knowledge as a clear understanding of information. According to Huber (1991), knowledge involves cognitive interpretation. Other researchers distinguish between information and knowledge in that the concept of knowledge includes more than just efficiently organised information (Teece, 2001). For example, “in order for information to be turned into knowledge, there must be a presence of pre-existing structures of understanding in the memory, which are capable of retaining certain information so that it can

come to form part of the knowledge of a person” (Sanz, 1994, p. 21). Nonetheless, it seems to be accepted that knowledge can be an output of information (Huber, 1991).

The literature distinguishes between information-based knowledge, often termed explicit knowledge, and experience-based knowledge, often termed tacit knowledge (Gupta et al., 2000; Lam, 2000). Information-based knowledge focuses on aspects of information and its organisation and dissemination within organisations (Kohli and Jaworski, 1990). It can also “be generated through logical deduction and acquired by formal study” (Lam, 2000, p. 490). Tacit knowledge on the other hand is rooted in the individuals’ actions and experience (Toften and Olsen, 2003). It includes ideas, values, subjective insights, intuitions and emotions (Nonaka and Takeuchi, 1995). It is not easily visible and expressible but rather personal and hard to formalize and communicate to others (Lam, 2000). More specifically, tacit knowledge can only be acquired “through practical experience in the relevant context, i.e. ‘learning by doing’” (Lam, 2000, p. 490). The distinction between these two dimensions of knowledge is very important in that, for example, “it may be easy for a firm to copy a system of explicit knowledge, but more difficult to copy tacit knowledge which is rooted in individuals’ experience” (Toften and Olsen, 2003, p. 101).

- ***Attributes of Information***

Information can be categorised based on its different attributes. This is very important because by categorising information assets and their attributes within an organisational framework it is easier to further delineate the, rather complex, concept of information (Shenton, 2004). Furthermore, “it is possible to identify which information assets and their attributes are significant for enhancing organisation’s effectiveness” (Oppenheim et al. 2001, p. 460). These are presented in Figure 2, which derives from a synthesis of a multidisciplinary literature on information.

Figure 2: Information Attributes

The economic attributes of information have long been recognised in the literature (Oppenheim et al. 2001). According to Boisot (1998, p. 76), “the value of an information asset is derived partly from the utility of the service and partly from its positional status; it confers a competitive advantage on those who possess it”. In this context, the value of information is multiplied when shared or transmitted to others (Arrow, 1984). While information may carry an objective value, it is the perceptual value by the user that determines acquisition and application (Raban, 2007). According to Yates and Bawden (2001) an objective valuation of information and knowledge (in financial terms for example) will never be an easy task. Glazer (1991), in his proposed conceptual framework for measuring the value of information, also suggests that measurement of information value has been problematic. A main reason is the Eaton – Bawden (1991) paradox according to which information cannot be managed (including the valuation of information) like any other resource, without ignoring those attributes of information which make it an inarguable resource, in the sense of being a dynamic force for innovation and progress. Attempts to quantify its value based upon the cost may also be a mistake as information which costs little can be of great value (Oppenheim et al. 2001). Therefore, the value of information is not easy to quantify as it depends on context and use (Eaton and Bawden, 1991). Some of the aspects

of information value that relate to its use are synthesised in the fact that information “can be shared or consumed more than once, it is long lasting and does not necessarily decrease with use” (Poirier, 1990, p. 266). Of course information can become outdated or even obsolete, but the possibility to be put into a new use is always present (Oppenheim et al., 2001). Therefore, the previously stated position by Boissot (1998), according to which the mere possession of information is enough to ensure competitive advantage seems to be a necessary but not sufficient condition. In fact, competitive advantage is to be found in how information is used rather than who does or does not have it (Zaltman and Moorman, 1988). In addition, “acquired information will need continual renewal and investment in order to maintain its value and there is a need to take into account the life cycle of such information” (Oppenheim et al., 2001, p. 462).

According to Weitzel (1987), information resources have a life cycle similar to that of other resources. The life cycle contains five phases: a) planning, b) acquisition, c) stewardship, d) exploitation, and e) disposal. During the first phase information needs are determined and then, in the second phase, information acquired (Souchon and Diamantopoulos, 1996). During the stewardship phase, data are organised and stored, whereas, ‘exploitation’ refers to the use of information (Weitzel, 1987).

A third important attribute of information is quality (Zmud, 1978), which is a multidimensional concept (O’Reilly, 1982). The three most commonly addressed information quality dimensions are accuracy, timeliness and completeness (e.g. Zmud, 1982; Morey, 1982; Balou et al., 1985; Fox et al., 1994; Lillrank, 2003). The aforementioned dimensions are not exhaustive. For example, in their study of export memory (a concept integrally related to information) quality, Sy Chango et al. (2005) suggest several other dimensions such as believability, ease of understanding, objectivity and relevance. Quality information is said to help a decision-maker justify the decision to others, arguing that if the information used for a particular decision is accurate, timely, and complete, then the decision should be a ‘good’ one (Staw, 1980). In a general sense “there is some support for the intuitively reasonable notion that ‘good’ information leads to ‘good’ decision-making” (O’Reilly, 1982, p. 756). However, one should bear in mind that quality of

information seems to be an elusive concept (Lillrank, 2003). It is a complex (Gronroos, 1982), multilevel (Dabholkar et al., 2000) as well as a general construct (Zeithaml, 1988) making it very hard to be defined using a single definition (Reeves and Bednar, 1994). It is also often confused with the quality of information systems (Andersson and Von Hellens, 1997) and the quality of the sources used to provide the information (O'Reilly, 1982). Furthermore, information quality is also shaped and influenced by contextual factors such as for example the decision-maker and the decision task information is used for (Shankaranarayanan et al., 2006). Quality of information has been suggested to be one of the most important factors that explain effectiveness and extent of information use, both in a domestic (Low and Mohr, 2001) and in an export setting (Souchon and Diamantopoulos, 1996).

A very interesting fourth distinction of information classifies it as soft or hard. Soft information consists of images, visions, ideas and other cognitive schemata (Frishammar, 2003). Frames of reference, worldviews (Hackney, 1988) and gossip (Mintzberg, 1975) are examples of soft information. On the other hand, hard information is generally easy to quantify and process through the use of various analytical methods. It is also usually expressed (Frishammar, 2003). This distinction is similar to other authors who have used different terminology (e.g. Dervin and Nilan, 1986; Hord, 1995), while some others have labelled it "objective" (as opposed to hard) and "subjective" (as opposed to soft) information (e.g. Shenton, 2004).

Information is also classified as either objective or experiential in nature. "Objective information refers to standardised advice and statistics available (such as country/market profiles). Experiential information refers to firm-specific advice and data requiring firm involvement or participation in services and programmes (such as market visits and trade fairs)" (Seringhaus and Mayer, 1988, p. 11). Objective information is independent of any individual and/or group of individuals and can be easily and accurately transmitted and communicated (Penrose 1966). Experiential information on the other hand, is unique to the person or group of people that have it and cannot be easily transmitted as it is based on experience

(Penrose, 1966). Thus, experiential information refers to a personal or organisational learning process (Sinkula, 1994).

Finally, the use and role of information can be viewed as a symbol. Most of the traditional theories of decision-making assume that the purpose and outcome of the decision process is to make an intelligent choice through effective gathering and use of information (Feldman and March, 1981). However, reality somehow diverges as there are processes inconsistent with this notion of rational choice. For example, Mason (1994, p. 27) argues that on many occasions “information gathered pertinent to a decision is ignored, individuals battle to be able to participate in a decision process and then ignore it, disagreement in policy making is followed by indifference in implementation and so forth”. Decision-making may thus be seen as an arena for exercising social values, expressing cognitions and feelings, displaying authority, building certain images and creating shared myths, beliefs, values and, ultimately, a common organisational culture (Feldman and March, 1981; Beyer and Trice, 1982; Hu and Toh, 1995). In this respect, information is not simply a basis of action or choice but rather a mean of symbolic activity in the realm of decision-making (Feldman and March, 1981; Mason, 1994). “It is a representation of competence and a reaffirmation of social virtue. Command of information and information sources, enhances perceived competence and inspires confidence” (Feldman and March, 1981, p. 177). The function of information as a symbol is extremely important as it can inspire and motivate members of an organisation and also implement change (Dandridge et al. 1980; Pfeffer, 1981). Furthermore, symbolic outcomes within a decision-making context are largely within management control (Mason, 1994) and the ability of managers to manipulate symbols determines managerial success in a decisive way (Phillips and Brown, 1993).

The overall conclusion from the preceding discussion is that information is a multifaceted, complex and ‘ubiquitous’ concept. Therefore, accurately defining information is not an easy task at all. In fact, several interdisciplinary collaborations attempting to derive a coherent definition of information have struggled to find common ground (McKinney and Yoos, 2010). It seems very likely that explicitly specifying the meaning of information will depend on the context and discipline

within which information is examined each time. Furthermore, the impact of information on any type of decision cannot be assessed unless information is processed and put into use (Mokros, 1993; Bremer and Cohnitz, 2005). In other words, information is an elusive (or passive) concept. It can be charged with positive or negative meaning or value only when it is used within a decision-making process. In this study, information use will be examined from an export decision-making perspective.

Information has been nominated a plethora of attributes the most important of which are the ones identified in figure 2. The majority of these attributes have implications for export information use and export decision-making. For example, obtaining the necessary information for decision-making can incur costs for the firm. Especially in an export setting information is much more difficult and costly to obtain than the domestic market (Cavusgil, 1984; Guynes et al., 1990). Therefore, it is a much more essential prerequisite to be used optimally. Furthermore, given that the life cycle of information in an export context is very likely to be shorter due to high environmental turbulence and rapidly changing decision-making circumstances (Cadogan et al., 2006), effective management and use of export information should take the life span of information into account. Finally, the distinction between soft and hard information and the use of information as a symbol, form the theoretical hypostasis of the focal construct of this study (symbolic use of export information) as it will be showed in more later on. The next sections are dedicated to information use and export information use respectively.

2.2 INFORMATION USE

For millennia people have been “seeking organizing and using information as they learned and evolved patterns of human information behaviour for resolving problems related to survival, work and everyday life” (Spink and Cole, 2006, p. 25). Wilson (2000, p. 4) defines information behaviour as “the totality of human behaviour in relation to sources and channels of information, including both active and passive information seeking and information use”. In that context, information

use may be the (relatively) least studied and understood of the information behaviour dimensions (Vakkari, 1997).

2.2.1 Definition of Information Use

Use of information is a complex and interactive process that could be captured under many different angles (Larsen, 1981), depending each time on a number of other variables that should be taken into account such as, for example, the specific decision-making situation, the discipline within which information use is explored, the divergent characteristics, perceptions and priorities between the different users of information (e.g. Beyer and Trice, 1982), and other external, environmental, factors that determine the way information is used (Glazer and Weiss, 1993). For example, significant differences are likely to exist in the way information is used by managers in the public sector as opposed to their private sector counterparts. The latter operate under more time pressure, are relatively more accountable for their decisions and make decisions in the context of a strictly economic orientation which includes profit and sales performance maximisation as the ultimate goal (Deshpande, 1981). Differences also exist between managers and researchers in their use of information (e.g. Caplan et al., 1975). More specifically managers require timely information and make compromises that lead to the use of particular research findings mostly based on political considerations (Deshpande and Zaltman, 1987). Researchers, on the other hand, are more interested in the technical sophistication of the research and conformity of the findings to the expectations of users is less important to them than it is to the managers (Caplan et al., 1975; Deshpande and Jeffries, 1981). Change in the organisations' environment, as mentioned above, is another example of factors that can determine information use. The external environment is a source of uncertainty and other constraints for organisations (Karake, 1997). Change and environmental turbulence increase the inherent uncertainty and calls for more effective and intense use of information (Tushman and Nadler, 1978).

Although the phrase “information use” appears to be a straight forward concept, it is not simple at all (Beyer and Trice, 1982; Larsen, 1985). Information use has been treated as both a unidimensional (e.g. Larsen, 1982) and a multidimensional

construct (e.g. Menon and Varadarajan, 1992). It has also been examined within many different disciplines, including social policy decision-making (e.g. Caplan et al., 1975; Knorr, 1977; Weiss, 1977), mental health research (e.g. Larsen, 1983), marketing (e.g. Deshpande and Zaltman, 1982, 1984, 1987; Menon and Varadarajan, 1992; Moorman, 1993) and export marketing (Diamantopoulos and Souchon, 1996; Souchon and Diamantopoulos, 1996, 1997, 1999; Williams, 2003; Toften and Olsen, 2003). These wide and different disciplines have resulted in different conceptual and operational definitions of information use.

Regardless of the discipline one is focusing on at a given time, information use is regarded as an integral part of sound decision-making, which in turn affects organisational success (Goodman, 1993). Therefore, with the focus revolving around decision-making:

Information use is defined as the process by which information is taken into account (Weiss and Bucavalas, 1977), and the extent to which and ways in which information influences managerial decision-making (Moorman et al, 1992).

2.2.2 Dimensions of Information Use

In recent years, the multidimensional nature of information use has been accepted as a fact and three different dimensions have been acknowledged namely instrumental, conceptual and symbolic (e.g. Beyer and Trice, 1982). Although the terms instrumental, conceptual and symbolic use are now established in the literature (e.g. Vyas and Souchon, 2003; Leonidou and Theodosiou, 2004), a variety of different attempts and approaches in conceptualising the different dimensions of information use, have been proposed in the past years which resulted in accrediting to the information use dimensions a plethora of labels. The most important of them are indicated in Table 2.1. Although the labels in most cases are seemingly different at first glance, a more careful inspection would reveal that there is not much deviation from the established classification (i.e. instrumental, conceptual and symbolic). For example, Knorr's (1977) decision-constitutive and decision-preparatory role of information resembles Caplan et al.'s (1975) instrumental and conceptual use respectively, whereas her legitimating role

is an instance of symbolic use. This strengthens the validity of the conceptualisation of information use along the lines of instrumental, conceptual and symbolic is valid. It also shows that naming the different types is not as important as the acknowledgement that different types of information use actually exist, representing distinct ways of using information (Larsen, 1985).

The segmentation of information use along an instrumental and a conceptual dimension is credited to Caplan et al. (1975). Instrumental use has been defined as the direct application of knowledge to solve a specific problem at hand (e.g. Deshpande and Zaltman, 1982). There is a certain degree of disagreement among researchers as to how frequently instrumental use occurs (e.g. Beyer and Trice, 1982). Caplan et al. (1975) reported that 40 percent of uses among social policy decision-makers were instrumental. Patton et al. (1977) also supported that instrumental use is very prevalent among public health evaluation research. With the focus once more lying within the social policy domain, Knorr (1977) provided evidence for more instrumental than other uses (though her measure of instrumental use included aspects of symbolic use). Weiss (1980), however, reports in her study that only seven percent of reported uses were actually instrumental. This is because her respondents were mental health administrators who “do not believe they make anything as crisp and clear as a decision on their job” (ibid, p. 392). On the other hand, 50 percent of the expected uses were reported by her respondents as “general”, or in other words, conceptual use (Weiss, 1980).

Conceptual use occurs when information is not directly applied to a decision-making problem or is not used at the specific time at which it was collected (Menon and Varadarajan, 1992). Thus, conceptual use is more indirect than instrumental and is rather used for general enlightenment (Beyer and Trice, 1982). It is the case that some information is “quickly absorbed into the conventional wisdom” (Prewitt, 1981, p. 659). Several studies have found conceptual use to be the most frequent type of information use (e.g. Caplan et al, 1975). For example, Weiss (1980) reports that 50 percent of her respondents were making ‘general use’ (which is defined as ‘indirect’ use of information), whereas Rich (1977) in the use of opinion poll data finds 66 percent of the uses reported to be conceptual. Of

course “such a vague process as enlightenment lends itself to over-reporting by respondents who want either to please researchers or appear well informed” (Beyer and Trice, 1982, p. 600).

“Instrumental and conceptual use imply using research findings in a manner consistent with the intended purpose. However, research findings are sometimes distorted beyond their correct intent and used more symbolically” (Menon and Varadarajan, 1992, p. 56). Information may be distorted in order to support the decision-maker’s opinion in the eyes of his or her subordinates, colleagues and superiors (e.g. Goodman, 1993). Another instance of symbolic use (identified as a dimension of action-oriented use) is revealed by Menon and Varadarajan (1992). It is classified as a benign form of symbolic use (Menon and Varadarajan, 1992) occurring when managers use information in such a way as to make their information suppliers feel included in the decision-making and promote their relationship in doing so (Vyas and Souchon, 2003). Knorr (1977) also identifies a symbolic type of use when information is used to justify a previously held decision (e.g. Menon and Varadarajan, 1992). Indeed, “using information, asking for information, and justifying decisions in terms of information have all come to be significant ways in which we symbolize that the process is legitimate, that we are good decision makers and, and that our organisations are well managed” (Feldman and March, 1981, p. 178). Pelz (1978) suggested that symbolic or legitimating utilisation may be more frequent than conceptual use. Knorr (1977) on the other hand, finds little empirical evidence of legitimating symbolic use in her study while other authors (e.g. Larsen, 1985) also discuss the frequency of symbolic use but do not provide any empirical data to prove its prevalence. In the export domain though, as already mentioned in the introduction, symbolic use of information has been acknowledged as a very prevalent type of information use (e.g. Beyer and Trice, 1982; Diamantopoulos et al., 2003; Vyas and Souchon, 2003).

In recent years, information use has been extensively examined in an export setting (e.g. Souchon and Diamantopoulos, 1996; Vyas and Souchon, 2003; Williams, 2003; Toften, 2005). All these studies seem to agree on the generic classification of export information use along the lines of instrumental, conceptual

and symbolic. That said, in their empirical study, Diamantopoulos and Souchon (1999) reach the conclusion that instrumental use and conceptual use are actually aspects of a single dimension at least in an export context. This was based on the factor analysis they performed which supported the existence of one underlying dimension for both instrumental and conceptual uses. Conceptual use involves using information for general enlightenment which eventually leads to its use to solve a specific problem (e.g. Deshpande, 1981; Beyer and Trice, 1982) and as such could be seen as 'future instrumental use'. Likewise, 'immediate' use of information could encompass planned use of information in the future (Rich, 1977) as it is a matter of degree (Weiss, 1981). After all, "adoption and implementation do not proceed in such a rationally ordered fashion: behaviours can occur in many different orderings, recyclings and truncations" (Beyer and Trice, 1982, p. 597). Therefore the conceptual/ instrumental distinction may be somewhat superficial from a practical point of view (Dunn, 1986).

Table 2.1: Information Use Dimensions

Authors	Dimensions of Information Use	Authors	Dimensions of Information Use
Caplan et al. (1975)	Instrumental Conceptual	Larsen (1985)	Use Non-use
Rich (1977)	Instrumental Conceptual	Weitzel (1987)	General Specific Trigger Exception Control-decision Allocation-decision Direction-decision
Knorr (1977)	Decision-preparatory Decision-constitutive Substitute Legitimation		
Dunn (1980)	Instrumental Conceptual		
Conner (1981)	Instrumental Conceptual Symbolic	Menon and Varadarajan (1992)	Action-oriented Affective Knowledge-enhancing
Weiss (1981)	Instrumental Conceptual	Moorman (1995)	Instrumental Conceptual
Larsen and Werner (1981)	Use Non-use	Slater and Narver (1995)	Action-oriented Knowledge-enhancing Affective
Beyer and Trice (1982)	Adoption Implementation		
Havelock (1986)	Communicative Conceptual Behavioural Confirmatory/disconfirmatory	Menon and Wilcox (2001)	Appropriate Inappropriate

Table 2.1: Information Use Dimensions (Continued)

Authors	Dimensions of Information Use	Authors	Dimensions of Information Use
Souchon and Diamantopoulos (1996)	Instrumental Conceptual Symbolic	Vyas and Souchon (2003)	Instrumental/Conceptual Symbolic
Diamantopoulos and Souchon (1996)	Instrumental Conceptual Symbolic	Leonidou and Theodosiou (2004)	Instrumental/Conceptual Symbolic
Diamantopoulos and Souchon (1999)	Instrumental/Conceptual Symbolic	Souchon et al. (2004)	Instrumental/Conceptual Symbolic
Diamantopoulos et al. (2003)	Instrumental/Conceptual Symbolic	Toften (2005)	Instrumental/Conceptual Symbolic
Souchon et al. (2003)	Instrumental/Conceptual Symbolic	Maltz et al. (2006)	Congruous Positive Product Process Incongruous Cynical
Toften and Olsen (2003)	Instrumental/Conceptual Symbolic		
Williams (2003)	Instrumental/Conceptual Symbolic		

2.2.3 Measurement of Information Use

A review of the literature on information utilisation reveals a great diversity in the way it is measured (e.g. Rich, 1977; Deshpande and Zaltman, 1982, 1987; Larsen, 1982; Moorman et al., 1992). Indeed, the various measures of information utilisation differ in their focus and scope characteristics (Menon and Varadarajan, 1992). For example, although some measures tend to focus on the different dimensions of use (e.g. Deshpande and Zaltman, 1982), some others measure extent of use (e.g. Larsen, 1982). In terms of scope, some researchers measure information utilisation as a unidimensional construct (e.g. Larsen, 1982), while others treat information utilisation as a multidimensional construct (e.g. Rich 1977).

The most prominent empirical studies on information utilisation were initially produced by a group of public policy researchers during the 70's and early 80's, including Caplan, Knorr, Weiss, Rich and their associates. Not long after them, empirical studies from the field of marketing began to emerge (e.g. Deshpande and Zaltman, 1982, 1984, 1987; Menon and Varadarajan, 1992; Moorman, 1993). Due to the diversity of all these different studies on information utilisation, a comparison of findings is not always easy to achieve. For example, a number of researchers tend to include some evaluative aspects in their measures of use (e.g. Deshpande and Zaltman, 1982; Menon and Varadarajan, 1992). In that respect, Deshpande and Zaltman (1982) include an item in their measure that reads: "*how successful would you say this research project was in resolving the key issues for which the project was designed*" (see table 2.2). This item appears to capture effectiveness rather than use per se. In contrast, other authors (e.g. Knorr 1977; Weiss, 1981; Moorman et al., 1992) distinguish between 'pure' measures of use and measures that include evaluative aspects. For example, Moorman et al. (1992) adapts Deshpande and Zaltman's (1982) measure, leaving out the item reflecting evaluative aspect of information (Table 2.2). Moorman et al. (1992) suggest that trust between information providers and users affects the perceived quality of that information which in turn, enhances information use. Therefore, perceived quality is treated as an antecedent factor to information use (Moorman et al., 1992) rather than an inherent element of it.

Another facet of past measurement of information use that warrants attention relates to the specific dimension involved in each case. In that respect, Deshpande and Zaltman (1982) for example only measure instrumental use whereas Moorman (1995) measures both instrumental and conceptual uses. The unit of analysis is also different. Deshpande and Zaltman (1982) define the individual as the user while Moorman (1995) attempts to measure organisational information processes on the premise that the way information is used is likely to be a function of the presence of organisational systems or processes, in addition to individual manager activities (Moorman, 1995). Therefore, the two operationalisations are significantly different and, as a result, the measures are not directly comparable.

Finally, worth noting are the items that Weiss (1981) uses to measure information use such as, for example: '*by whom is it used*' and '*by how many people is it used*'. The above items reflect extent of use which can be seen from the perspective of the number of people utilising information.

Thus far, it should be highlighted that most of the previous work in terms of measurement has mainly focused on instrumental use in a domestic context (e.g. Deshpande and Zaltman, 1982, 1984, 1987). On the other hand, empirical studies on information use in an export context are still relatively scarce. Hart et al. (1994) consider the use of export information and borrowed 4 Likert-type statements from Deshpande and Zaltman's (1987) original measure. Their operationalisation, however, only concerns instrumental use and no psychometric assessment of the scale adopted is reported. Diamantopoulos and Horncastle (1997) developed a model of export information utilisation by adapting an expanded version of Deshpande and Zaltman's (1987) measure. More specifically, they use five statements from Deshpande and Zaltman (1987) for their operationalisation of export information use whereas, two additional items are included to reflect increased confidence on behalf of those decision-makers who had used marketing research information (Cavusgil, 1984). Thus, this study is also limited in scope as it focuses on instrumental use as well. A more complete and comprehensive measurement of export information use is undertaken by Diamantopoulos and Souchon (1999) who measure information use along two dimensions namely

instrumental/conceptual and symbolic in relation to the different export acquisition modes (export marketing research, export intelligence and export assistance). Six distinct scales of export information use are developed and their psychometric properties assessed in terms of validity and reliability. The results reveal that the measures are psychometrically sound.

Williams (2003) replicates those scales in her study on small and medium sized UK exporting firms and finds that the scales are applicable in this specific context. Although Diamantopoulos and Souchon's (1999) measures were validated, her replication is not exactly the same as some slight modifications were deemed necessary so that the items would be fully adjusted to suit the particular respondents. For example, the original Diamantopoulos and Souchon's (1999) item: 'Information is often gathered to maintain good relationships with information suppliers' is slightly modified as 'EM information is often gathered to maintain good relationships with information suppliers'. Williams (2003) also uses the majority (but not all) of the items for instrumental/conceptual use and symbolic use developed by Diamantopoulos and Souchon (1999). A selection of Souchon and Diamantopoulos' (1999) items is also used by Toffen (2005) in his study that tests for empirical relationships between export market information use, and export knowledge and export performance. All of these items are also presented in Table 2.2.

Maltz et al. (2006), in their study on how creating a firm flexible orientation (which is defined as the organisation's openness to new ideas as well as its propensity towards quick decision-making) affects the way market research is disseminated and used, deviate from the classification along the lines of instrumental/conceptual and symbolic use. Their multifaceted information use dimensions are labelled appropriate and inappropriate use. Appropriate use is defined as information used in a way that is consistent with the findings of a study. It further encompasses some sub dimensions namely process, product, positive and congruous. Inappropriate use is defined as information used in a way that distorts or misuses the findings of a study. It encompasses incongruous and cynical uses. The conceptual context of their terms does not really differ significantly from the traditional instrumental/conceptual and symbolic use classification developed in

the broader literature on information use. This is reflected in their measures as well. Incongruous use for example, resembles distortion as per Vyas and Souchon (2003), (see Table 2.2).

Table 2.2: Measures of information use and related dimensions

Authors and Date	Measures of use incorporating evaluative elements
Deshpande and Zaltman (1982)	<p>Instrumental dimension captured</p> <ul style="list-style-type: none"> -without this research information, the decisions made would have been very different -no decision would have been made without this research information -the majority of the research information from this project was not used -how successful would you say that this project was in resolving the key issues for which the project was designed -in your opinion, what proportion of this particular study need not have been done
Deshpande and Zaltman (1987)	<p>Instrumental dimension captured</p> <ul style="list-style-type: none"> -without this market information, the decision made would have been very different -no decision would have been made without this market information -the majority of the market information from this project was not used
Deshpande and Kohli (1989)	<p>Symbolic dimension captured</p> <p>I was aware of potentially relevant information which was not brought forward or fully discussed</p> <ul style="list-style-type: none"> -there were relevant issues about which further information was avoided for one reason or another -there were tendencies to discourage the gathering or use of information which might have contradicted positions concerning the decision -information was rejected because it contradicted pre-existing opinion or beliefs about the product or market
Sinkula (1995)	<p>Instrumental/conceptual dimension captured</p> <ul style="list-style-type: none"> -the majority of the information in my firm is not used -the degree to which information in my firm gets used is usually depended upon a few key individuals -our organisation seems to acquire more information than it uses

	<p>-most of the research provided by our external suppliers is easy to understand and use</p> <p>Results gleaned from external research studies are well communicated to our marketing managers</p> <p>-information provided by our external research suppliers is often too complex for our non-research staff to understand</p>
Moorman (1995)	<p>Instrumental and conceptual dimensions captured</p> <p>Instrumental:</p> <p>During this project, my division had formal or informal processes...</p> <ul style="list-style-type: none"> -for carefully evaluating various marketing strategy alternatives -that relied heavily upon information to make decisions relating to the project- that used information to solve specific problems encountered in the project -that provided information to effectively implement the project -that provided clear direction on implementation of the project -that gave information to all functions regarding their role in implementation -that formally evaluated the effectiveness of the project -that provided informal feedback regarding the effectiveness of the project -that provided feedback to decision makers regarding the outcomes of their project decisions -that constructively evaluated project outcomes -that encouraged managers to understand the reasons for their mistakes throughout the project <p>Conceptual:</p> <p>During this project, my division had formal or informal processes...</p> <ul style="list-style-type: none"> -which summarised information, reducing its complexity -that encouraged decision makers to disagree and to challenge one other's opinions -which encouraged managers to develop predictions regarding the product's success -for organising information in meaningful ways -for processing information about the product
Authors and Date	'Pure' measures of use'

Deshpande and Jeffries (1981)	<p>Instrumental use</p> <ul style="list-style-type: none"> -no decision would have been made without this research information -without his research information, the decisions made would have been very different -the majority of the research information from this project was not used
Deshpande (1982)	<p>Instrumental use</p> <ul style="list-style-type: none"> -without his research information, the decisions made would have been very different -no decision would have been made without this research information
Moorman et al. (1992)	<p>Instrumental and conceptual use</p> <p>Instrumental:</p> <ul style="list-style-type: none"> -without his research information, the decisions made would have been very different -no decision would have been made without this research information -compared to past research projects, the number of people who will use or have used the research is... <p>Conceptual:</p> <ul style="list-style-type: none"> -the majority of the research information from this project was not used -in your opinion what proportion of this particular study need not have been done
Cadogan et al. (2008)	<p>Instrumental/conceptual use</p> <ul style="list-style-type: none"> -the majority of market information we collect is not used -we make a conscious effort to use most of the market information we have gathered -we utilize most of the market information we collect
Authors and Date	'Measures of export information use'
Hart et al. (1994)	<p>Instrumental use</p> <ul style="list-style-type: none"> -our export decisions would be modified substantially according to market research -our market research goes largely unused by key decision-makers -export decisions would not be taken without market research

	<p>Symbolic use</p> <ul style="list-style-type: none"> -the information is used to back up managerial hunches
<p>Diamantopoulos and Horncastle (1997)</p> <p><i>(Based on Deshpande and Zaltman (1982 and 1987)).</i></p> <p><i>(Based on Lee et al., (1987))</i></p>	<p>Instrumental use</p> <ul style="list-style-type: none"> -without this research information, the decisions made would have been very different -no decision would have been made without this research information -the majority of the research information from this project was not used -how successful would you say that this project was in resolving the key issues for which the project was designed -in your opinion, what proportion of this particular study need not have been done -change in confidence after receiving marketing research results
<p>Diamantopoulos and Souchon (1999)</p>	<p>Instrumental/conceptual use</p> <ul style="list-style-type: none"> -information is actively sought out in response to a specific decision at hand -information is often used specifically to make a particular export decision -decisions based on information are more accurate than wholly intuitive ones -our confidence in making export decisions is increased as a result of information -without information, decisions made would be different -information is translated into significant practical action -information is preserved so hat it can be used by individuals other that the person who collected it -the majority of information is not used -information often has little decision relevance -our uncertainty associated with export activity is greatly reduced by information -the same piece of information is often used for more than one decision -information is often used in a surveillance mode rather than a decision note -information gathering is often done as a matter of course -information is often used to keep the company knowledge base updated

	<ul style="list-style-type: none"> -information gathered for a specific problem loses its value over time -no export decision would be made without information <p>Symbolic use</p> <ul style="list-style-type: none"> -information is often gathered to maintain good relationships with information suppliers -information is often collected to justify a decision already made -information used to justify an export decision is often collected/interpreted after the decision has been made -information is often used to reinforce expectation -information is often not considered in the making of decision for which it was initially requested -instinct/intuition is often combined with information when making decisions -information is sometimes manipulated in order to justify decisions really made on the basis of instinct -key executives often distort information in passing it on -information is sometimes taken into account to justify the cost of having acquired it -information is often used to back up hunches, prior to the implementation of an export decision -if information is difficult to obtain, guesses are made instead -information frequently supports decisions made on other grounds
<p>Williams (2003)</p> <p><i>(Based on Diamantopoulos and Souchon (1999)).</i></p>	<p>Instrumental/conceptual use</p> <ul style="list-style-type: none"> -we actively seek out particular export marketing (EM) information for specific decisions -EM information is often used specifically to make a particular export decision -decisions based on EM information are more accurate than wholly intuitive ones -our confidence in making export decisions is increased as a result of information -without EM information, decisions made would be different -EM information is translated into significant practical action in this company -we store EM information so that it can be used by others at a later date -EM information often has little decision relevance to our decisions

	<ul style="list-style-type: none"> -marketing information greatly reduces the uncertainty associated with our export activities -the same piece of EM information is often used for more than one decision -information is often used to keep the company knowledge base updated -no export decision would be taken in this company without detailed marketing information <p>Symbolic use</p> <ul style="list-style-type: none"> -EM information is often gathered to maintain good relationships with information suppliers -EM information is often collected to justify a decision already made -EM information is often not considered in the making of decision for which it was originally requested -instinct/intuition is often combined with EM information when making decisions -EM information is sometimes manipulated, to justify company decisions really made on the basis of instinct -key executives often distort EM information in passing it on -we sometimes take account of EM to justify the cost of having acquired it -if EM information is difficult to obtain, guesses are made instead -EM information frequently supports decisions made for other reasons
Souchon et al. (2004)	<p>Instrumental/conceptual use</p> <ul style="list-style-type: none"> -information is actively sought out in response to a specific decision at hand -information is often used specifically to make a particular export decision -decisions based on information are more accurate than wholly intuitive ones -our confidence in making export decisions is increased as a result of information -without information, decisions made would be different -information is translated into significant practical action -information is preserved so hat it can be used by individuals other that the person who collected it -the majority of information is not used -information often has little decision relevance

	<ul style="list-style-type: none"> -our uncertainty associated with export activity is greatly reduced by information -the same piece of information is often used for more than one decision -information is often used in a surveillance mode rather than a decision note -information gathering is often done as a matter of course -information is often used to keep the company knowledge base updated -information gathered for a specific problem loses its value over time -no export decision would be made without information <p>Symbolic use</p> <ul style="list-style-type: none"> -information is often gathered to maintain good relationships with information suppliers -information is often collected to justify a decision already made -information used to justify an export decision is often collected/interpreted after the decision has been made -information is often used to reinforce expectation -information is often not considered in the making of decision for which it was initially requested -instinct/intuition is often combined with information when making decisions -information is sometimes manipulated in order to justify decisions really made on the basis of instinct -key executives often distort information in passing it on -information is sometimes taken into account to justify the cost of having acquired it -information is often used to back up hunches, prior to the implementation of an export decision -if information is difficult to obtain, guesses are made instead -information frequently supports decisions made on other grounds
Toften (2005)	<p>Instrumental/conceptual use</p> <ul style="list-style-type: none"> -information is acquired specifically to make a particular export decision -the majority of the acquired information is used -the same piece of information is often used for more than one decision -information is often used in a surveillance mode -our uncertainty associated with export activity is greatly reduced by using information

	<p>Symbolic use</p> <p><i>(Based on Diamantopoulos and Souchon (1999)).</i></p> <ul style="list-style-type: none"> -information is often used to justify a decision already made -information is often used to maintain good relationships with information suppliers -information is often used to justify the cost of having acquired it
Maltz et al. (2006)	<p>Akin to instrumental/conceptual use</p> <p>Congruous use:</p> <ul style="list-style-type: none"> -a decision was made which was consistent with at least some of the recommendations in the report -one or more findings of the study had a significant impact on a decision -it was worth waiting for the research results because <p>Positive use:</p> <ul style="list-style-type: none"> -the research was used to emphasise the importance of the issue under investigation to one or more groups -the research study was used to build awareness and commitment -the research study was used to promote awareness and appreciation for an issue of importance <p>Product use:</p> <ul style="list-style-type: none"> -the study results were used to provide new insights -the study results gave a fresh perspective about something -the study results provided new knowledge about something <p>Process use:</p> <ul style="list-style-type: none"> -we learned by trying to describe the business problem/issue to the researcher -apart from what we learned from the results, doing the study was educational -we gained new insights while providing the researchers with background information on the company, business and/or competitive situation <p>Akin to symbolic use</p> <p>Incongruous use:</p>

	<ul style="list-style-type: none"> -the research results were slanted to justify a decision -the results of the study were taken out of context to make a decision -a decision based on the research project was hard to reconcile with the results of the project <p>Cynical use:</p> <ul style="list-style-type: none"> -the research was used for sake of appearances -at least in part, the study was used as a scapegoat -the primary use of the research seemed to be appease upper management
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The review of the literature on information use demonstrates some inconsistencies and lack of consensus in terms of: a) Measurement of information use, b) prevalence of each type of use and, c) labelling the different types of information use. Furthermore, the literature has so far focused explicitly on instrumental use having ignored conceptual, and, mainly symbolic use. This is a paradox since symbolic use is acknowledged as an important and quite frequent occurrence with its own distinctive conceptual identity. Different authors argue about different facets of symbolic use (thus acknowledging its multidimensional nature) but there is little effort in trying to include all the different dimensions in their conceptualisations. In terms of measurement of symbolic use, pure measures for each symbolic use dimension per se do not exist at all. There are only generic measures which treat symbolic use as a composite construct which comes in direct contrast to the consensus about its multidimensionality. This study seeks to amend these inconsistencies as far as symbolic use is concerned and enable researchers to develop a better understanding on the construct.

2.3 THE STUDY OF INFORMATION USE IN AN EXPORT SETTING

Export information has been central to international and export marketing research since the early 1960s (Leonidou and Theodosiou, 1994). It has been examined in conjunction with many different internationalisation parameters such as entry barrier factors (Alexandrides, 1983; Leonidou, 2000), foreign market entry methods (Reid, 1981, 1984), and strategic elements (Koh, 1991; Samie and Walters, 1990). However, it is not information itself but rather its sufficient acquisition and effective use that are vital for a firm's export expansion (Leonidou and Katsikeas, 1996) and export performance (Cadogan et al. 1999). Export information acquisition can be viewed as the first step to exporting, as it can be used for the identification of any potential foreign market opportunities that may, in turn, trigger the engagement of the firm in exporting (Olson and Welch, 1978). That said, simply gathering and possessing information is unlikely to bear on the company's performance if the acquired knowledge is not used or is ineffectively used by decision-makers (Piercy, 1987). It is the use of information that is the crucial link between information acquisition and the firm's performance (Feldman and March, 1981; Goodman, 1993).

This section begins a definition of export information use. The next part provides a review of the relevant literature on export information use. This specific part is further divided into the following sub-sections: a) background forces on export information use, b) extant literature on export information use per se, and c) the relationship between export information use and export performance. The last part is devoted to symbolic use of export information per se.

2.3.1 Definition of Export Information Use

A recent definition of export information use is: *“Filtered, transformed and organised export data concerning a firm's current and potential international customers, used in an instrumental/conceptual manner and/or symbolic manner and normally with the intention of increasing export knowledge and/or perceived export performance” (Toften, 2005, p. 202)*. This definition offers the advantage of combining and condensing the findings of previous studies. According to these

studies, there is general consensus and acceptance that the term information use refers to distinct concepts or types of use, each one of which with its own multiple dimensions (e.g. Knorr, 1977; Deshpande and Zaltman, 1982; Weitzel, 1987; Menon and Varadarajan, 1992; Toften and Olsen, 2003).

Effective use of export information can help the firm understand its foreign markets better, deliver superior customer value and, ultimately, create competitive advantage (Diamantopoulos and Souchon, 1999). However, compared to information needs and sources, there is a dearth of research on export information use.

2.3.2 Review of Previous Studies on Export Information Use

The extant literature on export information use can be divided into three major categories: a) the background factors influencing export information use, b) the actual export information use taking place in organisations and, c) the relationship between export information use and export performance.

a) Background Forces on Export Information Use

Background forces (most commonly known as antecedent factors) refer to “parameters pertaining to the organisation, the environment and the management” (Leonidou and Theodosiou, 2004, p. 15) and other contextual forces such as export-specific and information-specific ones (Souchon et al., 2003) that have been argued or shown to affect the extent to which and/or ways in which export information is put to use. In this context, since information cannot be used until it is acquired (Weitzel, 1987), export information acquisition is seen as a logical antecedent to export information use (Souchon and Diamantopoulos, 1996). It is worth noting that the above background forces do not act in isolation from each other, but their interplay may have a synergistic effect on export information use (Leonidou and Theodosiou, 2004). The antecedent factors identified after reviewing relevant studies on export information use studies are presented in table 2.3.

Since information cannot be used unless it is acquired first, information acquisition is seen as a logical antecedent to information use, and, thus, symbolic use as well (Souchon and Diamantopoulos, 1996). It is also argued that an emphasis on the acquisition of information is very likely to result in greater use of information (Schmelz and Ramsey, 2003). Epigrammatically, the literature distinguishes between three export acquisition modes, namely export market research, export assistance and export intelligence (Souchon and Diamantopoulos, 1996).

Information-specific influences on the other hand, reflect the intrinsic characteristics of information acquired. Information overload, for example, is an extremely important antecedent since it is likely to create confusion during the decision-making process (Cavusgil, 1985). It is also a very common one since many organisations “gather more information and don’t use it, ask for more and ignore it, make decisions first and look for more relevant information afterwards” (March and Shapiro, 1982, p. 98). The mere availability of information surplus can distract managers into using information on the basis of its availability, with little or no regard to other more important decisions that may need to be addressed as a priority. This is likely to have negative decision-making outcomes (Souchon et al., 2003). Indeed, “the presence of additional information has a “seductive” or distracting effect that leads managers to focus more on those decision-making components addressed by the information. If these are not the components that are also most closely tied to success, overall performance may suffer” (Glazer et al., 1992, p. 213).

As Souchon and Diamantopoulos (1996, p. 59) observe, “environmental and export-specific influences deserve special attention. In the export environment, levels of uncertainty, psychological distance, and access to information are vastly different from the domestic arena. The same applies to export-specific variables, such as export dependence and experience, as these influences do not apply in a purely domestic setting”. Environmental turbulence for example, has been found to affect the extent to which and, ways in which, information is put to use (Glazer and Weiss, 1993). Menon and Varadarajan, 1992, argue that the more unstable or volatile the environment the higher the perceived uncertainty of the decision-makers; thus, the greater the need for information.

According to Desphande (2001), organisational factors are without any doubt the more important antecedents of what kind of information was gathered and whether or not it was utilised. Company age for example, is likely to have an impact on the reliance on experience as an alternative source of information (Weiss and Bucuvalas, 1977). Companies that have managed to accumulate experience over the years are most likely to be engaged in intuitive decision-making (Schoemaker and Russo, 1993; Gittler, 1994). Size also plays a very important role on the instrumental/conceptual and symbolic use of export marketing research, export assistance, and export market intelligence, respectively (Souchon et al., 2003). For example, larger firms not only make greater use of export marketing research but they also tend to do so in a more objective fashion than their smaller counterparts which tend to use marketing research to back up hunches (e.g. Hart et al., 1994).

When trying to identify the symbolic use antecedents, the effects that managerial factors may have should not be overlooked. For example, the personal experience of the manager can be very significant in how information is used (Vyas and Souchon, 2003). Indeed, “the more experienced a decision maker had of his/her industry and exporting activity, the more he/she would tend to rely on intuition as a basis for making export decisions, because more familiarity with the market would have been acquired” (Diamantopoulos and Souchon, 1996, p. 131). Furthermore, differences in culture (e.g. national, organisational, and professional) have been found to explain many perceptual differences among managers, across countries, across firms and across functional areas (e.g. Hofstede et al., 2002; Leung et al., 2005), which can also be detected in the way different export managers use information (Souchon et al., 2003).

The potential effect of certain variables on the different types export information use has been conceptually addressed (e.g. Souchon and Diamantopoulos, 1996) as well as empirically examined (e.g. Souchon et al., 2003). Those export information use studies that have tried to explore the role of antecedent factors empirically, produce some results particularly regarding the impact of company size and information overload (e.g. Hart et al., 1994; Souchon et al., 2003). In this context, small and medium sized firms seem to use information more symbolically

than instrumentally/conceptually (Williams, 2003). This is in line with the findings by Hart et al. (1994) who find the use of information to back hunches (a facet of symbolic use) to be negatively correlated with company size. The above suggests that larger firms may use information in a more instrumental/conceptual fashion. Furthermore, Souchon et al., (2003) in their five-country survey of exporting firms examining the impact of information, export and context specific variables on different types of information use, found that the key antecedent for symbolic use was information overload. Indeed, “too much information (from any source) leads to symbolic use and thus adversely affects the decision-making process” (Souchon et al., 2003, p. 120), due to organisational or human limitations (Feldman and March, 1981), whereas at the same time performance is likely to suffer exactly because of the increases in the quantity of available information beyond a certain optimal point (Sivaramakrishnan and Perkins, 1992).

Table 2.3: Influences on Export Information Use

Influences	Illustrative papers
Organisational Factors <ul style="list-style-type: none"> • <i>Type of Industry</i> • <i>Firm size</i> • <i>Organisational structure</i> (<i>Formalisation – Centralisation</i>) 	Hart et al. (1994) Diamantopoulos and Horncastle (1997) Williams (2003), Leonidou and Theodosiou (2004)
Environmental Factors <ul style="list-style-type: none"> • <i>Environmental turbulence</i> • <i>Country of origin effect</i> 	Souchon et al. (2003) Hart et al. (1994)
Managerial Factors <ul style="list-style-type: none"> • <i>Ethnic background</i> • <i>Managerial Export Experience</i> 	Souchon et al. (2003) Chaudhry and Crick (1998), Hart et al. (1994)
Export-specific Factors <ul style="list-style-type: none"> • <i>Export experience / Internationalisation stage</i> • <i>Export dependence</i> • <i>Export complexity</i> • <i>Export specificity</i> 	Hart et al. (1994) Souchon and Diamantopoulos (1996) Diamantopoulos and Horncastle (1997) Souchon et al. (2003)
Information-specific Factors <ul style="list-style-type: none"> • <i>Information overload</i> • <i>Intensity of information acquisition</i> • <i>Information quality</i> • <i>Perceived credibility</i> • <i>Perceived usefulness</i> • <i>Cost</i> 	Souchon and Diamantopoulos (1996), Souchon et al. (2003) Souchon and Diamantopoulos (1997) Low and Mohr (2001), Lillrank (2003) Menon and Varadarajan (1992) Toften and Olsen (2005) Menon and Varadarajan (1992)
Information Acquisition Factors <ul style="list-style-type: none"> • <i>Export Marketing Research</i> • <i>Export Assistance</i> • <i>Export Marketing Intelligence</i> 	Souchon and Diamantopoulos (1996) Diamantopoulos and Horncastle (1997) Souchon and Diamantopoulos (1997)

b) Export information Use per se

The general conclusion from the inspection of the literature on export information use is that the study of export information use is problematic, for a number of reasons. First, theoretical weaknesses of this stream of research exist which can be ascribed to a lack of clear discrimination in a number of studies between export information use per se and other export information behaviour activities (such as for example, export information acquisition). Export information behaviour encompasses the determination, acquisition, dissemination and, finally, the use of export information (Leonidou and Theodosiou, 2004). However, there is a relative dearth of research as far as export information use is concerned, especially when compared to export information needs and sources (Souchon and Diamantopoulos, 1996) as well as a dearth of evidence on the linkage between export information behaviour and its impact in enhancing organisational success (Mohamad et al., 2009). Given that export information use is likely to be the most crucial component of export information behaviour because of its direct impact on strategic decision-making and, through it, export performance, more studies explicitly dedicated to export information use are required (Leonidou and Theodosiou, 2004; Vyas and Souchon, 2003; Andersen, 2006; Mohamad et al., 2009; Wood et al., 2009).

Second, there is a tendency by export information researchers to employ “diverse methodologies that lead to repetition, fragmentation and inconsistency” (Leonidou and Theodosiou, 2004, p. 13). Empirical findings on export information in general (thus, export information use as well) are presented in isolation from a well defined research programme (Axinn, 1994). For export information use in particular, already existing empirical knowledge needs to be synthesised under an overall conceptual framework (Leonidou and Theodosiou, 2004), incorporating antecedent effects and performance consequences (Vyas and Souchon, 2003).

c) Relationship between Export Information Use and Export Performance

For the export information use-export performance relationship in particular, conceptual propositions and empirical evidence exist. A paper by Souchon and

Diamantopoulos (1996) for example, provides a conceptual framework of export marketing information use. After reviewing the literature on export information use, they distinguish between instrumental, conceptual and symbolic use and provide indications of their effect on export decision-making and export success. All the above are integrated into a model of export information use and a number of propositions are developed. However, to the author's best knowledge empirical studies on the relationship between export information use per se and performance are a rare occurrence. One exception is the study by Toften (2005) who tests the relationship between instrumental/conceptual and symbolic use and export performance through the mediating role of export knowledge. The results indicate a significant correlation between instrumental/conceptual use of information, export knowledge and export performance respectively, but no significant relationship between symbolic use and firm performance. A factor that might have confounded their results might be the unidimensional treatment of symbolic use.

Although there is scope for more research on the relationship between export information use and export performance, a concept related to export information use has received much attention in recent years: the concept of export market orientation (e.g. Cadogan et al. 2002; Akyol and Akehurst, 2003; Cadogan et al. 2003; Cadogan et al., 2004; Murray et al., 2007; Cadogan et al., 2009). Jaworski and Kohli (1990), were the first to describe market orientation as the implementation of the marketing concept and Narver and Slater (1990) defined it as "the organisational culture...that most effectively and efficiently creates the necessary behaviours for the creation of superior value for buyers, and, thus, continuous superior performance for the business" (1990, p. 21). These behaviours entail the generation of information about a firm's market, the dissemination of this information to decision-makers and the appropriate responses to it on behalf of the decision-makers (Narver and Slater, 1990; Kohli and Jaworski, 1990). Cadogan and Diamantopoulos (1995) were among the pioneers in exploring the meaning of market orientation in an export setting. Export market orientation has been defined as consisting of export market intelligence generation, dissemination and responsive activities (Cadogan et al. 2003). Export intelligence generation concerns generating information about the firm's export

customers, foreign competition and export environment (Murray et al., 2007). Export intelligence dissemination encompasses all the activities associated with enabling the information generated to reach the export decision-makers, whereas, export market responsiveness involves the design and implementation of specific strategies in response to the generated and disseminated intelligence (e.g. Cadogan et al., 2003; Souchon et al., 2004; Murray et al., 2007). Therefore, market-oriented firms are those which collect information about their export environments (e.g. foreign customer needs), disseminate this information between export staff and other departments (Murray et al., 2007) and then "act on it to meet the needs and wants of their various stakeholders better" (Sousa et al., 2008, p. 355). Jaworski and Kohli (1993) themselves link responsiveness to information use. In this context, "it is apparent that the quality of a firm's responsiveness activities is partly a function of the degree to which available market information influences the development and implementation of marketing plans" (Cadogan et al., 2008, p. 1268).

Ample evidence exists of the positive relationship between export market orientation and export performance (e.g. Cadogan et al. 1999; Cadogan et al., 2006; Sousa et al., 2008). Because, for example, customer needs and expectations continually evolve over time, firms need to be constantly involved in an ongoing process of tracking and responsiveness to changing needs in order to be able to consistently deliver high quality products (Jaworski and Kohli, 1993). Indeed, according to Cadogan et al. (2002, p. 74) "if a firm consistently identifies and responds to customers' current needs and preferences and is able to anticipate future needs and preferences, it will be in a better position to satisfy customers and perform well against competitors". Therefore, given that information use is akin to responsiveness, one would initially expect a positive relationship between export information use (in general) and export performance as well. *Ceteris paribus*, instrumental/conceptual use of marketing information should be positively related to performance (Souchon and Diamantopoulos, 1996) via, for example, strategy formulation (Richey and Myers, 2001).

On the other hand, this may not hold true in the case of symbolic use of export information for the following reason: The literature poses a link between market

information processing and organisational learning (Sinkula 1994; Slater and Narver 1995). According to Huber (1991, p. 89), “an entity learns if, through its processing of information, the range of its potential behaviours is changed”. This view of organisational learning converges well with the Kohli and Jaworski definition of market orientation. However, “if the information culture promotes information generation, dissemination and use for its own sake, rather than for its value in decision making, information is likely to be used only for symbolic reasons” (Menon and Varadarajan, 1992, p. 64). Given that the ability to learn is at the heart of market orientation (Baker and Sinkula, 1999) and that using information to support one’s own prejudices or even distorting information is the opposite of learning (Feldman and March, 1981), one would expect a negative relationship between symbolic use and export performance. However, bearing in mind the multidimensional nature of symbolic use, the benign or even positive dimensions of this construct should be considered before coming to any definitive conclusions.

2.3.3 *Symbolic Use of Export Information*

Although symbolic instances of information use have long been recognised in the literature (e.g. Caplan et al., 1975; Larsen, 1985), only in recent years has there been a more consistent and conscious attitude towards symbolic use of export information as a distinct type of information use with its own exclusive characteristics and dimensionality (e.g. Diamantopoulos and Souchon, 1998, 1999; Souchon and Diamantopoulos, 1996, 1997; Williams, 2003). All of these studies, however, have not focused exclusively on symbolic use and its dimensions; rather, they investigate symbolic use in conjunction with the other types of use and export information acquisition. Furthermore, although some articles put forward specific propositions about the potential relationship between the different symbolic use dimensions and export performance (e.g. Vyas and Souchon, 2003) the need to further explore, accurately measure and, ultimately, test this potential relationship lingers on. As stressed in chapter one, this relationship does not necessarily have to be a positive one. In fact, different facets of symbolic use under different circumstances can be negatively related to export performance and potentially disastrous for the export function.

In another study for example, Toften and Olsen (2003) investigate the potential mediating role of organisational knowledge in the relationship between export market information use and performance. More specifically, they develop a conceptual model linking the different dimensions of information use to different dimensions of organisational knowledge as well as to export performance. According to Toften and Olsen (2003), symbolic use of information is not expected to create new knowledge or improve an existing knowledge base. “This is due to the nature of symbolic use of export information, which encourages distortion, oversimplifying and ignoring relevant information” (Toften, 2005, p. 205). It is therefore perceived as being “bad” use of knowledge (Souchon and Diamantopoulos, 1996), and, on this basis one would expect it to “dilute and even conceal the aggregated knowledge base” (Toften, 2005, p. 205). Thus, they propose that there is a negative relationship between symbolic use and export performance. On the other hand, “the use of intuition, based on experience, is not necessarily a bad thing, particularly when export marketing information is difficult to obtain” (Williams, 2003, p. 58).

The most comprehensive and exclusive paper on symbolic use of export information is by Vyas and Souchon (2003). In their work, they provide a multidimensional conceptualisation of symbolic use of export information, anchored in a cross-disciplinary review of the literature. More specifically, they identify eight dimensions of this type of information use and suggest that while some dimensions of symbolic use of export information are likely to be beneficial to export performance, others are likely to be detrimental. Furthermore, they highlight the moderating effect that some variables exert on the relationship between the dimensions of symbolic use of information and export performance.

Vyas and Souchon’s eight dimensions of symbolic use of export information are the following: social use, power-seeking use, affective use, legitimising use, self-promoting use, symbolic non use, haphazard use and distortion of export information, as presented in Table 2.4:

Table 2.4: Dimensions of Symbolic Use as per Vyas and Souchon (2003)

Dimensions	Sources	Definitions
Social use	Menon and Varadarajan (1992)	Utilisation of information for the sake of ensuring harmonious relationships with information providers
Power-seeking use	Brown (1994)	The asymmetry in the distribution of power within an organisation provides the incentive for the formation of coalitions and, as a consequence, to political activities.
Affective use	Menon and Wilcox (2001)	When information is used to create positive emotions and to increase the decision maker's confidence with the decision made
Legitimising use	Sabatier (1978)	The situation when information is used to legitimate decisions reached on the basis of intuition or managerial assumptions
Self-promoting use	Feldman and March (1981)	Reflected by the desire to use information in such a way as to fulfil personal rather than organisational goals
Symbolic non-use	Souchon and Diamantopoulos (1997)	Deliberate avoidance of using existing information. It can occur under conditions of information overload, time pressure and poor information quality
Haphazard use	Glazer et al. (1992)	Use of export information on the basis of its availability or accessibility rather than its relevance.
Information distortion	Bettis-Outland (1999)	Certain adaptation or modifications in order to support and legitimise decisions previously held

Distortion and haphazard use are proposed to be detrimental to export performance whereas social use and power-seeking use seem likely to have a positive impact on export performance. The direction of the relationship for the remaining dimensions is proposed to be contingent on the effect of some moderating variables such as, for example, export commitment, export

experience, managerial fear of failure and the perceived availability and usefulness of the information (Vyas and Souchon, 2003).

At his point, the conceptual solidity of the symbolic use dimensions proposed by Vyas and Souchon (2003) cannot be challenged as it is clear-cut and meticulous. Although the current study uses the Vyas and Souchon (2003) work as a basis on which to further build on, there are some significant points of differentiation. For example, Vyas and Souchon (2003) do not specify the unit of analysis within which they develop their conceptualisation. A well-defined and specific unit of analysis might have rendered certain dimensions incompatible with it and impose a 'tighter' conceptualisation. In fact, this is the case with the current study which identifies the functional level as the most appropriate unit of analysis to be employed. In turn, this specific choice of unit of analysis renders self-promoting use incompatible and leads to the further division of power-seeking use into two sub-dimensions (see chapter 4 for a detailed introduction and analysis of the unit of analysis and its subsequent impact on the symbolic use dimensions to be studied). The fact that their study is also not anchored by any core theory is another limitation. Furthermore, they do not test empirically their proposed model. In conclusion, their work is very much literature-based and lacks parsimony (which is partially justified by the conceptual nature of their study).

However, the main difference that renders the current study unique is the identification of decision quality as the appropriate mediator between symbolic use and export performance. All these will be viewed in more detail in the chapters to follow.

2.4 EXPORT PERFORMANCE

The constantly increasing tendency towards a global economy and the subsequent increase in exporting as a result, has inevitably led to a growing interest in the topic of export success as well (Katsikeas et al., 1996). Superior export performance is of vital interest "both from national governments concerned with improving the international competitiveness of their economies (and reducing

the balance of their trade deficits) and from individual companies, many of whom require export market success to achieve their business goals” (Al-Khalifa and Morgan, 1995, p. 318).

Research on the firm’s export performance has its roots in the early 1960s with the pioneering work of Tookey (1964). Since then, several studies have attempted to study export performance in terms of the construct's conceptualisation and operationalisation (e.g. Madsen, 1987; Aaby and Slater, 1989; Shoham, 1998; Lages et al., 2005; Diamantopoulos and Kakkos, 2007; Sousa et al., 2008; Lages et al., 2009). However, despite these fruitful efforts export performance has been characterised as "one of the most widely researched but least understood and most contentious areas of international marketing. To some extent, this problem can be ascribed to difficulties in conceptualising, operationalising and measuring the export performance construct, often leading to inconsistent and conflicting results" (Katsikeas et al., 2000, p. 493). Although export performance has been widely researched over the last decades, often such research has been undertaken without a strong theoretical platform (Morgan et al., 2004; Sousa et al., 2008) and several important issues in the field have received scant attention (Diamantopoulos and Kakkos, 2007). The lack of a comprehensive theory to serve as a basis for explaining export performance hinders the integration of findings from different studies into a coherent body of knowledge (Morgan et al., 2004; Lages et al., 2009). Indeed, the literature on export performance still remains “one of the most widely researched and least understood areas of international marketing” (Sousa et al., 2008, p. 344). However, in recent years, international marketing researchers and export performance researchers have been encouraged to be more theoretically driven by using a range of theoretical perspectives (Douglas and Craig, 2006; Styles et al., 2008; Lages et al., 2009). The purpose of this section is to provide clear insights into the conceptualisation, and subsequent measurement of the construct of export performance.

2.4.1 Definition of Export Performance

Before engaging in any discussion regarding the definition of export performance, one should bear in mind that "studies of performance may differ in definitions to

the extent that they address different problems" (Shoham, 1998, p. 61). Apart from being problem-driven rather than theory-driven, the conceptual definition of export performance is also likely to depend on the research context of a given study (Cooper and Kleinschmidt, 1985; Cavusgil and Zou, 1994; Sousa, 2004; Hult et al., 2008; Lages et al., 2009). Although finding a uniform definition of export performance in the literature may have been a major problem in the past (e.g. Rosson and Ford, 1982; Cavusgil and Zou, 1994), export performance can now be conceptually defined as the outcome of a firm's export activities in export markets (Katsikeas et al. 2000; Sousa et al., 2008; Lages et al., 2009).

2.4.2 Conceptualisation of Export Performance

Although export performance has been at the epicentre of interest in the study of export marketing, the evaluation of conceptual underpinnings of export performance and its measures has largely been ignored (Katsikeas et al., 2000; Sousa et al., 2008). Indeed, "there is little agreement in the literature about a conceptual definition of export performance, as well as about its operational definition" (Shoham, 1998, p. 59). In fact, most of the papers on export performance in the past did not even provide a conceptual definition of export performance (Sousa, 2004) and empirical efforts to explore this area are even less developed (Lages et al., 2005; Sousa et al., 2008).

Three performance dimensions were first put forward over 20 years ago, namely sales, profits and change (Madsen, 1987), and were heavily adopted by subsequent studies (Sousa et al., 2008; Lages et al., 2009). More recent efforts, however, focusing explicitly on the conceptualisation and subsequent operationalisation of export performance also point to the existence of three alternative dimensions (e.g. Hult et al., 2008), namely effectiveness, efficiency and adaptiveness (Katsikeas et al., 2000). An organisation "is effective to the extent that it accomplishes its stated goals" (Cameron, 1984, p. 542), whereas, efficiency is defined as the ratio of performance outcomes to the inputs required to achieve them (Katsikeas et al., 2000). Finally, adaptiveness refers to the organisation's ability to respond to environmental changes (Kohli and Jaworski, 1993). According to Katsikeas et al., (2000), most studies emphasised effectiveness and, to a lesser

extent, efficiency. Only an extremely limited number of studies focuses on adaptiveness, despite its importance as it pertains to exploiting foreign market opportunities, responding to competition and capitalising on new products (Styles, 1998).

2.4.3 Unit of Analysis

The conceptualisation of export performance is significantly influenced by the choice of unit of analysis as the latter is likely to affect the form and availability of performance data (Jacobson, 1987). Past export performance studies have used either the firm level or the export venture as the unit of analysis (Katsikeas et al., 2000; Sousa, 2008; Hultman et al., 2009). According to Sousa (2004, p. 15), “the selection of unit of analysis is important for the correct operationalisation of export performance since a study at the firm level seeks success determinants describing the overall export activity of a firm, whereas, a study at the venture level focuses on performance determinants of a particular product/market combination”.

The vast majority of the export performance studies have used the firm as the unit of analysis (e.g. Katsikeas et al., 2000; Hult et al., 2008; Styles et al., 2008). This is because most firms tend to “evaluate export success on the basis of broad metrics such as sales volume in export markets over the last 12 months. In such firms, export operations are not organised according to export ventures, as export activities are continuous, joined up and interdependent” (Sousa, 2008, p. 350). However, other researchers argue that a single product or product line exported to a specific export destination is more likely to form the proper unit of analysis (e.g. Cavusgil and Zou, 1994; Morgan et al., 2004). This is based on the premise that at the venture level a deeper knowledge and insight into the key drivers of export success can be achieved (Sousa, 2004).

Katsikeas et al. (2000) suggest that both the firm/organisational level and the export venture level have certain shortcomings and are problematic when used as a potential unit of analysis. For example, the use of an organisational unit of analysis (e.g. overall business performance as the dependent variable) may obscure any export-specific outcomes of symbolic information use (such as export

profitability) (Vyas and Souchon, 2003). On the other hand, the majority of export firms tend to export to multiple markets which could render generalisation from the product/export venture level very difficult (Richey and Myers, 2001). Furthermore, in most exporting firms “export operations are not organised according to export ventures, as export activities are continuous, joined up and interdependent. In these businesses, therefore, it would not make sense to examine export success at the venture level, as the venture would not be a viable unit of analysis” (Sousa et al., 2008, p. 8).

Conversely, the functional level “focuses on the overall patterns of export information use in firms and places greater emphasis on company-specific (e.g. export experience) and environment-specific (e.g. number and location of export markets) variables” (Souchon et al., 2003, p. 110). Within this dialectic, the export function is an appropriate unit of analysis (at least for the purposes of the current study) because, a) the vast majority of the UK firms (more than 90%) are small and/or medium size (e.g. Jøcumsen, 2004) and, b) in direct connection to the previous point, most of the small and medium sized exporting enterprises in the UK do not have a dedicated export department and it is not unusual for salespeople or managers to deal both with exporting issues and decisions as well as domestic market ones (e.g. Williams, 2003; Vyas and Souchon, 2003). A detailed discussion and justification of why the export function seems likely to be the most appropriate unit of analysis for this study will follow in chapter 4.

2.4.4 Measurement of Export Performance

The conceptualisation of export performance along its three dimensions, namely effectiveness, efficiency and adaptiveness has important measurement implications (Katsikeas et al., 2000). Diverse use of export performance measures puts into question the comparability of existing findings (Zou, et al., 1998). In recent years, attempts have been made to develop comprehensive and psychometrically sound measures of export performance (e.g. Shoham, 1998; Styles, 1998; Katsikeas et al., 2000; Lages and Lages, 2004, Lages et al., 2005). As Katsikeas et al. (2000, p. 499) report in their review of more than 100 articles of pertinent empirical studies to assess and critique export performance, “most

studies took a unidimensional approach in the conceptualisation and measurement of export performance; only one third of the studies looked at more than one dimension”. However, it has been explicitly acknowledged that export success is “multifaceted and cannot be captured by any single performance indicator” (Diamantopoulos, 1998, p. 3), thus providing a strong basis for a multidimensional approach to the measurement of export performance.

Past measures of export performance can be broadly categorised as economic and non economic (Katsikeas et al., 2000). From the economic measures, export sales are most often used to assess export performance, followed by profit-related measures (Sousa, 2004; Sousa, et al., 2008). Market share - related measures, on the other hand, are rarely examined and criticised on the premise that actual market share is difficult to measure (Katsikeas et al., 2000). Non economic measures include market-related, product related and other miscellaneous non economic measures. Table 2.5 provides an overview of the measures used in export performance studies.

Another very interesting distinction of export performance measures, widely encountered in the export performance literature, is between objective and subjective measures (e.g. Shoham, 1998; Sousa, 2004, Lages et al., 2005). Indicators that “are based on absolute values such as export intensity, export sales volume, and export market share, among others, are called objective measures. Meanwhile, indicators that measure the perceptual or attitudinal performance such as perceived export success and satisfaction with export sales are considered to be subjective measures” (Sousa, 2004, p. 8). Export performance studies might use objective, subjective or both in terms of mode of performance assessment. Katsikeas et al. (2000) suggest that the majority of the studies on export performance reviewed tend to employ objective measures. Sousa (2004), however, supports in his review of export performance studies that the majority of them use both modes of assessment. This emphasises the role of exporters’ own evaluations and assessments of export performance outcomes (as successful or unsuccessful) and the associated degree of satisfaction resulting from them (Diamantopoulos and Kakkos, 2007). In this context, it should be stated that “success is both particular, against specific objectives, and subjective, in the

sense of who selects which goals and which performance benchmarks” (Amber and Kokkinaki, 1997, p. 665). Some scholars, on the other hand, support the use of subjective over objective indicators based on more practical criteria such as the following: a) firms are reluctant to provide the researcher with objective financial data (Katsikeas et al., 2002), b) decision makers are guided by their subjective perceptions of firm export performance rather than by objective absolute performance ratings (Madsen, 1989) and, c) objective data are often difficult to interpret (Katsikeas et al., 1996).

According to Katsikeas et al. (2000, p. 500), “using appropriate time horizons in performance measurement is vital, as it can maximise the theoretical causal links between independent variables and performance dependants and minimise the influence of unobservables”. In terms of time frame, most studies adopt a dynamic orientation to measure export performance by reporting results over the last three or five years (Sousa, 2004). Some studies however, are not taking past performances into account (e.g. Hart and Tzokas, 1999). There is also a very limited number of studies that use measures of anticipated (future) performance (e.g. Diamantopoulos and Schlegelmilch, 1994; Robertson and Chetty, 2000).

Table 2.5 illustrates different performance indicators used by different export performance studies over the past 20 years. The purpose of table 2.5 is to provide the reader with specific examples of export performance measures along the conceptualisation lines of effectiveness, efficiency and adaptiveness.

Table 2.5: Examples of Export Performance Measures

	Sales	Profits	Change
Effectiveness	<i>'Satisfaction with export sales'</i> (Shoham, 1998)	<i>'Satisfaction with export profitability'</i> (Zou, et al., 1997)	<i>'Satisfaction with export sales during the past 3 years'</i> (Cadogan et al., 2009)
Efficiency	<i>'Export sales volume'</i> (Aaby and Slater, 1987)	<i>'Export Profitability'</i> (Cavusgil and Zou, 1994)	<i>'5 year change in export sales as a percentage of total sales'</i> (Rose and Shoham, 2002).
Adaptiveness	<i>'Competitiveness in terms of export sales'</i> (Hultman et al., 2009)	<i>'Competitiveness in terms of export sales'</i> (Souchon and Durden, 2002)	<i>'Quick to adapt our products to the needs of the customer'</i> (Kohli et al., 1993).

2.4.5 The Need for a Contingency Theory Approach

As it has already been argued, there is no clear consensus in the literature on the importance of many variables that have been identified as determinants of export performance (Zou and Stan, 1998). Consequently, other alternatives have been put forward. One such alternative is contingency theory, which holds that export success depends on the context in which a firm is operating (Robertson and Chetty, 2000). Indeed, Walters and Samiee (1990, p. 35) advocate this position by stating that “perspectives that emphasise the importance of the exporter's contextual situation offer a fruitful approach to a better understanding of determinants of export success. This implies that universally valid prescriptions for success are unlikely to be found, and that account needs to be taken of the nature of the firm's business position and the environmental context”.

The contingency element is also inherent in export performance measurement in that the latter is often “idiosyncratic to the type of firm and its setting” (Sousa, 2004, p. 17). For example, with the emphasis placed on the degree of the firm's involvement in export operations, “sales-related measures may be more important for firms in early stages of export development, while profit-related measures may be more relevant for more experienced firms” (Katsikeas et al., 2000, p. 506). This suggests that the adoption of a contingency approach in the selection of individual export performance measures, rather than a dogmatic view, is more likely to address the idiosyncrasies of the situation at hand (Kamath et al., 1987).

Contingency theory posits that performance is contingent on the relationship, or fit, between an organisation and its external environment (Calantone et al., 2003). Therefore, contingency theory recognises that solutions are situational rather than absolute and that they may become inappropriate under different environmental conditions (Wright and Ashill, 1996). In other words, there is no one best way to organise (Calantone et al., 2003). It should be also noted that “while a contingency factor is a moderator or conditioning variable, it plays a more specific role, so that not all moderators are contingencies. In the contingency theory of organizations the relationship is between some characteristic of the organization and effectiveness” (Donaldson, 2001, p. 6).

Since organizational environments change, organisations must adapt to their environments in order to survive and prosper. A main characteristic of the environment and in particular the export environment is turbulence (e.g. Crick et al., 1994; Kuivalainen et al., 2004). Environmental turbulence has received considerable attention in the literature as the environment is a key factor of contingency theory (Nonaka and Nicosia 1979; Glazer and Weiss, 1993; Robertson and Chetty, 2000; Sankar, 2003). Turbulent environments have been described as heterogeneous (diversity of market segments), hostile (high level of competitive intensity and uncertainty) and with high levels of interperiod change that creates uncertainty and unpredictability (Zahra et al., 1997; Zahra and Bogner, 1999; Calantone et al., 2003), According to Cadogan and Paul (1999), possible turbulence can be measured by studying the different environments in which the firm operates in terms of competitors, the market, technological and

regulatory turbulence. Market turbulence is further characterised by continuous changes in customers' preferences and in the composition of competitors (Calantone et al., 2003; Kuivalainen et al., 2004)

Environmental turbulence has also been defined as a broad construct, encompassing among other components the notion of uncertainty (Wright and Ashill, 1996). In turn, uncertainty has been linked with a) the lack of information regarding the environmental factors associated with a given decision-making situation, b) not being able to accurately predetermine the potential loss from an incorrect decision and, c) inability to predict with any degree of confidence the impact of environmental factors on the potential success or failure of a decision (Lawrence and Lorsch, 1967; Duncan, 1972). Environmental factors shape the manner in which a firm processes information (Daft and Weick, 1984; Mohr and Nevel, 1990). Furthermore, environmental factors have been shown to affect organisational structure and the perceived uncertainty of the managerial task (Menon and Varadarajan, 1992). For example, rigid processes (defined as structured processes based on previous organisational learning) produce "high quality routine decisions but do not allow the adaptability necessary for more complex decisions" (Bond, 1995, p. 50). Moreover, environmental conditions and characteristics influence decision-making through managerial perceptions (Prescott, 1986). Limits to information-processing capacity mean that increasing diversity leads to increasing uncertainty (Wright and Ashill, 1996). Also, the reduced life span of information in volatile environments similarly increases uncertainty (Glazer and Weiss, 1993). Therefore, "a key application of contingency theory is the long standing recognition of the importance of matching information-processing to environmental variety" (Wright and Ashill, 1996, p. 128). This is because the environmental uncertainty generated by environmental turbulence can significantly influence the relationship between effective information-processing and effective decision-making (Calantone, 2003). Ultimately, it should be noted that according to Glazer and Weiss, (1993) the congruence between the different ways in which information is used and the associated strategic decisions adopted is likely to affect performance depending on the level of marketplace turbulence.

2.5 DECISION QUALITY AS THE MEDIATOR BETWEEN SYMBOLIC USE AND EXPORT PERFORMANCE

As has already been argued in previous chapters, information use is defined as the process by which information is considered in decision-making (e.g. Deshpande and Zaltman, 1982; Moorman, 1992). The outcome of effective decision-making should be the generation of effective decisions (Dean and Sharfman, 1996). In turn, effective decisions are regarded as the crucial intervening variable between information use and performance (Piercy, 1987). In an export context, the literature poses a link between export marketing information use, export decisions and export performance (Souchon and Diamantopoulos, 1996). Indeed, “proper information utilisation enhances the quality of export management decisions, while at the same time satisfying the individual needs of decision-makers” (Leonidou and Theodosiou, 2004, p. 12).

Although, “there is no clear and obvious relationship between the development of the marketing information function and commercial success...To look for immediate ‘bottom-line’ impacts is to take a simplistic view of how marketing information is used, and to assume that an activity like market research makes decisions rather than simply supporting the decision-making process” (Piercy, 1987, pp. 207-208). Thus, effective export decisions are the intervening variable between information use and export performance in that optimal decisions through effective information use should result in higher performance outcomes (Goodman, 1993). An indirect potential relationship between export information use and export performance is, therefore, detected through the mediating effect of optimal marketing decisions (Leonidou and Theodosiou, 2004).

Nonaka and Nicosia (1979), propose six basic steps that seem likely to characterise the marketing decision-making process:

1. The provision of information that facilitates the recognition and definition of a marketing problem.
2. The identification of information relevant to the problem facing a marketing manager.

3. The storage of such information so that it can be retrieved by a marketing manager.
4. The analysis of the retrieved information that will lead to an optimal marketing decision.
5. The implementation of the decision, and
6. The monitoring of the consequences – both anticipated and unanticipated – of the implementation of the decision.

The first four steps of the decision-making process are also described as decision formulation process, the outcome of which should be high quality decisions (e.g. Dean and Sharfman, 1996; Borges et al, 2005). Therefore, the decision-making process could also be described as decision formulation plus implementation. This is consistent with the findings within the domain of the market orientation construct defined as a) organisation-wide generation of market intelligence, b) dissemination of the intelligence across departments, and, c) organization-wide responsiveness to it (Kohli and Jaworski, 1990). Furthermore, “the responsiveness component is defined as being composed of two sets of activities – response design (i.e. using market intelligence to develop plans) and response implementation (i.e., executing such plans)” (Jaworski and Kohli, 1993, p. 54).

At the heart of the decision formulation process presented above lies the processing of information. This is a process unfolding through stages, namely, the determination, acquisition, dissemination and use of information (e.g. Shankar, 2003; Leonidou and Theodosiou, 2004). It is through the dynamic and interrelated process described above that decisions are accomplished (Harrison and Pelletier, 2000). The way information is used in general comes as a function of the nature of the information requested, the particular sources from which it is acquired and also the extent to which it is properly disseminated (Souchon and Diamantopoulos, 1997). Given the chronological order implied among the stages of information-processing, it is posited that the activities carried out during the other two stages, (which necessarily precede the stage where information is used), are likely to play the role of antecedents' effects to information use (Shankar, 2003). Effective acquisition and dissemination of information mean little for decision-making unless this information is effectively put to use (Simons, 1996).

Since information use is the application of information in decision-making (e.g., Moorman, 1995), its purpose is to enhance the quality of the decisions made (e.g. Iselin, 1988; Vroom, 2003; Davern et al., 2008). In turn, decision quality is “the degree to which the best decision alternative is identified and selected based on the effective gathering and utilisation of relevant, available information” (Pasewark and Strawser, 1994, p. 283). Indeed, in order to reach a high quality decision, “information about the environment and possible consequences of alternative actions must be acquired and processed” (Pfeffer and Salancik, 1978, p. 266). Furthermore, “decisions should be judged as good or bad according to the quality of the process by which they were made” (Davern et al., 2008, p. 123). This means that if the decision formulation process (which involves the processing of information) is of high quality, then the outcome will be a high quality decision (Dean and Sharfman, 1996). In other words, the effective gathering and utilisation of information is likely to lead to the adoption of high quality decisions.

In turn, as Glazer and Weiss (1993) state, performance is a function of (high quality) managerial decisions, which in turn are a function of the information used by decision-makers. Indeed, ample evidence points to the existence of a relationship between high quality decisions and elements of performance (e.g. Oz et al., 1993; Parikh, 2001; Vroom, 2003; Hough and White, 2003; Davern et al., 2008). Specifically, “high quality decisions are expected to lead to more productive actions, quicker problem solving, and better organisational performance” (Eierman et al., 1995, p. 2), as well as to superior product quality, faster learning and competence development (Gima, 2003). In addition, decision quality is necessary for sustainable high performance (Amason, 1996).

2.5.1 Conceptualisation of Decision Quality

2.5.1.1. Conceptual Definitions

Decision quality has been examined within many different disciplines, including consumer behaviour (e.g. Keller and Staelin, 1987), information systems (e.g. Eierman et al., 1995; Davern et al., 2008), economics (e.g. Schulte and Gruner, 2007) and management (e.g. Korsgaard et al., 1995; Simons, 1996; Harrison and

Pelletier, 1998). These broad-ranging and different disciplines have resulted in different conceptual and operational definitions of decision quality. According to Ross (1974, p. 52-53), “there would seem to be many possible criteria to employ as definitions of decision quality, and depending upon which criterion is employed, the quality of information seeking and handling leading to that decision will be differently evaluated”.

However, the majority of the available definitions converge in defining decision quality as the selection of the best alternative among others which meets the goals and standards of the organisation within time, cost and environmental constraints (e.g. Keller and Staelin, 1987; Dean and Sharfman 1996; Vroom 2003; Kamis and Davern, 2005).

The effectiveness of a given organisation may be ascertained from the effectiveness of its management (especially at the senior level) and the associated decisions adopted (Harrison and Pelletier, 1998). Effective management at the senior level, requires high quality decisions (Simons, 1996). In this context, decision quality is not only the ability of decision-makers to process more information and evaluate more alternatives (Parikh, 2001), but also the outcome of accurate recommendations by experienced (top) managers based on valid assumptions and/or judgements (Snizek et al., 2004). As Yates (1990, p. 6), notes “Judgements form the cornerstone of most decisions. The quality of those decisions can be no better than the quality of the judgements supporting them”.

The following table provides a literature-based illustration of all the different conceptual definitions available on decision quality.

Table 2.6: Decision Quality (DQ) Conceptual Definitions

Various definitions of DQ	Illustrative sources
A decision that is based on accurate, reliable information (quality information) and the logical analysis and processing of this information	Matheson and Menke (1994)
“The degree to which the best decision alternative is identified and selected based on the effective gathering and utilisation of relevant, available information” p. 283	Pasewark and Strawser, (1994)
Quality decisions are those consistent with the strategy of an organisation	Dean and Sharfman, (1996)
A high quality decision is a decision that would be easy to implement	Simons, (1996)
The extent to which the decision addresses the problem.	Harrison and Pelletier, (1998)
Decision quality is the ability of decision-makers to process more information and evaluate more alternatives.	Parikh, (2001)
Quality refers to the analytical aspect of the decision. A high-quality decision is one in which the action chosen is consistent with the goals of the organisation and with potentially available information about the probabilities of actions leading to the attainment of these goals.	Vroom, 2003
Decision quality is defined as satisfaction with decision-making and associated decisions adopted	Sepucha et al., (2004)
Decision quality is defined as the outcome of accurate recommendations by experienced managers	Sniezek et al.,(2004)
“Group members’ confidence in the decision outcome and their perceptions of the usefulness of the decision outcome	Souren et al. (2004/2005, p. 194) Kim (2006)

2.5.1.2. Operational Definitions

Although it seems an intuitively straightforward concept, decision quality becomes thorny when trying to measure it objectively in a way that allows comparisons between decisions and across contexts (Simons, 1996). Given the difficulty of operationalising decision quality, “some researchers triangulate, assuming that multiple operationalisations will help to cancel the bias or error of each one” (Kamis and Davern, 2005, p. 10). For measurement purposes, decision quality has therefore been mainly treated as a multidimensional construct (e.g. Dooley and Fryxell, 1999). In fact, “any useful methodology must recognize the multiple competing objectives that are typical of real world decision situations and consequently decision quality needs to be evaluated in terms of multiple measures” (Davern et al., 2008, p. 126).

Table 2.7 provides an illustration of the different operational definitions available on decision quality.

Table 2.7: Decision Quality Operational Definitions

Various operational definitions of DQ	Illustrative sources
“Accuracy in human judgements as an acceptable proxy for decision quality” p. 881	Taylor et al., (1992)
Decision quality is operationalized as the deviation of a particular solution from the solution that would be provided by a normative strategy, such as expected value maximization or utility maximization.	Todd and Benbasat (1993)
Accurate, confident and timely decisions	Oz et al. (1993)
<p>This decision was based on best available information</p> <p>This decision was based on valid assumptions</p> <p>This decision helps the hospital achieve its objectives</p> <p>This decision makes sense in light of this hospital’s financial situation</p> <p>This decision is consistent with this hospital’s current strategy</p> <p>This decision contributes to the overall effectiveness of this hospital</p>	Dooley and Fryxell (1999)
<p>Decision quality = (Number of good points- Number of poor points) Total possible good points 100</p> <p>For a decision where all good alternatives are selected, quality equals 100. When the number of poor points exceeds the number of good points, quality is negative.</p>	Hough and White (2003)

Assimilating the different definitions of decision quality proposed in the literature, and the key themes incorporated therein, for the purpose of the present study the following working definition is put forward:

Decision quality is defined as the selection of the best decision alternative, consistent with organisational goals, based on the effective gathering and utilisation of relevant, accurate information about the probabilities of actions

leading to the attainment of these goals. Furthermore, it consists of accurate, easy to implement decisions, based on the valid assumptions of the export decision-makers, and consistent with the marketing strategy of an organisation.

2.6 CHAPTER SUMMARY

In this chapter a literature review on information use and export information use was presented. First, key theoretical constructs such as 'information' and 'knowledge' were contrasted and the different attributes of information were discussed. Second, an investigation of how the study of information use emerged and why it is important for marketing was presented. The three different types of information use namely instrumental, conceptual and symbolic were also identified and explained. Third, the study of information use was further explicated in an export setting. A detailed definition of information use was proposed and a review of past studies on export information use was presented. Background forces and the relationship between export information use and export performance were discussed. Symbolic use *per se* was also analysed in more detail as the focal construct of this study. Fourth, the literature on export performance was reviewed and the core theory by which this study is anchored was also presented. Specifically, contingency theory was argued to provide the theoretical underpinning for this study. Finally, the last section of this chapter identified decision quality as a mediator in the relationship between symbolic use of export information and export performance.

The construct of symbolic use of export information was only partially delineated in this chapter. The next chapter presents the methodology and findings of the qualitative study, the main purpose of which was to gain more insights into the construct of symbolic use.

Chapter Three: EXPLORATORY INVESTIGATION

The review of the literature revealed that the topic of symbolic use of export information is largely under-explored. Its conceptual entity as a distinct type of information use (of a multidimensional nature) has been recognised in the literature (Diamantopoulos and Souchon, 1996; Souchon et al, 2003; Toften and Olsen, 2003; Leonidou and Theodosiou, 2004; Toften, 2005). Nonetheless, although conceptual propositions of the potential impact of symbolic use on export performance exist (Vyas and Souchon 2003), little empirical research has been undertaken. As a result, little is known about how and why symbolic use of export information is likely to be related to export performance, and under what circumstances. Furthermore, empirical studies on information use have not tended to focus exclusively on symbolic use and as a result, measures of symbolic use so far give us a broad picture of this concept: no measures exist of the different hypothetical dimensions of symbolic use. Bearing in mind that a *“reason for using qualitative measurement is that for particular outcomes no acceptable, valid and reliable quantitative measurement exists”* (Patton, 1980, p.75) and that *“if relatively little is known about the phenomenon to be investigated, exploratory research will be warranted”* (Churchill, 1991, p. 70), in-depth qualitative research was conducted with a small sample of British exporters. Given the fact that the construct of symbolic use of export information was partially delineated in the literature review chapter, there was no need for a purely inductive or “grounded theory” approach to be adopted (Glazer and Strauss, 1967). The design of the exploratory phase served a dual purpose; it was partly confirmatory in the sense of seeking to further explicate the already existing conceptualisations of symbolic use (e.g. Vyas and Souchon, 2003) and partly exploratory, so as to gain more insights into the construct of interest. The data collected in this exploratory phase were analysed through the use of within-case and cross-case displays as per Miles and Huberman (1994) with the intention not only to be further used for hypothesis development, but also to create pools of items for the development of symbolic use measures.

3.1 METHODOLOGY

3.1.1 Objectives and Research Design Overview:

The objectives of the exploratory study are:

- ♦ To gather information/insights into how managers use information symbolically.
- ♦ To gather insights on the relationships between symbolic use and a) decision quality and b) export performance.
- ♦ For measure development, to generate a pool of items for each of the symbolic use dimensions. (Measures for decision quality and performance variables were drawn from established research).

3.1.2 Sample Design and Data Collection:

The population of interest comprised export decision-makers in the United Kingdom. In order for the appropriate sample units to be drawn, the Kompas electronic database was employed. The specific database was chosen because it offered:

- a) A user-friendly interface,
- b) A variety of different options for data display,
- c) A cost effective way to find all the information required as the database was readily available for all Loughborough staff and students at the time.

Potential respondents were first contacted by telephone. Through this process the researcher had the opportunity to: a) assess the respondents' suitability for participation to the study and, b) confirm that the data displayed by Kompas database were accurate and up-to-date (in terms of, for example, firms' contact details and respondents' names and position within the firm). After the initial telephone contact a formal confirmation letter was sent to those companies in an

attempt to raise further interest in the project. A copy of this letter can be found in appendix 3.1.

No rigid criteria were predetermined for the selection of the sample units based, for example, on firm size, export specificity, and turnover, given that there is no need for pure representativeness in a qualitative study (Miles and Huberman, 1994). The only choice criterion applied was related to the specific area where the potential respondents were located. In that respect, for convenience and cost reasons, priority and preference was given on the basis of geographical proximity to Loughborough University. As result of that, the initial samples consisted of export firms located in the Midlands.

A total of 100 exporters were initially contacted, and 10 were both eligible and interested in participating in the study. Given that 27 organizations proved to be ineligible (i.e., their contact details had changed or they were no longer involved in exporting), the response rate was 13.7%. Data collection commenced on 1st of August 2005 and was concluded on 3rd of October 2005. 10 interviews with “key informants” (Seidler, 1974) were conducted (four export managers, one export assistant manager, four senior export salespeople and the owner of a small company that did not have a specific export department so he was dealing with export matters himself). This slight diversity in the respondents’ export roles was deemed desirable as different angles or perceptions on export decision-making were seen as likely to identify different dimensions of symbolic use. The majority of the companies (nine out of ten) were small or medium sized with less than 250 employees (SME), with only one being a large company. The specific sample tends to resemble what Burns and Bush (2003) describe as a “convenient sample”. Given the exploratory nature of the qualitative research, this small sample was sufficient – not for generalizability purposes - but for gaining preliminary insights (Hart, 1987; Denzin, 1994; Burns and Bush, 2003).

3.1.3 Research Instrument

The literature on symbolic use of export information was loosely used in developing the questions to be asked in a semi-structured-undisguised interview guide. This interview guide was used in order not to deviate from the specific research objectives (see appendix 3.2 for a copy of the interview guide). It was divided into eight thematic parts, each one of which included a set of questions pertaining to a specific symbolic use dimension. However, the questions' content was designed in such a way as to allow room for flexibility for uncovering any potential new symbolic use dimensions. The purpose was for every single question to be suitable for inspiring a discussion on different ways of using information (in a symbolic context) and on aspects of the managerial decision-making process so that a partly inductive approach was used. More specifically, questions on information use and decision-making in general (also decision quality and implementation as outcomes of effective decision-making) generated open discussions during which the managers were encouraged to say anything they wanted pertaining to this topic. If there was an indication of something new in terms of an extra dimension, the idea was to explore the potentially new finding in the subsequent interview.

Furthermore, in order for the instrument to be adapted to each respondent, there was also some flexibility in terms of the questions' sequence (e.g. Smith, 1975; Lyberg and Kasprzyk, 1991). Nonetheless, the objective was to minimise any major changes in order for some degree of consistency to be achieved. This, in turn, would facilitate comparability between and across the cases, as a necessary prerequisite for further analysis, (Miles and Huberman, 1994). Practice assisted in this direction as the interview guide proved to be very functional. Very few adjustments or modifications were required, mainly concerning a small number of questions that had a relatively difficult formulation and, as result of that, were not completely clear to the respondents in the first place. Bearing in mind the fact that respondents were export people operating under time pressure and other constraints, the instrument was developed so that the 10 interviews would last no more than 30 minutes each. In this context, it should be noted that:

“There is an unfortunate tendency in the minds of many practitioners and buyers of qualitative research to equate time with quality. In relation to the individual interview, the longer it takes is often assumed to be an indication of maximum depth. We contend that this is misconceived and naïve...it is destructive to make the interview last longer than half an hour” (Gordon and Langmaid, 1988, p. 66).

The specific time frame for the interviews was also justified by the preliminary nature of this exploratory investigation. The purpose was to gain insights on how exporters used export information symbolically and not to look in depth at complex relationships such as, for instance, antecedents to symbolic use of export information.

3.2 ANALYSIS STRATEGY

While the processes preceding the generation of data (e.g. determining the sample size, designing the interview guide) had incorporated a certain degree of subjectivity, rigorous approaches to qualitative research were adopted as far as the analysis was concerned so as to obtain “methods which are credible, dependable and replicable in qualitative terms” (Miles and Huberman, 1994, p. 2). In line with this, all interviews conducted were duly taped and transcribed. A short abstract was also produced immediately after each interview, summarising all the main points raised (please see an example in appendix 3.3).

The next step involved coding. Although a provisional list of basic codes had been devised prior to fieldwork (including 8 master codes namely DIS, AFF, LEG, NU, HAP, SP, PS, SOC, representing the eight dimensions of symbolic use), sub codes were added (e.g. SOC-DQ, HAP-DI etc.) to further explicate the categorisation within each of the main codes. Not all codes were pre-specified and many additional in-vivo codes emerged as a result of the transcription process and the preliminary analysis, helping, in this way, in subsequent data collection. Miles and Huberman (1994, p. 10) define analysis as *“consisting of three concurrent flows of activity: data reduction, data display and conclusion drawing/verification”*.

The codes and themes that came to the surface during this stage of the analysis were used to design within-case displays.

3.2.1 Within-case Analysis

A display can be defined as an organised and reduced assembly of information which enables conclusions to be drawn. It can take the form of a matrix or a network according to which better suits the interview being analysed (Miles and Huberman, 1994).

“A causal network is a display of independent and dependent variables in a field study and of the relationships among them (shown by arrows). The plot of these relationships is directional, rather than solely correlational. It is assumed that some factors exert an influence on others: X brings Y into being or makes Y larger or smaller” (Miles and Huberman, 1994, p. 153). All 10 interviews required the use of networks as linkages between different variables were indicated by the respondents. There was also one matrix per case produced (a matrix is defined as a display which involves “the crossing of two or more main dimensions or variables (often with sub variables) to see how they interact” (Miles and Huberman, 1994, p. 239) whereby some important statements by the respondents were quoted (see appendix 3.4). The intention was for these quotes to be further used for measure development. All the within-case displays can be found in appendix 3.5.

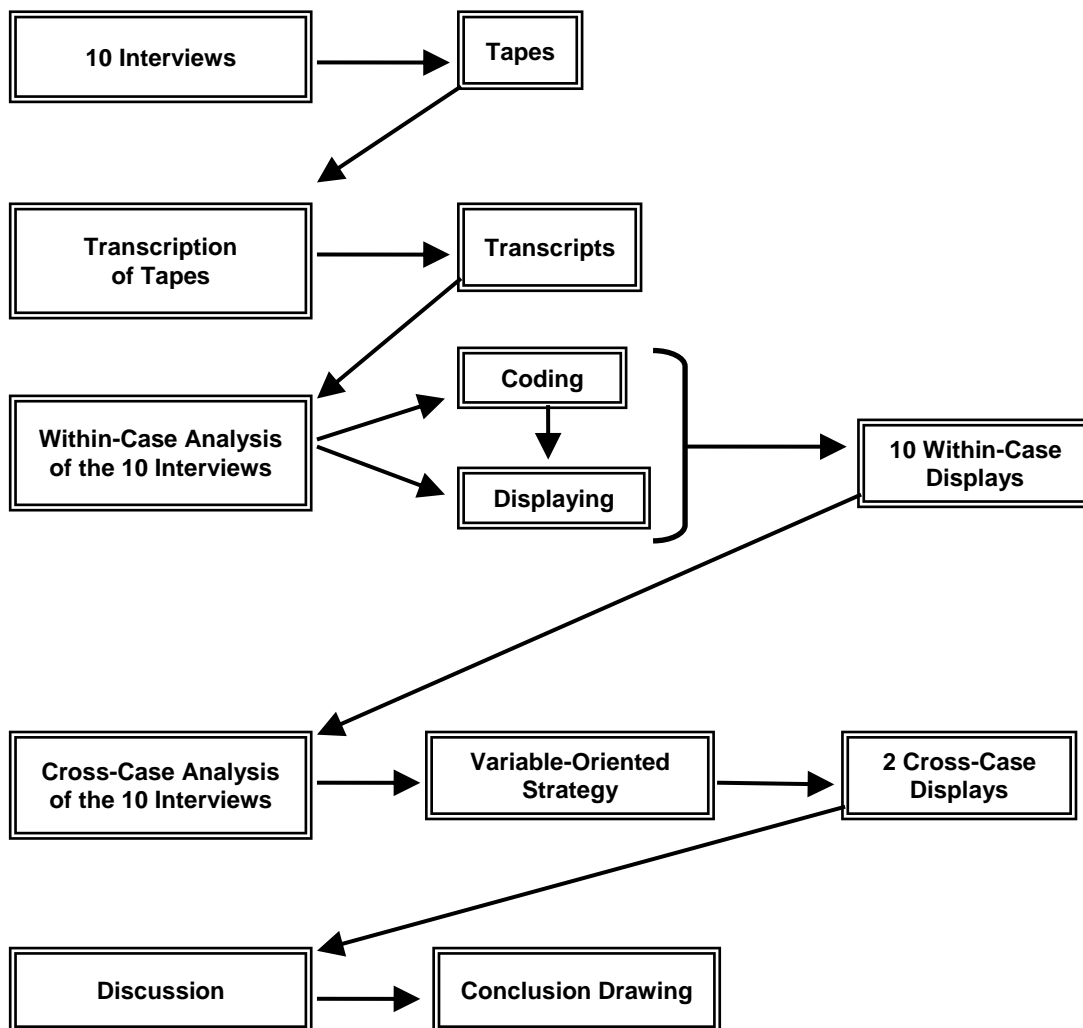
3.2.2 Cross-case Analysis

In order to deepen understanding and explanation but also to enhance generalizability to some extent (Miles and Huberman, 1994), cross-case comparisons were conducted. During this process, simultaneous examination of the multiple cases and within-case displays took place. The ultimate aim of this analysis was to ensure that the previously identified linkages were not wholly idiosyncratic.

Three different strategies are relevant in a cross-case approach: a) case-oriented, b) variable-oriented, and/or c) mixed strategy. According to Ragin (1987), when

the case is viewed as an independent, self-contained unit and any potential netting of patterns and associations is examined within the case, then we have an example of case-oriented strategy. In a variable-oriented strategy, “the building blocks are variables and their intercorrelations, rather than cases” (Miles and Huberman, 1994, p. 174). Last but not least, a mixed strategy is the combination of case-oriented and variable-oriented approaches, best used for looking into contrasts, similarities and constant associations (Ragin, 1987).

In this study a variable-oriented approach was adopted, essentially imposed by its objectives and its preliminary essence: to explore the nature of symbolic use of export information and gather more insights on how managers were likely to treat information in a symbolic fashion. The above relegates the matter to a more generic envisagement as opposed to providing detailed descriptions of specific firms (case-oriented strategy) or contrasting cases on standard variables (mixed strategy). Thus, the adoption of a variable-oriented strategy was deemed appropriate and resulted in two cross-case displays. All the aforementioned steps as far as the analysis strategy is concerned are presented in the following figure:

Figure 3: Analytical Procedure

3.3 FINDINGS AND DISCUSSION

In what follows the main results the exploratory stage of this study revealed are discussed, accompanied by the cross-case displays. The chapter concludes with the presentation of the overall conclusions in a summary form.

3.3.1 Dimensions of Symbolic Use of Export Information

The exploratory study revealed that past conceptualisations of symbolic use of information (e.g. Menon and Varadarajan, 1992; Souchon et al., 2003; Vyas and Souchon (2003), according to which different manifestations of symbolic use exist, were appropriate. The respondents revealed their existence in their own words.

According to the manager from company 10: “A lot of the time the information we do get is tilted towards the person or company that’s providing it. So you’ve got to take that into consideration”. This possibly suggests that the information exchange and use between providers and suppliers of information is likely to be done in a more network-like environment where trustworthiness and personal contacts play a crucial role. Use of export information was seen as likely to enhance the relationship between the manager and the information provider. Indeed: “We focus on building relationships with the customers and the distributors in our markets. We visit them regularly, talk to them on a regular basis. We also try to use the information they are feeding us to show our appreciation for it...” (Company 3). Also, the export manager of company 8 confessed to “...gathering and using information from them without really needing it, to avoid conflicts” and the manager of company 1 stated that “you will get fed some pretty poor information unless you start favouring the person who is giving you that information”. These implied that information was used as a diplomatic tool rather than any intrinsic value it may have that is, in such a way as to merely ensure better relationships with information suppliers (e.g. Diamantopoulos and Souchon, 1996; Menon and Varadarajan, 1992), also labelled social use (Vyas and Souchon, 2003).

As for using information in such a way as to appear more competent to others, the manager of company 6 stated: “You can use the information that you’re going to build your own presentation on, to make you look more professional and more competent at what you’re trying to supply”. And the reasons why such a behaviour might occur: “Confidence to other people – it gives other people confidence that you know what you’re talking about. So if I’m going to sell to you in Germany and I have also some information and I have information on your company as well and

everything else, everyone will think that this man has done his homework” (Company 3).

The managers interviewed were surprisingly forthcoming about their export departments misrepresenting export information on occasion (however, some of them excluded themselves or avoided any personal reference – which was expected, as it was a sensitive issue). Manager of company 1 said: “people must do it sometimes” whereas export manager of company 3 stated that people were likely to misrepresent the information they had at their disposal in order to “...support a gut instinct, a gut feeling, or try and justify a decision that’s already been made”. Finally, according to manager of company 7: “Well I think the motive could just be because they would be concerned about my reaction to the bad news. So I think basically the reason why people do it is because people do not like departing bad news to their bosses”. This is likely to indicate that distortion may also initially occur for the best of intentions, regardless of its final effect on the decision-making process.

Indications of haphazard use were also provided by some of the managers. More specifically, in the words of the manager of company 6, “Managers making decisions on well informed grounds: I doubt it. I’d be surprised”. Manager of company 1 stated that: “I think because information is difficult and sometimes costly to obtain or is seen to be costly to obtain, it’s not unusual I think for people in all aspects of business to approach decisions in a fairly cavalier sort of manner”. In addition, according to manager of company 9, “The trouble with too much information is you don’t read it. And you lose your way within the information. So you miss what you’re doing. Information really has got to be good and it’s got to be easy, to be specific to the area that you require...”. The above highlights the negative effect of information overload on managerial decision-making. In the words of the manager of company 6, information overload can: “...delay the decision. There’s a mass of information and you can perhaps get bogged down in being able to cut through masses of information to what is really the key points, can sometimes be difficult. Being able to see the wood for the trees if you like”. Indeed, “the presence of additional information has a seductive or distracting effect

that leads managers to focus on those decision-making components addressed by the information. If these are not the components that are most closely tied to success, overall performance may suffer” (Glazer et al., 1992, p. 214).

Sometimes information was not used at all. This is because: “Some decisions are made anyway. Important business decisions are made without information. And I’m talking about decisions such as: I would like my business to grow. I already sell everywhere in England, so how do I grow? I export - so that’s a decision that’s already made” (Company 7). Symbolic non-use of information took place when the manager made an intuitive decision, ignoring the available information. In the words of the export manager of company 5, “well, I think some people have an idea of what they want to do in the market. And maybe they’d get some export information but would still go ahead with their original plan really rather than use the information and maybe change their view, so – I think you know, people do use it but I think also it’s we want to do that so we’ll do it anyway.” Sometimes information is not available or not up-to-date. In this context, the manager of company 8 stated that: “I can make loads of decisions without having any export information. Quite often you find that the information available can be old information and not necessarily the latest information – but you’re on the spot. So that’s when your instinct takes over and you go on with the decision anyway”. Indeed: “I’m not going to make decisions unless I’m really confident in my own knowledge. If I haven’t got the information to hand that’s needed to support the decision I’m going to make then I would have to be really confident in my own knowledge to make that decision” (Company 2). Export manager of company 6 stated that, “... the decision makers may not be the people that are actually reading the information. But the people that are reading the information will be part of the instigation of what happens with it”, implying likewise, that information may be deliberately withheld from the decision-maker – also known as “knowledge disavowal” (Deshpande and Kohli, 1989).

It has been argued that effective information use should lead to effective decisions based on the attainment of organisational goals (Amason, 1996). Political behaviour, however, has long been recognised as an aspect of organisational decision making. Political processes are organised around the self interests of

individuals or groups (Vyas and Souchon, 2003). If these interests are in conflict with those of the organisation, political activity will make it less likely that information is going to be used in such a way so that the decisions reached will serve organisational goals (Dean and Sharfman, 1996). Indeed, export manager of company 4 revealed that “people do it all the time. They would use information just for their ego” and also that this practice: “is not necessarily a good thing, no. The information is there to be used, for good reasons, not for political infighting.” (Company 8).

Almost all respondents pointed towards heavy reliance on instinct/gut feeling when making export decisions. For example, the manager of company 1 was surprisingly candid about it, explaining that: “I do it. I run the business on a huge amount of instinct. So instinct says I should do it but can I afford it? So if I can afford my instinct I do it, I really do”. Furthermore, “...there are occasions where you’re just making almost a gut decision. I probably tend to do it a bit more particularly because of my personal knowledge and experience especially of the Middle East. I probably tend to make more of those types of decisions than I should do” (Company 3). The above quote suggests that experienced managers are more likely to rely on their instinct or intuition than less experienced ones. The situation when information is used to legitimate decisions reached on the basis of intuition or managerial assumptions (Sabatier, 1978) was suggested by some of the interviewees. More specifically, the manager of company 6 clearly stated that “Gut feeling is probably the most important thing. Information comes the next step after...you get the feeling that you could be successful, then you try to achieve the information to justify your decisions”. Furthermore, “...if you have that feeling, you can convince your colleagues, your superiors that it’s the right decision, then yes, information does play a big factor” (Company 7).

Affective use is defined as the “use of export information to bolster levels of confidence in the decision to be made” (Vyas and Souchon, 2003, p. 72). This type of use is stemming not from the intrinsic value the information may have in the decision-making process but, instead, from using information to feel more confident with the decision to be made (Menon and Wilcox, 2001). In that respect the manager of company 4 stated that: “You have to be confident. But you can’t

always be. What's for sure is that you've got to show everyone that you have the confidence, so you use the information, that's for sure".

The following table consists of a pool of items based on the information the export managers provided with regard to manifestations of symbolic use. This pool of items is intended to be used for measures development.

Table 3.1: Managerial Quotes for Symbolic Use

<p><i>We use export information specifically to feel more confident about our export decisions</i></p> <p><i>Using export information is a good way to make other people in the firm receptive to exporting</i></p> <p><i>When we are stressed about a decision to be made we tend to look for more information to reduce that stress</i></p> <p><i>You will get fed some pretty poor information unless you start favouring the person who is giving you that information</i></p> <p><i>I run the business on a huge amount of instinct</i></p> <p><i>Information is not used when it is difficult and sometimes costly to obtain</i></p>	<p>Company 1</p>
<p><i>Our primary purpose in using export information is to feel secure in our export decisions</i></p> <p><i>Readily available export information has to be consciously avoided / ignored</i></p> <p><i>The information is there to be used, for good reasons, not for political infighting</i></p> <p><i>It is not unusual I think for people in all aspects of business to</i></p>	<p>Company 2</p>

<p><i>approach decisions in a fairly cavalier sort of manner</i></p> <p><i>People would misrepresent information to support a gut feeling</i></p> <p><i>People would misrepresent information to justify a decision that has already been made.</i></p>	
<p><i>If we make an export decision based on a “feeling”, we are not allowed to implement this decision unless we back it up with relevant export information</i></p> <p><i>We focus on building relationships with the customers and the distributors in our markets. We visit them regularly, talk to them on a regular basis. We also try to use the information they are feeding us to show our appreciation for it</i></p> <p><i>Sometimes export information is modified if it contradicts what we know</i></p> <p><i>People are likely to misrepresent the information at their disposal to support a gut-feeling or justify a decision that is already been made</i></p> <p><i>Having too much export information at one’s disposal can delay a decision</i></p>	Company 3
<p><i>We can make quick export decisions by improvising, but normally have to back them up later by using appropriate export information</i></p> <p><i>You use information in such a way as to show other people that you are confident with the decision to be made</i></p> <p><i>People would use information just for their ego</i></p>	Company 4
<p><i>Export decisions based purely on experience have to be confirmed with information</i></p>	Company 5

<p><i>They would probably tend to expand on that information they have to justify what they're doing</i></p> <p><i>You can use information in such a way as to make you look more professional and more competent</i></p>	
<p><i>Our primary purpose in using export information is to feel secure in our export decisions</i></p> <p><i>We do not have the time to use export information to make export decisions</i></p> <p><i>It's difficult to be too choosy about which export information to use</i></p> <p><i>You can use the information that you're going to build your own presentation on, to make you look more professional and more competent at what you're trying to supply</i></p> <p><i>Managers making decisions on well informed grounds is a rare occasion</i></p> <p><i>Information overload can delay a decision</i></p> <p><i>Gut feeling is probably the most important thing. Information comes the next step after.</i></p> <p><i>We have to rely on the export information that is available even if it's not exactly the information we need at that point of time</i></p>	Company 6
<p><i>We deliberately use export information to feel good about the decisions we make</i></p> <p><i>Export decisions based on intuition are justified afterwards with export information</i></p> <p><i>Important business decisions are made without information</i></p>	Company 7

<p><i>We can use export information to enhance the standing of the export function</i></p> <p><i>People would misrepresent information to ‘suppress’ bad news</i></p> <p><i>The intended meaning of export information sometimes has to be changed when we use it</i></p>	
<p><i>Export people use information in such a way as to create a good impression</i></p> <p><i>Decisions are usually made based on experience rather than export information</i></p> <p><i>Export managers can make loads of decisions without information</i></p> <p><i>The information is there to be used, for good reasons, not for political infighting</i></p> <p><i>We gather and use information from the information providers without really needing it to avoid conflicts</i></p> <p><i>We sometimes use export information to consolidate the export function’s position within the firm</i></p>	Company 8
<p><i>We sometimes use export information to keep export information providers happy</i></p> <p><i>The majority of information acquired by the company is used</i></p> <p><i>The more information I’ve got the better quality decision I’m going to make</i></p> <p><i>People tend to expand on that information they have to justify what they’re doing</i></p>	Company 9

<p><i>Export information is often used to build awareness of, and commitment to, exporting</i></p> <p><i>Too much information could either slow the process down and delay a decision or it could possibly make a decision less sound</i></p>	
<p><i>We show our export information providers that we use the information they have supplied us with in order to obtain future smooth access to export information</i></p> <p><i>There are occasions where you're just making almost a gut decision</i> <i>Sometimes, readily available export information is consciously avoided / ignored</i></p> <p><i>A lot of the time the information we do get is tilted towards the person or company that's providing it</i> <i>Our use of export information increases the confidence the other departments have in us</i></p> <p><i>Misrepresenting information could have some quite serious consequences on the decision making process</i></p> <p><i>Export information is used to validate or confirm our decisions, after the fact</i></p> <p><i>We sometimes have to ignore export information that contradicts our own perceptions</i></p>	<p>Company 10</p>

3.3.2 Relationship between Symbolic Use Dimensions and Decision Quality

More than half of the interviewed managers (7 out of 10) provided some insights regarding the potential relationship between some of the symbolic use dimensions and decision quality. With regards to information distortion, the export manager of company 1 argued that: "...if they're misrepresenting the information and it's not

what it is then probably the decision wouldn't be so good." Furthermore, "I can well understand that if one is being fed information which sounds quite positive when there is a very sizeable negative in beneath, then...I think misrepresenting information could have some quite serious consequences on the decision making process" (Company 9). Another negative comment on the potential relationship between distortion of information and decision quality was made by the manager of company 1: "Well, suppose something like that had happened, then future decisions would be very much more difficult to implement because the level of trust and confidence in that particular export manager's judgement is called into question isn't it?" However, the manager of company 4 pointed to exactly the opposite direction by stating that: "I don't think misrepresenting information has a negative impact because what tends to happen then is that you've got other factions that will actually be going in the opposite direction. So it tends to balance out. Ultimately I think they're all put into a pot and the right decision normally will come out in the end."

The level of experience was found likely to play a significant role between non use and decision quality. The manager of company 1 stated that: "the more freedom and flexibility you have to make your own decisions without being questioned to a certain degree for it, the better it is in terms of making a good and swift decision. So then you can rely on an instinct type decision once again based on experience...and I guess because you are in that position where you got the experience, hopefully you are in a trusted position by top management to have that freedom and flexibility."

Information use to increase level of confidence also seemed to be positively related to decision quality. "For me, the more information I use the better quality decision I'm going to make" (Company 7). Furthermore, "Speaking personally, I feel more confident when I use information. I would always try and use more information, to try and be as sure as possible that the right decision was made, with the right outcome." (Company 2)

Use of information to increase the standing of exporting within the firm was argued to be related indirectly to decision quality through the mediating role of top

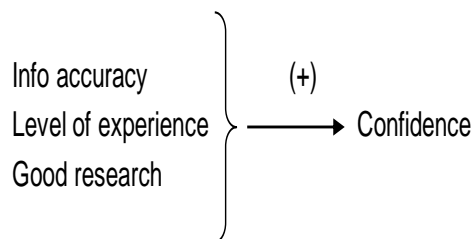
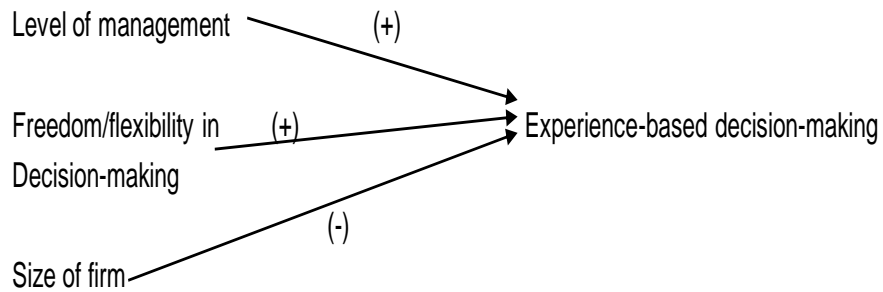
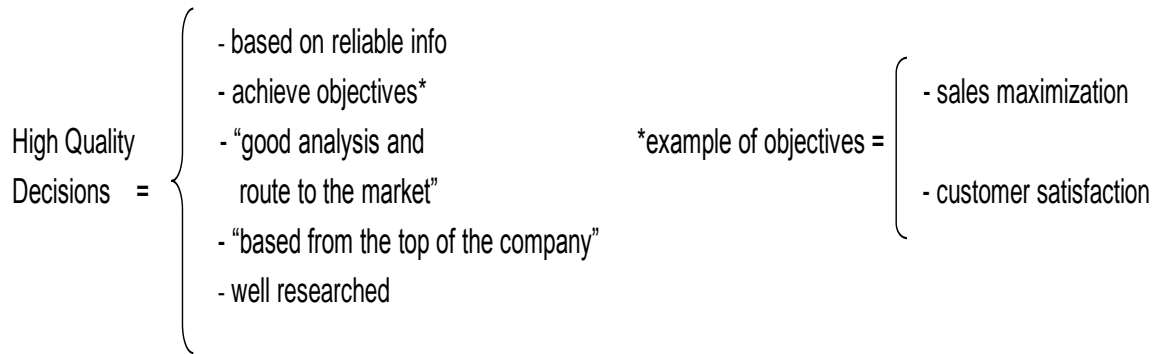
management's support. In this instance, manager of company 8 claimed: "In my case I would use information to sell the firm's export operations within the firm and get support from a director to give me more confidence in what I was doing, i.e.: so that I was covering my own back I suppose is a good way of putting it." After all, "a quality decision should be based from the top of the company, from the chief executive down. It's something that if the chief executive has got an involvement then there is a very good chance that you've got a follow through from the top level through to the lower levels" (Company 4). Furthermore, "It becomes less of a mystery then as well. There is a tendency for export to be almost an area that no-one's too sure about. They don't know about it, they don't understand it, but if you can get more information out to those people then it becomes less of a mystery and they become more receptive to it, to the export business. Then it's also more likely export decisions to receive the backing of the top managers that perhaps is needed to be implemented" (Company 2).

Use of export information in such a way as to appear more competent to others within the firm was actually likely to be beneficial for the organisation as: "It makes other people have confidence in you. It's also good for the export function because this confidence reflects on the customer and the decisions made" (Company 10).

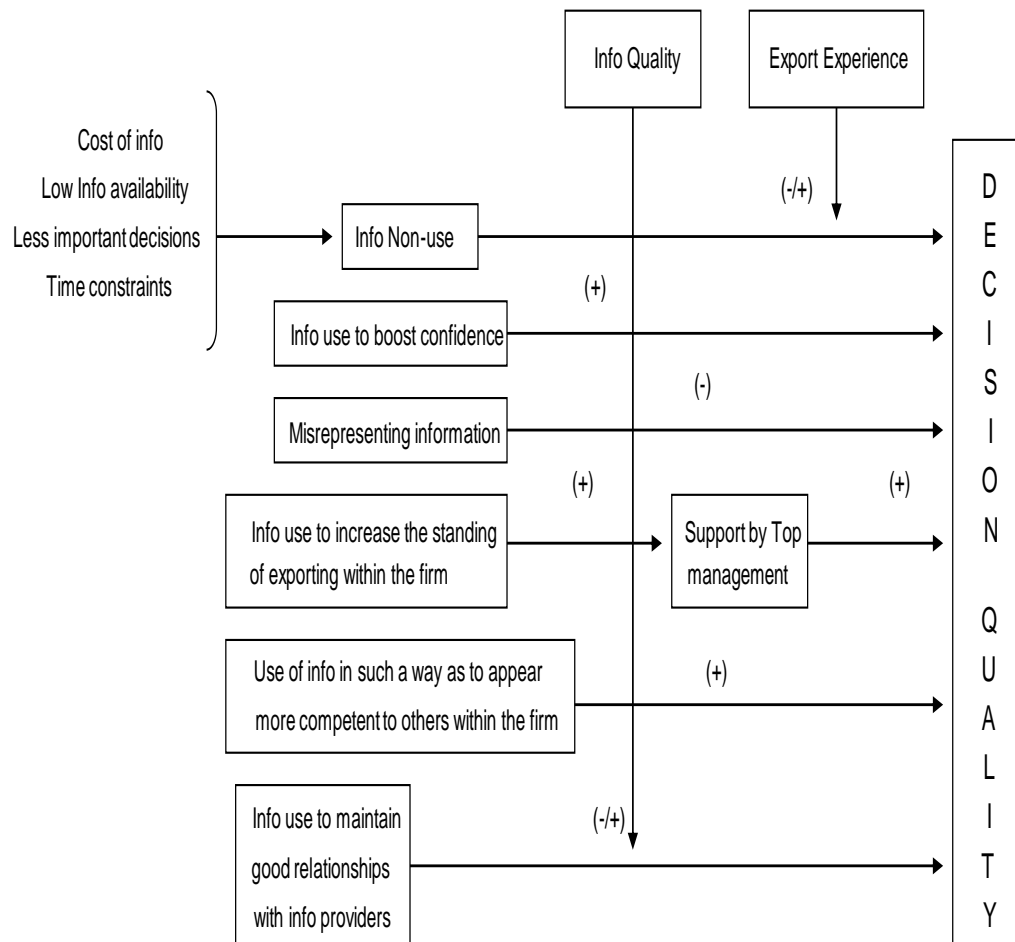
The impact of cultivating good relationships with information providers through visible information use on decision quality seems to be related to the quality of the information provided. Indeed, according to manager of company 8: "I would like to think that a good export decision depends on good information; on good quality of information". Furthermore, the manager of company 4 stated that "we tend to find that the companies coming to you, they've got a reason – not just to sell the report to you, which they've probably done for a number of others. They just tweak it a bit to suit your requirements".

As already mentioned, the analysis undertaken resulted in two cross-case displays in the form of networks linking the identified dimensions of symbolic use to their outcomes, and these are presented below:

Cross-case display 1 – Decision quality/experience-based Decision-making



Cross-case display 2 – Symbolic Use Dimensions and Decision Quality



The first cross-case display provides more insights on the delineation of decision quality. According to the interviewed managers a quality decision should be based on reliable and accurate information, good analysis and be well-researched. Furthermore, it should help the firm achieve its objectives. When asked to provide examples of such objectives, all managers agreed that the main objective was

sales maximisation, whereas half of them added increased customer satisfaction as another major objective. The above are in line with the literature according to which quality refers to the analytical aspect of the decision. More specifically, a high quality decision is one in which the action chosen is consistent with the goals of the organisation and with potentially available information about the probabilities of actions leading to the attainment of these goals (Vroom, 2003). The interviewed managers also suggested that decision quality should be considered as the outcome of accurate recommendations by experienced (top) managers.

Finally, cross-case display 1 also highlights the effect of some antecedents to experience-based decision-making. For example, higher freedom and/or flexibility in the decision-making process are likely to encourage the making of decisions based on experience. Moreover, the combination of high level of managerial experience and accurate information is likely to boost confidence with the decisions to be made.

The second cross-case display depicts the findings the qualitative study revealed with regard to the potential relationship between manifestations of symbolic use and decision quality. For example, misrepresenting the information at ones disposal is likely to be negatively related to decision quality. Furthermore, the presence of some moderating effects between symbolic use and decision quality is highlighted. For example, use of export information to maintain good relationships with the information providers is likely to be moderated by information quality. In that respect, in the presence of high/low information quality, decision quality will be high/low.

3.3.3 General Assessments – Overall Conclusions

The general conclusions that this exploratory study revealed are the following:

- Export managers regularly use information symbolically.
- Symbolic use of export information is a multi-dimensional construct.

- The interviews provided some evidence to support the conceptual solidity and hypostasis of the eight dimensions outlined by Vyas and Souchon, (2003).
- Specific symbolic use dimensions seemed to be related to decision quality. This relationship was moderated and/or mediated by a certain number of different variables for each one of the specific dimensions. More specifically, export experience was indicated to moderate the relationship between info non-use and decision quality. Also, support by top management and information quality were revealed as potential mediators in the relationship between information use to increase the standing of exporting within the firm and information use to maintain good relationships with information providers and decision quality respectively.

In this chapter, a step by step qualitative methodology was presented followed by some very interesting insights by the interviewed managers vis-à-vis the conceptual hypostasis of the symbolic use dimensions and their potential relationship with decision quality. The specific insights gained in this chapter will be further elaborated, complemented and coalesced with the extant literature on export information use in order to develop specific hypotheses for testing. These are developed along with the conceptual framework in the following chapter.

Chapter Four: CONCEPTUALISATION AND HYPOTHESES

In this chapter, a conceptualisation of the relationship between symbolic use of export information and export performance is proposed. This conceptualisation is based upon a combination of the literature review and the exploratory study. A conceptual framework of symbolic use of export information is presented and the specific hypotheses to be tested are outlined.

These hypotheses are concerned with the potential relationship between symbolic information use and export performance through the mediating variable of decision quality. The conceptual framework is underpinned by contingency theory as environmental conditions are likely to influence the decision quality – performance relationship (Prescott, 1986). Indeed, as Weiss, (1993, p. 509) states, “successful performance will depend on the congruence between the level of marketplace turbulence and the information-processing style and associated decisions adopted”.

The specific chapter is divided in three major subunits. The first one pertains to the selection of the unit of analysis, providing justification of why the functional level of analysis is the appropriate one. As part of this, the implications, in terms of compatibility of the symbolic use dimensions to the functional level, are discussed. The second subunit relates to the development of specific hypotheses linking the symbolic use dimensions to decision quality and, in turn, decision quality to export performance. This is the core part of this chapter which concludes with the provision of a conceptual model that depicts all the hypothesised relationships. The chapter concludes with a summary.

4.1 UNIT OF ANALYSIS

There is consensus that, "export performance is a multidimensional construct that needs to be considered in the light of the unit of analysis" (Souchon and Diamantopoulos, 1996, p. 65). It therefore follows that any study examining antecedents to export performance also requires a clear unit of analysis. In this

context, symbolic use of information can be seen from either a collective perspective (i.e., organisational, departmental, venture, and/or functional) or an individual perspective (Connolly, 1977). Indeed, “the way information is used is likely to be a function of the presence of organisational systems or processes, in addition to individual manager activities” (Moorman, 1995, p. 318). Therefore, in a study of how the different dimensions of symbolic use are likely to be related to export performance, a well-defined and appropriate unit of analysis is required.

While it is true that export information is used by individual decision-makers (Strieter et al., 1999), for a number of reasons a unit of analysis at the individual level would not seem appropriate for this study. First, information use is closely related to organisational learning (e.g. Sinkula, 1994). This is because an organisation is said to be learning when, “through its processing of information the range of its potential behaviours has changed” (Huber, 1991, p. 89). Drawing on the literature on organisational learning, most models use “individual learning as the foundation yet acknowledge that organisational learning is more than the sum or accumulation of learning by individuals and identify organisational factors that may influence this learning, such as processes that facilitate knowledge flow between levels of the organisation” (Casey, 2005, p. 132). Learning-related processes that have been identified are for example, knowledge acquisition, information distribution, information interpretation and organisational memory (Huber, 1991). More specifically, it is through the systematic collection, analysis, storage, dissemination and use of information that organisations are allowed to learn non-vicariously (Popper and Lipshitz, 2000). Therefore, organisational learning is presented as a social process affected by certain contextual factors, with information use playing a key role in the way individuals learn (Simon, 1991). Although individuals and organisations are part of interconnected learning systems, the knowledge and skills to be learned are social products (Chene, 1983). As such, as individual learning is shaped by the organisational context in which it takes place (Antonacopoulou, 2006). Indeed, “the organisation may affect individuals’ learning, but the reverse is less evident to be the case” (Antonacopoulou, 2006, p. 468). Thus, as Menon and Varadarajan (1992, p. 57) explain, “knowledge use (in general) should be conceptualised as a sociological

construct and [...] the organisation rather than the individual should be defined as the user”.

Previous research has also studied export information use and export performance at the project/export venture level (e.g. Richey and Myers, 2001; Diamantopoulos and Siguaw, 2002; Lages and Montgomery, 2005; Sousa, 2008; Hult et al., 2008; Hultman et al., 2009). However, the majority of export firms tend to export to multiple markets which could render generalisation from the product/export venture level very difficult (Richey and Myers, 2001). Furthermore, in most exporting firms “export operations are not organised according to export ventures, as export activities are continuous, joined up and interdependent. In these businesses, therefore, it would not make sense to examine export success at the venture level, as the venture would not be a viable unit of analysis” (Sousa et al., 2008, p. 8).

A potential use of an organisational unit of analysis (e.g. overall business performance as the dependent variable) may obscure any export-specific outcomes of symbolic information use (such as export profitability) (Vyas and Souchon, 2003). Thus, the organisation at large is also not fully appropriate for the purposes of this study.

Conversely, the functional level “focuses on the overall patterns of export information use in firms and places greater emphasis on company-specific (e.g. export experience) and environment-specific (e.g. number and location of export markets) variables” (Souchon et al., 2003, p. 110). Within this dialectic, the export function is an appropriate unit of analysis because most of the small and medium sized exporting enterprises in the UK do not have a dedicated export department and it is not unusual for salespeople or managers to deal both with exporting issues and decisions as well as domestic market ones (e.g. Williams 2003; Vyas and Souchon, 2003). Further, given, that SMEs represent 99% of all UK companies and account for almost three-fifths of employment (Williams, 2003), a choice other than the export function (such as the export department, for example) would have ruled out the majority of those companies from being eligible to participate to the study. This in turn, would have most likely eroded the features of

the study and would have also reduced any prospect for generalisability of the results. In conclusion, the unit of analysis for use is therefore the export function.

4.2. DETERMINING THE APPROPRIATENESS OF SYMBOLIC USE DIMENSIONS

The specification of level of analysis for studying performance outcomes of symbolic use of export information has strong implications for determining the appropriateness of symbolic use dimensions. More specifically, while most of the dimensions drawn from the literature and the qualitative study are functional by nature, one is not, namely self-promoting use. The desire to use information in such a way as to appear competent in the workplace is an individual-level construct (Vyas and Souchon, 2003). If self-promoting use of information takes place only with the intention to accommodate the personal interest of a specific individual, then it is clear that this dimension of symbolic use is more compatible with an individual level of analysis. The outcomes of symbolic use that this study is concerned with are functional (i.e., export performance), rather than individual (e.g., career advancement). As a result, self-promoting use is incompatible with the chosen functional unit of analysis.

On the other hand, there could also be a case in which a decision-maker makes deliberate use of information in such a way as to visibly portray competence and knowledge to others in the firm (Feldman and March, 1982), with the sole intention of gaining power in order to shift the balance of power within the organisation in favour of his/her department (Brown, 1994). In what follows, it will be shown that it is more appropriate for this kind of self-promoting use to be subsumed under 'a power-seeking use' notion. Power-seeking use (as well as self-promoting use) is one of the original dimensions that derive from the Vyas and Souchon (2003) conceptualisation (see table 2.4, page 69).

Brown et al. (2005) define power as the ability to exert control over the decisions or actions of others. The taxonomy of power within organisations proposed by French and Raven (1959) can be both relevant and prevalent in export marketing

(Moore et al., 2004). These authors delineate five sources of power namely, reward, coercive, legitimate, referent and expert power. However, most of the studies that consider power tend to operationalise power in terms of coercive and non-coercive (e.g. Lusch and Brown, 1982). Within this categorisation, expert, referent, reward and legitimate are considered the non-coercive, non-financial sources of power (Sahadev, 2005).

According to the literature, power is achieved through possession of scarce resources, including by being 'an expert'. If someone has 'expert power', this expertise will provide them with the ability to swing decisions simply because one is an expert in the decision area (Doherty and Alexander, 2005). This can be a non-coercive approach for influencing others through the building of trust and confidence and credibility (Moorman et al., 1992; Sahadev, 2005). In an exporting context, this might mean that if the export department has 'expert power', exporting decisions are more likely to be left to the export function, since they are perceived (by others in the firm) as being experts on all things to do with export marketing. As such, since people in the export function are experts in all things to do with exporting, they are likely to be deferred to when it comes to making many kinds of strategic decisions within the export domain. However, if others do not see the export people as being experts, then the likelihood to get interference from others outside the export unit when it comes to making export-related decisions (e.g., market entry decisions, product modification decisions) is greatly increased (Samiee and Walters, 1990; Vyas and Souchon, 2003; Cadogan et al., 2006). Corporate interference in export decisions is likely to reduce the level of export coordination, impede effective communication and, ultimately lower the level of export market orientation with potentially severe performance implications (e.g. Cadogan et al., 2006; Murray et al., 2010).

The conclusion is that this kind of 'self-promoting use' argued above (which should more accurately be labelled 'export function-promoting use') can be subsumed under a broad notion of "Expert Power", which is all about being seen as competent, or expert (assuming that competence and expertise overlap. The qualitative study also supported this. For example, the manager of company 8 stated: *"There is a tendency for exports to be almost an area that no-one's too*

sure about. They don't know about it, they don't understand it. But if you can get more information out to those people then it becomes less of a mystery and they become more receptive to it, to the export business". This is a kind of power-seeking use of information, since it is the careful and selected use of information, in order to enhance the perception, within the firm, that the export function is important. The difference with self-promoting use is that in this case the single, ultimate goal is to enhance the power of the export function and not of the individual.

However, this is only one kind of power-seeking use. There is also another kind of power that is related to the idea of "Legitimate Power" – that is the extent to which the export unit contributes to the business' success, or is seen as central to business success (French and Raven, 1959). For instance, if the export unit is responsible for 80% of the firm's sales, then the export director may find it relatively easy to secure resources away from domestic marketing. However, if the export unit is responsible for 2% of the firm's sales, then the export director may find it relatively difficult to swing resources away from domestic marketing. Similarly, if the firm sees its future as being increasingly dependent on exports, then the export function's future importance provides it with greater legitimacy – which can help shape decisions and activity (Alcantara et al., 2006). Since Legitimate Power comes from exporting's contribution to business success, if information can be used to enhance perceptions of exporting's contribution to the business, or of its future importance, then that use could also be seen as power-seeking (Vyas and Souchon, 2003). In this respect, export managers might try to shape others' views of how important exporting is/will be, by selectively choosing/using information that gives the impression that export sales are set to grow rapidly and/or that domestic demand will falter, and/or that exchange rates will work in the firm's favour (Samiee and Walters, 1990). Using information to shape others' views of exporting's strategic importance, and in that way enhancing the power of the export function, is also likely to reduce the likelihood of conflict and to increase longer-lasting persuasion between the export department and other departments within the firm and, ultimately, to enhance export performance (Raven and Kruglanski, 1970; Cadogan et al., 2001). This is because, given the export-non export dichotomy that often exists within exporting firms (Samiee and

Walters, 1990), this particular type of symbolic use may secure financial cooperation for adapting the product mix to foreign demand (and thereby serving export customers needs better). Thus, a powerful exporting function may be in position to secure the cooperation of other departments within the firm more easily which, in turn, is likely to be conducive to the optimisation of the product or service offering to foreign markets (Vyas and Souchon, 2003).

To conclude the above discussion:

- 1) Self-promoting use can be incorporated into the Expert Power-seeking use component for reasons of compatibility to the selected unit of analysis.
- 2) Power-seeking use can be divided into two sub-dimensions, namely Expert Power-seeking use and Legitimate Power-seeking use.

4.3 HYPOTHESES DEVELOPMENT

In this section, specific hypotheses linking the symbolic use dimensions to export performance are put forward. As already argued in section 2.5, quality decisions are seen as the intervening variable between information use and export performance in that optimal decisions through effective information use should result in higher performance outcomes (Goodman, 1993). Moreover, *decision quality is defined as the selection of the best decision alternative, consistent with organisational goals, based on the effective gathering and utilisation of relevant, accurate information about the probabilities of actions leading to the attainment of these goals. Furthermore, it consists of accurate, easy to implement decisions, based on the valid assumptions of the export decision-makers, and consistent with the marketing strategy of an organisation* (see section 2.5, page 83). Therefore, the symbolic use dimensions namely, a) legitimating use, b) social use, c) symbolic non-use, d) affective use, e) information distortion, f) expert power-seeking use, g) legitimating power-seeking use and, h) haphazard use will first be linked to decision quality. Following this, hypotheses will be developed linking decision-quality to export performance. It should be reminded that the model is anchored by a contingency theory perspective. However, the use of decision quality as a

mediator and a number of un-moderated relationships as far the first part of the model is concerned (the symbolic use dimensions – decision quality relationships) emerged from the qualitative study as already shown in chapter 3.

4.3.1. Legitimizing Use

In the context of legitimating use, it has been argued that information is used mainly to justify decisions based on other grounds, which are prior to an adequate analysis (Sabatier, 1978). These grounds may include prior managerial assumptions (e.g. Deshpande and Zaltman, 1987) and intuitive decision-making (e.g. Sinclair and Ashkanasy, 2005). Indeed, “using information, asking for information, and justifying decisions in terms of information have all come to be significant ways in which we symbolize that the process is legitimate, that we are good decision-makers, and that our organisations are well managed” (Feldman and March, 1981, p. 178). One main reason for using information in a legitimating way is to justify decisions based on intuition (Sinclair and Ashkanasy, 2005). This practice is further exacerbated by increased time pressure (Kuo, 1998) and inadequate information (Goodman, 1993). Time pressure to make a decision and lack of information are very common in an export environment (Vyas and Souchon, 2003). Indeed, most foreign markets are characterised by fast-moving, intense competition (ling-yee and Ogunmokun, 2001). Under these circumstances, exporters operate under severe time constraints and are forced to make swift, proactive and, sometimes, unplanned decisions as they strive for competitive advantage (Kaleka, 2002; Leonidou and Theodosiou, 2004). Furthermore, export information in particular is not always readily available. For example, due to the poor information technology infrastructure of certain export destinations, secondary sources can be scarce in developing countries (Craig and Douglas, 2005). All these consist of valid reasons for exporters to seek for alternative ways of making decisions, with intuition being a main choice (Vyas and Souchon, 2003).

Indeed, intuitive decision-making is becoming more and more common (Sinclair and Ashkanasy, 2005; Leybourne and Sadler-Smith, 2006; Hodgkinson et al., 2009). In an export context especially, the increased levels of environmental complexity and turbulence (Leonidou and Katsikeas, 1997) add considerably to

the uncertainty experienced by decision-makers. In turn, this increased uncertainty warrants new patterns of thinking and making decisions which include reliance on intuition (Parikh, 1994), as a quick and proactive way to face the challenges imposed by the speed of environmental change (Crossan and Sorrenti, 1997).

Intuition is often derived from extended business experience (Vyas and Souchon, 2003). Given that experience reflects familiarity with the market, what is already known (Gronhaug and Graham, 1987), the more experienced a company, the more likely it is to rely on that experience as a source of information. Johanson and Vahlne (1977, p. 26) describe experiential knowledge as “the critical kind of knowledge [...] because it cannot be so easily acquired as objective knowledge. Furthermore, on the basis of objective market knowledge it is possible to formulate only theoretical opportunities, experiential knowledge makes it possible to perceive concrete opportunities – to have a feeling about how they fit into the present and future activities”. Furthermore, using information to legitimate decisions made on experience-based intuition may provide the firm with the advantage to quickly respond to the market changes by making timely decisions (Vyas and Souchon, 2003). However, in some circumstances specific experiential knowledge may be difficult to transfer across different foreign markets (Johanson and Vahlne, 1977). Market experience may be useless for decisions such as penetrating into a new, foreign market for which little is known; and reliance on objective and accurate information should be made instead (Wood and Goolsby, 1987). Using intuition in the absence of sufficient and/or relevant experience is most likely to render any preconceptions the export function may have about a specific market invalid (Vyas and Souchon, 2003). In turn, information may be sought that support invalid assumptions, as “intentional biases direct attention to expectation-confirming events when disconfirming information is also available” (Feldman, 1986, p. 273). Thus, intuition in the absence of relevant experience may lead to decision failure and subsequent decrease in export performance.

A seemingly conceptual paradox arises in trying to link legitimating use with decision quality. This is because according to its definition, legitimating use involves using information to justify a decision already made on other grounds (e.g. intuition). Therefore, one could argue that if the decision is already made there cannot be a relationship between using information to legitimate the decision

in the eyes of superiors and the quality of the particular decision. In other words, legitimating use in this case can be perceived as a post-decisional dimension and, as a result, any relationship to the quality of the decision would be incongruous. However, one should bear in mind that “as important as they are, high quality decisions mean little if they cannot be implemented, and successful implementation requires the participation of the company’s top management team” (Amason, 1996, p. 127). The qualitative study also provided insights into this. More specifically the manager of company 3 stated that: “*A decision that has been very well researched and well thought through is going to be easier to implement with everyone in the company on board because it will be seen to be a good decision*”.

Therefore, given that successful implementation should be a logical outcome of high quality decisions (Dooley and Fryxell, 1999), legitimating use can facilitate the implementation of a decision initially made on other grounds (e.g. intuition) by securing support and cooperation by senior executives (Babin and Boles, 1996). It stands to reason that whether legitimating the right decision or not will depend on the experience of the export of the export function which would, in turn, determine whether the hunches or preconceptions of the export people were correct in the first place or not.

Therefore,

H1: The relationship between legitimating use and decision quality will depend on export experience. In the context of high export experience, the relationship will be positive.

4.3.2 Social Use

Effective decision-making largely depends on the relationship with and participation of external information suppliers (Sinkula, 1990). These would include customers, distributors, trading partners and other ad hoc information providers (Nijssen et al., 1997). Especially in an export context, external information providers can draw to the attention of export managers and/or entrepreneurs the

variety of opportunities in foreign markets, help to identify critical resources from the environment and provide them with unique and detailed information (Chaudhry and Crick, 1998). However, cultural differences are likely to affect the relationship commitment and effective cooperation between export information providers and users and can also lead to misunderstandings (Mehta et al., 2006). In this respect, visible use of export information to consolidate ongoing relationships with export information providers or just to keep them happy is not an uncommon practice for export decision-makers (Vyas and Souchon, 2003). Therefore, social use can help in maintaining good relationships with information providers and enhance their level of participation in the decision-making process. In turn, this can enable the export function to process more information and enhance the analytical aspect of a decision (Parikh, 2001). This is a necessary but not sufficient condition in order for decision quality to be increased. It needs to be based on accurate and complete information as well (Lillrank, 2003). Especially in a situation where decision-making is characterised by increased cultural diversity and a multitude of different experiences, indisputable, easy to understand and complete information is likely to serve as common ground for avoiding confusion or misunderstandings with regard to the decision-making goals (Gross 2002, Nam et al., 2009). In a general sense “there is some support for the intuitively reasonable notion that ‘good’ information leads to ‘good’ decision-making” (O’Reilly, 1982, p. 756). Indeed, decision quality will depend on levels of information quality (e.g. Raghunathan, 1999; Li and Lin, 2006). Evidence from the qualitative study also supports this: “*Good quality and reliable information definitely helps for making good decisions*” (Company 10).

Thus:

H2: *The relationship between social use and decision quality will depend on information quality. In the context of high information quality, the relationship will be positive.*

4.3.3 Non-use

In general, deliberate information non-use can occur for the following reasons:

- Under conditions of information overload (Souchon and Diamantopoulos, 1997)
- Under conditions of severe time constraints to make a decision (Rich, 1991)
- When available information is characterised as low quality and low relevance (Reid, 1984)
- In cases where information is discarded because it “cause(s) the receiver to make a difficult or unpleasant change” (Zaltman, 1986, p. 455); this is also known as ‘knowledge disavowal’ (Deshpande and Kohli, 1989).
- When specific information is difficult to obtain or not available altogether (Vyas and Souchon, 2003).

The traditional assumption that information use is beneficial and non-use detrimental is not clear cut, and is indeed open to question (e.g. Souchon and Diamantopoulos, 1997; Vyas and Souchon, 2003). Indeed, while until recently the general trend was for researchers to support the notion that negative outcomes for decision-making are likely to emerge when decisions are reached without the collection and adequate use of information (e.g. Burke and Miller, 1999), a number of others report optimised decision quality as a result of non-use (e.g. Rich, 1977).

Weiss (1981), for example, reports that there are occasions where available information may be tinged by the biases of the information provider. These biases may be due to cultural differences between the information providers and users or simply because of lack of clear communication and may result in the provision of information not entirely aligned to the specific decision-making needs (Samiee and Walters, 2006). The aforementioned was also highlighted in the qualitative study. In the words of manager of company 1: “... *I think they [information providers] will generally try and do their best for you, but the information does sometimes miss the mark a little bit. Because of perhaps a lack of understanding as to exactly what one actually wants from them*”. As a consequence, deliberate non-use in this instance may be conducive to sound decision-making (Glazer et al., 1992). Furthermore, as Feldman and March (1981, p. 81) explain, “most organisations and individuals often collect more information than they use or can reasonably expect to use”. Given the limited human information-processing capacity (Douglas

and Craig, 1982), the mere availability of information surplus is likely to create confusion and lead the decision-maker to the adoption of the wrong decisions (Shivaramakrishnan and Perkins, 1992) In this instance, the choice not to use information to deal with specific decision-making situations (e.g. those decision-making situations where, for example, drawing on experience can be sufficient) is likely to lead to better decision-making outcomes (Vyas and Souchon, 2003). Given the ambiguous results of past studies on information non-use (e.g. Caplan, 1980, Larsen, 1981; Souchon and Diamantopoulos, 1996), it may well be that the consequences of deliberate non use of export information will be contingent upon circumstances.

The qualitative study revealed that experienced export departments will know better which information to use in each different case and how to access it. This is because, as the existing stock of knowledge influences the development of sophisticated cognitive schemata for ordering and selecting information and for enacting relevant decisions (Nijssen et al., 1999). The cognitive ability of export functions depends on previous gathering of knowledge. Export experience is interpreted as meaning the skills or knowledge that the export function has gained from practical activities and interactions in the international arena (Johanson and Vahlne, 1990). Thus, experienced export functions are better able to absorb, communicate and finally, decide on whether or not to use information for effective decision-making (Andersen, 2006). Indeed, “the effect of experience is manifested not only in the decisions themselves, but also in what information is used to make decisions” (Perkins and Rao, 1990, p. 8). Thus,

H3a: The relationship between non-use of export information and decision quality will depend on export experience. In the context of high export experience, the relationship will be positive.

Non-use of information is not always bad, as explained above (Weiss, 1981). In support of this, Caplan (1980, p. 5) states that “not all utilisation is good and not all non-utilization is bad”. For example, given that information quality and decision quality are inextricably connected (e.g. Keller and Staelin, 1987), in a state where the available information is of poor quality, non-utilisation may be beneficial for the

decision-making process (Jacoby, 1977). The qualitative study also provides support for this. According to the export manager of company 8: “*I would like to think that a good export decision depends on good information; on good quality of information*”. On the other hand, ignoring export information may result in non-use of potentially useful information (Thietart and Vivas, 1981). Bearing in mind the clear evidence that increased amounts of relevant, high quality information are likely to lead to better decisions (e.g. O’Reilly, 1982; Davern et al., 2008; Kamis and Davern, 2009), ignoring high quality information altogether, is likely to be detrimental to decision quality. Thus:

H3b: *The relationship between non-use and decision quality will depend on information quality. When information quality is high, the relationship will be negative.*

4.3.4 Affective Use

The use of export information to bolster levels of confidence in the decisions to be made is labelled ‘affective’ use (Vyas and Souchon, 2003). The unfamiliarity with the foreign environment and the related decision-making uncertainty that export venturing usually entails (Katsikeas, 1994) may create conditions of stress and low confidence. In such conditions the export function may benefit from using information affectively by raising the level of confidence with the decision to be made (Menon and Wilcox, 2001).

Using information in an affective way may have to be based on grounds other than purely rational decision-making (Hu and Toh, 1995). Information can be tied to the ‘feel good’ factor arising from using information to make decisions (Menon and Varadarajan, 1992). This means that rather than using information for its direct value in solving a specific problem at hand, information can be used in order to increase confidence in the decisions made (Vyas and Souchon, 2003). The difference with instrumental use is that affective use occurs in extreme situations which are characterised by complete absence of confidence (possibly due to extremely low experience). In this case, over-reliance on information may be observed. Especially for export information that is relatively more difficult to

acquire, the mere existence of information can cause relief (Cavusgil, 1986). Indeed, “information from research results can be used to lower any cognitive dissonance effects that can occur with decisions not yet taken and thereby increase overall satisfaction with the decisions when they are made, or they can be used to feel more comfortable with a decision prior to the conclusion of a study” (Menon and Wilcox, 2001, p. 62). But what if the information relied on was not the correct information? Quality information is said to help a decision-maker reach a high quality decision, on the basis that if the information used for a particular decision is accurate, timely, and complete, then the decision should be a ‘good’ one (Staw, 1980). Therefore, an export department that uses information mainly because of complete lack of confidence in their ability is likely to be entirely dependent on this information for assessing the best decision alternative (Taylor, 1992). After all sometimes the primary problem is not always doing the things right, but having the information telling you what are the right things to do (Lillrank, 2003). It stands to reason that if the information you over-rely on is bad information, decision quality will suffer.

Therefore:

***H4:** The relationship between affective use and decision quality will depend on information quality. In the context of high information quality, the relationship will be positive.*

4.3.5 Distortion

Information distortion is defined as the “incorrect reproduction of objectively correct information and can result from either conscious or deliberate alteration or unconscious manipulation” (O’Reilly, 1978, p. 175). Menon and Varadarajan (1992) label the distortion undertaken by decision-makers as “incongruous” as it may have a negative effect on organisational learning (Sinkula et al., 1997) with the latter being integrally connected to organisational performance (Hult et al., 2000). Information distortion has also been argued to be a factor impeding the successful implementation of a market orientation (Bettis-Outland, 1999).

Bettis-Outland (1999) highlights the effect of intra-firm politics as a main potential reason for information distortion. More specifically, she argues that “intentionally malicious information distortion occurs, for example, when the sender ‘twists information around in order to make other departments look bad. The assumption is that, by making other departments look bad, the sender, by implication looks good. Or at least the sender does not look as bad as the other departments” (Bettis-Outland, 1999, p. 259). Information distortion may also occur in “presentation, selectivity, safety margins, rounding up or down, and actually changing data-to influence decisions” (Piercy, 1983, p. 116). Numerous authors advocate against distorting information (e.g. Menon and Varadarajan, 1992; Bettis-Outland, 1999; or else, quality of the decisions may suffer (Vyas and Souchon, 2003). More specifically, political behaviour often involves distortion (Cyert and March, 1963) and restriction (Pettigrew, 1973) of information use and flow. As argued before, effective decisions should be based on organisational goals. Political decision processes, however, are organised around the self interests of individuals or groups (Eisenhardt and Bourgeois, 1988; Conteh et al., 2009; Hope, 2010; Wilson et al., 2010). If these interests are in conflict with those of the organisation, political activity will make it less likely that a decision will serve organisational interests (Dean and Sharfman, 1996; Simons, 1996). This is also confirmed by the qualitative study. In the words of the export manager of company 1: “*The information is there to be used, for good reasons, not for political infighting*”.

Therefore,

H5: *The relationship between distortion and decision quality will be negative.*

4.3.6 Expert Power-seeking Use

Using information in a way such as to enhance the power of the export department may enhance other peoples’ perceptions within the firm that the export people are knowledgeable, and that they know exactly what they are doing (Vyas and Souchon, 2003). That is, since the export function is expert in all things to do with exporting, they are likely to be deferred to when it comes to making many kinds of

decisions within the export domain (Frazier and Summers, 1986). Conversely, if others do not see the export department as being experts, then it is more likely to get interference from outside the export unit when it comes to making export-related decisions (Cadogan et al., 2005). Furthermore, using information in order to gain or increase exporting's functional power may be extremely effective in terms of reducing the likelihood of conflict and increasing longer-lasting influence with the different functions and/or departments of the firm (Vyas and Souchon, 2003). After all, in order for information use "to be effective and lead to higher quality decisions, it has to occur within an integrated business environment where the various functional areas are involved in the decision-making process" (Souchon et al., 2004, p. 233).

Thus,

H6: Expert power-seeking use will be positively related to decision quality

4.3.7 Legitimizing Power-seeking Use

Using information to shape others' views of the 'services' or activities that the export function can offer/withdraw by way of punishment/reward is not an unusual practice in an export context (Vyas and Souchon, 2003). This is likely to attract support by top managers if exporting is seen as something really important and profitable for the firm. This would mean that top managers would facilitate export employees' work efforts (Navarro et al., 2010). An important way in which they can facilitate export employee performance is by providing key resources such as personnel, equipment and training (Guzzo and Gannett, 1988). Therefore, export commitment, defined as the extent to which a firm's management has favourable attitudes toward, and is willing to allocate resources, to exporting (Leonidou et al., 1998), is likely to increase. Therefore,

H7a: Legitimizing power-seeking use will be positively related to export commitment

In order to cope with the increasing demands that growth of global exporting poses, firms need an effective commitment of resources that will enable them to create superior value for their foreign customers (Morgan et al., 2004). A firm's export commitment can be shown in many different ways, but nothing reflects a firm's export commitment like its desire to adapt to meeting the wants, needs and expectations of its foreign customers (Navarro et al., 2010). This way, competitive advantages are likely to be achieved in foreign markets, with a positive impact on export performance (Morgan et al., 2006). The competitive advantages deriving from exports constitute the position the firm achieves in relation to the combination of cost, product and service elements in a particular foreign market (e.g. Cavusgil and Zou, 1994; Evangelista, 1994). As Lages and Montgomery (2004) point out, export commitment will increase managers' willingness to make all the required efforts necessary for the international objectives to be achieved. Furthermore, more decision alternatives will be considered until the best is selected (Simons et al., 1999; Talaulicar et al., 2005). This is because, given the high resource allocation, more options are available to the decision-maker (Navarro et al., 2010). Therefore,

H7b: Export commitment will, in turn, be positively related to decision quality

4.3.8 Haphazard Use

An implicit pre-assumption is that haphazard use is likely to take place in the absence of export experience. This is because if the export function had experience they would avoid using information haphazardly as export people would be more likely to know that this can be detrimental and risky for their decision-making outcomes. Given that experience reflects "familiarity with the market, what is already known" (Gronhaug and Graham, 1987, p. 124), the more experienced a company, the more likely it is to rely on that experience as a source of information. Those exporters who lack experience may seek to rely more on information. When managers are making their decisions without being hurried, the quality of their decisions steadily increases as more and more attributes are presented (Hahn, et al., 1992; Vroom, 2003; Davern et al., 2008). However, using information in a non-systematic way due to lack of time to make well informed

decisions or to the existence of over-large amounts of information (Rich, 1991) is a very common situation in a fast moving export environment (Vyas and Souchon, 2003). The qualitative study also confirms this: *“The trouble with too much information is you don’t read it. And you lose your way within the information. So you miss what you’re doing”* (Company 9). The presence of an information surplus is likely to create confusion in the export function (Shivaramakrishnan and Perkins, 1992). Empirical support confirms that decisions of lesser quality are likely to be reached by those individuals who operate under conditions of information overload (Chewning and Harrell, 1990). Indeed, in this particular case increases in the number of attributes provided by information enhance the cognitive difficulties associated with processing this information, thus, the ability to accurately assess the utility (value) of available alternatives (Keller and Staelin, 1987). Therefore,

H8a: *The relationship between haphazard use of export information and decision quality will depend on information overload. In the context of high information load, the relationship will be negative.*

In order to be successful, a deep and detailed knowledge of all the factors which are likely to affect export performance is required (Belich and Dubinsky, 1995). For this to be achieved, the most relevant, useful and credible information should be used (Vyas and Souchon, 2003). On the other hand, exporters who are new to conducting business abroad may select and use information just on the basis of its availability rather than its usefulness and relevance (Vyas and Souchon, 2003). The use of information based solely on its availability (with the absence of relevant experience and prior knowledge) will most likely lead the export function to focus on those decision-making components addressed by the information (Usunier, 2000). However, “if these are not the components that are also most closely tied to success, overall performance may suffer” (Glazer et al., 1992, p. 213). According to manager of company 9: *“Information really has got to be good and it’s got to be easy, to be specific to the area that you require...”*. Thus,

H8b: *The relationship between haphazard use of export information and decision quality will depend on information quality. In the context of high information quality, the relationship will be negative.*

4.3.9 The Link between Decision Quality and Export Performance

Contingency theory holds that export success depends on the context in which a firm is operating (Robertson and Chetty, 2000). Indeed, export success will depend on the nature of the firm's business position and the environmental context (Walters and Samiee, 1990).

Since organisational environments change, organisations must adapt to their environments in order to survive and prosper. The main characteristic of the environment and in particular the export environment is uncertainty (e.g. Crick et al 1994) and in order to reduce uncertainty, firms need to process information (Karake, 1997). Rogers et al. (1999, p. 567) state clearly that "viewing organisations as information-processing systems requires a contingency approach to theory development".

Environmental turbulence means that organisations must gather and use more information about their environments (Karake, 1991). This is because, in general, the more turbulent the environment, "the more problematic is corporate decision-making, since both the quality and timeliness of information available to corporate decision makers declines with uncertainty" (Alexander, 1991, p. 165). It also means that more alternative courses of action must be carefully evaluated and considered in order to ensure that decisions will have the expected performance outcomes (Sankar, 2003). Under high environmental turbulence, decision-making should be characterised by corporate-wide participation, open communication channels across departments, and reliance upon experts (Calantone et al., 2003). Since, dynamic environments call for quick and intelligent responses, fast, high quality decisions lead to better firm performance (Priem et al., 1995). Indeed, high quality decisions should be achieved through deliberation and be characterised by speed (Venkatraman, 2000). As Talaulicar et al., (2005, p. 521) explain "the pace of decision making is eminently important. Only timely decisions can lead to competitive advantages; in highly dynamic environments delays can be detrimental". This is because, no matter how well researched a decision might be, knowledge about the customers and competitors may "often be invalidated by the rapid, unpredictable changes" (Sashittal and Wilemon, 1996, p. 70).

It is therefore put forward that:

H9: *The relationship between decision quality and export performance will depend on environmental turbulence and speed of implementation. When environmental turbulence and speed of implementation are high, then, decision quality will be positively related to export performance. However, when environmental turbulence is high and speed of implementation is low, the relationship between decision quality and export performance will be negative.*

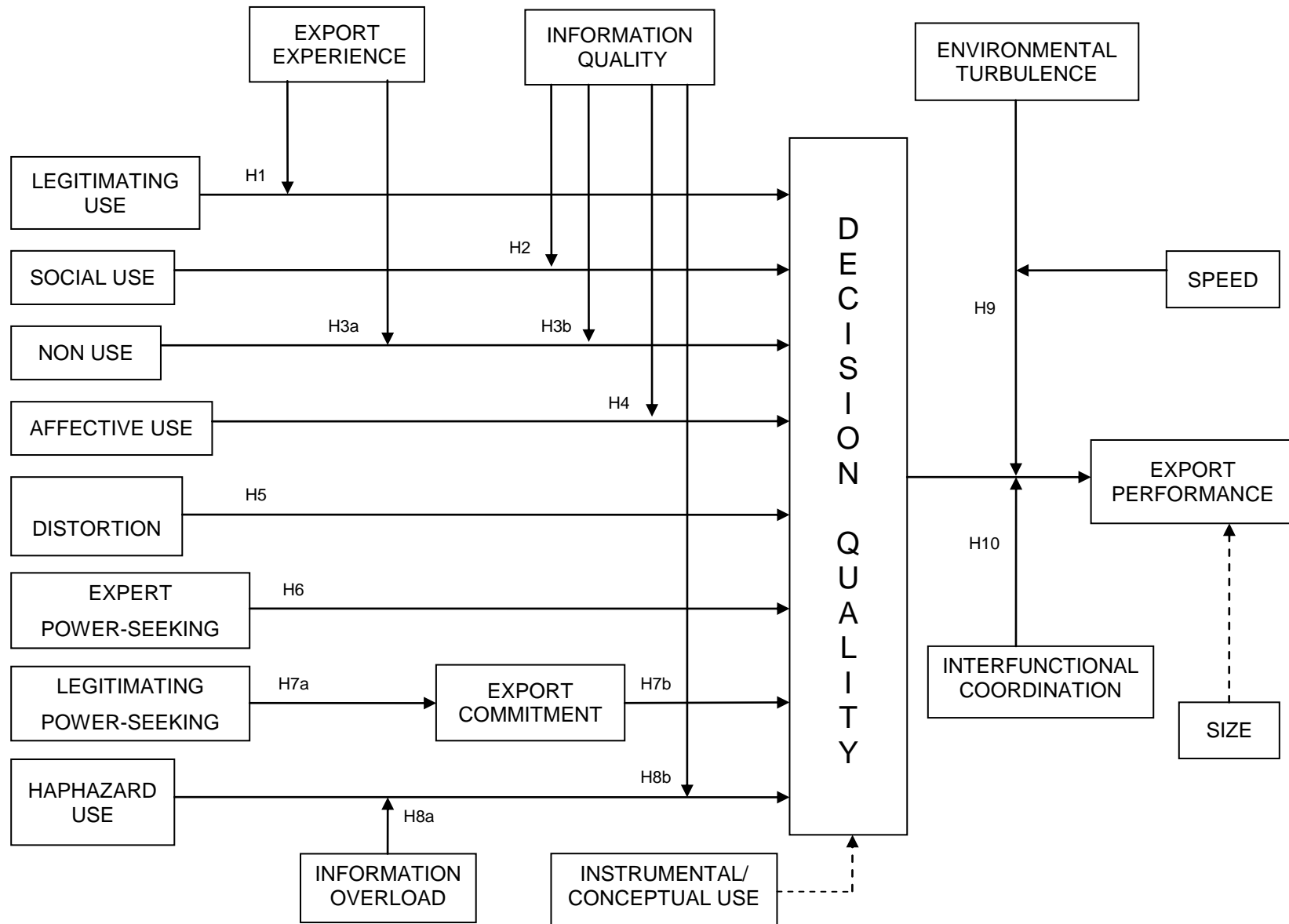
According to Eisenhardt (1989), managers in dynamic environments accelerate their cognitive processing. More specifically they use more information, consider more alternatives and seek greater amounts of advice. In addition to being analytically comprehensive, their decisions are also characterised by greater integrative comprehensiveness (Miller and Friesen, 1983; Eisenhardt, 1989). Sashittal and Wilemon (1996, p. 72) state that “marketing’s integration with other functional groups was found to positively impact organisational effectiveness, new product development and implementation of marketing decisions as well as business strategies”.

Inter-functional coordination is defined as the integration and collaboration of multiple functional areas (or departments) within an organisation (Narver and Slater, 1990). In turn, inter-functional coordination “captures the tendency for different functional areas to accommodate disparate views and work around conflicting perspectives and mental models by putting aside functional interests for the benefit of the whole organisation” (Menguc and Auh, 2005, p. 7). The available cognitive variety in terms of different problem insights and viewpoints of the functional members and the diverse knowledge of the team members (e.g. Milliken and Martins, 1996; Jehn et al., 1999) must be discussed within the group to result in conflict avoidance and sound decision-making (Simons et al., 1999). An enhanced level of communication quality and consensus commitment is critical for effective implementation of high quality decisions (Simons, 1996; Menon et al., 1999; Talaulicar et al., 2005).

Thus,

H10: *The relationship between decision quality and export performance will depend on level of inter-functional coordination. When inter-functional coordination is high the relationship will be positive.*

All the aforementioned hypothesised relationships amongst the symbolic use dimensions, decision quality and export performance are depicted in the conceptual diagram that follows:



4.4 CHAPTER SUMMARY

In this chapter, a conceptual framework with specific hypotheses on the potential relationship between symbolic use dimensions, decision quality and export performance was presented. These hypotheses were developed based on a combination of the literature and the qualitative study findings. More specifically, the symbolic use - export performance relationship is likely to be subject to certain moderating and mediating effects. The effect of export experience, for example, is argued to moderate the relationship between legitimating use, non-use and decision quality. Information quality was hypothesised to moderate the relationship between social use, non-use, affective use and haphazard use with decision quality respectively. Information overload was argued to moderate the haphazard use – decision quality relationship. On the other hand, export commitment seems likely to be the intervening variable through which legitimating power-seeking use is likely to be associated with higher quality decisions. Ultimately, following the dictates of contingency theory as the core theory underpinning this study, environmental turbulence as well as inter-functional coordination are identified as important moderators in the decision quality-export performance relationship.

All the hypothesised relationships presented in this chapter warrant empirical verification. Therefore, testing the soundness of the proposed theoretical model requires quantitative testing: “Quantitative methods are appropriate for testing hypotheses synthesising a large number of variables to determine associations (and the strength of associations), controlling for generalisability” (Hart, 1987, p. 30). The next chapter outlines the quantitative methodology employed for the collection of quantitative data, as well as to the selection of the appropriate techniques for the analysis of that data.

Chapter Five: RESEARCH METHODOLOGY

This Chapter outlines the methodology for the data collection and analysis used for this study. The chapter begins with the presentation of the research design, since this is essentially the framework which determines the type of information to be collected, the sources of information, and the procedure for collecting that information (Kinnear and Taylor, 1991). The collection of data is then described by indicating the type of data sought and the best method of collecting it. More specifically, the actual collection of data includes the collection of primary, quantitative data, via postal, self-administered questionnaires. The strategy pertaining to questionnaire development (and operationalisation of constructs) and design is then discussed. The next two sections of this chapter present the questionnaire pre-testing process and the sampling process, respectively. The chapter concludes with a discussion of potential analytical procedures to be employed, resulting in the identification of hierarchical regression as the most appropriate data analysis technique to adopt.

5.1 RESEARCH DESIGN: AN OVERVIEW

"After thoroughly considering the research problem, researchers select a research design, which is a set of advance decisions that make up the master plan specifying the methods and procedures for collecting and analyzing the needed information" (Burns and Bush, 2003, p. 126). Research can generally be classified as either exploratory or conclusive (Malhotra and Birks, 2006) and different research designs can emerge as a result. An exploratory research design is concerned with the discovery of ideas and insights (Churchill, 1999). Conclusive research can take the form of descriptive research or causal research (Malhotra and Birks, 2006). A descriptive research design is typically concerned with determining the relationship between variables (Churchill and Iacobucci, 2005). A causal research design is "concerned with determining cause-and-effect relationships" (Churchill and Iacobucci, 2005, p. 74).

Exploratory research, on the other hand, is best suited to problems about which little is known (Deshpande, 1983; Churchill, 1999) and which cannot be measured in a quantitative manner (Malhotra and Birks, 2006). Exploratory research was employed in chapter 3 as the objective was to gather more insights into the construct of symbolic use. Furthermore, given that this study was not looking at cause-and-effect relationships that could be manipulated by the researcher within an experimental setting (Burns and Bush, 2003), a descriptive research design was selected for the quantitative measurement of symbolic use.

5.1.1 Data Collection Method

The selection of the specific research design also determines the method by which data is collected. As mentioned previously, primary data need to be collected to enable the psychometric assessment of the measures developed, and the testing of the conceptual model presented in Chapter 4. Possible methods for obtaining primary data are observation, personal interviews, telephone interviews and self-administered surveys such as mail questionnaires and internet surveys (Lee and Lings, 2008).

Typically, observation produces more accurate and objective data than the other methods available as it is independent of the respondent's unwillingness or inability to provide the necessary information (Lee and Lings, 2008). However, it is likely to result in a small sample being generated, as observation is very time and labour-intensive work (Walliman, 2005). Furthermore neither past behaviour can be observed nor intentions for future behaviour (Churchill and Iacobucci, 2005). Yet, the current study requires a large sample size to ensure statistical power in the analysis and increase generalisability. Given this set of requirements, observation was rejected owing to its sample size constraints.

Face-to face-interviewing was also rejected mainly because of cost and time constraints. Furthermore, "personal and telephone interviews can reflect interviewer bias because of the respondent's perception of the interviewer, or because different interviewers ask questions and probe in different ways"

(Churchill and Iacobucci, 2005, p. 223). Symbolic use of export information is a sensitive issue. In this context, respondents may not be willing to admit that, for example, they used research results with the intention to justify a decision (Goodman, 1993). Also, "respondents may be unwilling to disclose such use for fear of political ramifications or because they think their use was not socially acceptable" (Beyer and Trice, 1992, p. 600). Therefore, the existence of sensitive questions is likely to create bias in face-to-face interactions.

On the other hand, use of a self-administered survey has numerous advantages. First, a self-administered survey has the obvious lack of interviewer bias. Second, respondents are more likely to provide answers to sensitive questions because surveys are anonymous (Churchill, 1999). Third, as self-administered surveys are able to be completed at the respondent's convenience, there is also more of a chance that respondents will complete the survey (Zikmund, 1991). Fourth, they also enable the collection of data from a wide range of respondents (Jobber, 1989). Fifth, they can obtain a larger amount of information especially when compared to telephone interviewing (Kinear and Taylor, 1993). The ability to collect large samples can improve the generalisability of the survey findings (Churchill, 1999). Sixth, they are also the most cost-effective data collection method where widely-spread populations are concerned (Jobber, 1989; Malhotra and Birks, 2006). Seventh, in structured, undisguised surveys questions are presented with exactly the same wording and in the same order to all respondents (Burns and Bush, 2003). Finally, structured-undisguised questions present little difficulty for respondents' responses, are simple to administer and easy to tabulate and analyse (Churchill and Iacobucci, 2005).

Despite the advantages associated with self-administered surveys there are also a number of limitations. For example, self-administered surveys are a slow collection method and are typified by low response rates and non-response bias (Hair et al., 2010; Malhotra and Birks, 2006). Low response rate from this method can lower the statistical power of the analysis (Diamantopoulos and Schlegelmilch, 1996). In addition, non-response bias may occur if those who did respond are different in some important ways from those who did not respond (Churchill, 1999). That said, non-response bias also poses problems for other types of administration

techniques adopted (Churchill and Iacobucci, 2005). Furthermore, certain response-enhancement methods exist in order to counterbalance the problem of low response rates and, partially at least, mitigate the setbacks of employing mail survey techniques (Churchill 1999).

Finally, when compared to Web surveys, mail questionnaires take longer to obtain answers (Churchill and Iacobucci, 2005). Nonetheless, they guarantee more anonymity as replies to e-mail can be traced to sender. Furthermore, "many researchers worry that Internet samples are still peculiar, in part due to the differential access to e-mail and the Web" (Churchill and Iacobucci, 2005, p. 225). As a result of the above, this study used mail questionnaires as its data collection method.

5.2 QUESTIONNAIRE DESIGN

The data for this study were collected through self-administered surveys posted to a single informant in each sampled organisation. Although concerns can be raised regarding the collection of large amounts of data from a single source (i.e., single-source bias as per Avolio, Yammarino and Bass, 1991), resource and time limitations prevented the use of multiple informants within the same firm (Luo et al., 2007). In this context, evidence exists in the literature to suggest that using single informants is appropriate (e.g. Teo and King, 1997; Ernst and Teichert, 1998), as long as "the informant is reasonably knowledgeable" (Wilson and Lilien, 1992, p. 302). As will be shown in the next section of this chapter, the preliminary data cleaning process ensured that the respondents were indeed knowledgeable and appropriate to participate in this study.

5.2.1 Question Sequence and Content

The item generation process followed the prescriptions suggested by the literature (e.g. DeVellis, 2003; Spector, 1992). This specific process entailed seven general steps:

1. Determination of what is exactly measured
2. Generation of an initial item pool
3. Determination of the format for measurement
4. Initial item pool reviewed by experts
5. Inclusion of validation items
6. Administration of items to a development sample
7. Evaluation of the items

Four general sections were included in the questionnaire, and given formal headings:

- Section one: Your export operations
- Section two: Export environment
- Section three: About your company
- Section four: Yourself

Section one included questions on symbolic export information use and the moderators and mediators in the model, such as export experience, export commitment, interfunctional coordination and information quality. It was considered important to begin the questionnaire with a set of questions that the respondents felt comfortable answering (Churchill and Iacobucci, 2005). As a result, the inclusion of rather sensitive questions on symbolic use precluded this particular sets of questions from being inserted on the outset of the questionnaire (please see appendix 5.2 for a copy of the questionnaire). Furthermore, the original items on all export information use types (instrumental/conceptual and symbolic) as per Diamantopoulos and Souchon (1999) were also included as control variables. The first section concluded with questions on decision quality. All the questions posed in the questionnaire were drawn from the literature with only the symbolic use questions being the exception as they were mainly based on the findings from the exploratory study (and from Diamantopoulos and Souchon, (1999) on a few occasions). Table 5.1 provides details on the measurement items and their sources in the same order as they appeared in section 1 of the questionnaire:

Table 5.1: Questionnaire Items - Section One

VARIABLES AND ITEMS	ILLUSTRATIVE SOURCES
<p>Inter-functional Coordination:</p> <p><i>The activities of our business functions (e.g., marketing/sales, manufacturing, R&D, finance/accounting, etc) are extremely well integrated in pursuing a common goal</i></p> <p><i>Export employees and those in other functional areas (e.g., R&D) always help each other out</i></p> <p><i>In this company there is a sense of teamwork going right down to the “shop floor”</i></p> <p><i>There is an extremely strong collaborative working relationship between the export function and “operations”</i></p> <p><i>Functional areas in this company always pull together in the same direction</i></p> <p><i>In this company, communication and group problem-solving are always enough to resolve issues and conflicts</i></p>	Cadogan et al., (2001)
<p>Export Commitment:</p> <p><i>Senior management in our company...</i></p> <p><i>...consider our exporting activities to be crucial to the business</i></p> <p><i>...is currently planning to significantly increase the company’s</i></p> <p><i>...consider exporting to be one of the most critical investments</i></p> <p><i>...expect exporting to be a significant contributor to company</i></p> <p><i>...actively explore international market opportunities</i></p>	Cadogan et al., (2006)
<p>Extent of export information use:</p> <p><i>By whom is export information used in your company?</i></p> <p><i>Export personnel</i></p> <p><i>Marketing/sales</i></p> <p><i>Front line/service staff</i></p> <p><i>Finance/accounting</i></p> <p><i>Production/manufacture</i></p> <p><i>R&D</i></p> <p><i>Top management</i></p>	Souchon and Durden (2002)
<p>Information Quality:</p> <p><i>The export information we get is very accurate</i></p>	Joseph Sy-Changco et al., (2003)

<p><i>Most of the export information we receive is complete</i></p> <p><i>The export information we get is usually objective</i></p> <p><i>Export information is accessible when we really need it</i></p> <p><i>The export information we get is usually up-to-date</i></p> <p><i>We invariably receive the export information that we need as soon as we need it</i></p> <p><i>The export information that we get is very useful for our export decision-making process</i></p> <p><i>The export information we get can always add value to the organisation</i></p> <p><i>The export information we receive is always usable</i></p> <p><i>We believe that the export information we receive is credible</i></p> <p><i>We find it easy to understand the export information we receive</i></p> <p><i>The export information we get is always reliable</i></p> <p><i>Most of the time, export information is readily available</i></p>	
<p>Information Overload:</p> <p><i>The export team/person has sometimes made mistakes because it had too much information to handle</i></p> <p><i>The export team/person sometimes feels overwhelmed by the high volume of export information that it is given</i></p> <p><i>The amount of export information that the export team/person has to know makes them feel overloaded at times</i></p> <p><i>The export team/person sometimes experiences confusion as a result of having to handle too much information</i></p>	Souchon et al., (2003)
<p>Affective Use:</p> <p><i>We use export information specifically to feel more confident about our export decisions</i></p> <p><i>Our primary purpose in using export information is to feel secure in our export decisions</i></p> <p><i>We use export information specifically to reduce any anxiety we feel about making export decisions</i></p> <p><i>We deliberately use export information to feel good about the decisions we make</i></p> <p><i>We use export information specifically to reduce any feelings of vulnerability</i></p>	Exploratory Study/ Diamantopoulos and Souchon, (1999)
<p>Non Use:</p> <p><i>For one reason or another we end up not using the export information we collect</i></p>	Exploratory Study

<p><i>We do not have the time to use export information to make export decisions</i></p> <p><i>We sometimes have to ignore export information that contradicts our own perceptions</i></p> <p><i>Export decisions are made based on our own experience rather than formal information</i></p> <p><i>Readily available export information has to be consciously avoided / ignored</i></p>	
<p>Legitimizing Use:</p> <p><i>Export decisions based on intuition are justified afterwards with export information</i></p> <p><i>When we use our instincts to make export decisions, we confirm those instincts with information</i></p> <p><i>We have to make every export decision legitimate by justifying it with export information</i></p> <p><i>If we make an export decision based on a “feeling”, we are not allowed to implement this decision unless we back it up with relevant export information</i></p> <p><i>We can make quick export decisions by improvising, but normally have to back them up later by using appropriate export information</i></p> <p><i>Export information is used to validate or confirm our decisions, after the fact</i></p> <p><i>Export decisions based purely on experience have to be confirmed with information</i></p>	<p>Exploratory Study/Diamantopoulos and Souchon, (1999)</p>
<p>Haphazard Use:</p> <p><i>We have to rely on the export information that is available even if it's not exactly the information we need at that point of time</i></p> <p><i>We choose to use the export information that is the most focused on our decision needs</i></p> <p><i>It's difficult to be too choosy about which export information to use</i></p> <p><i>We use export information simply because we have it</i></p> <p><i>Our export focus is decided upon by the export information available to us</i></p>	<p>Exploratory Study/Diamantopoulos and Souchon, (1999)</p>
<p>Social Use:</p> <p><i>We sometimes use export information to keep export information providers happy</i></p>	<p>Exploratory Study/Diamantopoulos and Souchon, (1999)</p>

<p><i>We make use of export information to show our appreciation to the person who provided it</i></p> <p><i>We show our export information providers that we use the information they have supplied us with in order to obtain future smooth access to export information</i></p> <p><i>If export information providers see us using the export information they supply us with, they will be more likely to reward us with higher quality information in the future</i></p> <p><i>We sometimes use export information to demonstrate trust in our export information providers</i></p>	
<p>Distortion:</p> <p><i>We have to change the meaning of the export information if we think it is wrong</i></p> <p><i>Sometimes export information is modified if it contradicts what we know</i></p> <p><i>It is much more reasonable to distort export information which contradicts our assumptions, rather than challenge what we know to be true</i></p> <p><i>It is advisable to use export information in such a way as to “suppress bad news”</i></p> <p><i>The intended meaning of export information sometimes has to be changed when we use it</i></p> <p><i>Export information is sometimes taken out of context to make a decision</i></p>	Exploratory Study
<p>Legitimizing Power-seeking Use:</p> <p><i>We can use export information to enhance the standing of the export function</i></p> <p><i>Export information is a good source of power for the export function</i></p> <p><i>Export information is often used to secure support for exporting</i></p> <p><i>We use export information to leverage/get access to resources within the firm</i></p> <p><i>We sometimes use export information to consolidate the export function’s position within the firm</i></p>	Exploratory Study
<p>Expert Power-seeking Use:</p> <p><i>Using export information is a good way to make other people in the firm receptive to exporting</i></p> <p><i>We use export information to portray to others the competence of the export function</i></p> <p><i>Export people use information in such a way as to create a good impression</i></p>	Exploratory Study

<p><i>Our use of export information increases the confidence the other departments have in us</i></p> <p><i>Export information is often used to build awareness of, and commitment to, exporting</i></p>	
<p>Export Experience:</p> <p>In this company, we have developed...</p> <p><i>...the ability to identify sources of export market information</i></p> <p><i>...a base of specific information on export sales opportunities</i></p> <p><i>...a base of specific information on overseas market legislation/regulations relative to our company's products/business</i></p> <p><i>...an ability to interpret the degree of quality of export market information</i></p> <p><i>...a base of specific information on export distribution methods/practices</i></p> <p><i>...an understanding of foreign business practices</i></p> <p><i>...an understanding of how to best conduct market research in foreign markets</i></p> <p><i>...good abilities in the official languages of the foreign markets we export to</i></p>	Cadogan et al., (2006)
<p>Decision Quality:</p> <p><i>Our export decisions are always based on the best available information</i></p> <p><i>Our export decisions are based on valid assumptions</i></p> <p><i>The export decisions made help the export function achieve its objectives</i></p> <p><i>Our export decisions are consistent with the export function's current strategy</i></p> <p><i>Export decisions made contribute to the overall effectiveness of the export function</i></p>	Dooley and Fryxell (1999)
<p>Decision Speed:</p> <p><i>It takes us no time at all to decide how to respond to our export competitors' price changes</i></p> <p><i>If a major competitor were to launch an intensive marketing campaign targeted at our export customers, we would implement a response immediately</i></p> <p><i>If we came up with a great export marketing plan, we would implement it in a timely fashion</i></p> <p><i>We are quick to respond to significant changes in our export competitors' pricing structures</i></p> <p><i>When we find out that export customers are unhappy with the quality of</i></p>	Cadogan et al. (2008)

<p><i>our service, we take corrective action immediately</i></p> <p><i>When we identify a new export customer need, we are quick to respond to it</i></p> <p><i>Export customers' complaints are very quickly responded to in our company</i></p> <p><i>When we find that export customers are unhappy with the appropriateness of our product or service, we take corrective action immediately</i></p>	
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The second section pertained to environmental turbulence. Environmental turbulence can be further decomposed into the following: competitive intensity, market dynamism, regulatory turbulence and technological turbulence (e.g. Jaworski and Kohli, 1993; Morgan, 1999; Cadogan et al., 2001). The measurement items appear in table 5.2 that follows:

Table 5.2: Questionnaire Items - Section Two

VARIABLES AND ITEMS	ILLUSTRATIVE SOURCES
<p>Technological Turbulence:</p> <p><i>The technology that is relevant to our export markets is changing rapidly</i></p> <p><i>Technological changes provide big opportunities for our export operations</i></p> <p><i>A large number of new product ideas have been made possible through technological breakthroughs</i></p>	Cadogan et al., (2006)
<p>Competitive Intensity:</p> <p><i>In our export markets there are many “promotion wars”</i></p> <p><i>One hears of a new competitive move in our export markets almost every day</i></p> <p><i>In our foreign markets, aggressive selling is the norm</i></p>	Jaworski and Kohli (1993)
<p>Customer Turbulence:</p> <p><i>Our export customers’ product preferences change quite a bit over time</i></p> <p><i>New export customers tend to have product-related needs that are different from those of our existing export customers</i></p> <p><i>Our export customers tend to look for new products all the time</i></p>	Cadogan et al., (2001)
<p>Regulatory Turbulence:</p> <p><i>The following regulatory features tend to have a strong impact across your export markets:</i></p> <p><i>Foreign restrictions on the number of competitors in a specific market</i></p> <p><i>Foreign transportation and handling regulations</i></p> <p><i>Foreign government pricing regulations</i></p> <p><i>Overseas environmental protection (pollution, noise, etc) law</i></p> <p><i>Foreign regulations relating to product resale</i></p>	Cadogan et al., (2001)

The third section pertained to company characteristics and export performance. Contingency theory holds that export success depends on the context in which a firm is operating (Robertson and Chetty, 2000). Indeed, export success will depend on the nature of the firm’s business position and the environmental context (Walters and Samiee, 1990).

Export performance studies might use objective measures, subjective measures or both (e.g. Katsikeas et al., 2000; Sousa 2004, Lages et al., 2005). Only subjective measures were actually employed by this study. The reasons behind this decision were fourfold:

1. People do not like to disclose sensitive financial information (e.g. Jacoby, 1978) and firms are extremely reluctant to provide the researcher with objective data (Leonidou, et al., 2002). Therefore, the use of objective performance measures results in most of the cases in missing data and/or inaccurate information.
2. In most cases, subjective managerial perceptions of firm export performance rather than objective performance ratings prevail in the way managers generally operate (Madsen 1989).
3. According to Lages and Lages (2004), what can be considered as financial success for one firm may well constitute a failure for another firm. As a result, it is difficult to establish a fixed reference point across firms.

The measurement items for export performance are presented in table 5.3:

Table 5.3: Questionnaire Items - Section Three

VARIABLES AND ITEMS	ILLUSTRATIVE SOURCES
Export Performance:	
<i>Approximately, what has been your average total sales turnover over the last three years?</i>	Madsen (1987)
<i>Overall, how satisfied are you with your performance over the past 3 years, along the following dimensions?</i> <i>Export sales volume</i> <i>Export market share</i> <i>Export profitability</i> <i>Export market entry</i>	Souchon and Durden (2002)
<i>Over the past 3 years, what has been the average annual growth/decline rate of your export sales?</i>	Shoham (1998)
<i>Over the past 3 years, what has been the average annual growth/decline rate of your export profit?</i>	Shoham (1998)
<i>How do you think your average annual export sales growth/decline compares to the industry average?</i>	Rose and Shoham (2002)
<i>How do you think your average annual export profit growth/decline compares to the industry average?</i>	Rose and Shoham (2002)
Overall, how profitable has exporting been over the past 3 years?	Katsikeas et al.
Overall, how would you rate your company's export performance over the past 3 years?	Cadogan et al. (2003)

The last section was designed to capture social desirability. This decision was made on the premise that at least some of the symbolic use dimensions were thought to be quite sensitive in nature (e.g. distortion) - and prone to socially desirable answers as a result. Social desirability bias can be defined as the tendency of respondents to reply in a manner that will be viewed favourably by others (Podsakoff et al., 2003). A multi-item measure by Luo et al. (2007) was used as a control basis of socially desirable response bias. The specific scale items were based in the original work on social desirability of Reynolds (1982). These are presented in table 5.4:

Table 5.4: Questionnaire Items - Section Four

VARIABLES AND ITEMS	ILLUSTRATIVE SOURCES
<p>Social Desirability:</p> <p><i>I'm always courteous even to people who are disagreeable</i></p> <p><i>There have been times when I was quite jealous of the good fortune of others</i></p> <p><i>I sometimes try to get even rather than forgive and forget</i></p> <p><i>I have never deliberately said something that hurt someone's feelings</i></p> <p><i>I sometimes feel resentful when I don't get my way</i></p> <p><i>No matter who I'm talking to, I'm always a good listener</i></p> <p><i>I'm always willing to admit it when I make a mistake</i></p> <p><i>I am sometimes irritated by people who ask favours of me</i></p> <p><i>I have never been irked when people expressed ideas very different from my own</i></p> <p><i>There have been occasions when I took advantage of someone</i></p> <p><i>It is sometimes hard for me to go with my work if I am not encouraged</i></p> <p><i>There have been times when I felt like rebelling against people in authority even though I knew they were right</i></p> <p><i>On a few occasions, I have given up doing something because I thought too little of my ability</i></p>	Reynolds (1982)
<p><i>At times I have really insisted on having things my way</i></p> <p><i>I like to gossip at times</i></p>	Luo et al., (2007)

5.2.2 Considerations on Common Method Variance, Measurement and Design Error

Questionnaire development needs to consider potential problems with common method variance (Podsakoff et al., 2003). Method biases are an issue because they are one of the main sources of measurement error (DeVellis, 2003). Measurement error threatens the validity of the conclusions between hypothesised constructs (Bagozzi and Yi, 1991), and has both a random and systematic component (Spector, 1992). According to Podsakoff et al., (2003, p. 879), “although both types of error are problematic, systematic error is a particularly serious problem because it provides an alternative explanation for the observed relationship between measures of different constructs that is independent of the

one hypothesised”. More specifically, systematic measurement error may exert an effect on the observed correlation between the measures by either inflating or deflating the observed correlation (Cote and Buckley, 1988).

One of the main sources of systematic error is method variance. This may arise from a variety of sources integrally connected to the development of the measurement instrument (Podsakoff et al., 2003). More specifically, method variance, refers to variance that is attributable to the measurement method rather than to the construct of interest. The term method refers to the form of measurement at different levels of abstraction, such as the content of specific items, scale type, response format and the general context. The most severe problems arise when measures of two or more variables are collected from the same respondents. For example, given the consistency motive (defined as respondents’ tendency to maintain a consistent line in a series of answers), artifactual covariances between (presumably distinct) variables may emerge as a result (Podsakoff et al., 1986). This is likely to distort reality of the underlying relationships (Podsakoff et al., 2003). At a more abstract level, method effects might be interpreted in term of response biases such as halo effects, social desirability, acquiescence, leniency effects or yea – and – nay saying” (Bagozzi and Yi, 1991, p. 426). Ideally, researchers should obtain multiple measures from different sources and at different points in time in order to minimise the effect of common method variance (Podsakoff et al., 1986). However, the aforementioned could not be employed in the current study due to cost and time constraints. Instead, this study reported results from a test of a single-factor (Harman’s one-factor test) hypothesis as an explanation of the inter-correlation of the variables of interest (see chapter 6 for the results of the test). This study also considered issues of common method variance in the design and questionnaire development process. One of these issues is social desirability which is defined as “the need for social approval and acceptance and the belief that it can be attained by means of culturally acceptable and appropriate behaviours” (Crowne and Marlowe, 1964, p. 109). As already argued, established relevant items were included in the questionnaire to test for social desirability.

Measurement and design errors can take the form of construct development error, survey instrument error, data analysis error and/or scale measurement error (Hair et al., 2010). Although researchers are advised to develop items that are as clear, concise and specific as possible (Churchill and Iacobucci, 2005), it is not uncommon for some items to be complex or ambiguous which could be a significant source of bias (Podsakoff et al., 2003). Construct development error was minimised by sourcing items used in this study from established scales. As for the ones that arose from the preliminary study, specific effort was placed in avoiding ambiguity and complicated syntax and also keeping questions simple and focused in one possibility. Significant pre-testing was undertaken (see section 5.4), and questionnaire revisions were implemented to assist in this direction (see next section on questionnaire pretesting).

Survey instrument error involves misinterpretation of questionnaire items (Hair et al., 2010). The use of protocols during the pretesting procedure indicated that survey instrument error was unlikely to be a problem. Data analysis error is most often generated by the selection of an inappropriate analytical procedure (Hair et al., 2010). The specific choice of analytical method for this study is moderated hierarchical regression as far as testing the hypotheses is concerned. Before that, the psychometric properties of the variables are assessed and measures for the symbolic use dimensions are developed.

Another important source of common method variance relates to the scale format (Podsakoff et al., 2003). The majority of the items were measured using a 7-point Likert-type scale, ranging from 1 = “Strongly Disagree” to 7 = “Strongly Agree.” Brady et al. (2005) argue that more scale points are better for allowing respondents to answer questions with more specificity, especially when compared to the standard 5-point response format. Similarly, Cox (1980, p. 408) suggests that “five alternatives tend to frustrate [respondents] whereas some alternatives tend to be underutilized when as many as nine are provided.” He also concludes that three response alternative scales are generally inadequate, while the marginal returns of using scales with more than nine response alternatives are minimal (Cox, 1980). In line with the above, and since a 7-point scale has been used in prior research using similar scales, the potential for scale measurement error was

expected to be kept to a minimum. In fact, only export commitment was measured using a 9-point scale, ranging from 'disagree' to 'very strongly agree'. This was due to the use of an established scale drawn directly, and in its original form, from the literature (Cadogan et al., 2006).

For a number of questions pertaining to firm characteristics and, mainly, performance measures the answers were open-ended that prompted responses in the form of ratio data. For example, questions such as percentage of export sales to total turnover, annual total sales turnover, firm size, industry type and number of countries the firm exports to, were all measured by open-ended (mostly ratio) scales. The above was in line with the recommendations by Podsakoff et al., (2003) who state that: "still another way to diminish method biases is to use different scale endpoints and/or formats for the predictor and the criterion measures" (p. 888). For questions 1 and 6, semantic differential scales (instead of Likert) were used in order to minimise any potential common scale formats bias which refers to the artifactual covariation produced by the use of the same scale format throughout a questionnaire (Podsakoff et al., 2003). Also, in order to break monotony, respondents were asked to fill the number into the boxes for each corresponding question, while other questions required respondents to circle the number which best reflected their opinion.

The strong reliance on closed-ended questions throughout the questionnaire was deemed appropriate for several reasons. First, this approach reduces the possibility that questions will be misinterpreted (Huber and Power 1985). Second, closed-ended answers are especially appropriate when responses must be compared across multiple respondents and when the questionnaire is administered by mail (Churchill 1999). Third, a closed-ended response format reduces the time taken to complete the questionnaire hence minimising respondent fatigue. Finally, it enables faster and less expensive data collection than open-ended responses (Malhotra and Birks 2006).

5.2.3 Other Types of Error

Apart from measurement/design errors, other types of errors include faulty problem definition, or project administration errors (Hair et al., 2010). Faulty problem definition is reduced by the literature review, enabling relevant constructs and relationships between constructs to be identified (Hair et al., 2010). The qualitative study which preceded data collection also helped towards the above direction. Finally, the likelihood of project administration errors was reduced by keeping detailed logs of project stages, such as questionnaire mail-out dates, return dates, and entry of data into relevant software applications.

5.2.4 Response Rate Enhancement

There are techniques that can be introduced with self-administered surveys to attempt to improve response rates and to make the survey more appealing. Pretesting is one of them and can be employed to identify any problems with questionnaire format or wording prior to posting them out to the full sample, when such problems are out of the researcher's hands (Churchill, 1999; Malhotra and Birks, 2006). A more detailed discussion on pre-testing will take place in the relevant section that follows.

Jobber and O'Reilly (1998) indicate that non-monetary incentives, such as an offer to supply respondents with a summary of the research results, can increase response rates. In accordance with this, the covering letter invited respondents to include an email address at the conclusion of the questionnaire (or to contact the researcher directly) in order to receive a report summary at the conclusion of the project. Survey packets contained a freepost return envelope as the use of prepaid return envelopes has been argued to increase response rates (Armstrong and Lusk, 1987; Jobber and O'Reilly, 1998). Cover letters that appeal to the reader and give a detailed project description were employed as they have also been found to increase response rates (Jobber and O'Reilly, 1998). In addition, respondents were guaranteed confidentiality, in an effort to further improve response rates (Jobber and O'Reilly, 1995).

An overview of the recommended methods to increase response rate is given in Figure 5.1. The list includes suggestions from Diamantopoulos and Schlegelmilch (1996), Jobber and O'Reilley (1998) and Churchill (1999).

Figure 5.1: Factors Influencing Response Rate

*Telephone pre-notification
*Follow-ups
*Stamped address return envelope
*Second mailing of the questionnaire and letter
*Assurance of anonymity and confidentiality
*Appeals (e.g. egoistic, social utility, altruism)
*Personalisation (e.g. hand-signed or personal cover letter)
*Interesting and not controversial in nature topic
*Simple questions and layout
Specification of return date
Monetary incentives
*Non-monetary gifts
Questionnaire shorter than or equal to 4 pages

*Methods of response rate enhancement applied in the current study

The methods actually employed for the enhancement of response rate and a more detailed discussion about the survey administration are presented in section 5.4.

5.2.5 Physical Characteristics

According to Luck and Rubin (1987), the appearance of the instrument can be very important in securing the cooperation of the respondents. Furthermore, an adequate questionnaire layout is likely to minimise the risk of recording erroneous information (Tull and Hawkins, 1993). With these in mind, the questionnaire template was designed to appear both appealing and practical. The Arial font in size 11 was adopted as this lettering has been found particularly suitable for people with learning difficulties such as dyslexia for example (www.uea.ac.uk/services/students/disability/disability-SPLD). Moreover, a light yellow (ivory) paper was used as it was deemed more appealing than the

commonly used white (e.g. Denscombe, 2009). The cover page sported the University's logo, the title of the research instrument (Export Decision-Making and Performance: A Study of British Exporters) and the full names and contact details of the research team (i.e., this doctoral student and his two supervisors). The pre-protocol instrument achieved a length of 12 pages including the cover page. Questionnaire length was addressed by using double-sided printing, since "double-sided printing makes the questionnaire appear shorter and thus less time consuming" (Jobber, 1989, p. 137).

5.3 PRELIMINARY DATA CLEANING

As already mentioned in Chapter 3, the Kompass database was employed in order for the sample to be sought. Even at the early stages of its utilisation during the exploratory phase, the database seemed to have some problems as on a number of occasions the data displayed were not up-to-date. In order to overcome this problem a decision was taken to personally contact all of the available firms by telephone to verify their details. A total of 2285 firms were contacted during a 6-month period of time. During these telephone contacts the researcher was seeking to verify the following:

1. The firm's contact details
2. The name and exact position/job title of the export decision-maker
3. Whether the firm was still involved in exporting
4. Total number of employees

The researcher also tried to raise an interest in the study before the mailing of the main survey. The objective was to contact directly the potential respondent but in many instances where this was not possible, a secretary provided the required information. The decision to proceed with data cleaning proved critical for the success of the study as it led to many amendments. There were many problems in terms of wrong contact details or changes to them, incorrect names or job titles, managers who no longer had their position in the firm for a number of reasons

(e.g. due to retirement, downsizing, etc.). Out of the 2285 firms contacted, 197 needed updating in terms of their contact details and managers' names and/or job titles. Moreover, 828 out of the 2285 companies listed in the database were found to be ineligible to participate. The main reasons were the following:

1. The company was no longer exporting (272 companies)
2. The company was a subsidiary of a foreign organisation and export decision-making was made from the parent company placed in another country (198 companies)
3. The company was liquidated (99 companies)
4. The company could not be contacted at all (either because it had ceased trading or because the phone number was not valid) - (153 companies)
5. The company was wrongly listed as an exporter (106 companies)

The preliminary data cleaning process resulted in 1457 companies being eligible and available for participation in the main survey out of 2285 initially available.

5.4 PRE-TESTING

Before administering the questionnaire to the final sample, a pre-test was conducted. This included both protocols/debriefing and pilot testing. Pre-testing, "refers to the testing of the questionnaire on a small sample of respondents to identify and eliminate potential problems" (Malhotra, 2004, p. 301). This is a crucial stage in the questionnaire development process since the potential effectiveness of the questionnaire is integrally connected to it (Reynolds et al, 1993). The role of the questionnaire pre-test in the questionnaire design can be paralleled to the role that preliminary marketing research plays for the new product development process (Churchill, 1991). Indeed, "questionnaires may have to be designed with only a modicum of knowledge about the subject. In these circumstances mistakes are bound to occur unless the questionnaire is tested" (Hague, 1987, p. 170).

Questionnaire pre-testing is a recurrent process of (consecutive) revision until a point where no further changes are needed. As a result, effective pre-testing is a

process likely to involve several stages (Malhotra, 2004). According to Reynolds et al, (1993, p. 173), “pre-testing a questionnaire can be split into two main areas, notably (a) pre-testing individual questions and (b) checking the overall design. The former pre-test is associated with individual questions including question difficulty, content, wording, sequence and also the physical characteristics of the questionnaire (Oppenheim, 1966). The latter pre-test is not restricted to the testing of the questionnaire alone but can also be used as “a test of the entire process of data collection and even the first steps of the analysis (Galtun 1967, p.137). As a result of the above “the respondents in the pre-test should be similar to those who will be included in the actual survey in terms of background characteristics, familiarity with the topic, and attitudes and behaviours of interest” (Malhotra 2004, p. 301). At this point it should be mentioned that the target population consisted of exporting firms and the key respondents were the export decision-makers. A more detailed discussion on sampling issues follows in section 5.5.

There is general consensus in the literature for initial pre-testing to be conducted via personal interviews, whereas final pre-testing should employ the medium used in the main study (e.g. Peterson 1988; Boyd et al. 1989; Kinear and Taylor 1993). In line with this, protocol and debriefing were first undertaken to assess the adequacy of the questionnaire and a pilot study conducted afterwards.

5.4.1 Protocols/Debriefing

Protocol analysis and debriefing are two commonly used procedures in pre-testing. In protocol analysis the respondent is interviewed by the researcher and is asked to think out loud while answering the questionnaire (Diamantopoulos et al, 1994). Debriefing on the other hand, occurs after the questionnaire has been completed. The pre-test purpose of the questionnaire is revealed and its specific objectives explained to the respondents. They are then asked to justify their answers and state any potential difficulties encountered (Malhotra 2004).

A protocol provides greater volume of information than the debriefing method. Furthermore a protocol tends to be more useful where long questionnaires are concerned, since debriefing runs the risk that problems encountered in the

beginning will be overshadowed by those encountered at the end of the questionnaire (Reynolds et al, 1993). Therefore, the emphasis was shifted to the protocols method. However, both methods were employed for maximum effectiveness.

Two protocols were conducted first with marketing academics. Then another two were undertaken with export managers. Finally, debriefing with a marketing academic was performed. All of these lasted between 30-45 minutes. Finally the instrument was sent out to another export manager who agreed to complete and send it back with his comments on the potential improvements that could be made. The next section describes the changes performed according to the feedback received during the protocols and debriefs.

5.4.2 Questionnaire Revision

The main concern raised was that the questionnaire was found to be very long. However, no remedy could be applied for this problem as none of the included variables could be withdrawn.

Changes implemented were the following:

1. Page 9, question 3: The abbreviation B2B was not clear for one of the participants. It was, therefore, replaced by the full term (i.e. business-to-business).
2. A very important shortcoming had to do with the term '*export information*'. More specifically two managers were not sure exactly what export information meant and asked for further clarification. Thus, a definition was introduced. This definition was incorporated after question 4, in which the term export information was first encountered within the questionnaire.
3. Question 5, page 3, item 4: '*The export information we get is objective rather than subjective*'. The manager's reaction to this item in his own words was the following: '*Not very clear. Objective is what I know. Subjective is*

something I would need to look into the dictionary'. Taking this observation into account, the item was decided to be rephrased into: *'The export information we get is usually objective'*.

4. Question 2, page 9, item 1: *'Foreign restrictions on seller concentration'*. One of the managers could not understand the term 'seller concentration'. The specific item was therefore replaced with: *'foreign restrictions on the number of competitors in a specific market'*.

No problems or complaints were highlighted in terms of layout. After revising the questionnaire, the pilot study was undertaken.

5.4.3 Pilot Study

As noted, researchers recommend the use of pre-notification and follow-up methods to enhance response rates (Harvey, 1987; Jobber and O'Reilly, 1998). In order to maximise response rates, questionnaires were mailed following the procedure recommended by Dillman (2006). Approximately one hundred firms were randomly selected from the cleaned Kompass database.

The steps followed in the pilot were the following:

1. Introductory letter was mailed to export firms in the UK, which used numerous appeals. More specifically, assurance of anonymity and confidentiality was provided as well as the fact that the results were only going to be used for academic purposes. Also, a managerial summary of the study's main findings was offered upon request. Furthermore, the letter informed the export decision-makers of the purpose of the study, and also that in one week's time they would receive a questionnaire packet with further instructions (please see appendix 5.1).
2. After one week, a questionnaire packet was mailed to British exporters, which included cover letter, questionnaire and freepost reply envelope (please see appendix 5.2).

3. Reminder cards were sent to exporters one week after the first questionnaire wave, asking them to complete and return the questionnaire if they had not already done so (please see appendix 5.3).
4. Reminder questionnaire packets were mailed out to exporting firms one week after the reminder card, with reminder cover letter, replacement questionnaire and freepost reply envelope (please appendix 5.4).

The pilot study generated an overall response rate of 8.6% as a total of 8 questionnaires were finally returned. All of the respondents had fully completed the questionnaires. Given the preliminary data cleaning process which preceded the pre-testing phase, almost all potential respondents were eligible for participation to the study (apart from two managers, as shown below). A telephone follow-up to a randomly selected sub-sample of 30 non-respondents (time limitations prevented contacting all non-respondents) displayed the following as reasons for non participation in the survey:

1. Nine out of thirty managers declined to participate because of heavy workload. The exceptional workload was ascribed to the following reasons:
 - a) It was claimed that summer was a very busy period for the firm as planning for the next commercial year commencing in autumn was in progress and/or,
 - b) the company was short of staff because of the summer holidays.
2. Six managers were not reached at all as they were on holiday themselves during this period.
3. Two managers replied that their firm's export operations were only a tiny proportion of the total. As a result, they were not qualified to fill out the questionnaire as they lacked the required knowledge to do so. They further claimed that the questionnaire was too complicated and detailed for them. Thus, they were considered as ineligible. It was not always possible for the data cleaning process to rule out incidents like that because in some occasions it had not been possible to contact the export managers directly.

Given their heavy work schedule and/or a number of commitments likely to keep them away from their office, the company's secretary was contacted instead. The latter, could not of course always be expected to have the knowledge to provide such detailed information.

4. Ten managers ascribed their unwillingness to participate due to questionnaire length. One of them claimed that he started filling it in but soon abandoned his effort as it was too long and too time consuming.
5. Three out of thirty proved disinterested and rejected participation for their own reasons.

Given that 2/30 respondents were ineligible, this equated to 7/100. The response rate for the pilot study was therefore $8/(100-7) = 8.6\%$. These results highlighted the importance of carefully considering and planning the specific period of time during which the main survey was going to be mailed out, because summer holiday was the main reason for non-response.

5.5 THE MAIN SAMPLE SURVEY

"Once the researcher has clearly specified the problem and developed an appropriate research design and data collection instrument, the next step in the research process is to select those elements from which the information will be collected (Churchill, 1991, p. 535).

5.5.1 Sampling Process

According to Malhotra and Birks (2006), the stages followed in the sampling process are the following:

- 1) Definition of target population;
- 2) Determination of sampling frame;
- 3) Selection of sampling technique;

- 4) Determination of sample size; and
- 5) Execution of sampling process.

Each of these stages is now discussed in more detail.

5.5.2 Definition of Target Population

The population of interest of this study consisted of all British firms engaged in exporting. According to a recent report in June 2009 by the British Chambers of Commerce, in all 46 accredited chambers around the UK, the following results were displayed:

- The British Chambers of Commerce represent 100,000 registered businesses that together employ more than 5 million employees. 31% of chamber members have exported goods or services from the UK in the last 12 months; 14% of those not currently exporting have previously done so and 11% are considering doing so in the future (of course there is no way of knowing the exact population of British exporters – therefore all the data presented at this point are not exhaustive or fully representative of the population. They, nonetheless, comprise a good indication of the British exporting firms).
- 87% of those chamber members, who are currently exporters, are exporting to Europe. Asia is served by 56% of businesses; 39% export to the Middle and Near East, 23% to China, 21% to India, and 20% to South East Asia. 49% are exporting to the Americas; 40% to the USA, 22% to Canada, and 16% to South America.
- The majority of exporters tend to be concentrated in North-West England.
- 81% of UK exporters indicate they have fewer than 50 employees. 12% have between 50 and 249 and 6% has over 250 employees. Table A provides a more detailed size distribution.

- Table 5.6 provided below shows that the relative percentage of exporters is higher among larger firms.
- The majority of exporting comes from the manufacturing sector (see table 5.7)

Table 5.5 (Source: British Chambers of Commerce 2009)

Number of Employees	%
Sole trader	10
1 – 4	24
5 - 9	17
10 - 49	30
50 - 99	7
100 - 249	5
250 - 499	2
500 +	4
Not stated	1

Table 5.6 (Source: British Chambers of Commerce 2009)

Exported goods or services from UK in the last 12 months	%
0 – 4 employees	19
5 – 49 employees	36
50 – 249 employees	42
250 + employees	41

Table 5.7 (Source: British Chambers of Commerce 2009)

Primary Business Sector	%
Manufacturing / engineering / construction / electrical	29
Business / professional services	27
Transport / export / storage / retail / wholesale	12
Public / education / voluntary services / healthcare / charities	9
Marketing / media	6
Hotels / restaurants / leisure	5
Other services / not stated	12

5.5.3 Determination of Sampling Frame

After determining the population of interest, a researcher then seeks to develop a list of all eligible sampling units, which is referred to as a sampling frame (Hair et al., 2010). It is rare for a perfect match to be achieved between a sampling frame and a target population (Churchill, 1999). Common sources of sampling frames are such things as lists of registered voters, customer lists from companies, or lists purchased from database companies (Hair et al., 2010).

As it has been reported already, in order to generate an appropriate sampling frame the Kompass database was employed. There was no particular reason for any limitations or other rigid, selection criteria to be imposed. Therefore, all 1357 available companies were included in the main survey.

5.5.4 Selection of Sampling Technique

The term ‘sampling technique’ is used to describe the process according to which a sample is obtained and can be broadly classified as ‘non-probability’ and ‘probability’ (Burns and Bush, 2003). Non-probability sampling relies on the personal judgement of the researcher rather than chance to select sample elements (Churchill and Iacobucci, 2005). According to Malhotra (2004, p. 320), “Non-probability samples may yield good estimates of the population characteristics. However, they do not allow for objective evaluation of the sample results. Because there is no way of determining the probability of selecting any particular element for inclusion in the sample, the estimates obtained are not statistically projectable to the population”. On the other hand, in probability sampling, sample units are selected by chance (Churchill and Iacobucci, 2005). The difference to non-probability sampling is that “it is possible to pre-specify every potential sample of a given size that could be drawn from the population, as well as the probability of selecting each sample” (Malhotra, 2004, p. 320)

Probability sampling was the technique employed by the current study. As has already been argued, the Kompass database provided a total of 2285 British exporters available for selection. This was a subset of the total number of

exporting firms available within the database. The limitation in the number of firms used in the study was imposed because British exporting firms from the same database were going to be used at the same time by other projects undertaken within Loughborough University Business School and no overlap was permitted in terms of contacting the same respondents. It was decided that the symbolic use of export information study was going to be allocated one eighth of the total number of exporting firms available. Since the size of the population was 18,280 exporting firms, the latter accounted for 2,285 firms. The technique employed for the selection of the sample was systematic sampling. More specifically, in systematic sampling, “the sample is chosen by selecting a random starting point and then picking every i -th element in succession from the sampling frame. The sampling interval i , is determined by dividing the population size N by the sample size n and rounding to the nearest integer” (Malhotra, 2004, p. 326). The starting point was number one and, given that the sampling interval was 8, the sample consisted of elements 1, 8, 16, 24, and so on.

5.5.5 Determination of Sample Size

One issue when seeking to determine the appropriate sample size is to have a representative sample drawn randomly from a population. This is needed for increased confidence in the findings which can be generalised to the population (Burns and Bush, 2003). Determining the appropriate sample size is a process closely related to the notion of sampling error. Sampling error is the difference between the observed values of a variable and the long-run average of the observed values in repetitions of measurement (Churchill, 1999). In terms of survey research, it is the difference between the population defined by the researcher and the population as implied by the sample used in research (Malhotra and Birks, 2006). In this specific instance, it is the difference between the potential answers of the total population of British exporters, and the answers given by the export managers of those firms that participated in the study. Sampling error is normally found to decrease as sample size increases (Churchill, 1999; Hair, et al., 2010). This is because as the sample size increases, it becomes more representative of the population (Hair et al., 2010). A census of the population is recognised as the only form of sampling that is likely to be totally free

from sampling error (Malhotra and Birks, 2006). However, to conduct a census as part of an academic project is virtually impossible, so the goal of the research was to try and generate as large a respondent sample as possible.

Given the large number of constructs and also the measure development objective in this study, it was important to have a reasonable number of cases in order to ensure that there would be sufficient power in the statistical analysis. The literature highlights that at least 100 to 200 cases are necessary to adequately assess the reliability and validity of measures (Spector 1992) and for testing the model using advanced multivariate techniques (e.g. Hair et al., 2010). Given the 8.6% response rate obtained from the pretesting phase, a minimum sample size of at least 1250 firms was required for initial contact.

5.5.6 Execution of the Main Mail Survey

The Dillman (2006) method was once again employed, as it was during the pretest phase, but with the addition of an extra follow-up stage to maximise the response rate. More specifically, the non-respondents who had already been contacted previously were followed-up a 3rd time. This was because, the main mail survey with the application of the original two follow-up stages as per Dillman (2006) yielded a total of 168 usable questionnaires. This number of responses, however, was not deemed sufficient for the purposes of the current study and a slightly increased response rate was desirable. This time the form of communication was changed both in terms of the process followed and the content as well. Only one packet was sent including a letter and a replacement questionnaire. This letter was written in a more personal and less formal style. It reminded recipients of the purpose of the study and asked for their help by highlighting the fact that without this help the researcher would not be able to complete his degree and many years of hard effort would be compromised (for a copy of the letter please see appendix 5.5). It was hoped that potential respondents would show altruism and feel special in the thought of helping someone who was kindly asking for their input. This feel-good factor was likely to make them give in to the specific request (Rubin 2004).

Indeed, this practice resulted in the obtainment of another 21 questionnaires, raising the total number of usable questionnaires to 189.

5.5.7 Non-response analysis and response rate calculation

Respondent errors often take the form of non-response bias (Malhotra and Birks, 2006). Non-response bias is defined as "a type of non sampling error which occurs when some of the respondents included in the sample do not respond" (Malhotra 1993, p.106). This issue is a concern for social science researchers who strive for representativeness from their chosen sample (Burns and Bush, 2003). However, the issue of sample generalisability due to non-response error has been questioned by Morgan and Hunt (1994) as not being a major issue when the research is providing an initial test of a theoretical model. Morgan and Hunt (1994) observe that the important issues in this initial theory testing situation are whether the sample is an appropriate context for testing the theory and whether the sample of respondents has variance to be explained. Nonetheless, different extrapolation methods are available in order to estimate non-response bias. These are based on the assumption that respondents who respond less readily (i.e. late respondents) are more like non-respondents (Armstrong and Overton, 1977). In order to estimate the potential magnitude of non-response bias the Armstrong and Overton (1977) test is applied. The results of this test suggest that non-response bias is not likely to an issue for this study (see appendix 5.6).

After the preliminary data cleaning, the final sample consisted of 1357 companies out of the 2285 initially available (1457 minus 100 used in the pre-testing phase). The mail survey resulted in the return of 189 usable questionnaires and 37 non-usable ones (questionnaire was returned uncompleted). The following table provides detailed information on early versus late respondents:

Table 5.8: Early versus Late Respondents

PHASE	QUESTIONNAIRE	REMINDER CARDS	REMINDER QUESTIONNAIRE 1	REMINDER QUESTIONNAIRE 2
TOTAL REPLIES	33	36	44	76

Although preliminary data cleaning was thought to have purified the sample by removing ineligible firms, follow-up to non-respondents was undertaken as a supplementary precaution. More specifically, a random sample of 100 non-respondents was contacted by telephone in order to determine reasons for non-response. These reasons are presented in the following table:

Table 5.9: Main Survey Non-response Analysis

Reasons for non-response	Number of firms	
Firm no longer an exporter Firm no longer exists Respondent felt ineligible Respondent no longer in the firm	1 1 6 6	14% ineligible
No time Respondent not interested Questionnaire too long	40 19 27	86% eligible
Total	100	100%

The total number of non-respondents is $1357 - 189 - 37 = 1131$. The contact with a sub-sample of 100 non-respondents revealed that 14% of those 100 companies were ineligible. In order to determine a 95% confidence interval of the number of ineligible firms (out of 100 non-respondents), the following formula is employed (Daniel and Terrell, 1986):

$$p \pm Z \left[\sqrt{p(1-p)} / \sqrt{n} \times \sqrt{N-n} / \sqrt{N-1} \right] \quad (1)$$

where:

p = the observed sample proportion

Z = the number of standard errors for the desired confidence interval

n = the sub-sample of non-respondents

N = the total number of non-respondents

The confidence interval is calculated as follows:

$$0.14 \pm 1.96 \sqrt{0.14x(1-0.14)/100x\sqrt{1131-100/1131-1}}$$

Between 7.6 % and 20% of 1131 non-respondents are ineligible firms (between 86 and 226 out of 1131 firms). If we add to these figures the number of ineligible companies which did not respond (14 companies), then the total number of ineligible firms is between 123 and 263. The two response rates corresponding to the minimum and maximum responses rate figures are calculated as follows:

$$189/(1357-123) = 15\% \text{ and } 189/(1357-263) = 17\%$$

Therefore, average response rate for the main survey is 16%. This is an acceptable response rate given: a) questionnaire length and, b) the fact that the respondents participating in the study were all professionals operating under time pressure and other constraints (Dillman, 2006). Furthermore, bearing in mind that the average top management response rates are in the range of 15-20% (Menon et al., 1999), the 16% response rate of the current study is deemed a satisfactory one. Ultimately, the response rate of the current study is similar to other studies on export information use. For example, the study by Williams (2003) generated a 21% response rate and a total of 183 responses. The response rate that the study by Souchon and Diamantopoulos (1999) obtained was slightly higher (24% for a total of 198 usable responses) but nonetheless without great deviation from this study's 16%. Finally, Souchon et al. (2003), in their five-country survey of exporting firms report the following effective response rates and associated sample sizes: a) Austria, 16.8% (N=220), b) Germany, 14% (N=172), c) New Zealand, 46% (N=239), d) United Kingdom, 14.9% (N=198), and e) USA, 8.4% (N=163). With the exception of New Zealand and the USA which generated a very high and a fairly low response rate respectively, the response rate in the UK was very close to the 16% that this study achieved. The same applies for the other two European countries namely Austria and Germany. Given that around 20%

response rate is considered good in Europe (Toften, 2005), the response rate of this study is more than satisfactory.

5.6 SAMPLE CHARACTERISTICS OF THE COMPANIES

As already mentioned, data for this study has been collected from exporting firms around the UK and the key respondents were export managers. It would be useful to provide some descriptive analysis as far as some main characteristics of the participating companies are concerned. This is important for two main reasons:

- a) To examine the degree to which the sample is representative of the population, and
- b) Because the examined variables have been used as control variables in the export information use and export performance literature

The specific companies' characteristics to be examined are size, business experience and export specificity.

5.6.1 Company Size

Company size has been used as a control variable and/or an antecedent in a number of export performance studies (e.g. Christensen et al., 1987; Beamish et al., 1993; Diamantopoulos and Schlegelmilch, 1994; Diamantopoulos and Kakkos, 2007) and in some export information use studies (e.g. Williams, 2003). The current study also intends to employ company size as a control variable in the regression analysis. It is therefore, necessary to further explore this variable in terms of the size of the specific companies that participated to the study.

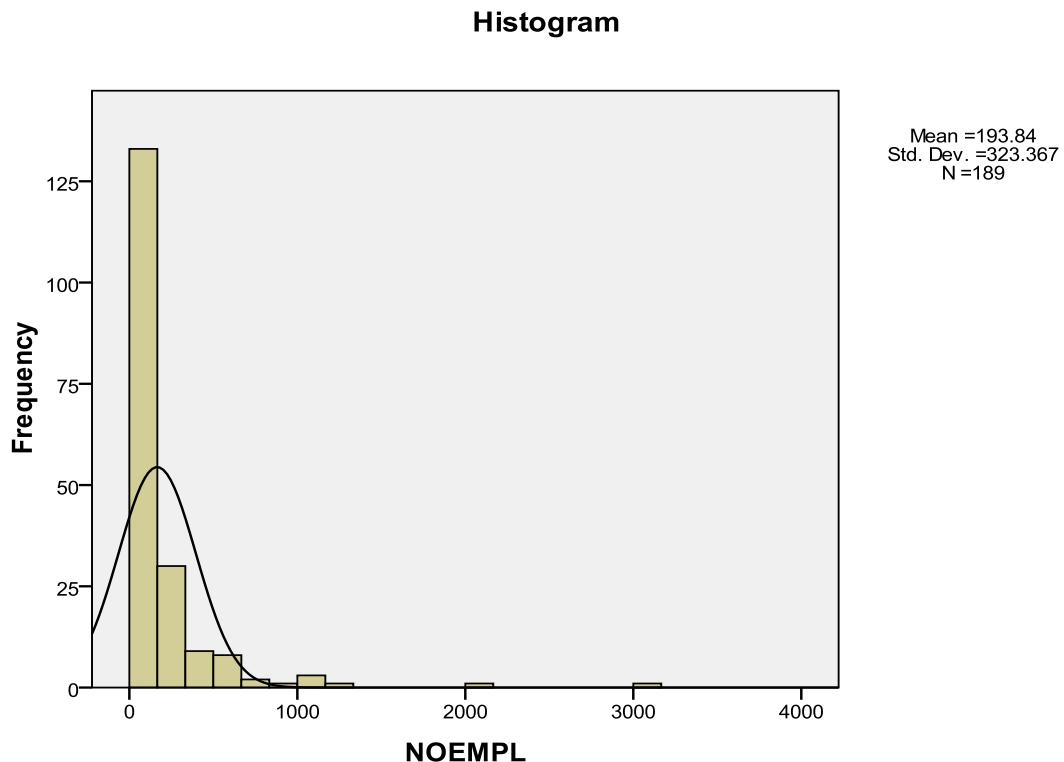
Several indicators have been used in order to capture company size with number of employees, total sales turnover and number of product/service groups exported being the main ones (Diamantopoulos et al., 1990). The current study uses number of full-time employees which is the most common way to measure

company size (Hart et al., 1994). Table 5.10 includes the descriptive characteristics of number of employees.

Table 5.10: Company Size

Mean	193.84
Median	92
Mode	300
Standard Deviation	323.367
Minimum	2
Maximum	3000

As we can see from the data, the majority of the companies participating in this study are small or medium sized with less than 250 employees. This is in line with what one would expect, especially when bearing in mind that “SMEs represent 99% of all UK companies and account for almost three-fifths of employment” (Williams, 2003, p.45). In that respect, the sample is representative of the population. The distribution is positively skewed and there are some significant outlier values (companies with more than 2000 or 3000 employees).

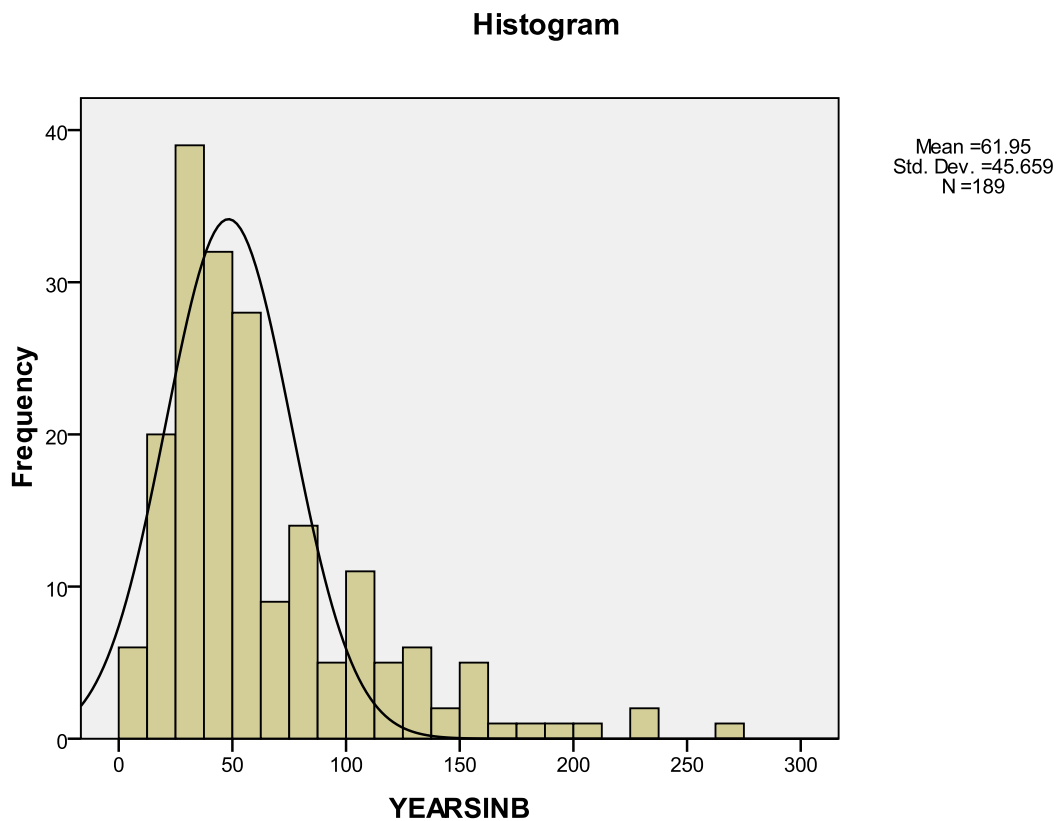
Figure 5.2: Company Size

5.6.2 Company Age (Business Experience)

The relationship between age and export performance has been intensively studied in recent years (e.g. Katsikeas et al., 2000; Sousa, 2004; Majocchi et al., 2005). Company age is measured by the number of years the company has been in business. The descriptive characteristics of company age are presented in table 5.11 that follows:

Table 5.11: Company Age

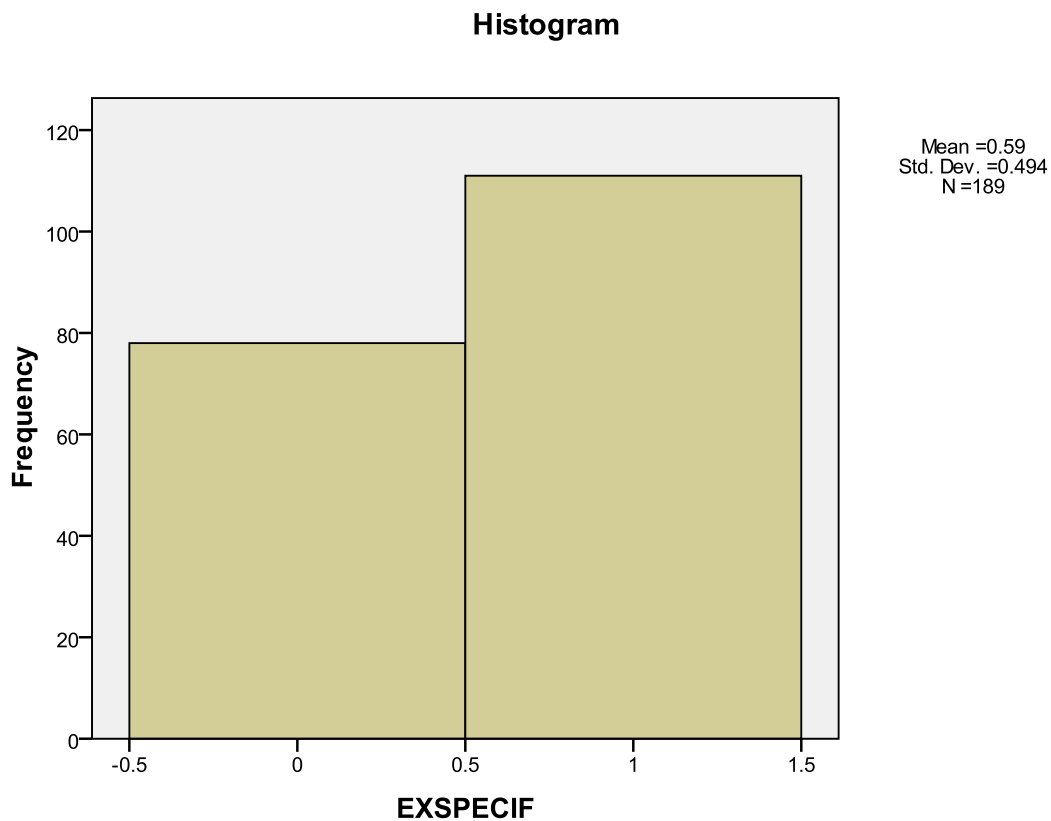
Mean	61.95
Median	46
Mode	50
Standard Deviation	46.659
Minimum	6
Maximum	270

Figure 5.3: Company Age

The distribution is positively skewed and there are some significant outlier values. The majority of the companies have a business experience of around 50 years and the standard deviation indicates that there is quite high dispersion from the mean. The results seem to indicate that in terms of company age the sample is representative of the population.

5.6.3 Export Specificity

Export specificity refers to the existence (or non-existence) of a separate export department that is primarily in charge of export activities (Samiee and Walters, 1990). Given that the selection of the export function as the appropriate unit of analysis for this study was based on the premise that a great number export firms would not have a dedicated export department, further exploring this variable seems to be of significant interest. The measures of central tendency and dispersion are provided in the table that follows:

Figure 5.4: Export Specificity

An extremely interesting finding is that the majority of the firms had a dedicated export department (59%). This is contradictory to our expectations and to the advocates of the literature according to which the majority of export firms do not have a separate export department (e.g. Vyas and Souchon, 2003). This may well mean that firms with export specificity are more likely to respond to an export information use questionnaire. Indeed, firms with export-specific structures are more likely to be actively involved in acquisition and utilisation of export information (Samiee and Walters, 1990). Additionally, they may also be more conscious of the importance of a research study on export information use and export performance. Hence, they are more likely to have participated in the current study than those firms with no export specificity.

5.7 ANALYTICAL PROCEDURE

Once questionnaires were collected, data cleaning was undertaken and the data was entered into an SPSS spreadsheet. This spreadsheet was then used as the basis for preliminary calculations and data analysis.

After dealing with missing values, the next step was to assess the psychometric properties of the scales and to develop reliable and valid measures for the symbolic use dimensions. The procedure followed in that respect involved three basic steps namely: a) Dimensionality assessment, b) reliability assessment and c) validation of the scales. For dimensionality assessment Principal Components Analysis was undertaken. Internal consistency reliability was assessed with the use of Cronbach Alpha while different types of validity were also considered (e.g. content, construct and nomological). More details on the assessment of the scales' psychometric properties are provided in chapter 6 that follows.

Given that the model to be tested represents relationships between constructs, data analysis based upon some form of correlation is appropriate. The correlation family of statistics includes basic forms of bivariate correlation (e.g., Spearman, Pearson) and moves through to more complicated multivariate techniques (e.g., regression, multiple regression, structural equation modelling). Multivariate analysis is based on the principle of multivariate statistics, which involves observation and analysis of more than one statistical variable at a time. More specifically, "multivariate analysis methods make it possible to ask specific and precise questions of considerable complexity in natural settings. This makes it possible to conduct theoretically significant research and to evaluate the effects of naturally occurring parametric variations in the context in which they normally occur. In this way, the natural correlations among the manifold influences on behavior can be preserved and separate effects of these influences can be studied statistically without causing a typical isolation of either individuals or variables" (Hair et al., 2010, p. 4).

The method of analysis chosen in this study is hierarchical multiple regression which is a widely used multivariate technique (Field, 2009). It seems likely to

accurately suit the purposes of the current study which seeks to analyse the relationship between a dependent variable (criterion) and several independent (predictor) variables (Field, 2009). More specifically, the examination of the regression coefficients of each independent variable, both in terms of magnitude and statistical significance, will allow for the development of a substantive or theoretical reason for the effects of those independent variables (Hair et al., 2010). Given the existence of several moderators in the model, hierarchical moderated regression was chosen (Cohen et al., 2003). Basically, “two types of problems are addressed in moderator variable research: 1) determining relative strengths of relationships across values of the moderator variable, that is differential validity, and 2) examining different predicted criterion scores patterns at different levels of a moderator variable” (Anderson, 1986, p. 188). The use of regression can be justified by the fact that the topic is still rather new, so confirmatory methods may be more useful at a later stage of the area’s development (Sharma, 1996).

The ultimate objective of hierarchical moderated regression is to minimise the number of independent and moderator variables and maximise the predictive ability of a theoretically based regression model (Pedhazur, 1982). An *F* test is performed to determine whether addition of a moderator-independent variable interaction term to the regression equation makes a significant change in the model R^2 between the more complex and simpler models (Cohen et al., 2003).

Given that the hypotheses developed in chapter 4 were directional, one-tailed tests are employed. A directional hypothesis is defined as one that “states an effect will occur, but it also states the direction of the effect. A non-directional hypothesis states that an effect will occur, but it doesn’t state the direction of the effect” (Field, 2009, p. 27). With this in mind, a one-tailed test looks for an increase or decrease (positive or negative relationship) in the parameter of interest whereas a two-tailed test looks for any change in the parameter (Stevens, 1996).

5.8 CHAPTER SUMMARY

In this chapter, the quantitative methodology employed by the current study was presented. More specifically, the appropriate research design was first determined, followed by a description of the steps and techniques used in order to ensure an effective questionnaire design and wording. The latter was considered important for two main reasons. First, because it is during the early stages of the development of the questionnaire that issues of common method variance and other types of systematic error (e.g. social desirability) should be taken into account and minimised through an effective design (Spector, 1992). This, in turn, is likely to enhance the reliability of the instrument and affect validity as well (DeVellis, 2003). Second, because it is also likely to lead to greater participation in the study, enhancing, as a result, the response rate (Dillman, 2006).

Another important objective was the creation of a reliable and functional pool of potential respondents. For that reason, the available database was cleaned by removing a number of respondents not eligible to participate in the study. Next, the pilot study comprised a rehearsal by enabling the researcher to test the instrument before the main mail survey. The pilot study resulted in an 8.6% response rate which was significantly lower than the actual response rate of the main study (16%). Also, the actual number of 189 responses was deemed sufficient for subsequent quantitative analysis. The last part of this chapter identified moderated hierarchical regression as the most appropriate analytical technique.

In the next chapter, measure development techniques are employed in the form of dimensionality assessment and reliability and validity analysis.

Chapter Six: SCALE DEVELOPMENT

This Chapter outlines the measure development procedures employed to assess the psychometric soundness of the multi-item scales used in the study. Its purpose is to show in detail how the scales are purified before further analysis is undertaken.

It is desirable for any scale to have good 'psychometric properties', which refers to dimensionality, reliability and validity (Spector, 1992). The initial focus of discussion in this chapter is an explanation of the factor analysis techniques employed and the reasons for their selection. Next, the discussion of the evaluation of reliability and validity of the scales is presented. The creation of summated scales and overall conclusions constitute the final sections of this chapter.

6.1 MISSING VALUE ANALYSIS

As stated in Chapter 4, initial entry of the 189 usable cases was performed using the SPSS software package. Negatively worded items were then recoded. Since all the negatively worded items were measured on a 7-point likert-type scale, they were re-coded so that 1 became a 7, a 2 became a 6 and so on through to a 7 becoming a 1. In total there were 11 items that needed to be recoded, including 1 item for haphazard use and 10 items from the social desirability scale. Following recoding, missing value analysis was performed.

Missing data (i.e., where valid values on one or more variables are not available for analysis) is a common problem in survey research (Lee and Lings, 2008). The problem of missing data can be attributed to a number of reasons such as for example: a) respondent fatigue (Schafer and Graham, 2002), b) lack of knowledge (Hair et al., 2010), or unwillingness to disclose sensitive information (Brown and Kros, 2003). The main practical impact of missing data is the reduction of the

sample size available for analysis (Malhotra, 2004). Furthermore, “from a substantive perspective, any statistical results based on data with a non-random missing data process could be biased. This bias occurs when the missing data process causes certain data to be missing and these missing data lead to erroneous results” (Hair et al., 2010, p. 42). Therefore, before any decisions can be made on the method of missing value analysis, one should diagnose the randomness of the missing data processes.

6.1.1 Missing Data Processes

There are three standard types of missing data according to the pattern or process the missing data might be following. The first one is when missing data cannot be formalised and part of the research design (Acock, 2005). In these instances, the missing data are termed ‘ignorable missing data’ and the process NMAR (Brown and Kros, 2003). No specific remedy needs to be applied because the allowances for missing data are inherent in the technique used (Lee and Lings, 2008). Van Ginkel et al., (2007) provide a very good example of an NMAR (not-missing-at-random) missing data pattern. More specifically, if people who suffer from depression have fewer chances to answer a question about depression than those who do not, then this process can be classified as NMAR. However, this is not applicable as far as this study is concerned.

Another possibility is for data to be missing at random (MAR) (Acock, 2005). Under MAR, “the probability that Y is missing for a sample subject may be related to the subject’s value of X but not to his values of Y” (Schafer and Olsen, 1998, p. 552). Following the example provided before by Van Ginkel et al., (2007), if it is assumed that women are more likely to answer a question on depression than men then the probability for women to answer will be higher. In this case, the missing values within each sub-group of respondents are a random sample of all values (Schaffer and Olsen, 1998). The main difference between MAR and NMAR is that “in contrast to the MAR situation where data missingness is explained by other variables in the study; non-ignorable missing data arise due to the data missingness pattern being explainable – and only explainable – by the very variable(s) on which the data are missing” (Brown and Kros, 2003, p. 613).

At a higher level of randomness, the data may be missing completely at random (MCAR), which means that “the observed values of Y are truly a random sample of all the Y values; with no underlying process that lends bias to the observed data” (Hair et al., 2010, p. 49). Under MCAR the missing values are considered to be a random sample of all the values in the data (Van Ginkel et al., 2007). The basic, practical difference between the two processes is that, should the data be diagnosed as missing completely at random (MCAR), any missing data replacement method can be applied (Allison, 2002).

According to Hair et al. (2010), there is an overall test for determining whether the data is missing completely at random (MCAR) or not. This test is called Little’s MCAR test and compares “the actual pattern of missing data with what would be expected if the missing data were totally randomly distributed” (Hair et al., 2010, p. 60). The MCAR missing data process is indicated by a non-significant statistical level of the t-value for group comparisons (e.g. greater than 0.5) (Hair et al., 2010). The non-significant level of the MCAR test for this study was 0.836 which shows that the pattern of the missing data was MCAR, or, in other words, sufficiently random to accommodate any type of missing data remedy. In any case, no significant constraints were likely to be posed regardless of whether the missing data process was MCAR or MAR. This is because, as it will be shown in what follows, the current study identified the use of the EM algorithm approach as the most suitable imputation method. The main advantage of this method is that it produces consistent estimates of missing values under both missing values patterns (Little and Rubin, 1989).

6.1.2 Selection of Imputation Method

The treatment of missing data is an important consideration as it has implications for the data analysis and the interpretation of the results (Gold and Bentler, 2000; Schafer and Graham, 2002). There are several methods of addressing the problem of missing values which have been extensively examined in the literature during the past 30 years (e.g. Orchard and Woodbury, 1972; Rubin, 1978; Rubin and Schenker, 1986; Schafer and Olsen, 1998; Schafer and Graham, 2002). Statistical methods such as Bayesian analysis can be applied to alleviate the

problem of missing data (Schafer, 2003). However, the assumptions behind Bayesian techniques are strong which can be restrictive in many cases (Brown and Kros, 2003). A very useful alternative can be imputation (Hair et al., 2010).

One of the most direct and simple imputation methods is the inclusion of complete data only which is also known as the 'complete case approach' (Brown and Kros, 2003). However, this method is successful only when data are classified as MCAR which is very restrictive given that MCAR is a condition seldom met (Rubin, 1987). Even if MCAR is present, a major disadvantage of this method is that the size of the sample could be significantly reduced (Hulland et al., 1996) which can further affect the relationships and strength of associations within the given sample (Schafer and Olsen, 1998). By inference, the 'complete case approach' should be applied only to large sample sizes and when the relationships are strong enough regardless of the potential impact of missing values (Brown and Kros, 2003).

Apart from the use of valid data only, several imputation methods exist by using replacement values (Lee and Lings, 2008). Imputation can be defined as: "the process of estimating missing data of an observation based on valid values of other variables" (Hair et al., 2010, p. 53). Although imputation by using replacement values is a very flexible and sophisticated method of dealing with missing data (Gold and Bentler, 2000), it should be applied with caution as it is generally likely to introduce biases between the imputed and real data (Dempster and Rubin, 1983). Imputation can take a number of forms each one having each own advantages and disadvantages. The overall goal of all such imputation methods is the maximisation of the effective sample size (Schafer and Graham, 2002). The simplest method is called case substitution and is used when data are missing completely (Gold and Bentler, 2000). In this method, "cases are simply replaced by non-sampled observations. Only a researcher with complete knowledge of the data (and its history) should have the authority to replace missing data with values from previous research" (Brown and Kros, 2003, p. 615). From the above definition, it becomes obvious that this method is based on quite arbitrary and subjective criteria. It also presupposes experience and existing values based on previous research which is not always feasible and realistic. As a result, it is very restrictive as well.

Another simple method is to substitute missing observations on a particular variable with the sample mean for that variable (Gold and Bentler, 2000). In any elementary statistics book one will find that a measure of central tendency such as the mean can be the best estimate when additional knowledge is absent. In this case, however, substituting every missing value with the mean can come at a cost of distorting the distribution and depress the observed correlations (Brown and Kros, 2003).

Another method is to use hot-deck imputation, where each missing value is replaced by a value from a statistically similar subject in the sample (Gold and Bentler, 2000). The advantages of hot deck imputation include “conceptual simplicity, maintenance and proper measurement level of variables, and the availability of a complete set of data at the end of the imputation process that can be analysed like any complete set of data” (Brown and Kros, 2003, p. 616). A disadvantage of this method is that it can be difficult to define when cases are similar or not (Hair et al., 2010).

Regression is another method that can be used to predict missing values and is based on the variable’s relationship to other variables in the dataset (Schafer, 2003). More specifically, the variables that suffers from missing values is regressed on other independent variables and the product of the regression equation is used to predict missing values (Hair et al., 2010). A very important advantage of this method is that “it preserves the variance and covariance structures of variables with missing data” (Brown and Kros, 2003, p. 616). However, a number of serious shortfalls of this method do exist which can be synthesised into the following: a) over-prediction of the model’s explanatory power (for example, if there is a high R^2 , multicollinearity is most likely present) and, b) pre-existing relationships within the dataset are reinforced by the use of this method. This can reflect on the specific sample (or ‘contaminate’ it) and, as a result, render it less representative of the entire population which can put the ability to generalise the results under threat (Brown and Kros, 2003).

A final possibility is multiple imputation which was first proposed by Rubin (1978). Multiple imputation is a combination of a number of methods into a single procedure. More specifically, in most cases expectation maximisation is combined

with maximum likelihood estimates and hot deck imputation (Schafer, 2003). This method works “by generating a maximum likelihood covariance matrix and a mean vector. Statistical uncertainty is introduced into the model and is used to emulate the natural variability of the complete database” (Brown and Kros, 2003, p. 616). Hot deck imputation is then employed to replace the missing values and produce a complete dataset (Schafer, 2003). The main difference between multiple imputation and hot deck imputation lies in the fact that the latter uses only one dataset from which replacement values can be drawn. Multiple imputation on the other hand, creates multiple datasets for imputing missing values (Hair et al., 2010).

One procedure of multiple imputation is to use the Expectation-Maximisation (EM) algorithm (Dempster et al., 1977). The EM algorithm uses a two-step iterative procedure (Hair et al., 2010). In step one (expectation) missing values are replaced based upon the observed data and an initial estimate of the covariance matrix (Dempster et al., 1977). In step two (maximisation), maximum likelihood estimates of the mean vector and covariance matrix are obtained just as if there were no missing data using statistics calculated during step one (Enders, 2001). These estimates are then recycled through step one and step two until the difference between subsequent covariance matrices falls below some specified convergence criterion (Enders, 2001).

EM has been demonstrated in the literature to be superior to other forms of imputation (e.g. Schafer and Graham, 2002). As already mentioned, the EM approach has been found to produce efficient and consistent estimates of missing values regardless of the whether the missing data pattern is MCAR or MAR (Little and Rubin, 1989). Furthermore, the EM method has been found to outperform other methods of data replacement irrespective of sample size and distributional characteristics of the sample (such as normality for example) (Gold and Bentler, 2000). Missing data in this study was treated using the EM algorithm, a version of which is included in the SPSS computer application.

Table 6.1 provides specific information about those variables in the questionnaire that suffered the greater percentages of missing values. As one would logically

expect, the majority of those variables concerned questions pertaining to export performance.

Table 6.1: Percentages of Missing Values

Variable	Measuring Item	% of Missing Values
TSALES	<i>Approximately, what has been your average total sales turnover over the last three years?</i>	14.3
ATPROFIT	<i>Over the last three years, approximately what has been your company's average total profit (before tax)?</i>	44.4
ETPRO	<i>Approximately what percentage of total profits is derived from exports?</i>	31.2
GDESAL	<i>Over the past 3 years, what has been the average annual growth/decline rate of your export sales?</i>	20.1
GDEPRO	<i>Over the past 3 years, what has been the average annual growth/decline rate of your export profit?</i>	27.0
AGDEPRO	<i>How do you think your average annual export profit growth/decline compares to the industry average?</i>	13.8

As a rule of thumb, variables with around 15% of missing data are candidates for deletion (Bollen and Joreskog, 1985). According to Hair et al. (2010, p. 48), “cases with missing data for dependent variable(s) typically are deleted to avoid any artificial increase in relationships with independent variables”. Therefore, a decision was made for the variables presented above not to be included in subsequent analysis. For the variables with less than 14.3% missing values, an EM imputation was performed.

6.2 DIMENSIONALITY AND RELIABILITY

The sequence of the analysis for addressing reliability and dimensionality has been a point of debate for many years. In this context, two major schools of thought exist. Churchill (1979), for example, advocates in favour of internal-consistency reliability assessment prior to dimensionality. Gerbing and Anderson (1988), on the other hand, support the opposite view. According to them,

dimensionality assessment should precede the stage where the model is tested for internal-consistency reliability.

Churchill (1979) argues that during the scale development process the presence of 'bad' items is likely to produce error. This can result in the production of "many more dimensions than can be conceptually identified" (ibid, p. 69), should the researcher go with the decision to assess dimensionality before calculating coefficient alpha. A number of other researchers advocate in favour of Churchill's position by arguing that high internal-consistency, as depicted by Cronbach's alpha, for example (the coefficient alpha and its specific role will be explained in a subsequent section), provides evidence of unidimensionality (Peter, 1981; Hunter and Gerbing, 1982).

However, some others argue that reliability does not imply unidimensionality (e.g. Gerbing and Anderson, 1988; Bollen and Lennox, 1991; Cortina, 1993), especially since evidence exists that multidimensional measures can still return high internal consistency scores as if they measured only one construct (e.g., Green, et al. 1977). Therefore, factor analysis provides a better means of examining scale homogeneity (Bollen and Lennox, 1991), and misjudgements about what the items measure are less likely to distort the operationalisation of the construct (Cortina, 1993). Additionally, "new constructs may emerge that the investigator did not realise were being measured. Such new constructs may be variations of the original constructs by which the items pool was built or contaminants that may otherwise have gone unnoticed" (Gorsuch, 1997, p. 535).

Reliability assessment involves correlating each item with the total score and then selecting those items with the highest item-total correlations (Spector, 1992). The above process can be viewed as a special case of factor analysis where the total score is the general factor with the items weighted as a function of their standard deviations and the item-total correlations are the parameters (Gorsuch, 1997). The conduction of principal components analysis should be the first step in establishing unidimensionality and "alpha can be used as a confirmatory measure of

dimensionality or as a measure of the strength of a dimension once the existence of a single factor has been determined” (Cortina, 1993, p. 103). Moreover, it tends to be widely accepted even among supporters of the rival approach that exploratory factor analysis before purification may be “satisfactory during the early stages of research on a construct” (Churchill, 1979, p. 68), which is the case with the symbolic use dimensions. Therefore, the current study will follow the approach that suggests dimensionality analysis comes prior to reliability testing.

6.3 FACTOR ANALYSIS

Factor analysis is a data reduction technique and generally involves the study of relationships among items to attempt to determine a new set of variables, fewer in number than those in the original set (Hair et al., 2010). More specifically: “its goal is to explain the covariances and correlations between many observed variables by means of relatively few underlying latent variables” (Bollen, 1989, p. 206). It can be broadly divided between exploratory factor analysis (EFA) and confirmatory factor analysis (CFA) (Sharma, 1996).

6.3.1 Exploratory versus Confirmatory Factor Analysis

Typically, exploratory factor analysis (EFA) is employed when the underlying factor structure of a set of data is unknown. This further means that the researcher makes no assumption between observed and latent variables, and the structure of the factor model derives from the structure of the data (DeVellis, 2003; Hair et al., 2010). Conversely, when the number of latent variables underlying the set of items and the relationships between observed variables and latent variables are hypothesised a priori, then confirmatory factor analysis (CFA) is employed to ascertain whether or not deviations exist between the factor structure present in the data and the hypothesised one (Sharma, 1996). Hence, a theoretical basis is a prerequisite for CFA, as opposed to EFA where the condition for theoretical foundations is more relaxed (Hurley et al., 1997).

In summarising the primary distinction between the two methodologies, “one could say that whereas EFA operates inductively in allowing the observed data to determine the underlying factor structure a posteriori, CFA operates deductively in postulating the factor structure a priori” (Byrne, 2005, p. 18). Furthermore, it appears that EFA is more useful for scale development purposes, whereas CFA is more suitable when, for example, measurement scales are replicated (Hurley et al., 1997). Given that the scales for symbolic use dimensions are newly developed and no past measures pre-exist, we are not certain of the links between the symbolic use dimensions and their underlying factors. Although there are some expectations, we lack the knowledge of the degree to which the scale items are likely to confirm these expectations. Ultimately, because one of the objectives is to develop reliable and valid measures for symbolic use, EFA is employed in the current study.

6.3.2 Exploratory Factor Analysis

According to Sharma (1996), even if the statistical requirements are met in factor analysis, the mere presence of correlated variables does not necessarily guarantee that a specific underlying structure indeed exists. It is the duty of the researcher to ensure that the observed patterns are conceptually appropriate to be studied with factor analysis (Field, 2009).

6.3.2.1 Common Factor Analysis versus Principal Component Analysis

Two basic methods exist to locate underlying dimensions of a data set, namely principal components and common factor analysis. According to Garson (2009, p. 5), common factor analysis “seeks the least number of factors that can account for the common variance (correlation) of a set of variables, whereas principal components analysis (PCA) in its full form seeks the set of factors which can account for all the common and unique (specific plus error) variance in a set of variables”. It is concerned only with establishing which linear combinations exist after decomposing the data into a set of linear variates (Field, 2009).

In contrast, common factor analysis considers only the common or shared variance among a set of variables without placing any interest in the variance of single specific variables and/or the error variance (Sharma, 1996). In practice, the solutions derived from principal component analysis do not differ significantly from those derived from common factor analysis techniques especially when the samples are homogeneous and the number of variables relatively large (20 or more) (Stevens, 1996). There is some debate in the literature on the relationship between PCA and EFA. More specifically, a number of authors support that EFA and PCA are two completely unrelated methods (e.g. Fabrigar et al., 1999; Byrne, 2005). According to Sharma (1996) PCA is related to EFA but the two techniques are conceptually distinct. The confusion on the similarities and differences between the two methods may be due to the fact that SPSS (and other statistical packages) have principal components analysis as the default option within the factor analysis procedure. Gorsuch (1990) argues that principal components analysis is a special case of common factor analysis. This is because “common factor analysis procedure does produce components if they exist but the opposite is not necessarily true” (ibid, p. 34). The main limitation that principal components analysis introduces is the additional assumption that the variables are reproduced without error (Sharma, 1996). Furthermore, “whereas the goal of EFA focuses on structural explanation, the goal of PCA focuses on data reduction” (Byrne, 2005, p. 27). In any case, the selection of one method or the other will depend each time on the study’s objectives (Field, 2009).

By explaining the pattern of covariance in a set of variables, EFA can identify the latent construct(s) to which this set of variables is likely to be linked. In the case of symbolic use, however, we already know which dimensions comprise the construct of symbolic use. Symbolic use is a multidimensional construct with separate dimensions which are not necessarily inter-related.

Furthermore, the use of PCA is warranted when “data reduction is a primary concern, focusing on the minimum number of factors needed to account for the maximum portion of the total variance represented in the original set of variables” (Hair et al., 2010, p. 107). Also, given that the objective is to summarise most of the original information (variance) in a minimum number of factors for prediction

purposes, principal component analysis is deemed superior to common factor analysis (Sharma, 1996). This is because, by achieving data reduction through PCA data analysis may be simplified and collinearity eliminated (Byrne, 2005). Therefore, principal components analysis seems to be more appropriate to employ in this study.

6.3.2.2 Factorability of the Scale Items and Criteria for Factor Extraction

The first step in order to determine the appropriateness of factor analysis is to examine the entire correlation matrix for significant correlations among at least some of the variables (Gorsuch, 1990). Two statistical tests are usually employed in that respect: The Bartlett's test of sphericity and the Kaiser-Meyer-Olkin (KMO) measure of sampling adequacy (Hair et al., 2006). If the Bartlett's test of sphericity is large and significant and the KMO measure is greater than 0.6 then factorability is assumed. The KMO measure of sampling adequacy is the most popular diagnostic tool in order to assess the degree to which indicators of a construct can be grouped together (Sharma, 1996). It represents the ratio of the squared correlation between variables to the squared partial correlation between variables (partial correlation is the measure of the association between two variables after adjusting the effects of one or more additional variables) (Field, 2009).

The KMO can be calculated for individual and multiple variables and can vary between 0 and 1 (Kaiser, 1970). A value close to 0 would mean that the denominator (sum of partial correlations) is extremely large in relation to the numerator (sum of correlations). This indicates diffusion in the pattern of correlations which most likely renders factor analysis inappropriate. In contrast, when the KMO tends close to the value of 1, patterns of correlations are relatively compact and, as a result, factor analysis is likely to yield significant and meaningful results (Field, 2009). According to Hair et al. (2010), the measure can be interpreted along the following guidelines:

Below 0.50 → Unacceptable
0.50 – 0.59 → Miserable
0.60 - 0.69 → Mediocre
0.70 - 0.79 → Middling
0.80 or above → Meritorious

After examining whether the data are appropriate for factor analysis, the key consideration that comes next concerns the determination of the number of factors responsible for variation in the data (Stevens, 1996). The following criteria can be employed in that respect:

- ***Latent Root Criterion***

This is the most commonly used factor selection technique according to which only those factors with an eigenvalue of more than one are retained (Stevens, 1996). As Garson (2009, p. 10) notes, “The eigenvalue for a given factor measures the variance in all variables which is accounted for by that factor. If a factor has a low eigenvalue, then it is contributing little to the explanation of variances in the variables and may be ignored as redundant with more important factors”. With principal component analysis each variable contributes a value of one to the total eigenvalue (Hair et al., 2010). Thus, it would not make sense to retain a factor with an eigenvalue of less than one as the factor should explain at least the amount of variance in one variable. Otherwise, it would be better to have the original variable (Stevens, 1996).

- ***Scree Test Criterion***

The scree test derives “by plotting the latent roots against the number of factors in their order of extraction, and the shape of the resulting curve is used to evaluate the cut-off point” (Hair et al., 2010, p. 110). It is typical for the plot to have distinct breaks between the steep slope of factors with large eigenvalues and a gradual tailing off to an approximately horizontal line associated with the rest of the factors (Field, 2009). The maximum number of factors to extract is indicated by the point at which the curve begins to straighten out (Churchill, 1999).

- ***Percentage of Variance Criterion***

According to Hair et al. (2010, p. 109), the percentage of variance criterion “is an approach based on achieving a specified cumulative percentage of total variance extracted by successive factors”. Given the assumption in principal components analysis that all variance is common variance, the initial communalities (i.e. common variance present in a variable) are expected to be equal to 1 (Stevens, 1996). At this point only transformation of the data is achieved through linear combination as previously argued. Thus no information is discarded. However, in order to discover the common variance that really exists between variables a decision should be made on which factors are meaningful and, as such, should be retained. By discarding those ones too trivial to consider, some information is also discarded resulting in communalities less than 1 (Field, 2009). Thus, the purpose here is to ensure practical significance of the retained factors by ensuring at the same time that they explain some specified amount of variance (Hair et al., 2006). Although no absolute threshold really exists, “in the social sciences, where information is often less precise, it is not uncommon to consider a solution that accounts for 60% of the total variance (and in some instances even less) as satisfactory” (Hair et al., 2010, p. 109).

Although, as already mentioned above, the latent root criterion is most commonly used, most researchers usually employ more than one criterion in determining how many factors should be extracted (Field, 2009). Particular caution should be placed in the number of factors extracted as if too few factors are retained important dimensions might be omitted (Stevens, 1996).

6.3.2.3 Rotation of Factors

In the process of interpreting the factors, rotation plays an important role as it helps to generate a more meaningful factor pattern (Field, 2009). Two different methods of rotation exist: Orthogonal and oblique. The main difference between the two is that in the orthogonal rotation factors are kept unrelated or independent. In contrast, with oblique rotation the factors are allowed to correlate (Hair et al., 2010).

The choice of the rotation method largely depends on whether or not the researcher believes that the underlying factors should be related (Durham and King, 2010). In fact, “if the items are all from one conceptual domain or a set of conceptually related domains, restricting the rotation to uncorrelated factors (as in Varimax) obscures the general factor or broader constructs the test may measure” (Gorsuch, 1997, p. 558). Given that conceptual proximity exists among the symbolic use dimensions, an oblique rotation was applied for these particular scales. In contrast, orthogonal rotation was deemed appropriate for all the other constructs.

The methods available for an oblique rotation are Direct Oblimin and Promax. Direct Oblimin was chosen for the symbolic use items because this is the only available oblique method in SPSS.

Within an orthogonal rotation three sub-methods exist in SPSS, namely Varimax, Quartimax and Equamax (Sharma, 1996). Preference was shown to the Varimax solution over the others as it is a good general approach that simplifies the interpretation of factors (Hair et al., 2010). This is achieved because Varimax attempts to maximise the dispersion of loadings within the factors by loading a smaller number of variables highly onto a single factor (Field, 2009). Quartimax, on the other hand, does exactly the opposite as it maximises the spread of factor loadings for a variable across all factors (Hair et al., 2010). However, this often results in lots of variables loading highly onto a single factor making the interpretation difficult (Field, 2009). Furthermore, it is also paradoxical in the sense that “a method that tends to create a large general factor is not in line with the goals of rotation” (Hair et al., 2010, p. 115). Equamax is a compromise between the other two methods and has not gained widespread acceptance (Hair et al., 2010) as it is reported to behave fairly erratically (Field, 2009).

6.3.2.4 Interpretation of Factors

A factor loading is an ordinary Pearson correlation between the variable and the factor (i.e., the linear combination of variables) (Sharma, 1996). Since factors are determined so that they maximise these loadings (especially when the solution

has been rotated), the standard results for correlations being significantly different from 0 do not apply (Stevens, 1996). According to Stevens (1996), only factors of 0.40 and more should be used for interpretation purposes.

A standard rule of thumb in multivariate statistics is that the number of subjects (cases) should be at least five times the number of variables in order to have reliable results (Hair et al., 2010). However, it seems that in factor analysis the number of large loadings per factor (component) is more important than the ratio of cases to variables (Stevens, 1996). More specifically, Guadagnoli and Velicer (1988) suggest that:

- Components with four or more loadings above 0.60 in absolute value are reliable, regardless of sample size
- Components with about 10 or more loadings of around 0.50 are reliable provided that the sample size is greater than 150.
- Components with only a few low loadings should not be interpreted unless sample size is at least 300.

Additionally, Stevens (1996) draws the conclusion that any component with at least 3 loadings above 0.80 will be reliable. Given the 189 responses that this study achieved, the 0.50 and above threshold seems sufficient to ensure reliable components.

6.4 RELIABILITY ANALYSIS

After the determination of the dimensionality of the scales, reliability assessment is needed. According to Gerbing and Anderson (1988, p. 190). “Even a perfectly unidimensional (and otherwise construct valid) scale would be of little or no practical use if the resultant composite score was determined primarily by measurement error, with the values of the scores widely fluctuating over repeated measurements”. Reliability (and validity) of the data is, therefore, assessed because some degree of error is inherent in any measurement (Hunter and Gerbing, 1982; Bagozzi et al., 1991; Nunnally and Bernstein, 1994). Measurement

error threatens the reliability and the validity of the measures and consists of a random and systematic component (Nunnally, 1978; Bagozzi et al., 1991). According to Podsakoff et al. (2003, p. 879), “although both types of measurement error are problematic, systematic measurement error is a particularly serious problem because it provides an alternative explanation for the observed relationships between measures of different constructs that is independent of the one hypothesised”. The main source of systematic measurement error is method variance (Bagozzi et al., 1991). Note that the steps taken in order to minimise risk of method variance in this study were described in chapter 5.

Reliability concerns the extent to which any measuring procedure generates replicable results across repeated applications and, as such, its existence ensures stability of a study (Churchill, 1979). Therefore, the more reliable a measure, the less systematic error it will contain. Random error, on the other hand, is related to transient aspects of the respondent or the measuring situation (Churchill, 1999).

A measure is said to be valid if it represents the intended, and only the intended, concept (Bagozzi and Phillips, 1982; Cohen, et. al., 2003). Ideally, measures should be both reliable and valid, and reliability is a necessary, but not sufficient, condition for validity (Carmines and Zeller, 1979; Nunnally and Bernstein, 1994). It is also important to note that reliability (and validity) assessments should be interpreted on the basis of pre-existing theoretical foundations as well as empirical analysis (Peter, 1981).

Reliability is defined as “the proportion of variance attributable to the true score of the latent variable” (DeVellis, 2003, p. 27). Reliability can be assessed in a number of different ways such as: test-retest reliability, alternative-form method, split-halves method, and internal consistency (Carmines and Zeller, 1979). Traditionally, the main ways in which reliability is considered are test-retest and internal consistency reliability (Lee and Lings, 2008). It is also possible “that a scale demonstrates only one of these types of reliability” (Spector, 1992, p. 6).

Test-retest reliability refers to a method whereby a test is administered at two different points in time and responses are compared (Carmines and Zeller, 1979). Using alternative-forms tests, two different tests are administered and their results are compared for consistency (Nunnally and Bernstein, 1994). Both of these methods, however, require longitudinal work or increases in questionnaire length, and are generally more cost-intensive and, as such, were ruled out for this particular study.

Split-halves reliability tests assign construct items to one of two halves, scores are then computed for each half and compared (Carmines and Zeller, 1979). These tests are increasingly considered obsolete, since advances in computing power enable the computation of reliability for entire scores more quickly (Nunnally and Bernstein, 1994).

Finally, internal consistency reliability means that “multiple items, designed to measure the same construct, will intercorrelate with one another” (Spector, 1992, p. 6). As such, internal consistency investigates the degree of inter-relatedness or homogeneity among the items in a scale (Cortina, 1993). Internal consistency reliability is most often reported in the form of coefficient alpha (Cronbach, 1951). Coefficient alpha is a function of the number of items and their degree of inter-correlation (Spector, 1992). Nunnally (1967) initially provided a rule of thumb as to the acceptable levels of alpha. According to this, a figure of 0.7 is usually sufficient as a ‘good indicator’ of internal consistency reliability. This, however, was later on reviewed and a 0.5 figure is often deemed sufficient (Nunnally, 1978).

Internal consistency reliability tests with coefficient alpha are employed by this study. Coefficient alpha “is useful for estimating reliability in a particular case: when item-specific variance in a unidimensional test is of interest” (Cortina, 1993, p. 103). A large alpha in that case, would indicate that a large portion of the variance in the test is accounted for by general and group factors (DeVellis, 2003). Given the objective of measures development, the error factors associated with the use of different items are of particular interest. Thus, an estimate of internal consistency reliability such as coefficient alpha should be used (Cortina, 1993).

Three different measures of coefficient alpha exist but the most widely used is Cronbach's coefficient alpha (Gregory, 1992). Cronbach's alpha is an average of all the possible split-half reliability estimates and measures the degree to which different items used to capture the same variable produce consistent results (DeVellis, 2003).

6.5 RESULTS OF DIMENSIONALITY AND INTERNAL CONSISTENCY RELIABILITY ANALYSIS

Ideally, during the measure development process, items load on their respective constructs and the derived coefficient alpha is satisfactory (Churchill, 1979). This, however, is not always the case and researchers usually need to employ "measure purification" (Bagozzi, 1981). This is an iterative process during which new reliability estimates are calculated and further factor analysis is performed until the point where items load satisfactorily on their constructs and the items' contribution to the reliability of the scale is maximised (Churchill, 1979).

In the next section the results of exploratory factor and internal-consistency reliability analysis are presented. The variables of interest are clustered as follows: a) symbolic use dimensions, b) mediators and moderators, c) performance measures and, d) social desirability items and, e) instrumental/conceptual use items as a control variable.

The following were sought in factor extraction and reliability assessment:

1. Large and significant Bartlett's test of sphericity
2. Kaiser-Meyer-Olkin (KMO) measure greater than 0.6
3. Factor loadings greater than 0.5
4. Eigenvalues of more than 1
5. Total variance explained more than 50%
6. Cronbach's alpha of 0.5 and above

6.5.1 Dimensionality of Symbolic Use Dimensions

As already mentioned, dimensionality analysis for all the symbolic use dimensions involved the use of principal component analysis with Direct Oblimin as the rotation method employed (as opposed to all the other variables for which Varimax was used). This choice was based on the premise that symbolic use dimensions were thought to possibly correlate to some degree with one another as a result of comprising facets of the same construct (Hair et al., 2010).

Eight components were produced with an Eigenvalue of 1.142. The KMO measure of sampling adequacy was very satisfactory (.845) and the percentage of total variance explained was 67.3%.

Table 6.2: Dimensionality Analysis for the Symbolic Use Dimensions

	Factor Loadings
Social use	
We sometimes use export information to keep export information providers happy	.776
We make use of export information to show our appreciation to the person who provided it	.841
It is common practice to show export information providers that we use the information they have supplied us with in order to obtain future smooth access to export information	.908
If export information providers see us using the information they supply us with, they may be more likely to reward us with higher quality information in the future	.746
We sometimes use export information to demonstrate trust in our export information suppliers	.741
Affective Use	
We use export information specifically to feel more confident about	.779

our export decision	
Our primary purpose in using export information is to feel secure in our export decisions	.856
We use export information specifically to reduce any anxiety we feel about making decisions	.921
We deliberately use export information to feel good about the decisions we make	.712
We use export information specifically to reduce any feelings of vulnerability in making decisions	.782
Non – use	
For one reason or another we end up not using all the export information we collect	.718
We do not have the time to use export information to make export decisions	.622
We sometimes have to ignore export information that contradicts our own perceptions	.655
Export decisions are made based on our own experience rather than formal information	.749
Sometimes readily available export information has to be consciously avoided / ignored	.501
Legitimizing use	
When we use our instincts to make export decisions, we confirm those instincts with information	.559
We have to make every export decision legitimate by justifying it with export information	.598
If we make an export decision based on a “feeling”, we are not allowed to implement this decision unless we back it up with relevant export information	.673
We can make quick export decisions by improvising, but normally try to back them up later by using appropriate export information	.710
Export information is used to validate or confirm our decisions, after	.580

the fact	
Export decisions based purely on experience have to be confirmed with information	.670
Distortion	
It is much more reasonable to distort export information which contradicts our assumptions rather than challenge what we know to be true	.702
It is advisable to use export information in such a way as to “suppress bad news”	.832
The intended meaning of export information sometimes has to be changed when we use it	.765
Export information is sometimes taken out of context to make a decision	.713
Haphazard use	
It is difficult to be too choosy about which export information to use	.847
We use export information simply because we have it	.517
Legitimizing power-seeking use	
We can use export information to enhance the standing of the export function in the firm	.728
Export information is a good source of power for the export function	.718
Export information is often used to secure support for exporting	.777
We use export information to leverage/get access to resources within the firm	.699
We use export information to consolidate the export function’s position within the firm	.720
Expert power-seeking use	
We use export information to portray to others the competence of the export function	.609
Export people use export information in such a way as to create a	.708

good impression	
Our use of export information increases the confidence other departments have in us	.704
Export information is often used to build awareness of, and commitment to, exporting	.758
KMO	.845
Bartlett's Test of Sphericity	4134.922
Eigenvalue	1.142
Percentage of variance explained	67.3%

During the process of principal components analysis 7 iterations of items deletions took place. The reasons for these deletions were that the items were cross-loading and, thus, considered as 'bad' items. The deleted items are presented in the table 6.3 in the order of their deletion. The deletion of these specific items did not alter the conceptual meaning of the dimensions which, furthermore, proved to be unidimensional with good levels of reliability (as it will be shown in what follows).

A noteworthy finding is that dimensionality analysis for power-seeking use confirmed the existence of two factors. The theoretical assumption in chapter 4 according to which power-seeking use could be conceptually split into legitimating power-seeking use and expert power-seeking use found empirical support.

Table 6.3: Deleted Items for Symbolic Use

Items:	Corresponding Symbolic Use Dimension
Export decisions based on intuition are justified afterwards with export information	Legitimizing Use
We have to rely on the export information that is available even if it's not exactly the information we need at that point in time	Haphazard Use
We sometimes have to change the meaning of the export information if we think it is wrong	Distortion
Using export information is a good way to make other people in the firm receptive to exporting	Expert power-seeking Use
Sometimes export information is modified if it contradicts what we know	Distortion
We choose to use the export information that is the most focused on our decision needs	Haphazard
Our export focus is decided upon by the export information available to us	Haphazard

6.5.2 Dimensionality Analysis of the Mediators and Moderators

a) Information Quality

Information quality had a high value of KMO (.856) and an Eigen value of 4.1. Furthermore, the single component produced explained 43.3% of the total variance. No items of information quality had to be deleted as all of them formed one component. Thus, information quality was unidimensional.

Table 6.4: Dimensionality Analysis for Information Quality

	Factor Loadings
The export information we get is very accurate	.761
Most of the export information we receive is complete	.789
The export information we receive is easily interpretable	.777
The export information we get is usually objective	.605
Export information is accessible when we really need it	.841
The export information we get is usually up-to-date	.634
We invariably receive the export information that we need as soon as we need it	.810
Our export information is usually very useful for our export decision-making process	.832
The export information we get always adds value to the organisation	.688
The export information we receive is always usable	.735
We believe that the export information we receive is credible	.766
We find it easy to understand the export information we receive	.710
The export information we get is always reliable	.811
Export information is always readily available	.789
KMO	.856
Bartlett's Test of Sphericity	7505.523
Eigen value	4.1
Percentage of variance explained	43.3%

b) Export Experience

For export experience the KMO was .856 while 53.54% of the total variance was explained. All items contributed significantly to the unidimensional solution with high factor loadings as shown in the table that follows:

Table 6.5: Dimensionality Analysis for Export Experience

	Factor Loadings
In this company, we have developed...	
the ability to identify sources of export market information	.719
a base of specific information on export sales opportunities	.765
a base of specific information on overseas market legislation/regulations relative to our company's product/business	.742
an ability to interpret the degree of quality of export market information	.751
a base of specific information on export distribution methods/practices	.764
an understanding of foreign business practices	.722
an understanding of how to best conduct market research in foreign markets	.710
good abilities in the official languages of the foreign markets we export to	.558
KMO	.856
Bartlett's Test of Sphericity	7505.523
Eigen value	2.58
Percentage of variance explained	53.54%

c) Inter-functional Coordination

The KMO for interfunctional coordination was (.856) and the single component produced accounted for 25.88% of the total variance. Unidimensionality of the inter-functional coordination construct was demonstrated.

Table 6.6: Dimensionality Analysis for Inter-functional Coordination

	Factor Loadings
The activities of our business functions (e.g., marketing/sales, manufacturing, R&D, finance/accounting, etc) are extremely well integrated in pursuing a common goal	.757
Export employees and those in other functional areas (e.g., R&D) always help each other out	.760
In this company there is a sense of teamwork going right down to the “shop floor”	.768
There is an extremely strong collaborative working relationship between the export function and “operations”	.814
Functional areas in this company always pull together in the same direction	.824
In this company, communication and group problem-solving are always enough to resolve issues and conflicts	.621
KMO	.856
Bartlett's Test of Sphericity	7505.523
Eigen value	4.2
Percentage of variance explained	25.88%

d) Export Commitment

Principal components analysis with Varimax rotation for the 5 export commitment items produced a single factor solution which explained 35.8% of the variance. A large Eigenvalue and KMO value were also evident as one can observe from table 6.7 that follows.

Table 6.7: Dimensionality Analysis for Export Commitment

	Factor Loadings
Senior management in our company...	
consider our exporting activities to be crucial to the business	.814
is currently planning to significantly increase the company's exporting activities	.710
consider exporting to be one of the most critical investments of resources	.866
expect exporting to be a significant contributor to company performance	.823
actively explore international market opportunities	.720
KMO	.856
Bartlett's Test of Sphericity	7505.523
Eigenvalue	5.45
Percentage of variance explained	35.8%

e) Decision Quality

For decision quality, principal components analysis was used and a single component emerged. Item DQ1 had to be deleted as it was cross-loading. This item read:

- *Our export decisions are always based on the best available information (DQ1)*

The conceptual meaning of Decision Quality was not believed to be affected by the deletion of this item. Although, 'decisions based on the valid assumptions by export-decision-makers' was a facet of decision quality also included in its definition (please see chapter 2, pages 86-87), it was not thought to be organic to the multi-faceted definition of decision quality. The review of the literature on decision quality revealed that only a very small number of papers proposed this

particular facet as intrinsic to decision quality as opposed to, for example, achieving objectives or being consistent with strategy (for both of which indisputable consensus exists that reflect decision quality) (e.g. Keller and Staelin, 1987; Dean and Sharfman 1996; Vroom 2003). The results of principal components analysis for decision quality are presented in table 6.8 that follows:

Table 6.8: Dimensionality Analysis for Decision Quality

	Factor Loadings
Our export decisions are based on valid assumptions	.562
The export decisions made help the export function achieve its objectives	.837
Our export decisions are consistent with the export function's current strategy	.754
Export decisions made contribute to the overall effectiveness of the export function	.815
KMO	.856
Bartlett's Test of Sphericity	7505.523
Eigen value	1.148
Percentage of variance explained	69.34%

f) Decision Speed

For decision speed, principal components analysis was initially used with Varimax rotation. Decision speed was inserted in a principal components analysis encompassing all the other moderators and mediators of this study. This initial solution pointed to the existence of two separate factors. This however, did not make any conceptual sense and a one-factor solution was imposed for this specific construct. Only one item had to be removed due to a factor loading value of below the threshold of .5. The unidimensional solution for decision speed displayed also a KMO value of .854 and the total variance it accounted for was almost 60.6%.

Table 6.9: Dimensionality Analysis for Decision Speed

	Factor Loadings
If a major competitor were to launch an intensive marketing campaign targeted at our export customers, we would implement a response immediately	.557
If we came up with a great export marketing plan, we would implement it in a timely fashion	.765
We are quick to respond to significant changes in our export competitors' pricing structures	.627
When we find out that export customers are unhappy with the quality of our service, we take corrective action immediately	.861
When we identify a new export customer need, we are quick to respond to it	.844
Export customers' complaints are very quickly responded to in our company	.852
When we find that export customers are unhappy with the appropriateness of our product or service, we take corrective action immediately	.879
KMO	.854
Bartlett's Test of Sphericity	874.314
Eigen value	4.2
Percentage of variance explained	60.622%

g) Environmental Turbulence

The Varimax rotation for the environmental turbulence items produced four components for each environmental turbulence facet respectively with a high KMO of .856. No items had to be deleted and the solution was very clear-cut in that four distinct components emerged each one of which representing a different facet of environmental turbulence.

Table 6.10: Dimensionality Analysis for Environmental Turbulence

	Factor Loadings
Regulatory turbulence	
The following regulatory features tend to have a strong impact across your export markets...	
Foreign restrictions on the number of competitors in a specific market	.678
Foreign transportation and handling regulations	.784
Foreign government pricing regulations	.834
Overseas environmental protection law (pollution, noise, etc)	.723
Foreign regulations relating to product resale	.774
Technological turbulence	
The technology that is relevant to our export markets is changing rapidly	.807
Technological changes provide big opportunities for our export operations	.857
A large number of new product ideas have been made possible through technological breakthroughs	.811
Market Dynamism	
Our export customers' product preferences change quite a bit over time	.663
New export customers tend to have product-related needs that are different from those of our existing export customers	.789
Our export customers tend to look for new products all the time	.768
Competitive Intensity	
In our export markets there are many "promotion wars"	.768
One hears of a new competitive move in our export markets almost every day	.707
In our foreign markets, aggressive selling is the norm	.764

KMO	.856
Bartlett's Test of Sphericity	7505.523
Eigen value	1.4
Percentage of variance explained	67.3%

h) Information Overload

Information overload came up as a unidimensional construct with an Eigen value of 3.060 while 48.84% of variance was explained by this single component. All four items were retained with very satisfactory factor loadings as shown in the following table:

Table 6.11: Dimensionality Analysis for Information Overload

	Factor Loadings
The export team/person has sometimes made mistakes because it had too much information to handle	.737
The export team/person sometimes feels overwhelmed by the high volume of export information that it is given	.750
The amount of export information that the export team/person has to know makes them feel overloaded at times	.836
The export team/person sometimes experiences confusion as a result of having to handle too much information	.763
KMO	.856
Bartlett's Test of Sphericity	7505.523
Eigen value	3.060
Percentage of variance explained	48.84%

6.5.3 Dimensionality Analysis of the Export Performance Indicators

The export performance items loaded onto a single factor which accounted for almost 64% of the total variance. The KMO measure of sampling adequacy was very satisfactory (.876) and the Eigen value 5.148. All these are presented in the table below:

Table 6.12: Dimensionality Analysis for Export Performance

	Factor Loadings
Export sales volume satisfaction	.829
Export market share satisfaction	.828
Export profitability satisfaction	.818
Export market entry satisfaction	.809
How do you think your average annual export sales <u>growth/decline</u> compares to the industry average?	.742
How do you think your average annual export profit <u>growth/decline</u> compares to the industry average?	.743
Profitability 2007	.805
Overall, how would you rate your company's export performance over the past 3 years	.838
KMO	.876
Bartlett's Test of Sphericity	1056.311
Eigenvalue	5.148
Percentage of variance explained	64.346%

6.5.4 Dimensionality Analysis of Social Desirability Indicators

Principal components analysis on social desirability initially produced four components. This solution, however, was not deemed to be appropriate as it did

not make any conceptual sense. Furthermore, to the author's best knowledge, nowhere in the literature has it been suggested that social desirability was not a unidimensional construct. The scales for social desirability were accepted and widely used in the literature based on developments of the initial Crowne and Marlowe (1964) scale.

As a result, one factor solution was imposed and six items had to be removed as they were either a) suffering from very low factor loadings, or b) were not loading at all. The ones retained are presented in table 6.13. As it can be observed from the table the KMO value was as high as .821 and the total variance explained was almost 40.8%.

Table 6.13: Dimensionality Analysis for Social Desirability

	Factor Loadings
There have been times when I was quite jealous of the good fortune of others	.676
I sometimes try to get even rather than forgive and forget	.705
At times I have really insisted on having things my way	.651
I sometimes feel resentful when I don't get my way	.776
I am sometimes irritated by people who ask favours of me	.513
There have been occasions when I took advantage of someone	.618
It is sometimes hard for me to go with my work if I am not encouraged	.504
There have been times when I felt like rebelling against people in authority even though I knew they were right	.623
KMO	.821
Bartlett's Test of Sphericity	360.561
Eigen value	3.265
Percentage of variance explained	40.81%

6.5.5 Dimensionality Analysis of Instrumental/Conceptual Use Indicators

Principal components analysis was performed on the instrumental/conceptual items as per Diamantopoulos and Souchon (1999). The instrumental/conceptual scale was intended to be used as a control variable during model testing. The initial Varimax solution produced two factors. The two factors made conceptual sense as the first one encompassed items pertaining to instrumental use and the second factor comprised items pertaining to conceptual use (after a number of iterations which led to the deletion of 9 items that were negative or cross-loading) However, the decision to extract one factor was also implemented in this case. This was deemed more preferable given the fact that in exporting literature instrumental and conceptual use comprise one dimension of information use (Diamantopoulos and Souchon, 1999; Toften, 2005).

The results are presented in the table that follows:

Table 6.14: Dimensionality Analysis for Instrumental/Conceptual Use

	Factor Loadings
Export information is actively sought in response to a specific decision at hand	.660
Export information is always used specifically to make a particular export decision	.762
Decisions based on export information are always more accurate than wholly intuitive ones	.690
Our confidence in making export decisions is increased as a result of export information	.732
Without export information, decisions made would be very different	.660
Export information is translated into significant practical action	.754
Export information is preserved so it can be used by individuals other than those who collected it in the first place	.550
Export information gathering is often done as a matter of course to help decision-making	.590
We often use export information to keep the company knowledge base updated	.641
KMO	.847
Bartlett's Test of Sphericity	593.597
Eigen value	4.094
Percentage of variance explained	45.5%

6.5.6 Dimensionality Analysis of Symbolic Use Indicators

Principal components analysis was also performed on the symbolic use items as per Diamantopoulos and Souchon (1999). The symbolic use scale was intended to be used for assessing criterion-related validity (see section 6.8.2 that follows). After removing a number of items (either because they were cross-loading or because of low factor loadings), a single factor solution emerged (see table 6.15).

Table 6.15: Dimensionality Analysis for Symbolic Use

	Factor Loadings
Information is sometimes used to justify an export decision already made	.657
Information that is used to justify an export decision is sometimes collected and/or interpreted after the decision has been made	.652
Sometimes, manipulating export information to justify export decisions really made on the basis of instinct, is unavoidable	.667
It is inevitable that key executives will sometimes distort export information in passing it on	.750
Export information is sometimes taken into account to justify the cost of having acquired it	.758
Information is used to back up hunches prior to the implementation of an export decision	.572
KMO	.771
Bartlett's Test of Sphericity	258.932
Eigen value	2.76
Percentage of variance explained	46.13%

6.5.7 Internal Consistency Reliability Results

In order for a scale to be suitable for use by other studies, reliability is an essential prerequisite. This is because, as already mentioned, reliability ensures consistency in measurements over time (or within different research projects). Reliable instruments introduce less error into the statistical measurement and analysis (Cortina, 1993). Furthermore, unreliable scales reduce the statistical power of a study requiring, as a result, larger samples in order to find significant results (Field, 2009). A number of different factors is likely to affect the estimates of internal-consistency reliability. In most cases, low internal consistency reliabilities are a result of poorly written items (DeVellis, 2003). Other factors may

include a) time limits in the testing situation, b) item difficulty and c) the length of the testing instrument (Gregory, 1992, DeVellis, 2003). As already mentioned, Cronbach's alpha is the internal consistency reliability estimate employed by this study. It is one which "takes into account variance attributable to subjects and variance attributable to the interaction between subjects and terms" (Cortina, 1993, p. 98). The alphas for all the variables of the study are presented in the table that follows:

Table 6.16: Internal Consistency Reliability Results (Cronbach Alphas)

Variables	Cronbach Alpha
Legitimizing use	.814
Social use	.910
Non-use	.750
Affective use	.880
Distortion	.850
Expert power-seeking use	.832
Legitimizing power-seeking use	.891
Haphazard use	.574
Instrumental/Conceptual	.848
Export Commitment	.893
Information Quality	.952
Information Overload	.788
Inter-functional Coordination	.901
Decision Quality	.833
Decision Speed	.883
Technological Turbulence	.894
Regulatory Turbulence	.843
Customer Turbulence	.795
Competitive Intensity	.744
Export Performance	.920
Social desirability	.788
Symbolic Use	.746

As it can be observed from table 6.14, apart from haphazard use all the alpha values of the other variables are more than satisfactory. The reason why haphazard has a low alpha is most likely because it consists of only two items. Nonetheless, the alpha value is still within the acceptable limits (above 0.5) defined by Nunnally (1978) as already discussed. Noteworthy is the fact that in all cases a potential deletion of certain items would not have considerably improved the reliability results. It can, therefore, be supported that the scales seem to be reliable.

6.6 CREATING SUMMATED SCALES

The next stage in scale development is the creation of summated scales. Summated scales employ several variables and reduce reliance on any single variable (Sharma, 1996). The main purpose that the creation of summated scales serves is to minimise measurement error (Cortina, 1993). Measurement error “refers to the degree to which the variable is an accurate and consistent measure of the concept being studied. If the variable used as a dependent measure has substantial measurement error, then even the best independent variables may be unable to achieve acceptable levels of predictive accuracy” (Hair et al., 2010, p. 172). The different potential sources of measurement error and the remedies available to minimise it were examined in chapter 5. It should also be noted, that multiple regression has no means of correcting for measurement error (Field, 2009). Summated scales are therefore employed in order to address this problem. Summated scales are used with multiple regression by simply replacing the dependent and/or independent variables with the summated scale values (Hair et al., 2010).

6.7 COMMON METHOD VARIANCE

Considerations about the problem of common method variance which emerges from the use of self-reported measures have already been discussed in chapter 5. In this chapter some statistical remedial approaches are going to be applied in order to identify whether common method bias is likely to be a particular problem for this study. One such test is Harman's one-factor test where all the main variables of interest are entered into a factor analysis (Podsakoff et al., 1984). Following this, "the results of the un-rotated factor solution are examined to determine the number of factors that are necessary to account for the variance in the variables" (Podsakoff and Organ, 1986, p. 536). The usefulness of this technique lies on the premise that one single factor should emerge from the factor analysis, should common method variance be of substantial amount (Podsakoff et al., 1984). Thus, the main variables of this study, namely symbolic use dimensions, decision quality and export performance are entered into a factor analysis. The results of the test reveal that common method variance should not be a particular problem for this study as more than one factors emerge (see appendix 6.1).

In light of validating the scales, one more step should be taken related to the construct of social desirability. According to Crowne and Marlowe (1964, p. 109), social desirability "refers to the need for social approval and acceptance and the belief that it can be attained by means of culturally acceptable and appropriate behaviours". This can result in a tendency for individuals to express themselves in what they think is a socially acceptable manner and hide their true opinions and feelings about a certain topic (Podsakoff et al., 2003). This tendency is problematic as it can produce biased answers and mask the true relationships between two or more variables (Ganster et al., 1983). In order to overcome these potential problems, "each item for the scale under development can be correlated with scores on social desirability. Items that significantly correlate with it should be deleted from the final scale" (Spector, 1992, p. 36).

A decision to correlate symbolic use dimensions with social desirability was taken based on the premise that: a) the symbolic use scale was a newly developed one and, as such, never tested for social desirability effects before (as opposed to the other established scales), and, b) the possibility for social desirability bias was deemed a priori significant because of the “sensitive” nature of some of the symbolic use dimensions (e.g. distortion). The results are presented in table 6.17:

Table 6.17: Correlations of Symbolic Use Dimensions with Social Desirability

Symbolic Use dimensions	Social Desirability
Legitimizing Use	Pearson correlation: -.091 Sig. (2-tailed): .213
Non-Use	Pearson correlation: -.114 Sig. (2-tailed): .117
Social Use	Pearson correlation: -.110 Sig. (2-tailed): .130
Affective Use	Pearson correlation: .117 Sig. (2-tailed): .109
Distortion	Pearson correlation: -.130 Sig. (2-tailed): .74
Expert Power-seeking Use	Pearson correlation: -.161* Sig. (2-tailed): .027
Legitimizing Power-seeking Use	Pearson correlation: -.089 Sig. (2-tailed): .224
Haphazard Use	Pearson correlation: -.088 Sig. (2-tailed): .227

* Correlation significant at the 0.05 level (2-tailed)

The Pearson correlation was chosen to run this test. This technique requires interval data and assumes that the sample data are normally distributed (Field, 2009). According to the central limit theorem, large samples (more than 30 observations) can be assumed to have a normal distribution with a mean equal to the population mean and a standard deviation of:

$$\sigma = s / \sqrt{N}$$

The above table indicates that only one correlation between the symbolic use dimensions and social desirability is significant. The expert power-seeking use correlation is significant, the coefficient of determination (R^2) is: $(.161) \times (.161) = 0.025$ and if we convert this value into a percentage we can say that social desirability can account for only 2.5% of variation in expert power-seeking use. So, although the correlation is significant, R^2 suggests that 97.5% of the variability is left to be accounted for by other factors. Therefore, we can claim that social desirability may not be a real issue as far as expert power-seeking use is concerned.

6.8 VALIDITY

Validity can be defined as the extent to which a scale accurately represents the concept of interest (Lee and Lings, 2008). More simply, a scale is valid if it measures what it was intended to measure. Reliability is a prerequisite for validity, as an unreliable scale can never be valid by default (Spector, 1992). However, a reliable scale is not necessarily always valid which renders reliability a necessary but not sufficient condition for validity (Churchill, 1979). Part of the difficulties associated with scale validation stem from the fact that “validity can only occur in a set of hypothesised relations between the construct of interest and other constructs” (Spector, 1992, p. 46). There are several different methods for testing for validity which can be broadly classified according to “the manner in which a

scale was constructed, its ability to predict specific events, or its relationship to measures of other constructs” (DeVellis, 2003, p. 49). Three main types of validity correspond, respectively, to the aforementioned properties; namely, content validity, criterion-related validity and construct validity.

6.8.1 Content Validity

Content validity is concerned with whether or not the domain at hand is adequately captured by the measure (DeVellis, 2003). Content validity of the scales is established where pre-existing, reliable scales were used. For the newly developed ones, examination of the items by a panel of experts prior to their use (during the pretest phase) and/or the interviews conducted with export managers in the qualitative phase, assured some degree of content validity. Content validity cannot be determined statistically – only by experts (Sharma and Kodali, 2008).

6.8.2 Criterion-related Validity

The term ‘criterion-related validity’ implies that a scale should be related empirically to some criterion without necessarily needing a causal relationship to exist among them (DeVellis, 2003). Criterion-related validity can also be termed concurrent and/or predictive validity depending on “whether the criterion precedes, follows or coincides with the measurement in question” (DeVellis, 2003, p. 51). The subsequent multivariate regression analysis constitutes a form of criterion-related validity testing. This is because if a hypothesis is put forward that two constructs in the study should be correlated, then the empirical support can also be used as evidence of criterion-related validity (Spector, 1992). Something worth noting is the fact that many people tend to confuse criterion-related validity with construct validity because they both use correlations which could serve either purpose (DeVellis, 2003). However, “the most important measure for checking criterion-related validity is simple correlation, for testing a scale or elements for a single outcome” (Sharma and Kodali, 2008, p. 728). In order to assess criterion-related validity, each of the symbolic use dimensions was correlated with the Diamantopoulos and Souchon (1999) measure of symbolic use. The results are

presented in table 6.18 and provide evidence of criterion-related validity as significant correlations were found.

Table 6.18: Correlations of Symbolic Use Dimensions with Symbolic use measure as per Diamantopoulos and Souchon (1999):

Symbolic Use dimensions	Symbolic Use
Legitimizing Use	Pearson correlation: .289** Sig. (2-tailed): .000
Non-Use	Pearson correlation: .172* Sig. (2-tailed): .018
Social Use	Pearson correlation: .357** Sig. (2-tailed): .000
Affective Use	Pearson correlation: .127** Sig. (2-tailed): .038
Distortion	Pearson correlation: .333** Sig. (2-tailed): .000
Expert Power-seeking Use	Pearson correlation: .352** Sig. (2-tailed): .000
Legitimizing Power-seeking Use	Pearson correlation: .268** Sig. (2-tailed): .000
Haphazard Use	Pearson correlation: .100 Sig. (2-tailed): .169

** Correlation significant at the 0.01 level (2-tailed)

* Correlation significant at the 0.05 level (2-tailed)

As it can be observed, only the correlations between haphazard use and the Diamantopoulos and Souchon (1999) measure of symbolic use did not produce any significant correlations. This, however, is attributed to the fact that the concise measure of symbolic use did not incorporate any items on haphazard use. In fact, although in the paper by Diamantopoulos and Souchon (1999) the multidimensional nature of symbolic use is recognised, no specific and organised effort to develop a comprehensive conceptualisation of the different dimensions exists. This, as already mentioned, came later on with the work by Vyas and Souchon (2003). Therefore, in their paper, Diamantopoulos and Souchon (1999) rely on previously recorded manifestations of symbolic use according to which emphasis is placed on the legitimating and political aspects of the construct as well as distortion. Haphazard use was not explicitly identified; hence items capturing this dimension do not exist in the Diamantopoulos and Souchon paper.

Should the reader wish to have a more complete view and more information on symbolic use per se, appendix 6.2 provides the histograms for all symbolic use dimensions as well as their means and standard deviations.

6.8.3 Construct Validity

According to DeVellis (2003, p. 53), construct validity “is directly concerned with the theoretical relationship of a variable to other variables. It is the extent to which a measure behaves the way that the construct it purports to measure should behave with regard to established measures of other constructs”. In that respect, construct validity can be further decomposed into convergent and discriminant validity. Convergent validity means that scales that inter-correlate quite high are assumed to reflect the same construct and scales that inter-correlate relatively low are assumed to reflect different constructs (DeVellis, 2003). The fact that factor analysis is performed on all the scales provides some evidence of construct validity. This is because “if all items correlate strongly with one another at about the same magnitude, a single factor will be produced. This suggests a single construct is being measured by the scale” (Spector, 1992, p. 54). Campbell and Fiske (1959) developed the multitrait-multimethod method for construct validity which is based on the measurement of more than one construct by means of more

than one method (Diamantopoulos and Souchon, 1999). By employing this procedure one “obtains a fully-crossed method-by-measure matrix” (DeVellis, 2003, p. 55). However, the multitrait-multimethod matrix by Campbell and Fiske (1959) cannot be used to assess convergent and discriminant validity on this occasion as only one measurement method was employed in each case. Also, there was a lack of reliable and valid existing measures of symbolic use. Instead the nomological aspect of construct validity is ascertained. Nomological validity is a form of construct validity within a system of related constructs that form a nomological set (i.e. a network within which the degree to which a construct behaves as it should is ascertained) (Cronbach and Meehl, 1955).

6.8.4 Nomological Validity

Nomological validity is ascertained when “the construct behaves as expected with respect to the other constructs to which it is theoretically related” (Churchill, 1991, p. 492). This is achieved by correlating the scales with variables which the literature and/or the qualitative research suggest are related to the scales. In this respect, information overload has been hypothesised in the literature to be a key antecedent to symbolic use (Souchon et al., 2003). It is therefore, expected to correlate positively with the symbolic use dimensions. Given that on this occasion specific directional hypotheses exist, 1-tailed tests were employed. The results are presented in table 6.19 and reveal that positive correlations exist among information overload and the symbolic use dimensions. Therefore, evidence of nomological validity exists.

Table 6.19: Correlations of Symbolic Use Dimensions with Information Overload

Symbolic Use dimensions	Information Overload
Legitimizing Use	Pearson correlation: .112* Sig. (1-tailed): .063
Non-Use	Pearson correlation: 0.02 Sig. (1-tailed): .489
Social Use	Pearson correlation: .067 Sig. (1-tailed): .181
Affective Use	Pearson correlation: .083** Sig. (1-tailed): .129
Distortion	Pearson correlation: .137* Sig. (1-tailed): .037
Expert Power-seeking Use	Pearson correlation: .136* Sig. (1-tailed): .031
Legitimizing Power-seeking Use	Pearson correlation: .062 Sig. (1-tailed): .198
Haphazard Use	Pearson correlation: .007 Sig. (1-tailed): .463

** Correlation significant at the 0.01 level (1-tailed)

* Correlation significant at the 0.05 level (1-tailed)

6.8.5 Cross-validation of the Study

Another method followed to cross-validate the newly developed scales of symbolic use is to use the split sample method of validation (DeVellis, 2003). According to this method, the sample of respondents is randomly split into two equal

subsamples and principal components and reliability analysis is performed for each one of them. Each of the two subsamples then serves as a validation for the full sample. DeVellis (2003) suggests that if Cronbach's alphas remain fairly constant across the two subsamples, there is a greater probability that the values obtained are not influenced and distorted by chance. The sample was split by randomly selecting the first 95 cases as the first subsample while the remaining 94 cases formed the second sub-sample.

The results of this process are as follows:

Table 6.20: Cross-validation of the study

	Sample 1 (N=95)	Sample 2 (N=94)	Total sample (N=189)
Social use (n=5)	.926	.893	.909
Affective use (n=5)	.857	.893	.875
Non-use (n=5)	.770	.803	.791
Legitimizing use (n=6)	.777	.714	.746
Distortion (n=4)	.835	.865	.850
Haphazard use (n=2)	.642	.593	.617
Legitimizing power-seeking use (n=5)	.905	.876	.891
Expert power-seeking use (n=4)	.848	.815	.831
Export performance (n=8)	.922	.919	.921

Where N = sample size and n = number of items

The comparisons of the alpha values indicate that no significant deviations exist from one sample to the other. Given that the alphas remained reasonably consistent across the sub-samples, there is a good indication that the values obtained were reliable (DeVellis, 2003).

6.9 CHAPTER SUMMARY

The first of the study's objectives was to develop psychometrically sound measures for symbolic use of export information. This was achieved in this chapter where dimensionality, reliability and validity assessment of the symbolic use dimensions were presented. Prior to that, the presentation of the missing values strategy took place. After reviewing the different imputation methods available to the researcher, the EM algorithm was identified as the most suitable one. Next, within the theory of factor analysis different approaches were explained and contrasted and principal components analysis was selected as the appropriate method to assess the dimensionality of the scales. Internal-consistency reliability was then assessed and presented and the cronbach alphas calculated. The values of the alphas ranged from acceptable to very satisfactory ones, demonstrating that the scales were reliable.

Following the discussion in chapter 5 on common method variance and after having introduced the reader to the concept of factor analysis in this chapter, the Hartman's single factor test was performed. Also, given that the symbolic use scale was a newly developed one and, as such, never tested for social desirability effects before, correlations between symbolic use dimensions and social desirability were calculated. The results revealed that common method variance was not likely to be a particular problem for this study. The final step was to ensure that the scale accurately represented the concept of interest. For that purpose, different types of validity namely, content, criterion-related, construct and nomological were discussed.

Overall, the scale demonstrates good psychometric properties. Furthermore, summated scales were created which are now ready for regression analysis and the testing of the proposed model on symbolic use, decision quality and export performance. This is the subject of the next chapter.

Chapter Seven: HYPOTHESES TESTING

In this chapter, the directional hypotheses put forward in chapter 4 are tested via moderated hierarchical regression. Prior to the actual analysis, some issues pertaining to sample size in regression are discussed. In the analysis stage the regression model is estimated and validated. A summary of the conclusions is provided in the last section of this chapter.

7.1 SAMPLE SIZE IN MULTIPLE REGRESSION ANALYSIS

The sample size used in multiple regression plays a vital role in a) determining the statistical power and, b) affecting the generalisability of results (Sharma, 1996). Statistical power in multiple regression refers to the “probability of detecting as statistically significant a specific level of R^2 or a regression coefficient at a specified significance level for a specific sample size” (Hair et al., 2010, p. 174). In that respect, small samples of less than 30 observations are appropriate for analysis only by single regression with only one independent variable (Sharma, 1996). According to Field (2009), a basic rule of thumb in that respect is ‘the bigger the sample size, the better’. However, large samples of 1,000 observations or even more, “make the statistical tests overly sensitive, often indicating that almost any relationship is statistically significant” (Hair et al., 2010, p. 174). Thus, practical significance should be ensured along with statistical significance.

In terms of generalisability and sample size, Hair et al. (2010) suggest that a general rule is that the ratio of independent variables to observations should not fall below 5:1. When this level is achieved, results can be generalised provided that the sample is representative. Green (1991) provides another rule of thumb according to which if one wishes to test the model overall then a minimum sample of $50 + 8k$ is required, where k is the number of independent variables.

The total number of independent variables to be tested in this study is 16. Therefore, divided by 189 which is the number of cases, yields a ratio of almost

11:1 (almost double that of 5:1 minimum threshold). If Green's rule of thumb was applied then $50 + 8 \times 16 = 178$ cases would be required. In any case, it becomes apparent that the sample size of 189 cases is acceptable for generalisability purposes.

7.2 ESTIMATION OF THE REGRESSION MODEL AND OVERALL MODEL FIT ASSESSMENT

As already mentioned in chapter 5, multiple regression is the most widely used multivariate method (Field, 2009). The applications of multiple regression can be broadly synthesised into the following two categories of research problems, namely prediction and explanation (Sharma, 1996). More specifically, "prediction involves the extent to which the regression variate can predict the dependent variable. Explanation, examines the regression coefficients (...) for each independent variable and attempts to develop a substantive or theoretical reason for the effects of the independent variables" (Hair et al., 2010, p. 169). In this study, multiple regression is employed for explanatory purposes.

7.2.1 Presentation of the Interaction or Moderator Effects

The situation where an independent-dependent variable relationship is affected by another independent variable is termed 'moderator effect' or 'interaction effect' (Anderson et al., 2002). Going back to the conceptual diagram in chapter 4, many hypothesised moderators warrant examination. These moderator variables are likely to change the form of relationship between the independent and dependent variables (Stevens, 1996). More specifically, it represents a non-linear compound which actually changes the slope of the relationship over the range of the independent variable (Anderson et al., 2002). The moderator term, formed by a multiplication of the independent variable by the moderating variable, is then entered in the regression equation (Hair et al., 2010). The mathematical expression of this relationship is the following:

$$Y = b_0 + b_1X_1 + b_2X_2 + e \quad (1)$$

$$Y = b_0 + b_1X_1 + b_2X_2 + b_3 X_1 X_2 + e \quad (2)$$

Where,

b_0 = intercept

b_1X_1 = linear effect of X_1

b_2X_2 = linear effect of X_2

$b_3X_1 X_2$ = moderator effect of X_2 on X_1

b_1, b_2, b_3 = slopes

e = error

Equation (1) is a multiple regression model where the regression coefficients represent estimates of the effects of an independent variable X on the dependent Y holding all other X variables constant. For the interaction effect, a multiplicative term $X_1 X_2$ is inserted, yielding a three-term equation (Jaccard et al., 1990). Hair et al. (2010) also suggest that a three-step process should be followed. First the original equation should be estimated and then the moderated equation (original equation plus the moderator effect). The last step involves the assessment of the change in R^2 . If an interaction effect is present then the difference between R^2 in equations (1) and (2) should be statistically significant (Hair et al., 2010). The interpretation of the regression coefficients in equation (2) is distinct as in that case, the regression coefficients reflect conditional relationships. More specifically, “ b_1 reflects the influence of X_1 on Y when X_2 equals zero, and b_2 reflects the influence of X_2 on Y when X_1 equals zero. The coefficient b_3 represents an interaction effect in that it estimates the change in the slope of Y on X_1 given a one unit change in X_2 ” (Jaccard et al., 1990, p. 469). (In order to avoid confusion, it should be noted at this point that the interaction effect is interpreted as if X_2 is the moderator variable). The distinctions in the regression coefficient also apply for the standard errors in a quite similar way. In that respect, the standard errors for regression coefficients in equation (2) reflect the sampling error at particular levels of the independent variables (Jaccard et al., 1990).

The multiplicative term by default introduces some degree of multicollinearity in the model. In order to overcome this problem a certain transformation should take place. More specifically, Cohen and Cohen (1984) suggest that the transformation of a given predictor variable should involve subtracting the mean of the variable from each individual's raw score on that predictor (mean centering), thus forming deviation scores. Cronbach (1987) suggests that such a transformation will yield low correlations, overcoming multicollinearity problems as a result. He furthermore, suggests that the transformation should be performed on the predictor variables prior to the formation of the multiplicative term and that the dependent variable should be regressed onto transformed variables and their product for purposes of evaluating the interaction effect. This comes in line with the previous recommendations of a three-step process (Jaccard et al., 1990; Hair et al., 2010).

At this point it should be highlighted that the transformation described above is performed in unstandardised coefficients. An alternative transformation initially proposed by Dunlap and Kennedy (1987) is also possible. This transformation incorporates the centering process but advocates in favour of dividing the centered variables by their respective standard deviations, thus standardising them. The standardised solution has the advantage that the variables are measured on the same metric with a mean of 0 and standard deviation of 1. However, the major problem with standardised coefficients is that they lack causal invariance and mask causality between variables (Jaccard et al., 1990). As a result, they are not recommended.

Another transformation available in order to overcome multicollinearity problems is residual-centering. This approach has a number of advantages over mean-centering in that it results in further "reduced multicollinearity among predictors as well as smaller standard errors, it separates interaction and main effects, and (with standardised data) it yields a regression coefficient for the residualised cross-product term that is directly interpretable as the effect of the $X_1 \times X_2$ interaction on Y " (Lance, 1988, p. 164). As in traditional hierarchical moderated regression (HMR) analysis, a finding of a significant interaction effect is appropriately followed by subgroup regression analyses of the form of the interaction (Arnold, 1982). The

residual-centering approach begins with a regression of the cross-product term on the main effects, for example:

$$X_1X_2 = c_1 X_1 + c_2 X_2 + d \quad (3)$$

In the second step, cross-product residuals are constructed:

$$d_{1x2} = X_1X_2 - (\hat{c}_1X_1 + \hat{c}_2X_2) \quad (4)$$

d_{1x2} may be restandardised, and then used in the full equation regression:

$$Y = b_0 + b_1X_1 + b_2X_2 + b_3 d_{1x2} + d_y \quad (5)$$

The decision to rescale d_{1x2} should be based, in part, on whether the original variables were measured on some non-arbitrary metric (Stolzenberg, 1980). If they were, unstandardised regression estimates should be used in Equations 4 and 5 to preserve the metrics of the original variables (Stone and Hollenbeck, 1984).

As shown already, the residual-centering approach is a bit more complicated as it requires the estimation of two additional parameters. However, when multicollinearity poses a real threat to the integrity of HMR estimates and when it is desirable, the estimates of the interaction effects to be more interpretable, the residual-centering approach should be used (Lance, 1988). For these reasons, residual-centering was the method employed by this study in order to transform the data and overcome any potential problems with multicollinearity.

7.2.2 Presentation of the Regression Equations

The above discussion finds practical application in the process that follows. The actual sets of equations to be tested in this particular study are the following:

EXPORT COMMITMENT = LEGITIMATING POWER-SEEKING USE

DQ = LEGITIMATING USE + SOCIAL USE + NON-USE + AFFECTIVE USE + DISTORTION + EXPERT POWER-SEEKING USE + HAPHAZARD USE + EXPORT COMMITMENT + INSTRUMENTAL/CONCEPTUAL USE (**Block 1**)

DQ = Block 1 + INFORMATION QUALITY + EXPORT EXPERIENCE + OVERLOAD (**Block 2**)

DQ = Block 1 + Block 2 + LEG*EXPERIENCE + SOC*INFOQUAL + NONUSE*EXP + NONUSE*INFOQUAL + AFF*INFOQUAL + HAP*OVERLOAD + HAP*INFOQUAL (**Block 3**)

PERFORMANCE = DQ + SIZE + EXPERIENCE + SPECIFICITY (**Block 1a**)

PERFORMANCE = Block 1a + INTERFUNCTIONAL + TECHNOLOGICAL + REGULATORY + CUSTOMER + INTENSITY + SPEED (**Block 2a**)

PERFORMANCE = Block 1a + Block 2a + DQ*INTERFUNCTIONAL + DQ*TECHNOLOGICAL + DQ*REGULATORY + DQ*CUSTOMER + DQ*INTENSITY (**Block 3a**)

PERFORMANCE = Block 1a + Block 2a + Block 3a + DQ*TECHNOLOGICAL*SPEED + DQ*REGULATORY*SPEED + DQ*CUSTOMER*SPEED + DQ*INTENSITY*SPEED (**Block 4a**)

7.2.3 Assumptions in Multiple Regression

The testing of assumptions in multiple regression apply both to the independent and dependent variables and to the relationship as a whole (Sharma, 1996). At this stage, after the model is estimated, an assessment of the assumptions for the variate will be performed. This will be followed by an assessment of the assumptions for the individual variables. Before delving into each multiple regression assumption it should be highlighted that an ad hoc, pre-assumption is that continuous, metric variables are used (although regression can be used with

categorical variables as well) (Field, 2009). The assumptions which concern the relationship (i.e. the variate) are the following:

1. Linearity
2. Multicollinearity assessment

Whereas, the assumptions for the residuals are:

3. Constant variance of the error terms
4. Independence of the error terms
5. Normality of the error terms

Each one of the above assumptions will be now assessed.

7.2.3.1 Linearity

The linearity of the relationship between dependent and independent variables “represents the degree to which the change in the dependent variable is associated with the independent variable. The regression coefficient is constant across the range of values for the independent variable” (Hair et al., 2010, p. 183). The assumption that the modelled relationship is a linear one is very important because the concept of correlation is based on a linear relationship (Sharma, 1996). In turn, the maximisation of the correlation between the independent variables and the dependent one is what determines the regression variate itself (Anderson et al., 2002).

7.2.3.2 Multicollinearity Assessment

Multicollinearity is present when strong correlations exist among two or more independent variables in the regression model (Field, 2009). Multicollinearity is a particular problem because it creates shared variance among the independent variables which decreases the ability of the regression procedure to represent the role and reflect the unique importance of the independent variables in the regression variate as well as decreasing the ability to predict the dependent

measure (Sharma, 1996). In the situation where at least one independent variable is a perfect linear combination of the others (i.e. they have a correlation coefficient of 1) perfect collinearity exists (Field, 2009). In this extreme (and rare) case it is impossible to derive unique estimates of the regression coefficients as an infinite number of potential combinations of coefficients that work equally well exists (Field, 2009). A direct measure of multicollinearity is tolerance, which is defined as “the amount of variability of the selected independent variable not explained by the other independent variables” (Hair et al., 2010, p. 201). A suggested cut-off for the tolerance value is .10 (Field, 2009). Another measure of multicollinearity is the Variance inflation factor (VIF) which is simply calculated as the inverse of the tolerance value (Hair et al., 2010). A VIF value of less than 10 indicates that no multicollinearity problems really exist (Field, 2009). From a statistical standpoint “departures from normality, homoscedasticity and linearity apply only to the extent that they diminish the observed correlations. In fact, some degree of multicollinearity is desirable, because the objective is to identify interrelated sets of variables” (Hair et al., 2010, p. 103).

7.2.3.3 Homoscedasticity

This rather complicated term can be simply interpreted as the residuals at each level of the predictors having equal variance. The exactly opposite phenomenon where unequal variances are present (heteroscedasticity) is a very common assumption violation (Field, 2009). Residual plots and statistical tests are available for detecting heteroscedasticity. Hair et al., (2010) recommend the Levene test for homogeneity to be used for that purpose. This test, which is available in SPSS, measures the equality of variances for a single pair of variables and is less affected by departures from normality. A visual inspection of the residuals plot can also serve as a basis for outliers’ detection (Field, 2009).

7.2.3.4 Independence of the Error Terms

This assumption suggests that for any two observations the error terms (residuals) should be uncorrelated (Field, 2009). This occurrence can be identified by plotting

the residuals against any possible sequencing variable and visually examining the plots.

7.2.3.5 Normality Assessment

Normality is the degree to which the distribution of the sample data corresponds to a normal distribution (Churchill and Iacobucci, 2005). The term ‘normal’ is used to describe “a symmetrical, bell-shaped curve, which has the greatest frequency of scores in the middle, with smaller frequencies towards the extremes” (Gravetter and Wallnau, 2004, p. 48). One common misunderstanding or mistake that many people do is to confuse this assumption with the idea that predictor variables should be normally distributed (Field, 2009). In fact, this assumption of normality refers to ‘normally distributed errors’ with a mean of 0, which means that the differences between the model and the observed data are close to zero (Anderson et al., 2002). The error (or disturbance) term is described as a random variable that consists of three components: a) an unpredictable random component present in all outcomes, b) a component created by all the omitted independent variables that influence the dependent variable and, c) measurement error in the dependent variable (Bollen, 2002). The Kolmogorov- Smirnov test for normality and a visual inspection of the normality histogram will be applied by this study.

7.2.4 Detecting Outliers

According to Hair et al., (2010, p. 64), “outliers are observations with a unique combination of characteristics identifiable as distinctly different from the other observations”. This typically means that an outlier could be an unusually high or low value on a variable or a unique combination of values across several variables that distinguish the observation (Malhorta, 2004). The main practical implication of an outlier is that it can inflate (or deflate) the value of some very important indicators / statistics such as for example the mean or average and, in that way, distort the results (Hair et al., 2010).

7.3 RESULTS AND DISCUSSION

In this section the presentation of the hierarchical regression results takes place followed by the calculation of regression coefficients and overall model fit assessment. The results are discussed in light of the hypothesised relationships presented in chapter 4. Evidence of support (or not) for each hypothesis is provided and possible reasons for lack of support are also discussed.

For the first regression equation (EXPORT COMMITMENT = LEGITIMATING POWER-SEEKING USE) the model summary is the following:

Table 7.1: Regression for Export Commitment

<i>Summary statistics for regression model (N=189) at the 10% level</i>							
Multiple R	R ²	Adjusted R ²	R ² Change	F-value	Significance F change		
.080	.006	.001	.006	1.205	.274		
Parameter analysis							
Variable	B	SE B	Beta	Tol.	t-value	VIF	
Legitimizing Power-seeking Use (H7a)	.118	.107	.080	1.00	1.098	1.00	
Constant	5.726	.462	n/a	n/a	12.403	n/a	

The corresponding hypothesis is:

H7a: *Legitimizing power-seeking use will be positively related to export commitment – (see chapter 4 for more details).*

The very low value of R² as well as the low values for F and t statistics suggest that the hypothesis cannot be confirmed. The R² is the most common method of fit and measures the proportion of the variability in the dependent variable Y that can be explained by the independent variable X (Koop, 2008). It can be also proved that the potential values of R² range from 0 to 1 (all values of R² near 1 imply a good fit whereas a value of R² = 1 implies perfect fit) (Field, 2009). As it can be

seen from table 7.1, R^2 is almost 0 which furthermore means that the OLS estimator β (beta coefficient in the table) is almost zero. In simple regression, β is the marginal effect of X on Y while in multiple regression β is the marginal effect of X_j on Y , ceteris paribus (holding all other explanatory variables constant) (Koop, 2008). On a substantial front, the above results indicate that legitimating power-seeking use does not seem to have any explanatory power on export commitment. In this case, the null hypothesis finds support, which simply means that hypothesis *H7a* should not be accepted.

Conceptually, a reason potentially justifying this result might be that when the export people make use of information in such a way as to increase the standing of exporting within the firm, the top managers may want to discourage this behaviour. In other words, if such use is anticipated by top managers then they may not give in and commit more resources to exporting in the fear that other departments may react in a negative way. This conflict, in turn, may lower the levels of inter-functional coordination and the market orientation within the firm with disastrous results for overall performance. Another possible explanation of this result can be attributed to the particular sample used in this study. More specifically, the majority of the firms participating in the study are small or medium sized. This is very likely to mean that those firms do not have the financial strength to devote extra funds in the export side of the business. It may also be that they are not so export-oriented and consider exporting as a secondary or supplementary activity while the main focus revolves around the domestic market.

The set of equations pertaining to the symbolic use-decision quality part of the model are the following:

$$\text{DQ} = \text{LEGITIMATING USE} + \text{SOCIAL USE} + \text{NON-USE} + \text{AFFECTIVE USE} + \text{DISTORTION} + \text{EXPERT POWER-SEEKING USE} + \text{HAPHAZARD USE} + \text{EXPORT COMMITMENT} + \text{INSTRUMENTAL/CONCEPTUAL USE} \text{ (Block 1)}$$

$$\text{DQ} = \text{Block 1} + \text{INFORMATION QUALITY} + \text{EXPORT EXPERIENCE} + \text{OVERLOAD} \text{ (Block 2)}$$

DQ = Block 1 + Block 2 + LEG*EXPERIENCE + SOC*INFOQUAL +
 NONUSE*EXP + NONUSE*INFOQUAL + AFF*INFOQUAL + HAP*OVERLOAD +
 HAP*INFOQUAL (**Block 3**)

The results are presented in the table that follows:

Table 7.2: Regression for Decision Quality

<i>Summary statistics for regression model (N=189) at the 10% level</i>						
Multiple R	R ²	Adjusted R ²	R ² Change	F-value	Significance F change	
.453	.205	.170	.205	5.801	.000	
.547	.299	.255	.094	7.887	.000	
.602	.362	.295	.063	2.417	.022	
Parameter analysis						
Variable	B	SE B	Beta	Tol.	t-value	VIF
Legitimizing Use (H1)	-.032	.064	-.040	.600	-.503	1.668
Social Use (H2)	-.157	.056	-.238	.529	-2.825	1.890
Non Use (H3a, H3b)	.104	.062	.124	.696	1.684	1.436
Affective Use (H4)	.087	.052	.122	.698	1.662	1.434
Distortion (H5)	-.080	.062	-.104	.568	-1.684	1.760
Expert Power-seeking Use (H6)	.093	.052	.128	.742	1.802	1.348
Haphazard Use (H8a, H8b)	-.001	.055	-.001	.705	-0.10	1.419
Export Commitment (H7b)	.097	.034	.209	.708	2.873	1.412
Overload (H8a)	-.020	.057	-.022	.878	-3.43	1.139
Export Experience	.227	.057	.317	.597	4.000	1.676

(H3a)							
Information Quality (H2, H3a, H4, H8b)	.036	.065		.043	.617	.554	1.621
LEGEXP	-.020	.045		-.030	.793	-.438	1.261
SOCINFOQ	.030	.041		.052	.760	.735	1.316
NONUSEXP	.034	.053		.046	.722	.640	1.384
NONUSEINFOQ	-.071	.062		-.088	.632	-1.143	1.583
AFFINFOQ	-.167	.046		-.252	.767	3.602	1.304
HAPOVERLOAD	-.015	.039		-.026	.852	-.389	1.174
HAPINFOQ	-.034	.052		-.048	.703	-.660	1.422
Constant	3.203	.052		n/a	n/a	6.290	n/a

The results from the 3rd model summary demonstrate that at the 10% significance level the change in F-statistic is significant (p value is .022 which is lower than the critical value of .100). This means that the coefficients are not all simultaneously zero and there is presence of X*Z interactions. However, in order to assess the significance of each independent variable the t-statistic needs to be employed. During the process of analysis in SPSS, the instrumental/conceptual use which was initially destined to play the role of a control variable was inserted in the WLS-weight box to control for heteroscedasticity. This means that the variables were weighted with (divided by) the instrumental/conceptual variable in order to minimise the potential effect of heteroscedasticity. The latter is the situation where two or more independent variables are strongly correlated with each other and can confound the final results of the regression by masking the potential effect that each independent variable is likely to have on the dependent one (Koop, 2008). As appendix 6.2 indicates, symbolic use and instrumental/conceptual use are indeed strongly correlated. Conceptually, symbolic use and instrumental/conceptual use are expected to be strongly related because: a) both of them refer to information use dimensions and, b) it is very rare (if not totally unrealistic) to support that managers are likely to use information only symbolically or only instrumentally/conceptually. Both occurrences to a varying degree is the only logical and pragmatic situation.

H1: *The relationship between legitimating use and decision quality will depend on export experience. In the context of high export experience, the relationship will be positive.*

This hypothesis does not find support based on account of a non-significant t-value. This may be due to low statistical power stemming from the fact that the sample size is not very large. Sample size is positively related to the statistical power of any inferential test (Cohen, 1988) and is the most important single factors affecting power in moderated hierarchical regression (Aguinis, 1995).

Substantive reasons for this non-significant finding may be the fact that legitimating use is ‘time-idiomorphic’. In other words, it is somehow distinct from the other dimensions in that it concerns a decision already made on other grounds prior to an adequate analysis (Vyas and Souchon, 2003). As a result, decision quality (and the way it is measured) cannot capture the essence of this dimension. Timely implementation which would be more relevant (see chapter 4 on the development of the hypothesis), is assumed to be an inherent characteristic of a good quality decision. However, it is not measured alike. This is an important limitation of the study in general which will be discussed in detail in the chapter that follows.

H8a: *The relationship between haphazard use of export information and decision quality will depend on information overload. In the context of high information load, the relationship will be negative.*

This hypothesis is far from being supported based on the results displayed in table 7.2. Apart from the size of the sample, measurement error is another possibility for reduced statistical power (Koop, 2008). Because constructs in most management studies “are rarely measured with perfect or near perfect reliability, the observed regression coefficients in moderated multiple regression are usually attenuated” (Aguinis, 1995, p. 1145). Dunlap and Kemery (1988) examined the effects of the reliabilities of X and Z and their correlation on statistical power. For example, when the reliabilities for X and Z were .50, for a high correlation between the predictors statistical power was 0.706. For lower correlations (e.g. 0.20) statistical power

decreased to .561). Dunlap and Kemery (1988) relied only on a small sample size (N=30) but their results are confirmed for larger samples (N>100) as well.

H8b: *The relationship between haphazard use of export information and decision quality will depend on information quality. In the context of high information quality, the relationship will be negative.*

The same statistical issues confounding the results apply to this hypothesis as well (like the ones discussed for H8a). On a substantive front, a possible reason why the result did not find empirical evidence is because haphazard use may have the same (negative) effect on decision quality regardless of the existence or not of quality information. If it is accepted that the decision-makers who make haphazard use lack experience, then they would most likely not know how to appreciate good information. They would not even be able to tell if the information is good or not in the first place. Even good quality information can make no impact in the decision-making if it is used in entirely the wrong way. The actual loss is more of a deducible rather than actual one (in the sense that maximum decision quality would have possibly been achieved based on this information – but only if the decision-maker was a more capable one).

H5: *The relationship between distortion and decision quality will be negative.*

In line with the main bulk of the literature (e.g. Bettis-Outland, 1999; Vyas and Souchon, 2003), the data suggest a negative relationship indeed between distortion and decision quality.

H6: *Expert power-seeking use will be positively related to decision quality*

According to the results in table 7.2, both of the above hypotheses find empirical support as the t-values are significant in the 10% confidence level. The negative hypothesised relationship between distortion and decision quality is denoted by the negative beta (-1.04). This result comes as a confirmation to previous propositions in the literature according to which distortion is indeed likely to deteriorate decision quality (e.g. Heracleous, 1994; Russo et al., 1996; Phillips,

2002). As for expert power-seeking use, its direct, positive effect on decision quality seems indeed likely to be conducive to reducing the likelihood of conflict and increasing longer-lasting influence with the different functions and/or departments of the firm (Vyas and Souchon, 2003). This in turn, is said to be beneficial to decision quality (Simons, 1996).

H7b: Export commitment will, in turn, be positively related to decision quality

Although legitimating power-seeking use and export commitment do seem to be related according to the data of this study, the latter seems to be indeed positively related to decision quality. Although intuitively straightforward that the commitment of more resources to exporting is likely to enhance decision quality by providing export people with more potential alternatives to choose from, some empirical support is also evident. This is very important in light of the future study of decision quality in an export setting, as export commitment seems likely to be an important antecedent to decision quality.

H4: The relationship between affective use and decision quality will depend on information quality. In the context of high information quality, the relationship will be negative.

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A very large t-value of 3.602 provides empirical evidence that supports hypothesis H4. Using information to bolster levels of confidence under a situation of complete uncertainty and high stress seems to be beneficiary to decision quality when the information relied upon is of high quality.

H3a: The relationship between non-use of export information and decision quality will depend on export experience. In the context of high export experience, the relationship will be positive.

H3b: The relationship between non-use and decision quality will depend on information quality. When information quality is high, the relationship will be negative.

Both of the above hypotheses regarding information non-use are seemingly insignificant as far as the moderating effects of export experience and information quality are concerned. However, the data suggest a direct effect between information non-use and decision quality. This may well highlight the role of export experience and information quality as potential antecedents to information non-use rather than moderators. Indeed, both of these constructs would be more appropriate as initiators (or inhibitors) of non-use in the sense that, if for example experience is absent then non-use should not take place at all. Stated differently, a situation of non-use is likely to have occurred only under the existence of some export experience, otherwise it would be sheer gambling. Assuming export experience is present, information non-use can be positively related to decision quality and the implementation of the decisions. Similar arguments can be constructed for information quality as well.

H2: The relationship between social use and decision quality will depend on information quality. In the context of high information quality, the relationship will be positive.

The interaction effect is not significant as opposed to a direct effect that emerges in this case as well. This means that effective decision-making largely depends on the relationship with and participation of external information suppliers (Sinkula, 1990) without the former being necessarily based on good and accurate information. This is probably because information quality can be assumed as an implicit prerequisite (or an outcome of the effective interaction between providers and users of export information). In reality and in the majority of the cases, an export manager would seek to obtain information from his customers, export partners and/or colleagues who may be working in the same foreign market. All the above sources are classified as export intelligence which is generally less formalised and systematic than other available forms of information acquisition (e.g. export marketing research) (see Souchon and Diamantopoulos, 1999). Within this mode it is logical that the information requested will be informal, snap and on-going (a product for the solution of a problem that emerges in the present and needs to be resolved on the spot without much research or time devoted). In other words, this kind of use would most likely serve the solution of short-term,

tactical decisions rather than long-term strategic ones. Of course this does not mean that a major export customer participating in the strategic planning of the firm is an unrealistic or impossible occurrence – it is just not the norm. Therefore, information quality may not be particularly relevant. It is rather the input of the experience and intentions of the export information provider that will most likely determine the (tactical) decision outcome; for the latter, social use may be a catalyst. Of course, in the case where solving more complex and important decision-making issues is at stake, more formal research may be warranted and, as a result, ensuring conditions of information quality may be a necessity.

The final set of equations pertaining to the potential relationship between decision quality and export performance are as follows:

$$\text{PERFORMANCE} = \text{DQ} + \text{SIZE} + \text{EXPERIENCE} + \text{SPECIFICITY} \text{ (Block 1a)}$$

$$\text{PERFORMANCE} = \text{Block 1a} + \text{INTERFUNCTIONAL} + \text{TECHNOLOGICAL} + \text{REGULATORY} + \text{CUSTOMER} + \text{INTENSITY} + \text{SPEED} \text{ (Block 2a)}$$

$$\text{PERFORMANCE} = \text{Block 1a} + \text{Block 2a} + \text{DQ} * \text{INTERFUNCTIONAL} + \text{DQ} * \text{TECHNOLOGICAL} + \text{DQ} * \text{REGULATORY} + \text{DQ} * \text{CUSTOMER} + \text{DQ} * \text{INTENSITY} \text{ (Block 3a)}$$

$$\text{PERFORMANCE} = \text{Block 1a} + \text{Block 2a} + \text{Block 3a} + \text{DQ} * \text{TECHNOLOGICAL} * \text{SPEED} + \text{DQ} * \text{REGULATORY} * \text{SPEED} + \text{DQ} * \text{CUSTOMER} * \text{SPEED} + \text{DQ} * \text{INTENSITY} * \text{SPEED} \text{ (Block 4a)}$$

Table 7.3: Regression for Export Performance

<i>Summary statistics for regression model (N=189) at the 10% level</i>						
Multiple R	R²	Adjusted R²	R² Change	F-value	Significance F change	
.394	.156	.132	.156	6.741	.000	
.515	.266	.224	.110	5.338	.000	
.544	.296	.235	.031	1.502	.192	
.554	.307	.229	.011	.666	.617	
Parameter analysis						
Variable	B	SE B	Beta	Tol.	t-value	VIF
Decision Quality (H9, H10)	.290	.087	.246	.761	3.342	1.315
Size	.104	.056	.136	.783	1.880	1.276
Experience	.000	.000	-.072	.814	-1.017	1.229
NOEMPL	.000	.002	.006	.954	.094	1.048
Export Specificity	.203	.152	.094	.827	1.334	1.209
Inter-functional Coordination (H10)	.105	.069	.112	.754	1.521	1.326
Technological Turbulence (H9)	.229	.057	.308	.702	4.015	1.425
Regulatory Turbulence (H9)	-.032	.060	-.037	.825	-.527	1.212
Market Dynamism (H9)	-.073	.070	-.087	.603	-1.049	1.658
Intensity (H9)	-.199	.068	-.229	.675	-2.924	1.481
Constant	1.873	.453	n/a	n/a	3.721	n/a

The results in table 7.3 indicate that the interaction effects seem to be non-significant. Nonetheless, a finding of importance is that decision quality has a

direct effect on export performance. This is a very interesting finding given that it is the first time that decision quality is examined as an antecedent of export performance.

H9: *The relationship between decision quality and export performance will depend on environmental turbulence and speed of implementation. When environmental turbulence and speed of implementation are high, then, decision quality will be positively related to export performance. However, when environmental turbulence is high and speed of implementation is low, the relationship between decision quality and export performance will be negative.*

This hypothesis did not find any empirical support. Adding to the possible explanations for reduced statistical power, multicollinearity is another one. This seems to be quite prominent as far as this hypothesis is concerned because of the existence of the 2nd order moderator. Indeed, after the inspection of table 7.3 the VIF values for the multiplicative terms referring to decision quality, environmental turbulence and decision speed are quite low. The t-stats are low as well. These are indications of the potential existence of increased multicollinearity. If explanatory variables are highly correlated with one another the regression model has problems demonstrating which individual variable is explaining the dependent one. Indeed, “the presence of multicollinearity in multiple moderated regression leads to an ill-conditioned solution in which the regression coefficients are unstable, error terms are larger, and power is decreased” (Aguinis, 1995, p. 1149).

The reason why power is decreased in the presence of multicollinearity is due to the number of predictors reducing the degrees of freedom for the numerator of the F ratio (Aguinis, 1995). The formula for calculating the F statistic is the following (distributed with $K_2 - K_1$ and $N - K_2 - 1$ degrees of freedom):

$$F = [(R_2^2 - R_1^2) / (K_2 - K_1)] / [(1 - R_2^2) / (N - K_2 - 1)]$$

Although residual centering was initially employed to mitigate multicollinearity, two facts may have rendered this effort insufficient: a) the model has many interaction effects and, b) the sample size is not large enough to allow for more statistical

power. A model with fewer variables might have produced more significant results and overcome such problems.

Another possible explanation could be the existence of time lags between speed and environmental turbulence as both of them are dynamic constructs, constantly evolving and changing. If this is the case indeed, time series analysis would most likely be suitable.

A further elaboration of the above statement can provide us with pragmatic reasons explaining why there is no empirical support. If, for example, the rate of environmental turbulence is much higher than the rate of speed of implementation (a situation which of course can be realised only in case of decisions which need the long run to be implemented such as, for example, strategic decisions), then implementing out-of-date decisions is a possibility. On this occasion no moderating effect is possible (unless as already mentioned time lags are taken into account).

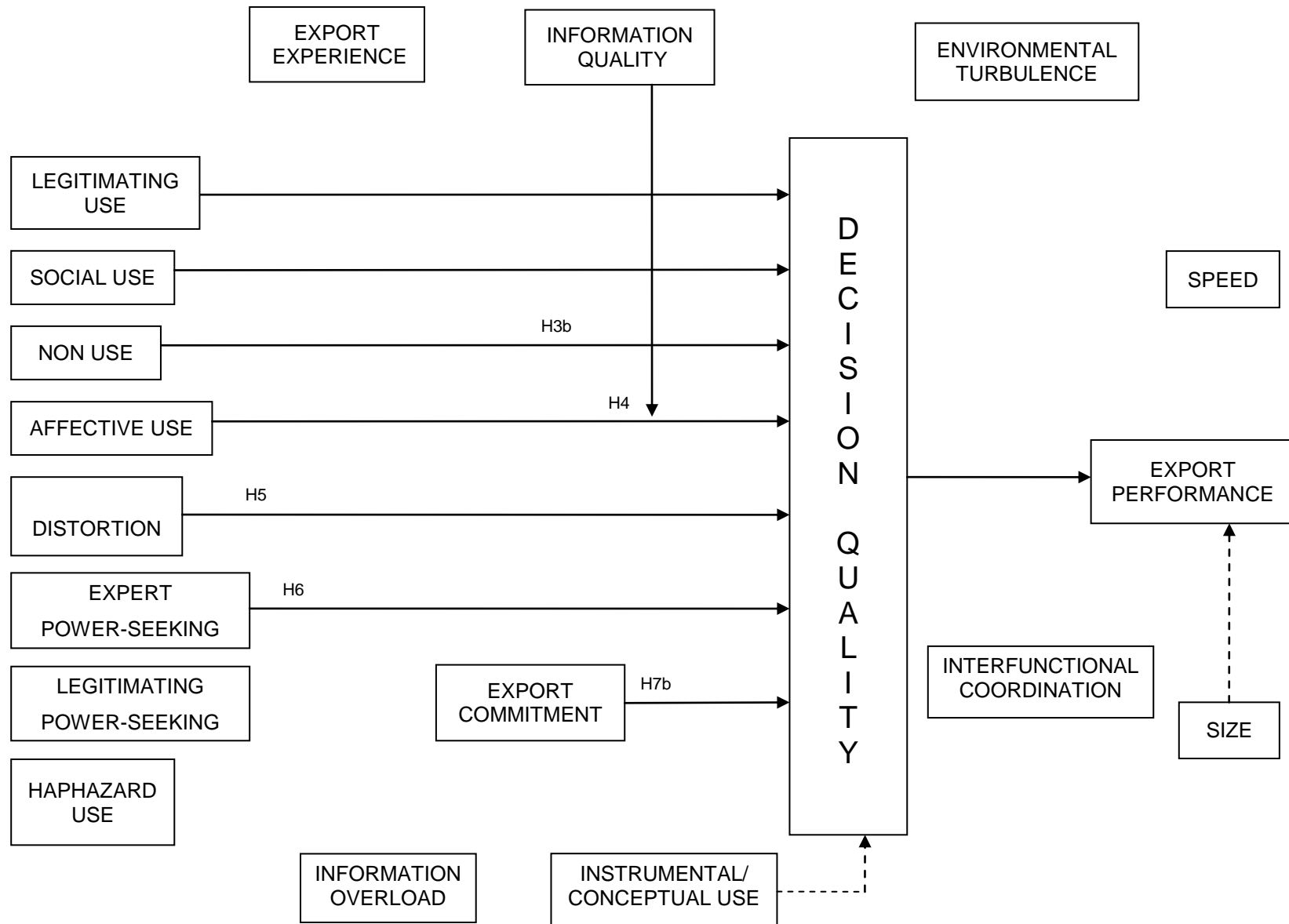
H10: The relationship between decision quality and export performance will depend on level of inter-functional coordination. When inter-functional coordination is high the relationship will be positive.

According to the results in table 7.3, this hypothesis does not find empirical support for a number of possible reasons which relate to reduced statistical power and have already been stated previously. One last reason that is found to affect statistical power and has not been yet discussed is scale coarseness. This phenomenon “refers to the operationalisation of a criterion variable that does not include sufficient scale points. This insufficient number of scale points results in possible information loss, and therefore, prevents a moderating effect from being detected” (Aguinis, 1995, p. 1147).

For example, if the predictor X and the moderator Z are measured in the 5-point likert scale, the product term has a possible range of $5 \times 5 = 25$ possible responses. However, if the predictor Y is also measured on a 5-point likert scale (instead of a 25-point scale which is almost never the case), crucial information is lost and the statistical power reduces.

The following diagram is an update of the conceptual diagram presented in chapter 4 after the testing of the model. More specifically, it depicts the hypotheses that find some empirical support after the analysis of the results.

Also, for more information on the regressions' residual plots and histograms, please see appendix 7.



7.4 CHAPTER SUMMARY

In this chapter the testing of the model on symbolic use and decision quality took place using moderated hierarchical regression. First the method of analysis was delineated and the assumptions and limitations of it were presented. The specific regression equations were then analysed followed by the discussion of results.

The results provide empirical support for the relationship between a number of symbolic use dimensions and decision quality. However, the relationships were mostly direct apart from affective use, its relationship of which with decision quality was confirmed to be contingent upon levels of information quality. The symbolic use dimensions which were directly related to export performance were distortion, information non-use and expert power seeking use.

A very interesting finding was the positive effect of decision quality on export performance albeit, not moderated by environmental turbulence or inter-functional coordination. Nonetheless, it is the first time that decision quality is examined in an export setting as an antecedent to export performance. This opens a number of future research avenues and has very important implications both for theorists and practitioners. All these are discussed in the final chapter of this Thesis which follows.

Chapter Eight: CONCLUSIONS

8.1 THEORETICAL CONTRIBUTION

In general, the overall theoretical contribution of this study can be divided into three major achievements. First, empirical testing of the potential effect of each symbolic use dimension on decision quality took place. Although this is a major step towards enhancing in a decisive manner our understanding of how export information use affects export performance, this research endeavour is not concluded yet. As it will be shown in what follows, the outcomes of this study bear a number of important managerial implications and open numerous future research avenues. Nonetheless, the overall conclusion that needs to be kept in mind is that certain symbolic use dimensions seem likely to bear an impact on export performance. Based on this new finding, it is the duty of future researchers to seek other appropriate frameworks to study symbolic use. This is likely to further delineate the construct of symbolic use of export information and enhance our understanding of it. For example, much of the export market orientation literature suggests a positive association between information processing and export performance (e.g. Rose and Shoham, 2002). Distorting information, however, seems to be very negative for export market orientation. This is because one way distortion may be negatively related to decision quality is through lack of consensus and comprehensiveness in the selection of the best decision alternative. In turn, departmental conflict may arise which has been found to lower export market orientation (e.g. Jaworski and Kohli, 1993). The above example indicates that the way information use is viewed needs to be drastically changed in light of the findings of this study.

The second achievement of this study with important theoretical implications relates to the development of reliable and valid measures reflecting each dimension of symbolic use. Unless appropriate measures were developed it would not be possible for this study to be the springboard and foundation of future research endeavours. Symbolic use of information can entail great risk for the firm because it is likely to affect decision quality in a variety of ways. The impact of the

symbolic use dimensions on decision quality may fluctuate along a continuum from negative to positive under different circumstances. In order for these differing conditions to be studied and accurately delineated, future studies can rely on the measures developed by this study. The measures can be used in subsequent empirical analysis seeking to control the effects of symbolic use in a more systematic fashion. It is only then that researchers will be able to provide practitioners with more complete and accurate recommendations.

The third major contribution relates to the identification of decision quality as an important mediator between symbolic use and export performance. The results also suggest that there is a link (direct) between decision quality and export performance. Although decision quality has been considered in the management literature, it is quite surprising that such an effort has never been attempted in the export marketing literature. Furthermore, the literature on information use and export information use has examined the relationships between different types of information use, certain mediating effects and different outcomes. However, decision quality has never been hypothesised as a mediator between any type of information use and a given outcome. This is another surprising deficiency given that the related literature has long ago suggested that quality decisions are regarded as the crucial intervening variable between information use and performance (e.g. Piercy, 1987; Vyas and Souchon, 2003; Leonidou and Theodosiou, 2004). Yet no research attempting to test the relationship between types of information use and decision quality had been undertaken until now. Also, among the plethora of antecedents to export performance examined over the past 30-40 years, decision quality has always been absent. This study demonstrated that decision quality should be considered as an antecedent to export performance as well and, in that way, increase our knowledge on this so important field of research.

8.2 MANAGERIAL IMPLICATIONS

Evidently, the most important implication that the outcome of this study justifies is to raise an awareness of the potential impact of symbolic use of export information

on export performance and managerial decision-making. The importance of having the right information from the right sources and being in position to use it in the most effective way has long been recognised as a critical prerequisite for export success (e.g. Johanson and Vahlne, 1977; Leonidou and Katsikeas, 1996; Leonidou and Theodosiou, 2004). In line with a rational standpoint that organisations like to adopt (or like to believe they have adopted), the other types of information use (instrumental/conceptual) have received considerable attention and have long been recognised as an integral part of information-processing. However, the way information is used is not always based on rationality. In fact, in many occasions symbolic use of information is a reality (particularly prominent for the export function as already argued), which is sometimes rooted in the individuals' subconscious, cognitive actions. However, all decision-makers make decisions with bounded rationality, whereby the decision-making process is restricted due to limited human information-processing capabilities, other cognitive limitations and time constraints (Simon, 1960; Rich, 1991). As a result, it seems unrealistic to support that the export decision-makers realise what they are exactly doing when they use information symbolically. It seems unlikely that they understand and appreciate the potential implications of their use of information in a symbolic way. In conclusion, given that a) symbolic use is by nature difficult to be undisguised and perceived as a distinctive entity and, b) it can affect performance in various ways, its delineation can help in the provision of clear guidelines for the export decision-maker.

More specifically, it is very important for managers to be in position to understand that this kind of use can have adverse effects on the decision and, ultimately, the organisational performance. It is exactly through this knowledge as far as the existence and importance of symbolic use is concerned, that managerial decision-making becomes more rationalised. Managers may, for example, still distort information, but they will be doing so without the excuse of not knowing the potential implications of their choice.

Knowledge of the role of symbolic use in modern organisational decision-making may also be beneficial in that corporate managers will be able "to identify gaps in their export information systems and take measures to make them more useful in

exploiting profitable foreign market opportunities” (Leonidou and Theodosiou, 2004, p. 13). This is because organisations can develop more sophisticated information systems to monitor and even guard against symbolic uses of information where and when needed. For example, an efficient information system should prevent distorted information from entering the system or from being processed. Furthermore, managers will be in position to know that their system may include biased information which is likely to have adverse effects on their decision-making effectiveness and other performance outcomes. By taking this into account, the accuracy of their decisions is likely to improve. This is also likely to improve information-processing by maximising information use effectiveness.

In terms of which symbolic dimensions should be encouraged and which should be avoided altogether, the results of this study point towards the following recommendations: Expert power-seeking use should be totally encouraged as it is beneficial for decision quality. This is most likely because when other people within the firm see you as an expert then the likelihood for interference is greatly reduced. This can give you the freedom to act swiftly which is key to success in exporting. Furthermore, “a powerful export function may more easily obtain the cooperation of other functional areas within the firm to optimise its product or service offering to foreign markets” (Vyas and Souchon, 2003, p. 74). Becoming an expert in something can generally be achieved by learning. It is therefore desirable for managers to create a strong learning orientation within the firm and give incentives to individuals and departments to improve their learning capacities up to the point where they become experts. Financial and non-financial rewards could be employed towards this direction.

Empirical evidence confirmed the negative impact of distortion on decision quality. Distortion can emerge as a result of political behaviour and executives’ conflict (Simon, 1996). Political behaviour has long been recognised as an aspect of organisational decision making. Two key ideas underline the political dimension of decision making (Pettigrew, 1973). First, people in organisations have differences in interests resulting from functional, hierarchical, professional and personal factors (Sharfman, 1996). Second people in organisations try to influence the outcomes of decisions, so that their own interests will be served, and they do so

by using a variety of political techniques (Amason, 1996). More often than not, this involves distortion and restriction of information flow (Pettigrew, 1973; Bettis-Outland, 1999). Given its detrimental effects and the fact that distortion is very prevalent in the export field, it follows that export managers should do everything in their power to minimise the distortion that takes place in their organisations. This could be achieved by explaining and apprising their subordinates of the negative consequences of distorting information and encouraging them to avoid doing so. They could also increase the levels of control and formalisation in the process of decision-making and information use in order to minimise incidents of distortion.

Affective use of information, on the other hand, should be encouraged as it can be beneficial to decision quality but only when information quality is high. Especially for export information that is relatively more difficult to acquire, the mere existence of information can cause relief (Cavusgil, 1986). Indeed, “information from research results can be used to lower any cognitive dissonance effects that can occur with decisions not yet taken and thereby increase overall satisfaction with the decisions when they are made, or they can be used to feel more comfortable with a decision prior to the conclusion of a study” (Menon and Wilcox, 2001, p. 62). This is likely to enhance the levels of confidence behind a decision which, in turn, is directly associated to higher decision quality (e.g. Sniezek, 1992; Oz et al., 1993). It is, therefore, really important for top managers to make sure that the information at the export decision-makers’ disposal is of tip top quality. This does not necessarily mean that it should come at a greater cost as well. Given that the majority of exporters rely on market intelligence rather than the more formalised (and expensive) marketing research (e.g. Souchon and Diamantopoulos, 1999), it is essential for top management to create conditions of good cooperation and open communication among departments. This will facilitate the circulation and exchange of good quality information. With cooperation, heads of different departments for example, will have the chance to assess the quality of information initially obtained by an individual. The diversity of experience, knowledge and functional expertise will ensure that the information is properly filtered and its quality confirmed before becoming available for subsequent decision-making.

Social use is found to be negatively related to decision quality. Like with distortion, this most likely means that use of information should not take place in any political context. Even if visible use of export information aims at avoiding potential conflicts with the information providers, it may cause more severe long-term effects. Inevitably, a time will come when an export manager will be faced with a very important decision for which social use is not warranted. Given that habit can become second nature; the export information provider may misunderstand this deviation from what had been so far the norm. This can give rise to political activity. Instead of 'spoiling' the information providers, it would be wiser to put the relationship on an entirely professional basis. Their roles should be clearly defined and explained to them and, maybe, limited to their task of providing the best information they can. In case where no dedicated, professional, information providers are employed (e.g. export clients providing information as part of the broader seller-buyer relationship), a reward or incentive of a different kind can be offered. In any case, visible use of information to keep the providers happy is not the way.

Finally, decision quality is positively linked to export performance. It is, therefore, quite straightforward that export managers should strive for decisions of higher quality. Given that a main facet of a high quality decision has to do with the degree to which different decision alternatives are considered, it follows that the top managers should make the creation of an integrated environment as one of their top priorities. Although inter-functional coordination is not found to be empirically significant in moderating the relationship between decision quality and export performance, it remains a very important variable which cannot be overlooked. The most interesting point in this respect has been the absence of any environmental turbulence effect. The direct effect of decision quality on export performance is very encouraging from a managerial point of view in that they can have complete control over this relationship. In other words, it is within the managers' potential to ensure that high quality decisions are reached based on the maximisation of all the internal factors that are likely to influence decision quality. These internal factors are more likely to be within their direct control as opposed to the environmental influences. Export commitment, for example, seems to be positively related to decision quality. This may be because, given the high

resource allocation, more options are available to the decision-maker (Navarro et al., 2010). Therefore, more decision alternatives will be considered until the best is selected (Simons et al., 1999; Talaulicar et al., 2005).

8.3 LIMITATIONS AND FUTURE RESEARCH DIRECTIONS

This pioneering study on symbolic use and decision quality opens numerous future research avenues and has a number of limitations as well. All these are presented in what follows:

- **Alternative Measurement of Decision Quality**

The main limitation of the study relates to the measurement of decision quality. Although the multidisciplinary review in chapter 2 revealed a plethora of different facets of decision quality (essentially rendering decision quality as a multidimensional construct), only a number of facets, but not all, were actually taken into account in terms of measurement. This happened because this study relied on the established, reflective measure of Dooley and Fryxell (1999), for the measurement of decision quality. Furthermore, the different symbolic use dimensions should have been exclusively linked to specific decision quality outcomes (provided that decision quality was operationalised as a multidimensional construct. Delving into the micro-level, the choice of a stricter unit of analysis, such as for example the specific decision, would have provided more specific insights into the relationship between symbolic use dimensions and decision quality. A future study should try to measure decision quality in a more exclusive and precise way.

- **Influences on Symbolic Use**

Vyas and Souchon, (2003), prompt for more attention to be placed on the connection between the potential antecedents and symbolic use of export information, not only because such an attempt is pioneering but also because antecedent factors encompass all those background forces influencing, in a direct

or indirect manner, export information behaviour (Leonidou and Theodosiou, 2004). In addition, “many export decisions are situation-specific, contingent upon managerial, organisational and environmental factors” (Leonidou and Theodosiou, 2004, p. 30). Therefore, if one assumes that symbolic use of export information will occur as behaviour intrinsic to the human nature, the antecedents seem to be the controllable elements in the relationship among symbolic use of export information and export success. Consequently, the identification and measurement of their exclusive impact seems to be an imperative prerequisite in order for exporters to fully understand what drives aspects of symbolic use, increase decision-makers’ awareness and, ultimately, provide more detailed assistance on which types of symbolic use to encourage. In other words, the antecedents should be incorporated in a broader system, within which they will play the role of inputs. Symbolic use of information will be at the heart of this system whereas decision quality will be the outcome. Likewise, the broader the conceptualisation so as to encompass the effect of antecedents, the more likely it is the impact of using information symbolically on performance to be fully delineated (Souchon and Diamantopoulos, 1996).

Thus, a future study should further investigate and seek to provide more insights on what causes exporters to use information in symbolic ways. Apart from incorporating the role of the antecedents into a broader system measuring the relationships between symbolic use, its influences and the impact on decision quality, one would agree that a synthesis of the literature on the antecedents should precede the above stated effort. In other words, it is essential to fully identify and accurately specify the potential antecedents of symbolic use. A number of studies (e.g. Souchon and Diamantopoulos, 1996; Souchon et al., 2003; Toften and Olsen, 2003; Vyas and Souchon, 2003; Toften and Olsen, 2004, Toften, 2005) have shown that symbolic use of export information is likely to be affected by certain factors that could be conceptually synthesised under the following categories:

1. Export information acquisition
2. Information-specific factors
3. Environmental factors

4. Export-specific factors
5. Organisational factors
6. Managerial factors

The above list presents a set of potential antecedents to symbolic use. It should, however, be noted that the proposed categories of antecedents are only indicative. More antecedents may emerge after a careful inspection is undertaken or some of the proposed ones may be dropped altogether.

Souchon and Vyas (2003, page 71) state that symbolic use of export information is “related to export performance, but the direction of the relationship has been found to vary with the source of the export information used”. In broad sense, information acquisition can be defined as the generation of information relevant for decision-making (Souchon and Diamantopoulos, 1999). More specifically, information acquisition refers to the processes by which information is obtained, the various sources used in its collection, and the flow of information generated from provider to user (Souchon and Diamantopoulos, 1997). Epigrammatically, the literature distinguishes between three export acquisition modes, namely export market research, export assistance and export intelligence (Souchon and Diamantopoulos, 1996). Past research has shown that the mode from which export information is used will influence the manner in which export information is used (Diamantopoulos and Souchon, 1996). Diamantopoulos and Souchon (1999) pioneered the development of multi-item scales of export information use, approached not only from the perspective of the application of information but also taking into consideration the specific source of export information. More specifically, they developed and tested six multi-item scales using both dimensions of use (i.e. instrumental/conceptual and symbolic) related to the three acquisition modes (Williams, 2003). Given that, export performance is found to “be affected by the way in which export information from the three different acquisition modes is put into use” (Souchon and Diamantopoulos, 1997, p. 145), a future study should consider symbolic use in conjunction to the acquisition mode employed each time.

In terms of information acquisition, It seems likely that information generated from other departments, outside the export function, and transmitted to the latter,

should be considered as a fourth acquisition mode. What makes this mode distinctive is that it entails collection of information from an internal source, and, thus, could be classified as “internal intelligence”.

Moreover, “information-specific factors capture variables associated with the generation and distribution of information: such information-handling activities incur costs for a firm, and therefore, it is important that they result in more effective information use” (Souchon et al., 2003, p.112). For example, it is generally believed that the intensity of information acquisition influences information use in a positive way, because “an increase in the supply and distribution of information appropriate to a manager’s task will lead to greater information use” (Goldstein and Zack, 1989, p. 316). It can also be linked with increased confidence and affective predisposition of the decision-makers. However, this may not hold true from the point of which information overload is likely to become a threat. This is because too much information can create confusion and lead to haphazard use with adverse effects on the decision-making process (Vyas and Souchon, 2003). This is why a specific and thorough investigation of the effect of information-specific factors is warranted.

As Souchon and Diamantopoulos (1996) observe, environmental and export-specific influences deserve special attention. Menon and Varadarajan, 1992, argue that the more unstable or volatile the environment the higher the perceived uncertainty of the decision-makers; thus, the greater the need for information. Furthermore, the same authors posit that in an unstable environment marketing information is likely to be used in an affective manner, which is a manifestation of symbolic use (Vyas and Souchon, 2003). On the other hand, certain export-specific factors such as export experience and export commitment have been found to influence the relationship between some dimensions of symbolic use and performance (Vyas and Souchon, 2003). For example, the more export experience a company possesses, the more likely it is to rely on this experience and be involved in intuitive decision-making (Goodman, 1993). Intuitive decision-making is also highly likely for firms with low export involvement as they would probably be reluctant to commit resources for gathering the adequate amount of information (Cavusgil, 1984). Indeed, “low-involvement exporters are less likely to use export

information altogether and, if they do, they are more likely to do so in a symbolic fashion” (Souchon and Diamantopoulos, 1996, p. 61).

According to Desphande (2001, p. 4), organisational factors “are by far the more important drivers of what kind of information got collected and whether or not it was used”. The company age for example, is likely to have an impact on the reliance on experience as an alternative source of information (Weiss and Bucuvalas, 1977). Companies that have managed to accumulate experience over the years are most likely to be engaged in intuitive decision-making (Gittler, 1994; Schoemaker and Russo, 1993). Furthermore, according to Wilensky, (1967, p. 42), “intelligence failures are rooted in structural problems that cannot be fully solved; they express universal dilemmas of organisational life that can, however, be resolved in various ways at varying costs. In all complex systems, hierarchy, specialisation and centralisation are major sources of distortion and blockage of intelligence”.

When trying to identify the symbolic use antecedents and to assess their impact on performance, one should not overlook the effects that managerial factors may have. Indeed, “the more experienced a decision maker had of his/her industry and exporting activity, the more he/she would tend to rely on intuition as a basis for making export decisions, because more familiarity with the market would have been acquired” (Diamantopoulos and Souchon, 1996, p. 131).

All the aforementioned consist of a preliminary inspection of the literature in terms of symbolic use antecedents’ identification. It seems likely that a more comprehensive, intensive and multi-disciplinary approach should be adopted in order not only to fully identify the potential symbolic use antecedents, but also to exclusively link them to the symbolic use dimensions. This effort is deemed a necessary requirement in order for the specific choices of antecedents to be theoretically defended and adequately explained. The fact that this particular study did not incorporate the effect and role of the antecedents consists of both a suggestion for future research and a limitation as well.

- **Core Theory**

Contingency theory was the theoretical lens from which this study was examined. However, other core theories may be employed as well. In light of the study of the antecedents for example, agency theory may seem more relevant and appropriate. This is because agency theory is rooted in assumptions such as self-interests, bounded rationality and information asymmetry (Eisenhardt, 1989). Under conditions of environmental uncertainty for example, all the above can lead to conflicting goals among the different functions and/or departments within the firm and give rise to political activity (Henley et al., 2001; Wright et al., 2001; Tate et al., 2010). The political framework "is based upon the assumption that individuals have goals and values frequently at variance with those of the organisation or other individuals and that individuals form coalitions and interest groups to pursue those objectives" (Cardoso, 1996, p. 50). Consequently, decision-making and use of information are the outcome of interested parties forming coalitions through the process of bargaining (Bacharach and Lawler, 1981). More specifically, in an export setting political activity can involve using information, for example, in such a way as: a) to gain power for the export department and, b) to fulfil personal rather than organisational goals (Vyas and Souchon, 2003). Therefore, agency theory provides the appropriate theoretical framework within which certain manifestations of symbolic information use can be adequately explained.

- **The Cumulative Effect**

This study managed to test a model of symbolic use and export performance in a sample of British exporters and assess the empirical validity of the hypothesised relationships. It has also achieved a full-scale measurement approach for the symbolic use dimensions. Both these steps have been essential in the delineation of this construct. However, a future study should focus on the inter-relationships between the key types of symbolic use and investigate whether or not there are any cumulative effects of using information symbolically in different ways. According to Vyas and Souchon (2003, p. 88), "such cumulative effects could potentially be disastrous for the export function".

- **The Need to Focus**

Information use in general and symbolic use in specific, are concepts with a broad range of applications and a wide spectrum of potential conceptualisations. After all, information is continuously used by both organisations and individuals, for different decision-making (and not only) purposes, under constantly varying and rapidly changing conditions and in so many different ways as to enable someone to support that: *‘The way information is used each time is likely to be a unique case. No identical ways of using information and no high degree of similarities really exist’*. The specific project is innovative in the sense that it comprises the first attempt to fully delineate and explore the construct of symbolic use and also to measure its impact on decision quality and, ultimately, export performance. A future study should try to narrow down and explicate the examination of symbolic use even more, towards more specific, tangible and, thus, more easily quantifiable frameworks. One example may be the examination of the potential impact of using information symbolically in, for example, the export pricing decisions of small and medium sized firms. Such an attempt is likely to have a triple outcome:

1. Enhance our knowledge of symbolic use.
2. Further increase the attention of export decision-makers.
3. Provide very specific recommendations that could form extremely important courses of action both for the survival and prosperity of SMEs.

The above example is likely to be more “functional” in the sense that the likelihood for information to be used symbolically is narrowed down and studied in the context of small and medium sized firms – having, in that way, the ‘size’ factor more explicitly defined and captured. Given that the characteristics of small and medium sized are determined, it would be useful to explore how symbolic use interacts or is influenced by them. Furthermore, if it is true that different types of decisions account for different ways of both processing and using information (Weitzel, 1987), then by narrowing down the interest on pricing decisions for new markets it is likely to provide a more solid basis for studying symbolic use behaviours. The aforementioned, suggested approach is nothing more but an attempt to intensify and stipulate the study of symbolic use and, likewise, enable a

future researcher to answer more effectively questions such as how, where, when and why.

- **Information-processing Behaviour**

Information use is only one stage of information processing theory; but it would be useful to focus on the other two stages, namely information generation and dissemination. This is because it seems likely instances of symbolic behaviour to be present long before one reaches the utilisation stage. It is possible, for example, organisational culture to create a positive attitude towards not only using but also gathering information with the intention of using it in a symbolic manner. Indeed, apart from the likelihood of information being used symbolically in a relatively more intense manner within an export context, it is also likely the rate of this use to be directly analogous to the export acquisition mode employed each time (Diamantopoulos et al., 2003). In other words, the above could be further translated into the following statement: *'If information is gathered symbolically, it is also likely to be used symbolically'*. Moreover, since interdepartmental conflict tends to be the rule rather than the exception within modern organisations, dissemination of information across departments could be heavily characterised by symbolic behaviour, which in turn is highly likely to lead to symbolic use of this specific information even in a non deliberate fashion. Bettis Outland (1999) in her paper on information distortion, while focusing on the information receiver, assumes that the distorter of the information is still the information sender. If one assumes for example two departments within the same firm. The first one is in duty bound to transmit information at a certain point of time and the second one plays the role of the receiver of the specific information with the intention of using it for decision-making and/or problem solving. If the information was dispensed in the first place in such a way as to enhance the power of the transmitting-department rather than with the intention of maximising firm performance (e.g. provision of distorted information), then the decision to be made from the receiver/user-department would not be the optimal one. Indeed, as Feldman and March (1982, p.176) state, "most information that is generated and processed in an organisation is subject to misrepresentation. Information is gathered and communicated in a context of conflict of interest and with consciousness of

potential decision consequences. Often information is produced in order to persuade someone to do something. It is obvious that information can be an instrument of power...”.

From the above discussion, it is suggested that, the three stages of information-processing theory need to be examined as discrete events, which are interrelated (Rich 1991). The importance and effect of the other two stages of information-processing, which precede information use, cannot be discounted. Especially since indications exist that export success may not be “the individual role of each of these components, but the synergistic effect of their interplay” (Leonidou and Theodosiou, 2004, p 29). Ultimately, according to Sinkula (1994, p. 10), “research focusing on the way organisations process market information should take precedence over that focusing on market information use”.

- **Longitudinal Study**

The distinct chronological order implied when examining the three stages of information-processing theory is likely to lead to the conclusion that a longitudinal design would better suit a study seeking to examine all three stages. A longitudinal study would also be required in order to fully understand, establish and explain the causal order between the relevant variables in a comprehensive manner. In a longitudinal study, the future researcher may be able to directly observe the changes in export performance attributed to specific dimensions of symbolic use.

Another reason that provides justification for the need of a longitudinal design is because one of the most critical determinants of information use is its temporal aspect (Larsen 1985). Information use could be categorised and viewed according to its proximity in time and in function to a specific decision to be made (Menon and Varadarajan 1992); it can occur immediately or take place over a period of time (Conner 1981; Larsen 1985). The time required to implement a decision is likely to determine whether it will be used symbolically or instrumentally/conceptually (Menon and Varadarajan 1992). Thus, incorporating the time factor seems to be an imperative need. This can be only achieved by employing a longitudinal design.

- **Alternative Method of Analysis**

In order to have a more complete assessment of the relationship between symbolic use of export information and export performance, a different analytical procedure could be undertaken. Given that each different method of analysis available has its own pros and cons, an alternative analytical approach would serve as a basis for comparison of the findings enhancing, in that way, their empirical validity. One such method is structural equation modelling. Structural equation modelling is particularly suitable for testing theoretical models that contain multiple interrelated dependence relationships (Hair et al., 2010). Therefore, it would be the way to go if one decides to study the interrelationships between the symbolic use dimensions (see earlier comment). Structural equation modelling is a method of covariance structure analysis. It incorporates a range of statistical models in order to attempt to explain the relationships among multiple variables (Chin, 1998; Hair et al., 2010). Structural equation modelling combines methodological contributions from two disciplines: the (confirmatory) factor analysis (CFA) model from psychometric theory and the structural equations model associated with econometrics (Diamantopoulos and Siguaw, 2000).

8.4 CONCLUDING REMARK

After the multidisciplinary review of the literature and the insights from the qualitative study, a notion of how important and prevalent symbolic use was, had already been crystallised. The empirical findings came not only to confirm this notion but also to significantly enhance it. Although this is the first attempt to delineate symbolic use dimensions and their impact on decision quality, the constructs of interest look very promising.

Decision-making and information use are not only manifested through deliberate planning but also through cognitions and feelings (Beyer and Trice, 1982). Also, judgements are based on past experience and/or emotion (Vyas and Souchon, 2003). Information use should primarily be conceptualised as a socio-political construct as it is the product of exchange between different actors within the

organisation and it involves power relationships among those who are exposed and affected by it (Menon and Varadarajan, 1992). As pointed out by Weiss (1980, p. 397), “instrumental use seems in fact to be rare, particularly when the issues are complex, the consequences are uncertain, and a multitude of actors are engaged in the decision-making process”. Indeed, empirical studies have demonstrated that the selection of a course of action and the evaluation of the different alternatives is influenced more by past experience and political bargaining rather than by formal planning and analysis (Heracleous, 1994). It is therefore suggested that information use is likely to be symbolic more than anything else.

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APPENDIX 3.1

CONTACT LETTER

Mr. Nick McDonald
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2 September, 2005

Dear Mr. McDonald,

With reference to your recent telephone conversation I have pleasure in confirming the details of my forthcoming visit.

I look forward to conducting the interview on Thursday 15th of September at 15:00, and anticipate that you should allow approximately 45-60 minutes.

If you require any further information prior to the visit please do not hesitate to contact me.

Yours sincerely

Vagelis Korobilis-Magas

APPENDIX 3.2

INTERVIEW GUIDE

Symbolic Use of Export Marketing Project

Interview guide

Hi YY, I'm Vagelis Korobilis (hand out business card). Thank you so much for taking the time to see me. As I mentioned on the 'phone, I'm a PhD student based at Loughborough University, working on a project that is looking into ways of increasing the profitability and competitive advantages of British exporters. I have some questions I'd like to ask you on how export decisions are made within your company.

I would like to start with some questions regarding your business.

- Are you part of a corporation or are you independent?
- How many staff do you employ overall? Is this just in the UK? Of these, how many are involved in directly making and implementing export decisions?
- How long have you been exporting from the UK?
- Is there a separate export department here?
- How many foreign markets do you serve? Which ones are your main foreign markets?
- How important is exporting for the company in terms of sales, but also in terms of future development/ambitions?
- What are your main export objectives (what is the export function trying to achieve? Is it sales, profits, market share, competitiveness, survival, customer satisfaction, stakeholder satisfaction...)?
- Who would you say implements your main export decisions?

-
- We are interested in the quality of decisions for exporting. What in your opinion would constitute a high quality export decision?
 - In your opinion, how are export decisions best implemented?

SOCIAL USE

- Where do you tend to get the information you use to make your main export decisions? (*Prompt for both internal sources, such as salespeople, and external sources, such as trade missions*).
- Which sources of export information do you find most useful? Why? And who are your main export information providers?
- Would you say you have a good relationship with your export information providers?
- What would you say mainly characterises your relationships with your providers?
- How do you solve any potential conflicts that occur between you and your information providers?
- To what extent do you rely on them for information?
- Do you use their services on a regular basis, and, if not, under which circumstances do you use them?
- Do you ever gather information from them even without really needing it?
- If yes, why is this the case?
- Is the export information you get generally of good quality and value? Is it up to date? Is it relevant? Do you think it is generally free from bias?
- To what extent is the quality of the export information you get related to the quality of the export decisions you make?

AFFECTIVE USE

- In your line of work, do you think that export information is always used by everyone prior to making decisions?
- Are you always 100% confident in the export decisions you make?
- What makes you confident? *Or*, what is it that reduces your confidence?
- What do you do when your confidence in a decision is not as high as you would like it to be?
- How often do you experience stress because you are under severe time-pressure to make an export decision?
- Do you experience stress if a particular export decision you have to make is critical for the firm?
- In cases of such stress, would you tend to use more or less information?
- Do you think this delays the implementation of the decision? Is this a good or a bad thing?

SYMBOLIC NON-USE

- Do you always use information or do you sometimes rely solely on your experience?
- Are there any particular circumstances where a decision could be made without using information?
- Do they tend to be a specific type of decision, or can any export decision be made without information?
- Are you as confident about export decisions you make without information, as you are about those made while relying on export information? Why?

-
- Do you think they're as good? Are they better? Why?
 - When you don't or can't use export information, how do you make the decision?
 - Is this accepted practice?
 - What do you do in situations where an export decision needs to be reached, but you don't have enough information to make it in full confidence?
 - How important is instinct in making export decision? Do you think it is as important as information or less so?
 - If export information contradicts what your gut feeling tells you, what do you do? Would you ignore the information in favour of the gut feeling?
 - Do you think decision-making based on experience (or intuition?) can lead to better quality decisions? Under what circumstances?
 - How do these experience based decisions affect implementation (e.g. is implementation faster, more effective, etc.)?

LEGITIMATING USE

- If export decisions are made on the basis of a gut feeling (for whatever reason), would they then be justified post hoc by information?
- Is it important to justify export decisions by hard facts? Why?
- Who is most likely to do that in export firms (salespeople, management, marketing, etc).
- In which types of firms do you think it would be more important to justify export decisions (e.g., small/large, heavily centralised/decentralised, British/foreign, independent/part of a conglomerate, etc)

OVERLOAD/HAPHAZARD USE

- Do you ever suffer from having too much export information?
- If yes, how does it affect you when making decisions? (For example, is it distracting and confusing or does it make you feel more confident when you know you have plenty of information to choose from)?
- All other things being equal, would you rather have too much or too little information?
- How could this reflect on the quality of the decision to be made?
- What could be the impact on implementation?
- Would you say that export managers always make a decision on well-informed grounds?
- Could you think of some examples where they don't?
- What could be the impact on the decision to be made?
- Could you think of how implementation of the decision may be affected in this case?
- Have you or anyone you know ever been in a situation where you have so much export information that you are forced to randomly pick information on which to base a decision? When has this been the case? Can you describe this experience?

SELF-PROMOTING USE

- Do you think that in your line of work, people can use information to appear more competent to others?
- If yes, in what ways? Could you think of an example?

-
- Do you think this is a good or a bad thing for the individual? What about for the export function?

POWER-SEEKING USE

- Do you think that everyone in the company is equally committed to the export side of the business?
- If the answer is not: where do you perceive the greatest resistance to be coming from (e.g., finance)? And is there a need to “sell” the firm’s export operations within the firm?
- Can information be used to increase the standing of exporting within the firm? Have you got examples of when this might have happened?
- If this happens, does it make it easier for the export people to have their decisions supported by top management and finance, for example?
- Is it likely to make the implementation of export decisions easier or more difficult?

DISTORTION

- According to your experience, does anyone (not necessarily in your firm) misrepresent the export information they have at their disposal?
- Why do you think they are doing that? Under what circumstances?
- Do you think such mis-representation can have a bearing on the quality of the export decisions made?
- Could it be a good thing if it’s backed up by someone’s gut feeling?

EPILOGUE

- Are you happy with the level of success achieved by the export department/function?
- Do you think you're doing as well as you can, or do you think you could be doing better (or worse!)?
- Do you feel that your export objectives have been met?
- Do you have plans to increase export sales and profits in future?
- Would you say you are doing just as well, better, or worse, than your main competitor?

This interview was part of the preliminary phase of our study, and will be followed by a national-scale survey of export decision-makers. We will be developing a questionnaire towards the end of the year. Would it be possible for you to give us some feedback on that when it is ready? We will gladly provide you with a report on our main findings.

APPENDIX 3.3

CONTACT SUMMARY FORM

Contact Summary Form

Company: Forbo Swift Adhensives Ltd

Address: 35 School Hill, Sundhurst, GU47 8LD, Berkshire.

Manager: Mr. G. C. Parker

Date of Interview conduction: 02/08/05

What were the main issues or themes that struck you in this contact?

The specific company did not have a separate export department. The manager was making and implementing the export decisions mainly on his own (in conjunction with his manager director in some cases). He seemed to be very experienced in the export field. My general impression was that he was answering in a "socially acceptable" way.

Summarize the information you got on each of the target questions you had for this contact:

Social Use	The specific information needs and sources will contingent upon the market. No conflicts occurring with the info providers. Refining information is the key.
Affective Use	Info will be used subject to its availability. It will also depend on the user's personality. Delay of implementation could be dangerous.
Non - Use	Experience is important especially when you have to make a quick decision. Instinct is important only if you've got experience.
Legitimizing Use	Pure instinct without experience to back it up could be dangerous. Information is less important as experience grows.
Overload / Haphazard Use	Too much information can slow the decision and have a negative impact on its quality - time loss as well.
Self - Promoting Use	If you have the information and use it properly, this can make you more competent and more professional. It's beneficial for the export function.
Power - Seeking Use	Key people within the company should always be informed. Sometimes one can "push" decisions to a specific direction - but for a good reason.
Distortion	People tend to play down problems - especially when it's bad news. Quality of the decision likewise may suffer.
Decision Quality	Quality of the decision will matter more when there is an important decision involved.
Decision Implementation	Time factor. Time is required to see if an export decision was adequately implemented and had the desirable results. Perseverance is an important quality.

Anything else that struck you as salient, interesting, illuminating or important in this contact?

Relationship between quality of information and the decision will depend on the specific case/market

What new (or remaining) target questions do you have in considering the next contact?

Question about decision quality was not understood. It should be rephrased. Also specify whether you refer to explicit decisions or export decisions in general. The manager also struggled with a couple of other questions too. Consider revising and probably rephrasing them.

APPENDIX 3.4

WITHIN-CASE DISPLAYS

(QUOTES MATRICES)

COMPANY 1

<p>High quality decision</p>	<p>“But I would have thought a good export decision.... Well a good export decision would be one that is probably based on an idea or a thought. Which was then – well, logically thought out including the – and based on information which is then sourced for information, so supported by information. And very important, which looked at the down side risk. So the down side risk, what if it goes wrong, okay? So the decision is sell the ...”</p>
<p>Effective decision implementation</p>	<p>“I don’t know, it’s – well, the decision would be pretty much heavily structured to us, just – you know, having discussions and so on and just a lot of input from everyone. You know, and then just – not really researching the market as such but just you know, just putting some thought into it really.”</p>
<p>Factors likely to impede effective implementation</p>	<p>“We’re probably pretty much – things, as I say, just pretty much not being structured or lack of communication or lack of research.”</p>
<p>Quality of export info / Decision quality</p>	<p>“I can give you an example. In Germany the English consul in Germany – that we’re opening a shop, we’re trying to do business in Germany. They – we had a relationship with them so they gave us loads and loads and loads of very good information. And it’s good because it was in Germany by somebody who speaks English which was the English consul who put us in touch with an English promotional company there. And the information we got from them was useful information because it was quite targeted. These are the retailers, these are these people, these are the – and it was – and we opened a shop because of that sort of decision. Because of that information.”</p>
<p>Gathering information without really needing it</p>	<p>“Sometimes, and then if it’s something that we are probably going to be doing more of. But yes, sometimes we do, just to have information, just to have the information on hand if there’s an idea for our new collection or something. We just research all possibilities and try and get a better understanding of it.”</p>
<p>Confidence / Decision – making</p>	<p>“You have to. But you can’t always be. What’s for sure is that you’ve got to show everyone that you have the confidence.”</p>

<p>Experience vs. information based decision - making</p>	<p>“But the information... – no, both. You use the information, sure. You use the information. The experience can only give you about products and things which you have. The information tells you where to go and who to go to.”</p>
<p>Information non-use / decision - making</p>	<p>“No, I think – If what you’re asking me, I’m sorry – I’m thinking of exports, yeah? And I only think about sales. I can make loads of decisions without having any export business. My export business starts or my decision here is if I want to export, I want to export to any country so where do I start? Germany for example. What do I do? I seek information. What information I seek? The different market areas that I sell to. I want architects, I want material designers, I want retail shops, I want – whoever will buy my product. Once I have that I then start on my plan of attack. How do I do it? Do I do an exhibition? So that’s more information. Are there exhibitions in Germany? Which are the exhibitions to attend? You know, so you suddenly get more information. So yeah. The decisions are based – there is a huge – the decisions are already made but then the information tells you which way you can probably go, which is the best way to go and so on.”</p>
<p>Experience based decision – making</p>	<p>“But some decisions are made anyway. Business decisions are made without information. And I’m talking about business – my business would like to grow. I already sell everywhere in England, how do I grow? I export so that’s a decision that’s already made. I tell you – also the decision is already made on export, you know, you say – ah, where do you want to export? Europe. But NOT Italy. Why? Because they’re bad payers. You know, so that’s another decision that I have already made just based on experience.”</p>
<p>Instinctive decision – making</p>	<p>“It’s – oh, huge, yeah. I’m sure I do. I run the business on a huge amount of instinct. But I suppose what I do is I have an instinct which says that yes, this thing could work and it’s like a design of a new idea as well. And it’s going to cost that much; can I afford it? Without having any information because I don’t have knowledge. Don’t know how it’s going to sell or not going to sell. I don’t know if that exhibition in Russia is going to really work for me. Could be a waste of time. So instinct says I should do it but can I afford it? So if can afford my instinct I do it, I have – really”</p>
<p>Information use vs. instinctive decision – making</p>	<p>“To make – to give me some balls. You know, so it really makes my – you know, think – yeah. Information gives you a plan of attack, yeah. So the moment I have an idea, I have an instinct or whatever. And it’s just that one thing. But if you suddenly say to me: aha, here is information, I then have a marketing campaign. I have a plan of attack, I have a campaign, you know.”</p>

<p>Factors that will determine the use of information or the use of instinct</p>	<p>“It depends on the cost. You know, it depends on the cost I think. I’ve done that before, do you know what I mean? I have done that before. So it depends on the costing. An example; if information told me that there is no business in Mongolia, right, because there are no manufacturers and so on, would I go to Mongolia? Yes, I’d still go because the cost is an airplane ticket. The cost is a hotel if you can find one in Mongolia, so I would go and see and try and find.”</p>
<p>Experience based decision – making / impact on decision implementation</p>	<p>“Faster, yeah. Than – because with information, you’re waiting for information, you find the right information, you start arguing with information. You start debating with information. You start planning with information so it’s usually slower I think. BUT at the end of the day the end result, if we’re talking about, export.... so at the end of the day I think that the rewards would be greater with the information but it’s a slow starter. I mean I can start very quickly without information but the end result with information is much more fruitful.”</p>
<p>The need to justify experience based decisions</p>	<p>“I can see – sure. I can see that in a lot of things. I can see that with the credit for example. Do you sell to this customer, do you not sell to this customer? They may think that you sell to that customer, they have a relationship or not, and they back it up by information so you get a credit reference on that company and they say shit, you don’t give them any credit. You know, there are – I can see instance where they will, sure.”</p>
<p>Overload / impact on decision implementation</p>	<p>“I think you’ve got to sort of bite a piece – a little bit at a time. You know, so for example I would know that that’s the information I have but I’m only going to act on this piece now and that piece next month, but what I would like to know is how big the whole cake is. Which is what you’re saying, you know, we have more information – I’d like to know. The fact that I only move that much is my decision.”</p>
<p>Decision – making on well informed grounds</p>	<p>“Well, I think – I used to sort of work in a company where they would think ah! We can sell this – it was a product. And I’m sure we can sell that to Greece. Without any lead thing, you know, they may have one person who’s interested in an exhibition that they do so off they go to do – just go on a selling trip for one week to Greece and then find out there’s nobody, just that one person who’s interested – those sort of things, yeah. And that used to happen a lot.”</p>
<p>Impact on DQ</p>	<p>“The impact – waste of money.”</p>

	“And time and effort.”
Impact on DI	“Now it’s different – that’s the old days. I don’t think it happens. Companies are much smarter now and there’s a lot more information available to you so I don’t – no, I can’t think of where somebody could do that today. It was a bigger company, people didn’t really – it was a different time.”
Use of info to appear more competent	“Confidence to other people – it gives other people confidence that you know what you’re talking about. So if I’m going to sell to you in Germany and I have also some information and I have information on your company as well and everything else, just think of the – the man will think that he’s done his homework.”
Impact on the export function / individual	“Well, it’s good for the export – it’s good for the customer as well. It’s good for the – no, sorry. It’s one thing to bullshit but I have information I would feel much more confident. If I felt confident and you were a customer that I was trying to sell to or export to in Germany and you knew that I had – was well prepared, you’d be much more confident. So it’s good for the export function as well.”
Use of info to increase the standing of exporting within the firm	“Can do, yeah. I’m sure it can. I mean I can see a bigger company scenario or – You know, or even a smaller – you know.”
Use of info to have export decisions supported by top management or finance	“Sure, sure... Because everybody buys into the idea then. You know, everybody will be using it.”
Impact on DI	“It depends. If the information gave you support within the firm and everybody believed in it which is usually what happens, then the implementation and everything is easier. Whereas in some cases sometimes, especially with a lot of – I don’t know, older businesses or bigger businesses – it doesn’t happen anymore. More information, more knowledge to the work force usually made more problems. So if you had a union or if you had voting powers within that company and you wanted to do this, plenty of people who didn’t really understand, would then vote against you. So it depends. I

	think in the majority of cases yes, it's easier but there are cases where it could be difficult."
Distortion of export information	<p>"Well, I used to work in a business where export managers would say all sorts of things. The classic case was the one I told you before. And he'd say oh yeah. I think there's a good market in Malta. Information? And he'd provide very little. So they would get a trip to Malta but there was really very little business, and it happened. And I think it happened a lot more in the past than it does now."</p> <p>"Because I would have thought today having come from a business environment for twenty years, and you know, I can – I saw when it happened in a bigger company, a public company. It used to happen all the time, around you it happened. You know, was I guilty of it? Maybe. Now I would have thought with – times are difficult for exporters, companies are smaller. Reporting procedures and everything is stronger and the information is there. So if you say to me: ah, I can go to Greece and sell to these twenty people I can check on you. I can find information to – you know, to..."</p>
Reasons for distortion	<p>"I don't – I mean a lot of the time, I mean it could – it depends on which level it is. Some people will do it to keep their job so they would, you know, there is very little export business in certain areas so they're doing it to keep their jobs. Other people would start representing – a bigger company - Shell when they were hiding those barrels. Was it Shell or – yes, Shell Oil when they last – this year or last year, this year – when they over stated that they had two hundred millions barrels and they didn't have them. You know, it's a bigger decision – so bigger companies, export decisions, because the risks are huge. You know, they've got investments so they – so the kind – I think it's – I mean let's deal with the individual. For the individual it's a question of really probably to maintain their job. You know, just keep it going – oh yes, I think there's another market and we should try and do that and we should do this. I don't know any other reason. What other reasons could there be? Do you have any –"</p>
Distorted information / back up with gut feeling	<p>"I – no, yeah. I mean you have the gut feeling first and then you misrepresent the information don't you?"</p> <p>"So, yeah. I suppose, not a good thing. It's a type of – an employee, okay. If my employee was generally an honest employee, let's deal with honest employees. An export employee, and he genuinely believed that he had a hunch, you know, and he backed it up with misinformation. You know, the promise – the end justifies the means. If he was successful in what he was doing you'd forgive it all.</p>

COMPANY 2

<p>High Quality Decisions</p>	<p>“Yeah. I would like to think it’s made on good information; on good quality of information.”</p>
<p>Export information sources</p>	<p>“There are two areas here that you’re looking at. If you’re talking about the Middle East, we’re well established, we have good agents, we have good knowledge of that region through our agents, through our staff. If you’re looking at reasons why we’ve not been active, and I can give you two examples of that – Eastern Europe or even Africa to a certain extent. Then that – we do quite a bit of research.”</p> <p>“We tend to avoid paying where possible”</p>
<p>Export information providers</p>	<p>“If – say, an example now is Africa or Eastern Europe where we don’t necessarily have agents, we’ve probably got contacts with a number of companies that are looking to represent us so they will be feeding us with as much information so they can justify being our agents.”</p>
<p>Export information providers / Reliability of export information</p>	<p>“A far more reliable source and it’s impartial information as well. It’s not leading you down the – for that particular – you know, that – we tend to find that with the companies coming to you, they’ve got a reason – not just to sell the report to you, which they’ve probably done for a number of others. They just tweak it a bit to suit your requirements.”</p>
<p>Immediate – future use</p>	<p>“I’ve probably got a dozen companies that are providing me with information that I will be going to visit while I am – which I will tack onto that trip, and say right; and I’ve been collating that information for the last couple of years. Yeah.”</p>
<p>Info quality / decision quality</p>	<p>“The information we’re getting is – well, in that respect is fairly high quality. So we – you know, I’m fairly confident that we’re making decisions that is based on good information.”</p>
<p>Gut feeling / decision - making</p>	<p>“...there are occasions where you’re just making almost a gut decision”</p> <p>“I probably tend to do it a bit particularly because of</p>

	my personal knowledge of the Middle East. I will probably tend to make more of those type of decisions than I should do.”
Factors likely to reduce level of confidence	“A lot of the time the information we do get is tilted towards the person or company that’s providing it. So you’ve got to take that into consideration as well.”
Levels of confidence / decision –making	“... we’d probably not make the decision. I would probably – or make the following decision. I’d probably tread carefully and see how things develop. So that then ultimately you have got better quality of information to hand. Because you will – the Middle East is a really good example. And what I’ve seen so far, Africa is similar. You will get fed some pretty poor information in terms of favouring the person who is telling to, who is giving you that information.”
Stress / decision - making	“Of course it’s – you know, if there’s an important decision to be made for your company, it’s – it can be a stressful decision.”
Information non use	“If there’s a major decision for your company then you’re going to use information. You won’t rely upon your own knowledge. You’d want to get the back up, I mean solid information, sure. But there certainly are decisions where you think even the information you have, because of your local knowledge, your personal knowledge, you would say no this is the decision I wanna go with”
Information non use / confidence	“If you ARE going to make those decisions then you’re making a conscious decision that you’re not – that you’re happy with that information – your own personal information. But I think even those decisions, you tend to seek out other information as well to back them up”.
Information availability/ confidence	“...even to the point of just bouncing off a colleague or you know, my manager. If I’m not feeling so comfortable or if the – if that information is not available...”
Instinct / decision - making	“Quite often you find the information that is available can be old information and not necessarily the latest information that’s available. And then – but you’re on

	the spot. You know the very latest information, so that's when your instinct takes over and says no, I'll make that decision because I believe I've got more current information."
Experience based decision – making vs. information use	"I'm not going to make decisions unless I'm really confident in that – my own knowledge of that particular decision – if I haven't got the information to hand that's needed to support the decision I'm going to make then I would have to be really confident in my own knowledge to make that decision."
Experience based decision- making / decision implementation	"Obtaining the information you need can delay decisions, that's for sure"
Experience based decision- making / decision quality	"...it's much better for me to delay a decision and make sure it's a right decision than make a decision and then regret it later."
Use of information to justify decisions	"If I made a decision and I'm not feeling that I'd got sufficient information to support that decision I've made, I will probably continue to seek information to justify the decision I've made."
Overload / decision quality	"For me the more information I've got the better quality decision I'm going to make."
Overload / decision implementation	"Again if you've got a lot then you've got to filter it, so that can delay things."
Use of information to appear more competent	"Oh yes, most definitely, yeah. Of course, yeah." "If you can back up your – if you're – if you can back up your decision with some facts and figures in the particular market you're looking at, then of course it's – it creates a far better impression because it has to."
Impact on decision quality	"It's got to be good, if you - you create a good impression, to make the right decision."
Use of information to increase the standing of exporting within the firm	"Yeah. It becomes less of a mystery then as well, because it is seen quite – when it comes to hard sell, the main focus of course is on the UK. And there is a tendency for export to be almost an area that no-one's

	<p>too sure about. They don't know about it, they don't understand it, but if you can get more information out to those people then it becomes less of a mystery and more – they become more receptive to it, to the export business.”</p>
<p>Distortion of export information</p>	<p>“...they would tend to lean that information to the way they wanted to lean to suit. Then – and your own accounts will tend to do that. Accounts will tend to do that, as a good example. But really it's going on in the company. It's an area, like it's the accountants really don't know too much about export, high risk as far as they're concerned. So they will tend, if they've got information to present, they would tend to lean it towards a safe area as opposed to the exports which they would see as a risky area.”</p> <p>“... so if they're looking from the export side they would probably tend to expand on that information they have to justify what they're doing, yeah. Sure.”</p>
<p>Distortion / Decision quality</p>	<p>“No, because I don't think it does because what tends to happen then is that you've got other factions that will actually be going in the opposite direction so it tends to balance out. So ultimately I think they're all put into a pot and the right decision normally will come out in the end.”</p>
<p>Distortion / gut feeling decision – making</p>	<p>“I would say generally that's part of the decision making. Yes, you've got all the information available from the different sources. You've got the opinions from the different factions and then there's got to be that gut feeling thrown into the equation as well, yeah.”</p>

COMPANY 3

<p>Export Objectives</p>	<p>“It could be a combination of these it’s probably going to vary from market to market, from country to country. For instance if we look at Denmark we’ve got a fantastic business in Denmark that we’ve had for a long time, with a very good agent, and he is maintaining that, whereas the neighbour next door, Sweden, we have very little business in Sweden and we’re pushing very hard there to hit the competition. So countries that are sat side by side, we’re going in with lower prices in Sweden than we are in Denmark because our objective is to build a business there.”</p>
<p>Strategic decisions</p>	<p>“A strategic decision, sometimes it’s difficult to assess for a long time whether you’ve made the right decisions, whether you’re putting the effort into the right areas and whether you’re getting the return.”</p>
<p>Tactical decisions</p>	<p>“Well I’d say the tactical ones, they’re the ones that you find out pretty quickly. If the order goes somewhere else, tactically it was a bad decision. Strategically it might not be.”</p>
<p>Factors likely to impede effective implementation</p>	<p>“That’s a good one. Sometimes to get a decision, if there’s a sensitive issue, it might take half a dozen people within the organization because essentially we’re run from the office in Belgium to a certain extent, so that’s where the marketing functions and the supply chain functions are based, so sometimes we have to refer to our colleagues in Belgium, particularly if we’re making a price decision that might affect what they’re doing in the rest of Europe because they’re looking after all the countries of Europe we haven’t mentioned. So sometimes it’s not always easy to get a decision.”</p>
<p>Relationship with information providers</p>	<p>“I would say very slow poor communication from them. We’re not using any dedicated information providers, that’s something that we’ve never looked at.”</p>
<p>Gathering information without really needing it</p>	<p>“No. If anything we never get enough information, so we don’t ask for anything that is unnecessary.”</p>

<p>Information use, non use / Decision - making</p>	<p>“No idea. Sometimes you feel like you’re working in the dark. You say, right we’ll go after this, with this product, at this price, and then you keep your fingers crossed, and if the order comes in then that confirms the decision was right, if the order doesn’t come in the order was wrong. But it might take you 12 months time to do anything about that.”</p>
<p>Low confidence / decision - making</p>	<p>“It will sound like we’re flying by the seat of our pants all the time, but sometimes we talk things around for so long we say, we haven’t got the information we’re just going to have to make a decision and live with it. It’s not easy, but you do, you worry about whether it’s right or not.”</p>
<p>Seek additional information</p>	<p>“Quite often the agent will ask us for something, there will be quite an interchange of emails before we’ve got the level of information we think that we need to make a big There was one tender from South Africa and I went back to the agent and I said, look if this is what the tender is seriously calling for, then we need this product and the price is here. But I know from historically that the price is here so he needs a different product, so unless something had changed, the customer was actually asking for something better than he would buy because he would never go ... so it took a fair bit of exchange of information because the agent probably wasn’t aware of the implications of the tender so the agent had to become aware. He then had to look at what had been done historically and feed it back. So it was a bit of fine tuning needed there.”</p>
<p>Stress / information use</p>	<p>“We’d try and get as much information as we can but sometimes you know that you don’t have the time to get information, so you may rely on historical information or information in the of what’s happened in this country before. That may be four/five/six years out of date. Some of these projects only come round every three/four/five years and quite often when they come round, if they’re looking for tender submissions and decisions in a matter of weeks...”</p>
<p>Information non use / decision - making</p>	<p>“No. There has to be some information, even if it’s only me remembering something that happened two or three years ago when this was Very rarely can an enquiry come in from overseas and I can answer it like that without referring to some information source, whether it’s files, whether it’s colleagues, whether it’s the agent. I nearly always have to refer to something.”</p>
	<p>“It can be a number of different things. It could be a product choice, what product do we actually supply because</p>

<p>Info use / types of decisions</p>	<p>sometimes the enquiries can be interpreted several different ways. It could be product related, in a lot of cases it can be price related. The problem might be product availability. If an export enquiry comes on and wants a large amount of carbon in a matter of weeks, I may not have the information just like that as to whether it's available. So again it might involve one or two of my colleagues just to find out, can we make this delivery. So it's product choice, it's price, it's production limitations. They are the type of decisions that are important."</p>
<p>Information availability / decision – making</p>	<p>"Sometimes we've been in blind. If an enquiry comes in and we really have very little background on it and the person enquiring appears to have very little information, then sometimes I'm working blind, I really am."</p>
<p>Instinct / decision – making</p>	<p>"I'm not sure instinct is the right ... I don't think you make them instinctively, I think there has to be something you remember from the past to say, yes let's just go with this. I'm not quite sure on instinct."</p>
<p>Gut feeling vs. information / decision – making</p>	<p>"It is a bit difficult to move away from what you really feel. It does take some convincing. I think I would beto leave the information. I've got a perfect example of that just recently because some information came out of Sweden on a product that a competitor is supplying and the price – I said I just do not believe the prices being quoted. And I discussed this with one of my colleagues. Our information, and it's not that old, our information is that the price is twice the price our agent is telling us that the current price is. So yes, our gut feeling is that nobody would sell that quality of product at that price. That's the gut feeling. And the information that we had from a few years ago says that it's a much higher price. So I'm questioning the agent on that one, questioning whether he's right."</p>
<p>Experience based decision – making / decision quality</p>	<p>"No because experience is all about what's happened in the past. You can't forever be relying on information, old information, because it's getting one day older every day and one more day out of date. Maybe it's true but it needs to be ... We can't keep track of who owns our customers. In international business, companies are bought and sold so quickly. Plants are closed down, new plants are started. So no we can't just refer back to the files, some of these files, they go back twenty years. You can't refer back to information that's that old with any confidence.</p>
<p>Experience based decision – making / decision implementation</p>	<p>"If it's experience based then it's a very good decision. A very quick decision. But that doesn't mean it's the right one. Sometimes I know that there are things that I will look at and I will go, yes I could dig around on this one, I could</p>

	<p>spend a lot of time digging around talking to people in Belgium, talking to people in America, but experience say this is what we should do, and sometimes I just do that.”</p>
<p>Gut feeling decision – making / post hoc justification with info</p>	<p>“If we don’t get the business, that say’s that the gut feeling, the decision made on the gut feeling was wrong. If we get the business it’s justified. But I would put a bit of a rider on that one. If we win a piece of business too easily, it could suggest that we’re making the wrong decisions and we’re selling a product too cheap – going into market too cheap, so there’s a fine balance isn’t there. You want to be in a market but you’re wanting to be making money out of it. If the competition are there, and you’re fighting them on price, you want to be this far below, not this far below, sometimes that’s a fine line to judge, so when we win some business and it looks like the gut feeling is right, we try to get information about what the competition were doing and where was their price. We’ve not got that gap too big. And again, it’s similar when we lose, we try and get the agents to find out who won, the price they won it at, and we’ve done that recently, when I say recently, over the last eighteen months where contracts have come up for us to bid and we know what happened the previous time – why we lost it, what the price was. So yes we do try and backfill the information if you like.”</p>
<p>Importance of decisions’ justification by hard facts</p>	<p>“We have to justify everything. We get up in front of our colleagues and tell them what we’re doing and why we’re doing it. And if we win a piece of business, sometimes it’s more difficult to justify a piece of business that you’ve won than a piece that you’ve lost. Because everybody’s paranoid these days and if you’ve won that piece of business, did you give it way too cheap, were you offering the right product? Sometimes it takes a lot of justification for an order that you’ve won. And if you lose, it’s just shrugging the shoulders and saying that we’ll have another go next time.”</p>
<p>Justification – types of companies</p>	<p>“It’s the large centralised companies that all want control, and control all the time means justification. Not just a pat on the back that you’ve got the order, it’s a pat on the back and why did you get it, how did you get it.”</p>
<p>Overload / decision quality</p>	<p>“The only problem there would be if there was too much information, it could make decisions slower.”</p>
<p>Use of information to appear more competent</p>	<p>“People do it all the time. They would use information just for their ego.”</p>

<p>Impact on the individual</p>	<p>“It’s not necessarily a good thing, no. The information is there to be used, for good reasons, not for political infighting.”</p>
<p>Distortion of export information</p>	<p>“Yes I am but I said I would give you the time so it’s not an issue. Like any organisation we have a number of political animals. As an organisation there is a lot of infighting towards the food chain, particularly between Europe and America. Because the business in Europe is run very much as ... one person, one man at the top. He tends to try and be involved in all of the decisions. So he will use the information as it suits him to battle with the Americans to justify what we’re doing, how we’re doing it, all of this.”</p>
<p>Distortion / impact on decision quality</p>	<p>“There is a lot of time and effort wasted, there really is. I think it can affect the decisions, some of the decisions that are made in America on how they So it can have wide-reaching affects, it really can.”</p>

COMPANY 4

	<p>“Export decision or a commercial decision? It’s a decision</p>
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High quality export decision	that brings a profitable benefit to the company I would say. And I would say export decisions compared with similar decisions in UK trade need to be better informed because there are more complex issues.”
How do you know an export decision is going to be a good one?	“A major decision might be to either enter a new market or to increase attention on resources in an existing market with a view to growth. And I think it’s difficult to know whether a decision is a good decision until it’s proved to be a good decision with the fullness of time. But it’s very difficult other than being able to draw on experience, personal experience, hopefully to make better informed decisions.”
Effective implementation	“If we’re thinking again about for example, increasing attention in an overseas market, that needs to be implemented – I don’t know how to answer your question really but I think it needs commitment throughout the company. I think it’s very difficult to succeed with export decisions which very often can create some short term difficulties for a company if there’s not commitment to it at all levels.”
Relationship between high quality decision / decision implementation	“A high quality decision – I suppose a decision that has been very well researched, well thought through, and implemented with everybody in the company on board is going to be more easy to implement because it will be seen to be a good decision rather than you know, a whim one might say.”
Reliance on information for decision – making	“I don’t think you can make decisions without information, otherwise it’s just gut feel and so we can look at – for example we have used some of the government services to investigate some markets overseas; to arrange some appointments for first visits and so on. And that I think is very useful in exposing ourselves to new markets.”
Export information sources	“There’s – I think that – I think the internal information; there is no substitute to having a member of staff actually visit a potential market for example, to gather information. But I’m trying to remember the actual name of the government service that we made use of.”
Export distributors as sources of info	“Yes, I would say on an ad hoc basis, not in a formalised basis; again through telephone contact and so on.”
Reliability of export information providers	“But I think then that is part of the judgement of the individual. And you know, to know what level of trust you can put into information that’s provided.”

Reasons for information - use	“I think because information is difficult and sometimes costly to obtain or is seen to be costly to obtain. And it’s not unusual I think for people in all aspects of business to approach decisions in a fairly cavalier sort of manner. And not base...”
Factors likely to reduce levels of confidence	“The main factor is having to base decisions perhaps with being in possession of limited facts, limited information. And having to make assumptions or you know, some level of guesswork really.”
Low confidence / decision – making	“Probably move slowly I would say. So if there is some doubt, if confidence in a decision is low, then the likelihood is that you would not implement that decision as aggressively perhaps as you would if you had more confidence in the decision.”
Critical decisions / levels of stress / decision - making	“If it’s a big decision I think you involve other people in the decision making process, people that perhaps are not directly involved with expert but to get other points of view.”
Levels of stress – confidence / impact on decision quality	“I think the higher the stress the more likely the decision is not to be made. So the – I guess there’s a relationship between a decision being seen as a big decision that you know, is a big gamble. The bigger the gamble, the more likelihood that the decision would not be made to go ahead.”
Levels of stress – confidence (low) / information use	“Speaking personally I feel more comfortable when I have lots of information. If I’m unsure about a subject, a question or a decision, I’ll look for more information to back up that decision.”
Levels of stress – confidence (low) / impact on DI	“It can be both, it can be both. It can be a good thing if delaying it means that the decision is better thought through. It can be a bad thing if the level of confidence is so low that you’re seeking more and more information and never getting – and delaying the decision and perhaps then missing an opportunity.”
Information use vs. experience based decision – making	“It’s a bit of both really and – but I think the bigger the decision the more we would look for external information rather than experience.”
	“Yes, to some extent. Again it depends on the definition of a

<p>Information non – use / decision – making</p>	<p>decision I suppose. A decision could be for example if somebody approached me from the USA and said we're a distributor of catering – commercial catering equipment. We've come across your products and would like to talk to you about being distributor, without any hesitation I would say thank you, but we're not interested in the North American market. And that's not because I'm saying that without information, it's a policy. And it's a policy because of some history in the market, so some decisions can be immediate based on history and policy."</p>
<p>Low information availability / levels of confidence / decision – making</p>	<p>"You both abandon it and don't make the decision – I suppose that's a decision anyway; again if we're thinking about entering a new market as an example. If you choose not to enter the market that's a decision but it may be because there is not the confidence, the information available and therefore the confidence to do it."</p>
<p>Experience based or instinctive decision – making vs. information use</p>	<p>"I'd like to say that I would allow the information to – I'd base my decision on the information rather than instinct but I'm not sure if that's a truthful answer!"</p>
<p>Experience based decision – making / impact on decision quality</p>	<p>"Not generally I don't think. I don't think so. Sometimes using a level of instinct helps to shorten the decision making process and may prove to turn out to be the correct decision. But it's a little more risky. So it can help to speed up of course the – or even to arrive at a decision at all."</p>
<p>Experience based decision – making / impact on decision implementation</p>	<p>"If I came to that conclusion or that decision based on instinct, if I woke up one morning, was shaving and decided: I know what we'll do. We'll have a plant in China to build equipment, that'll be a great – you know, we can sell throughout the Asia Pacific region. That's a decision that is unlikely to receive very much support from colleagues and actually be implemented. It would need – any proposal like that would need to be very carefully researched and presented to win the backing of colleagues. I hope that answers the question."</p>
<p>Importance of justifying decisions by hard facts</p>	<p>"I think it is, again in a situation where it's necessary or important to win the support of colleagues; for example in investing resources to implement a decision."</p>
<p>Overload / impact on decision quality</p>	<p>"As I said earlier it can delay the decision. There's a mass of information and you can perhaps get bogged down in being able to cut through masses of information to what is really the</p>

	key points, can sometimes be difficult. Being able to see the wood for the trees if you like.”
Decision – making on well informed grounds	“I would say – phew! A little bit contentious perhaps, if my UK colleagues heard this they would not be pleased. But I think my experience, and I’ve been in export departments not just in this company but in other companies, but generally I think export sales people will look for – will base decisions on information rather than instinct to a greater degree than comparable people in UK domestic sales. And I think that is because of the nature of exporting. It is – even just the mechanics, the physical, the logistics of exporting for example are more complex; whether that be payment terms or other aspects. So I think export people are more accustomed to having to take account of rather more complex issues than UK sales people.”
Impact on decision implementation	“Again if it’s a relatively simple decision that’s not going to have a huge impact on the company I don’t think it – in some respects it just speeds up the process.”
Information use to appear more competent	“I think if you – if I went to colleagues for example, and going back to my ridiculous example earlier and said: hey, I’ve got a great idea. Let’s build a plant in China. Then quite rightly the level of my competence wouldn’t be judged as being very high. If I said look, I’ve commissioned this research, I’ve consulted various people, I’ve investigated through government sources and so on; this is what’s happening in that market, these companies are doing this, these companies are – and so on and so forth and put a well reasoned proposal together, then my competence would be seen as much higher. But I don’t think it’s an illusion. I mean it demonstrates a level of competence that’s actually there.”
Impact on the individual	“I think it has to be good, yeah.” “In terms of his – the impression he makes with colleagues or superiors. His future you know... prospects within the company.”
Impact on the export function	“Yeah. I think if somebody puts forward a well reasoned and well researched argument and proposal then it’s more likely to receive the backing that perhaps it needs to be implemented.”
	“Yeah. For example if a product needs to be adapted to suit an overseas market, then that is – well, difficult for the production department. And quite rightly they will resist it and say look, you know, we run a very efficient production department. Maybe 92, 93% of our production is sold in the

<p>Information use sell the firm's export operations within the firm</p>	<p>UK with a very slick operation. We can deliver to our UK customers next day because of this very efficient manufacturing. If we have to start making variations to small batches of product for specific overseas markets, that will affect the efficiency of our production for the majority of our business which is UK. So I would need to give some very well – some very good arguments as to why we should make that product change or – and adapt our systems to cope with that – that answers your question?”</p>
<p>Information use in order to increase the standing of exporting within the firm</p>	<p>“Difficult to think of specific – yes, I think the – I'll give you an example from some years ago when we were having difficulty being competitive in our export business and through discussions with distributors and really drawing on experience, it was clear that we were struggling with price competitive, being price competitive. And that was at a time when sterling was especially strong and we were competing with people based in what's now the euro zone. So we took a decision then to adopt euro pricing for our export business rather than previously we'd priced in sterling. Now if I'd gone along to colleagues and simply said look; this is difficult, we're struggling to be competitive, how about euro pricing? I don't think that would have won very much favour. But by presenting the proposal with some facts to back it up, to show that it had been carefully thought through, that was accepted and the decision was implemented.”</p>
<p>Distortion of export information</p>	<p>“I'm sure people must do sometimes. I don't have examples of that. I can't recall any specific examples of that but I'm sure it must happen.”</p>
<p>Reasons for distortion</p>	<p>“Maybe to support a gut instinct, a gut feeling, or to try and justify a decision that's already been made, where somebody may have, you know, put in a very low price against a tender. And then – and there's a shift and the accounts are – management accounts are presented and all of a sudden export has made a thumping loss for the month. Maybe an export manager might try to misrepresent some facts to say why he had to quote – to offer such a low price for example.”</p>
<p>Distortion / impact on decision quality</p>	<p>“Well, for a start I suppose if – that was an outrageous example, but suppose something like that had happened, then future decisions would be very much more difficult to implement because the level of trust and confidence in the – that particular export manager's judgement is called into question isn't it?”</p>

COMPANY 5

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<p>High quality export decision</p>	<p>“Well, I mean, a decision,... a decision to pursue a certain segment of business in a market, or indeed to pursue a new market, to take on a new agent or distributor, that sort of thing.”</p>
<p>Effective implementation</p>	<p>“Um, well, thoroughly and with, with, conviction and perseverance, I think I would say there, because I think, um you know its easy to make a decision as to what you want to do, but I think you then, if your as sure as you can be that’s the right decision, then I think you’ve gotta be prepared to stay with it for at least a decent period of time, that’s not to say, that if having done that, that you realize that perhaps you have got it wrong or, you need to fine tune it or change things, you need to be big enough to do that. But I certainly do believe that if you thought the thing through carefully and you’ve made the right decision, if you chosen for example a new agent or distributor, and you’ve done the homework so that um, you are as confident as you can be he’s the right sort of man, the right sort of company, then I think you should stay with it, and not expect instant results, it may well take a year to develop business in a new market with a new agent. Um, sometimes things can happen more quickly but um, I think, you know, perseverance, if you believe you’ve made the right decision, perseverance, is quite an important quality, I think, um, because also there’s the aspect of relationships and so on, and I think people in many of the parts of the world that I’m dealing with, they like to feel they have a relationship with you, as the supplier company or the principal if its an agent, um, rather than just purely a business thing, and that involves visits, meetings and, um, and getting to know people, I think that’s important. All this takes time, I but think if you, if you , fundamentally believe that you made the right decision in the first place then I think that er, taking the time to see it through is time well spent.”</p>
<p>Sources of export information (when trying to penetrate into a new market)</p>	<p>“Well, usually it’s a combination of things, um, I mean one doesn’t just wake up one morning and think you know, I’d like to do business in whatever country (laughs) um, you know, it has to be, I think it quite often as sort of a gut feel really er that there may be a market out there, a country that your not doing business with, that because of, just what you pick up in the media, um, what’s in the news, um, whatever, you have the belief that, that it could be a market worth pursuing. So that, that can quite often start things off, but then, I mean information’s available from a number of sources, I mean certainly if you have an agent in a bordering country for example, you can perhaps get some information from him, certainly chambers of commerce are useful sources of information, trade missions can certainly be very useful once you, you know,</p>

	you feel its worth while spending some time in the market...”
Information providers – conflicts resolution	“I don’t think I’ve ever really had a situation where there’s really been sort of conflict, I think you can fine tune, you can get sort of basic information perhaps from one source, then from another you can, you can refine it. I don’t think I’ve ever had a situation where I’ve, well one information provider has told me (laughs) has advised me one direction or given me information of one sort, and another has given some that’s totally different, so I don’t think I’ve ever been in a situation where there’s been huge conflict, it’s a question of really, sort of, refining your information down, um, the more information you’ve got, the better your intelligence about that market or industry that you’re pursuing.”
Export information providers / frequency of the use of their services	“Well admittedly, I tend not to use the sources of information as much these days as in the past, because in the past I was more actively seeking out new markets whereas now the markets are more mature and it’s a question to a large extent of developing those markets further, really, so I don’t use the chambers of commerce, I haven’t been on a trade mission in years now, I don’t use the chambers of commerce as much as I used to, but, um, if there is a need, I certainly don’t hesitate to utilize it, as I say.”
Export information providers / quality of their services	<p>“Not, not always no,...you know the chambers of commerce, and the um, the commissions and embassies in the various countries which are often linked in with, you know, seeking out specific information, um, I think the trouble is that you know, these people are dealing with questions from all sorts of people from all sorts of industries, um, and I mean they clearly can’t have deep knowledge of, of a whole draft of industries, one couldn’t expect them to...”</p> <p>“...and I think they will generally try and do their best for you, um, but the information does sometimes, you know, sort of miss the mark a little bit, because of perhaps a lack of understanding as to exactly, what one actually wants from them, but, um, but none the less they certainly have a value in the scheme of things, I’m not too worried about that.”</p>
	“Um, well it all feeds in, yes, I mean if you get if you got information back for example that a particular market really was, you know, totally closed and the market was saturated and there was, appeared to be no possibility of , or very small possibility of getting business , then, um, clearly one would be foolish if one ignored that. One might

<p>Information quality / decision quality</p>	<p>try and look at it from another angle, to sort of, make a sort of a quality decision about that information but, um, you know, all information, it's sensible to feed all information into your thinking, and try and, if its, not what you wanna hear or not what you expect then try and cross refer it to something else but, um, to er, certainly to er, not merely dismiss it because it's not the answer that you want."</p>
<p>Use of information prior to decision – making</p>	<p>"It's all a question of your personality and your style I guess, but, I do honestly, believe, and I think most people in all seriousness would take my view that if your going to look at a new export market or make a big export decision, it's something that does need to be thought about because if you try and rush it your likely to get it wrong, and that can be quite expensive."</p>
<p>Factors likely to reduce confidence</p>	<p>"...things can go wrong, and I mean, particularly in this volatile world in which we live you know, you can have a war suddenly break out, or an invasion or a king dying, or whatever, and all these things can impact..."</p> <p>"...making sure that you are well prepared before you make a decision, or you make a visit, um, that you know, your going to be visiting customers agents whatever, you've got an agenda of the things you wanna discuss, the ways in which you want to try and move the business forward, you know, I think preparation, I think somebody once said, ah, to fail to prepare is to prepare to fail, and I think there was an element of truth in that, unless you prepare for things, its not only true in exports but for all sorts of business decisions and personal decisions for that matter, I think preparation is key."</p>
<p>Levels of stress / info use</p>	<p>"Well I would always try, subject to availability obviously, I would always try and use more information, to, um, to, try and be as sure as possible that we have, the right decision was made, with the right outcome."</p>
<p>Impact on DI</p>	<p>"Well I mean delay is always a little dangerous, because um, one could lose the window of opportunity, so, no um, I wouldn't be thinking of going back to the drawing board and spending weeks more pouring over facts and figures but um, all I would say, before making the decision, within the time frame that was available, and that's obviously a bit subjective, um, but to try and have as much information as possible, within the time frame that was available, but certainly not to procrastinate, not to go on gathering information and losing, moving outside of that window, and er, and losing the opportunity."</p>

<p>Experience based decision – making</p>	<p>“Yes I mean the latter, I mean sometimes, um, information as I say, I think, is always a good thing to have but, um, sometimes it’s not available, sometimes a quick decision has to be made, so certainly yes, I mean one draws on one’s experience, um, you do that anyway, but I think sometimes you have to use it as the biggest factor in a situation when you have to make a fairly snap decision.”</p>
<p>Information non – use / types of decisions</p>	<p>“...yeah well there are certain situations where you don’t need to sort of, draw on information from lots of different sources, for example if an agent is not performing well then you need to find out why, and if he hasn’t got a good explanation, then you need to consider, well er, whether the business is really well served by continuing with him, um. So, you know, some of these things come down to a gut feel situation, some just come down to perceiving, seeing how a situation’s gone, and er, you don’t need new information, you’ve got an agent’s track record for example, and if it’s not good, if an agent isn’t performing then you need to find out why, and er, it’s a question and answer sort of situation, there may be a good reason...”</p> <p>“So, I think sometimes decisions can be made sort of on the basis of the information that you’ve had over a period of time, coupled with your gut feeling about the situation.”</p>
<p>Information non –use / levels of confidence</p>	<p>“Well it depends to some extent on the type of decision, I mean I would always rather have some information available , I think you need to have some sort of information available, it’s a question of how much, what quality and what type. Um, so I suppose decisions made without much in the way of information, I think, um, one perhaps feels a little less confident about, but er, you have to try and make the right decisions based on whatever information you’ve got really.”</p>
<p>Low info availability / decision – making</p>	<p>“Well I mean you’re unlikely to be in a situation where you’ve got a decision to make and there’s no background information available, I mean if there’s no information at all, and no background (laughs) then you know that really does become very difficult, but in most situation’s you’ve got some knowledge of the situation the market, the customer, the agent whatever, I mean you’ve got experience there to draw on, experience of previous dealings...”</p> <p>“...it’s a question of knowing the sort of the background to the whole thing rather than needing to accumulate</p>

	<p>masses of new information to make a decision. Many decisions are born out of business relationships.”</p>
<p>Importance of instinct in decision – making</p>	<p>“I think it’s pretty important, yes, um, I mean the problem you have is when, if you’ve got some new information through and it’s totally at odds with your instinct then you have a problem. But that in my experience is rarely the case quite frankly, so I think instinct is important, once again if you’ve got experience I mean, when you’re first starting out running export business then obviously your instincts in relation to export business are not terribly wonderful, because you know instincts really come out of experience don’t they, um, but I think if you’ve got experience then instinct is important, I think it ranks, fairly close...close behind to having a good knowledge and understanding of the situation.”</p>
<p>Instinctive decision – making / justification with info</p>	<p>“I mean, one would hope that...if one had to take a decision based predominantly on instinct based on experience one would hope that information that was forthcoming after that event would validate that decision and make you confident that it was the right decision...Ahh...I don’t think...I can’t think of a situation where I have had to make that sort of decision and the information that I got afterwards has proved me you know totally wrong...and once again you perhaps sometimes have to refine your actions and decision making as you go along...but ehh...as I say I think normally if you are working on an instinct that is based on experience...I do keep saying that because obviously just a pure sort of a total gut instinct without experience to back it up could be really quite dangerous because you might perhaps have totally misread a situation and you might feel that absolutely the right decision is X but in fact it might be Y.”</p>
<p>Who is more likely to justify decisions by hard facts?</p>	<p>“Well I suppose...possibly...ahh...possibly an export salesman rather than export manager. Somebody that feels the need to fully justify a decision – the more freedom and flexibility you have to make your own decisions without being questioned to certain degree for it then perhaps the more likely you are to rely on an instinct type decision once again based on experience...and I guess because you are in that position where you got the experience, hopefully you are in a trusted position by top management to give that freedom and flexibility.”</p>
<p>In which types of firms?</p>	<p>“I guess that smaller or less structured companies would provide an export manager or export sales person with more freedom and less need to back up their decisions with facts I would have said.”</p>

Overload / decision – making	“I think if you try to digest it all and take it all into account then it could be ...it could lead towards indecision and... and time being lost...”
Overload / decision quality	“Well, too much information it could either slow the process down and delay a decision or it could possibly make a decision less sound because the individual could just think well I’ve got far too much here and sort of virtually discard the loss and just go with the gut feel perhaps...I hope that wouldn’t happen...that would be someone dangerous but ehh...there is certainly risks involved with having too much...the biggest one being the fact that it can slow the decision down if the individual is trying to take everything into account.”
Info use to increase the standing of exporting within the firm	“Well I try and ensure that the managing director and other senior managers in the company are aware of what we are doing on the export side ehh...I am a member of the management team so I have the opportunity to do this at formal meetings on occasions but even on a more informal basis....I ensure that the key people of the company are aware of what’s going on export because it accounts for about 18% of our business and it’s an important slice of activity and I feel that’s important to keep the key people of the company informed, both good and bad news.”
Impact on decision implementation	“Oh I think I understand what you are saying here basically. I think it does make it easier. Yeah, I mean it comes back to people being informed and if people are informed in know the backgrounds then...ok I can put my own sort of angle on things and if I really think it is the right decision and it’s something where I need to have the approval of the financial controller or whatever then it’s up to me to make it clear I think it’s the right decision and justify it...so it’s just come back to justification...to providing information.”
Distortion of info	“Yeah, I mean it is a tendency...a human tendency for people to try and sort of play down problems particularly if they think they are going to get their head taken off (laughing) by their boss....but ehh...certainly my view is that...assuming someone has done their best...and there has been a problem as developed I would rather know about it so that you know...we can do something about it rather than having addressed up as a minor problem and then perhaps it’s then left...because it was not considered to be serious...I mean sooner or later these things....it will

	come and get you...and if you ignore it...if you are unaware of it or if you are not aware of the significance then it can obviously ...it can as a big shot.”
Reasons for distortion	“Well I think the motive could just be...because they would be concerned about my reaction to the bad news. And...I am a reasonable person... if there was something that just happened that was pretty much out of their control and it was bad news then I wouldn't blame them for it...if things had gone wrong because of their inaction I would be less forgiving. So...I think basically the reason why people do it is because people do not like departing bad news to their bosses, that's basically it...particularly if they feel their boss would react badly to bad news.”
Distortion / impact on decision quality	“Oh well certainly yes...yeah I mean I can well understand that if one is being fed information which sounds quite positive when there is a very sizeable negative (????) in beneath, then...then I think misrepresenting information could have some quite serious consequences on the decision making process, yeah.”
Distorted info / backed up by gut feeling	“Well, eh...gut feeling I think is usually useful as long as it is based on experience and hopefully coupled by information as well...right information obviously.”

COMPANY 6

Decision quality	“If we make money out of it! (Laughing) - No, if we can make money out of it obviously and if we can supply on
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	time, you know, and directly.”
Decision – making process / decision quality	“What we do before we actually agree to any export order, we actually – obviously we calculate what the profit is going to be out of it and if it’s achievable. And obviously whether the market we’re supplying to is capable of handling the type of product that’s manufactured within the UK or whether it would be better serviced from one of the other world wide sites.”
Factors likely to impede effective implementation	“It’s really if we couldn’t supply on time, it’s supply.”
Export information providers	“We rely on the customer solely for information.”
Information quality / decision quality	“I would say it’s very, very dependent on that. Good quality eh...reliable information definitely helps for making good decisions – yeah...”
Factors determining level of confidence	“Well, obviously what could reduce confidence is if there’s any particular problems in that part of the world that we’re exporting to, you know, so obviously that would affect our confidence. Therefore that would be then, obviously if you were – when you were making a decision whether to go ahead with the contract or not, so.”
Information non use / decision - making	“We normally just go through experience and the customer liaison, whoever the contract’s with.”
Instinctive decision – making vs. information use	“It’s as important, it’s as important. To have an instinct really, it’s all down to experience. And you only really gain the experience through sometimes making bad decisions, so yes, it’s important.”
Experience based – intuitive decision – making / decision quality	“Generally yes, because generally it’s sometimes the difference between getting a contract or not, thereby putting a slight risk involved with it, yeah.”
Overload / decision - making	“Oh, obviously you balance out where – you know, and you just look at probability of which is the best information. And obviously investigate slightly from there. So yes, take a balanced view I think.”

Overload / decision quality	"It can sometimes cloud a decision but I don't think it will have any adverse effect on a decision."
Overload / decision implementation	"Obviously it slows it down, so."
Decision – making / well informed grounds	"It's really that normally the misinformation we get is what we're passed by the sales lead, where terms and conditions are misleading and have been misled to the customer, so yeah. It's really terms and conditions."
Information level / decision quality	"It could end up where we lose money."
Information level / decision implementation	"It may be late, it may be late. If not on that particular one, on future ones."
Information use to appear more competent	"Yeah. Definitely, definitely." "Well really, certainly on the telephone, you know, somebody can really be reading from a script more or less; you know, when they've got very little experience and it can be far from the truth."
Use of info to have expert decisions supported by top management and finance / impact on decision implementation	"Yes, definitely" "I would say slightly easier actually, you know, because you're going to feel more confident with the decision you're making if everybody is behind you"
Distortion of information	"Yes, yes. To obviously make their – look, expert, especially from a freight order's point of view, more appealing or they're larger than they actually are."
Distortion / gut feeling	"Yes, it is a good thing, yeah. It is a good thing because normally they're – will find the most reliable sources."

COMPANY 7

Decision quality	"Ultimately the business which we do, but it's the research into whether the market is ready for our materials in some cases."
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Factors likely to impede effective implementation	“Pricing. Oil pricing is going up seriously because we’re an oil based company being plastics of course. Political situations in the country or in the region. This has happened to me over - a few times over the years.”
Export information providers	“Oh well, we are established with a distributor or more distributors in a country – yes, they are the leading source of information because they have it every day.”
Factors likely to determine levels of confidence	“The deeper research, the last parts of the research, probably the visiting the country; visiting the potential distributor. And if you find he’s only got a little house with you know, one room and a shed in the back then maybe you’ve made a bad decision. But it – we would not normally reach that point.”
Levels of stress / decision – making	“No, no. I mean we deal with so many that any big case would still be balanced out if you like by the other one. So you know, we never make one decision on which the company depended. It all helps, any big decision, that will help but we don’t depend on any one. As I say we sell to fifty countries, so there’ll be some up and some down.”
Levels of stress / decision quality	“Not very much really, no. I would use – I would use a balanced approach rather than just say oh, you know, it’ll give me a headache.”
Experience / decision – making	“Occasionally on experience, never solely. Never solely. But occasionally the experience will count more than the background information and person to person meetings, things like that. It does happen.”
Low information availability / (low) confidence / decision – making	“Go back to the experience or ask – just ask colleagues in the business if they’ve heard of a company in a country, things like that. But still, still continue to pursue where you can, yeah.”
Gut feeling vs. information / decision – making	“I wouldn’t ignore it, I would consider it, you know, and the next steps of developing the business. And I’d certainly consider it. And I would also mention it to any contacts I had.”
Instinctive decision – making	“But I do use it. I mean I’ve been exporting for over thirty years and you – and I’m afraid you do get – well, you’ve

	got down there, gut feeling. And I do use it.”
Experience / intuitive decision – making vs. information use	On the odd occasion, yes. I could probably sit and think about a few where it probably has, but I wouldn’t bank on it. I wouldn’t depend on my experience and gut feelings as opposed to concrete information, no chance.
Experience / intuitive decision – making / decision quality	“Getting to know the people, getting to know the markets...– but if you want a simple word it would be personal contact rather than if you like official information contact. You meet somebody, they’re okay
Experience decision – making / decision implementation	“It would more likely be the final factor because you’ve done the research, you’ve got the information, everything else looks right and then if there is any doubt there we – the trust factor as you call it would probably be the final influence.”
Importance of decisions’ justification by hard facts	“Well, because I’m employed to do the job – no, seriously. And if I say I want to go to the moon to export something I would have to justify why I wanted to go to the moon to export something. And then after the event I would be – I have to do a report and I would be asked why I went to the moon and met up with a distributor there as opposed to going to Belgium or somewhere! Yeah. I mean yes, I have to justify my decisions in the job.”
Justification / impact on decision quality	“I believe – again in my opinion I believe that it helps me more by having this freedom. Because I make certain that the decision is right. Where in some big organisation I think you could hide a little bit, especially if there’s more people. I mean there’s my assistant and we’re the export so what I do I’ve got to make sure it works. So it gives me that extra incentive to make it work.”
Use of information to appear more competent to others	“I have a case at the moment where I have picked up some information only yesterday and I am pursuing it. And I’m asking other people and nobody knows anything about it except me so far which is a – yeah. I mean some information came through to me yesterday about a country where we’re doing good business. And at the moment I’m leading it on the basis I got there first.”
Impact on the individual	“Well, I think it’s brilliant for the individual.” “In as much it shows you’re on the ball and it shows equally that in this case it doesn’t help the competition which I would never do, but it does, it’s filling in some holes for people in the business who may be able to come back to me, because I’m going at that angle and they’re

	coming at that angle.”
Impact on the export function / department	“I mean this specific case could impact on what we do in this particular territory which is why I’m putting information feelers out to people from different angles.”
Impact on decision quality	“Well, I mean my decision is made in relation to this particular specific case, on what other people deliver which is their business where yes, it could impact on one or two things. I’ve made my decision on what is happening and it is absolutely hot. I mean it’s yesterday and today. Yes, it can. It would – it can impact on decisions. I’ve made mine, the others can do what they like.”
Impact on decision implementation	“I mean it’s up to the others what they want to do. I only make decisions for the company and for me. But it’s – what is going on at the moment could really make some people look very – look twice at certain circumstances. I can’t go into detail obviously but…”
The need to “sell” the firm’s export operations within the firm	“There’s the attitude here, you know, I went out to New York the other week and everybody thinks: oh, wonderful, you know, you sometimes have to say to people well, you know, do you want to get out of bed at four o’clock in the morning and all that sort of thing. You have to sometimes water them down because they think if you’re going to Paris or somewhere, you’re being in the – you know what I mean. Yes, sometimes you have to sort of say well, it isn’t all glamour.”
Use of information to increase the standing of exporting within the firm	“Well, I do, I mean I will turn round and I sometimes have a laugh about it. But I will sometimes turn round equally and say well, you know, remember that you’ve just made five thousand of a particular product. Well, they went to – some far flung market in South America or somewhere which people just don’t know has happened. I mean I do personally try to involve people, on the factory floor and everywhere.”

COMPANY 8

	“It’s understanding what the customer wants. The environment we work in is quite a technically-driven
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<p>High quality export decision</p>	<p>environment, so understanding the technical requirements, understanding the pricing issues in the market, and delivering a solution that leads both to the client's satisfaction and it's not just to the satisfaction of the distributor, satisfaction of the actual end user. So it's not just about keeping the distributor satisfied, we need to ensure that our distributor upholds our reputation so that the end user gets the solution they're looking for."</p>
<p>Effective implementation</p>	<p>"Obviously we have a plan, we do our research, and we expect things to go in a certain direction but reality says that there's always obstacles and there's always things that make that difficult. Having that flexibility to manage and implement, and change things if they're not going the way you expect them to go is also important. And because a lot of our competitors are very big companies, we are quite small in relative terms but saying that we are also very flexible so it's easy for us to sort of overcome those obstacles and maybe ..."</p>
<p>Factors likely to impede effective implementation</p>	<p>"Obviously there are things out of our control like, you know, we do a lot of work in the Middle East. We still do a lot of work in the Middle East. There are political influences and exchange rate influences, economic problems in certain countries could disturb the export process."</p>
<p>Export information sources</p>	<p>"From the customer I'd say. It's mainly, we focus on building relationships with the customers and the distributors in our markets. We visit them regularly and talk to them on a regular basis. We gain that understanding."</p>
<p>Export information providers</p>	<p>"Consultants. To be honest there are organisations, industry organisations, they arrange trips, sometimes they arrange visits to customers and things like that, but we rarely get anything from them. We prefer to deal – we know who our clients are in every country. The utility companies, there are not many utility companies in the country so we know who to target and from them we get our market information."</p>
<p>Export information providers / conflict resolution</p>	<p>"Obviously it's more so on the distribution side but because we have strong relationships with these people, we have countries of responsibility and we know the individuals personally; in many cases we can also class them as friends as well. So potential conflicts, obviously you try and avoid them, you weigh up the cost of such a conflict and obviously if it's a relationship you want to maintain, then you find a way of resolving it."</p>

Export information providers / frequency of use of their services	“To be honest, where they offer funding for the trips and exhibitions abroad, then that tends to be the most attractive thing because obviously we can save on costs. But once we’re there we do like to make our own inroads, make our own contacts and things like that.”
Export information providers / relevance, value, quality of the information provided	“I think it’s up to date and it’s relevant in a wider term, but specific for our industry, we find that we struggle to get decent information from them.”
Factors determining level of confidence / decision – making	“I guess the people responsible for carrying out what you’ve planned, the market, you sign up a distributor to represent you in a certain area, if you feel they have the capabilities and you feel they’re going to do a really good job, then obviously your confidence level is higher.”
Low confidence / decision – making	“I guess if you have less confidence in a particular market..., I guess you focus your time and your priorities to those where you have more confidence in the market.”
Levels of confidence / information providers	“It’s probably to do with the people we have in those countries. For example we know in Saudi Arabia there’s a very good market for our products, but because we’ve failed or we’ve not been able to find a suitable representative in that market, it is somewhere where we don’t really focus our attention to. Whereas in Australia we have a very good distributor and a lot of effort is put into exporting to Australia.”
Levels of stress / decision - making	“Obviously we always try and make informed decisions. We talk to our customers, we talk to our competitors, we talk to our distributors, we always try and build up a picture and obviously when you’re working with things such as gas where a mistake or something could mean somebody gets wet because a part is broken, if it’s gas it could be an explosion, the consequences to do with that and also the utility, the gas utility companies know that, so we’re very careful not to make sort of hurried or uninformed decisions.”
Levels of stress / information use / info sources	“Probably more I would say. Not necessarily from the sort of government agencies that provide the information but more from the distributors and more from internal sources.”

Levels of stress / decision implementation	“Obviously if you’re not sure or if the consequences of what you’re going to do, then the question is should you really be implementing that, so obviously there is a delay but it’s worth delaying than making the wrong decision completely or taking unacceptable risk.”
Experience based decision – making vs. information use	“I think a lot of it is experience and contact with the market, in some countries obviously where things are not always straightforward, there may be a level of trust in somebody that is not quite giving you confidence if you like, and you would research some of the things that they told you to see if you can verify them.”
Info non – use / levels of confidence / decision - making	“What we would do is, or what I would do in particular, if it’s something I don’t have information on, I would not make the decision in isolation. I would get a team together, a person from production, a person from the technical, a person from sales, and a senior director or the MD to sit on the team and say – this is the information we have, this is all we know as a group, how shall we play this?”
Experience based decision – making	“Yes I think that the experience is probably correct, it’s probably better as well.”
Low info availability / decision – making	“In a team. Based on the team’s experience, not an individual decision.”
Instinctive decision – making	<p>“It’s probably a factor. How important it is in making the right decision I don’t know, but sometimes obviously instinct is ... if you have that feeling, you can convince your colleagues, your superiors that it’s the right decision, then yes I think it does play a big factor.”</p> <p>“Probably more so, more important” (than info)</p>
Gut feeling decision – making vs. information use	“It depends on the level of risk. If it’s a high level of risk then you would look at it carefully.”
Experience based decision – making / impact on DI	“Yes I think so, once you have a feel for a particular kind of market or a particular kind of customer, they vary very little from one market to another.”

<p>Justification of export decisions based on info / types of firms</p>	<p>“I think in small firms it’s probably easier because in a small firm you’d have an individual employee, you’d have a lot more responsibility. In a larger firm where they may be just part of the decision making process, for example, I feel here if I say I want to go and develop a market in Brazil, I need to justify it internally to my superiors to sort of say, this is the ???? people incur and this is the sort of return.”</p>
<p>Overload</p>	<p>“I think it depends on how you manage it and how you take it. At one time there were lots of trade journals and information coming round and you could spend more time reading this than actually doing the specific and because it’s not – like I said – our area of work is quite focussed, it’s quite a specific product we produce and we have a specific sector that we target. A lot of it is background. Some of it is necessary.”</p>
<p>Overload / decision – making</p>	<p>“You can get a general trend and if information is contradictory then you an exhibition or a seminar that the industry is organising – you can always talk to other people in the industry and find out what they’re doing in a particular country. So it’s through this networking with people who work in our sector, you begin to realise what’s happening.”</p>
<p>Overload / DQ</p>	<p>“I think it plays a factor. We may read something in a trade journal, it may prompt a telephone call to the distributor and we’d call them and say, look there’s a big project just outside Athens, they’re building a gas power station or something, there should be some work there for water pipelines and gas pipelines. Why not go and pay a visit and see if there’s any business for us? From that we may end up with an order.”</p>
<p>Information non – use / DQ</p>	<p>“I suppose the impact is a waste of resource and a waste of time, and obviously a lot of effort and work has gone into pursuing something that is not right where it could have been put into something that was right. Sometimes we decide, OK we’re wasting our time with that market, let’s focus on another market, we have a finite resource, we cannot cover everything so we have to prioritise.”</p>
<p>Info non – use / DI</p>	<p>“Yes I think there have been markets where we’ve put plans in place, we’ve seen it’s not gone according to plan early on and we’ve pulled out and focussed on something else, something more productive.”</p>

Info use to appear more competent	“Obviously there’s a certain level of information, when you go to a country, even if it’s just a relationship building thing, we always try and have a certain level of knowledge about the market, about the country, about their company in order to make a good impression. Obviously by making a good impression you can develop a relationship.”
Info use to increase the standing of exporting within the firm	“Yes every division in the company has a quarterly newsletter and obviously there’s a mix of communication about projects we’re involved in and projects we’re wanting to be involved in, and basically general data about our performance in export.”
Impact on decision – making	“Oh yes, absolutely. At the end of the day some of the things, I guess some things are out of the company’s control, some things are out of our control as individuals, and that would include financial resource and management support, and obviously if you have their support then you are free to do ...”
Distortion	“I suppose it’s possible. I obviously take all export information with a pinch of salt, so I don’t use it exclusively if somebody tells me something, I don’t take it as the b- all and end all, the absolute truth. I would need other things to convince me.”
Distorted info – backed up with gut feeling / impact on DQ	“Yes, if they express it in that way, you know it’s an honest opinion, whether it’s correct or wrong.”

COMPANY 9

<p>Export Objectives</p>	<p>“Mainly it’s got to be sales and profits. But also it’s good to have a broad presence across many different markets so if there is an economic situation in say, in Turkey where currencies got devalued, the business goes very low. But if we have our presence in other markets then we can pick up where we’re losing in other markets so it’s having a portfolio with many different – having a presence in many different markets.”</p>
<p>High Quality Decision</p>	<p>“I guess doing the research, looking at finding the right partner, finding the right distributor; because our products are mainly sold through distributors because they’re fairly low value items.”</p> <p>“So a good export decision would be finding – researching, finding the right guys and making sure you have a good one, the right partnership to then build a good relationship and a good presence in the market.”</p>
<p>Factors likely to impede effective implementation</p>	<p>“I think a lot depends on foreign exchange rates, to an extent political issues in certain countries that are developing. One day one thing is happening and then another day either a political or an economic decision has been made and your products aren’t buying. So there’s quite a few factors outside of our control that could really affect our decisions on how we develop markets...”</p>
<p>Quality of export info</p>	<p>“I suppose you get what you pay for, and we don’t really pay for ours, you know, it’s good.”</p>
<p>Use – non use of export information</p>	<p>“Well, I think some people have an idea of what they want to do in the market. And maybe they’d get some export information that would still go ahead with their original plan really rather than use all the information to then maybe change their view, so – I think you know, people do use it but I think also it’s we want to do that so we’ll do it anyway.”</p>
<p>Stress / Decision - making</p>	<p>“I’d say not too often. But it’s not – the way we do it is – obviously there are deadlines to meet with regard to what we’re working with, other customers, but in terms of our future strategies there’s no real date sort of carved in stone. So we have the flexibility to, you know...”</p>
<p>Levels of stress / critical decisions</p>	<p>“Yeah. There is a real stress there, especially if you’re looking at big tenders and things where the margins are very tight. And – because that can obviously impact greatly</p>

	on the whole company performance so yes, there is stress in those cases.”
High stress / Info use / Decision - making	“A nice specific example was less really, so yeah.” “...Only because I haven’t used any experts!”
Levels of stress / info use / impact on implementation	“I suppose the more knowledge and information you have, the better it is. You know, with the example I was thinking of, we didn’t really need any export information but I did need information for other areas of the business in terms of prices, lead times from suppliers. And that’s where it can be a bit stressful when you – when the information is not forthcoming as quickly as you would like.”
Info non use	“Yeah. I think there are historic bits of business that you could do without specific export information, where you’ve looked at in the past so you could make decisions on a fairly confident basis.”
Info non use / types of decisions	“I think it depends on the example but I think if you’re looking at a brand new market then it would be wise to take some expert information, even if it’s just basic – some demographics of the country and that kind of thing.”
Experience based decision – making – (an evaluation)	“They’re probably as good because at the end of the day a lot of the external information providers, they don’t know the business as well as we know the business and they don’t know our products as well as we do.”
Experience based decision – making	“Just looking back on other examples of how we’ve developed those markets really and following the same sort of model I think.” “Mainly tend to work on an individual basis. But certain key points will be discussed as a team in terms of if there’s a big market to develop and you know, the decisions are really going to be made with our distributor, then we will chat and discuss.”
Importance of instinct in decision - making	“I think it’s quite important, yeah. But I would say it’s as important. Again you get an idea of if things are going to work and kind of follow your instinct. But you have to go into experience probably, a bit of reflection at times.”
Export information	“Again, it depends on the size of the project I guess. I

vs. intuitive decision - making	would normally – I would probably go on the gut feeling because again the export information might not know of the situation as well as we do.”
Intuitive / experience based decision – making / impact on DQ	“Yeah. I think so. If you have people developing markets and there are other markets that are of a similar size, a similar background in terms of the demographics, the politics, et cetera; then using somebody’s experience I think is – would make very good decisions.”
Intuitive / experience based decision – making / impact on DI	“It can be (faster, more effective); again it depends who is – if you are using someone else’s experience then it could be communications have to be strong between the two people because someone who’s been there, done it, had the experience, they might over look a few things that they think are easy to understand but we might not think they are. It might not be as easy as they think. So then the decision and implementation becomes a lot harder. Whereas if it – if you’re drawing on your own experience in prelims, then normally it will lead to a quicker decision.”
Info overload / DQ	“I think it depends on which markets, and again I think it all depends on your level of experience. There are some markets I know very well where I don’t think I would need much export information but there are others where I’m not too familiar. So then if I had more information I could probably make better decisions.”
Info overload / DI	“I think if you had too much information you’d just have to be selective on what you use and I don’t think it would impact too much on implementation.”
Use of info to appear more competent	“I suppose if people know about the size of the market, the – you know, the general demographics, et cetera. And then they would come across as being quite knowledgeable of that market which would create a good impression.”
Impact from an individual’s perspective	“Well, if they have more information – because knowledge is power. So I think it wouldn’t be a bad thing.”
Impact on the export department / function	“You’d hope that they would share it with everyone else. We do have team briefings and export meetings where you know, we try and share information, so we would hope that that would come out.”
Info use to increase	“We do sometimes – at the team briefings tell people of

the standing of exporting within the firm	<p>good orders we have overseas.”</p> <p>“We do try and communicate the successes which is important.”</p>
Impact on Decision implementation	<p>“It would probably be longer to do. So it would mean it would make it a bit harder because as I say, it’s sales involved and senior management involved. There’s obviously a time issue. You know, other things, you’re back to the bureaucratic nature, it’s slightly – but it gives people more confidence if they have the backing because then they’ll know that they’ve made the right decision if something does happen that’s negative and they have the backing and there’s no kind of repercussions.”</p>
Distortion / decision quality	<p>“...if they’re misrepresenting the information and it’s not what it’s – what it is then probably the decision wouldn’t be so good.”</p>
Distortion / gut feeling / decision quality	<p>“Well, other than that, so if they’re – if they’re basically – if they’re supporting wrong information because it backs their gut feeling then that’s not a good idea.”</p>

COMPANY 10

Export objectives	<p>“It – primarily it’s always going to be sales and sales is always based round good product, good customer relations so the two – very much the two are together. Yeah. Growth on</p>
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	sales and growth on making money. You know.”
Decision quality	<p>“A good export decision is obviously whether you – well, if the decision generates an order.”</p> <p>“It should be based from the top of the company, from the chief executive down. It’s something that if he – if the chief executive has got an involvement then there is a very good chance that you’ve got a follow through from the top level through to the lower levels.”</p>
Decision implementation	<p>“Well, the best decisions are made by good analysis and route to market. You need to decide how to get into a market, I mean – and use that tool. And generally for us we would try to use exhibitions as routes applied to initial customers. And then we would implement visits by the right people at that time to try and encourage people to buy our product abroad. It’s a really difficult one. Most export markets if they’re cold to you, they’re hard work.”</p>
Export information sources	<p>“I mean what we try to do is we try to visit market places and we try to find people in those market places that could be an extension of us. So ie: agents or distributors. But then we will back them or we will – not back them, that’s the wrong word...”</p> <p>“...we will support them as and where necessary, whether it’s with people from the UK or just marketing tools like brochures, and such like. Exhibitions...”</p>
Relationship with export information providers	<p>“Generally very good. You have to make friends with your distributors or the people in there because you ask them to work for you and you also asked them to somewhat be an extension of your company.”</p>
Extent of reliance on them for export information	<p>“We – where we’re lucky enough to have agents we rely on probably eighty or ninety per cent of being our sources of supplier of information to achieve future work or orders. We would only be expected to tell them about something in their area occasionally because they should already know and they should be feeding us. We would then obviously go to the market place once a year maybe or twice a year depending on what the market place was, to see if we can see things that they are missing, and because it’s fresh eyes.”</p>
Frequency of use of information	<p>“When you’re working with reasonably good distributors, they’re brass. A good example is South Africa. Most of our transactions are the buying and selling and the invoicing.</p>

providers	Because once you've established a good relationship in a country, it should happen quite naturally, you know."
Gathering information from them without really needing it	<p>"Probably, probably. It's a difficult one to answer that, but..."</p> <p>"...a lot of the information that you gather from anywhere is probably pretty useless at that time but it could be useful at a future date. Once again computers are good because of their storage equipment. So if you keep a file on your distributor and you actually look at that file occasionally it will bring up useless information at times when it might become useful!"</p>
Relationship between quality of export information / decision quality	<p>"This is a difficult one. If export information has got the ability to you know, make you as a company achieve an export order, then it becomes a very interesting piece of information. Now that information becomes much more interesting if the amount of money involved is large; ie, an example for us would be we had an order once – sorry, an enquiry once – that came out of an English wholesaler that was for Malaysia. And when we sent it to our Malaysian or our Singapore agent at that time, he sourced it and it was worth three hundred thousand pounds to us. Now on that particular product at that time, that was probably two or three years turnover so it was very important so we followed it up very much."</p>
Information non use / decision – making	<p>"Because some managers wouldn't always have equal information of what was going on. And quite often when the decision is being made, where the original information came from wasn't necessary to everybody but only necessary – part of it would be necessary when the decision was being made. And the decision makers may not be the people that are actually reading the information. But the – the people that are reading the information will be part of the instigation of what happens with it. And if they consider that it's applicable to what you're doing or what you want to do, then they move it forward into the departments that are required. And so it's a really difficult circle, that one."</p>
Levels of stress / decision – making	<p>"In companies of this size, the stress level, it would be high but you would probably be moving your stress onwards to someone of more importance, i.e.: you would be involving your – certainly your directors or management levels that work you know, alongside you. Or above you. And you would share the stress. But then again stress is only one step towards enjoyment. And enjoyment is winning."</p>
	<p>"In the advent of stress and if you were not confident that the – stress levels are going to be different. If your confidence was low within – that you felt the ability of the company or you yourself within the company were not going to win, you would</p>

<p>High levels of stress – low confidence / information use</p>	<p>try to achieve more information to make it a more probable thing, you have a chance then so your confidence level can go up. If the information is not forthcoming then your confident level will actually drop and you probably would drop the project you were working on. But it wouldn't necessarily be stress in the same way as work load. I mean most people's stress comes from work load, not from actually doing the work. It's having too much to do where stress comes from. You know, it's a different one, a different area – in my opinion."</p>
<p>Experience based decision – making vs. information use</p>	<p>"Most of your experience has come from information; whether it's from a computer, word of mouth, on the telephone or whatever, you know. Most information that you get, even if you don't read it properly you actually do – you will scan through it. And quite often really things that trigger are the reason that you might want to read more. So within information there has to be trigger points that - and people's triggers will be different, ie: I will be looking through something and I will see something about an airfield project that makes me want to go further. And it won't be necessarily at the start of the information. The start of the information will tell me that there's going to be a be a new airport, say at Stanstead. But going through it, at some stage it will tell me what type of brick is going to be involved. That's when my interest level starts and I start to look for more..."</p>
<p>Low confidence – low information availability / decision – making (Seek additional information)</p>	<p>"Gamble." "You would seek additional information. In my case it would mean there would be a financial implication. I would probably involve a director to give me more confidence in what I was doing, ie: so that was I covering my own back I suppose is a good way of putting it."</p>
<p>Instinct – gut feeling / decision – making</p>	<p>"It's probably one of the most important things. A feeling for what's going to happen." "Gut feeling is probably the most important thing. Information probably comes the next step after it but feeling is what – you get the feeling that we could be successful, then you will try to achieve the information to make sure it is successful."</p>
<p>Gut feeling vs. information / decision – making</p>	<p>"No, I would then try and get a collective decision. I would see if people had the same gut feeling as me or the same – or reading something different from the information."</p>
	<p>"No, sometimes it can be worse because quite often when you've got – when you will have the information you have the</p>

<p>Experience based decisions / decision implementation</p>	<p>guidance to how you can implement it, ie: you've got the order and you know that it could cause you a problem to have the order because you could be having a logistics or manufacturing or whatever – sometimes the information is too much information. Too much information is dangerous because you can see the problems that it's going to create.”</p>
<p>Overload / impact on decision quality</p>	<p>“Too much information sometimes would make you consider not actually doing the project because you could see maybe too many pitfalls. Too little information would actually be the absolute reverse. You wouldn't do the project because you didn't know the pitfalls. So somewhere you need the balance between the two, so it's better to have too much than too little, you know.”</p>
<p>Overload / impact on decision implementation</p>	<p>“The trouble with too much information is you don't read it. And you lose your way within the information. So you miss what you're doing. Information really has to got to be – it's got to be good and it's got to be easy, to be specific to the area that you require it, ie: you don't look for information when you're building trains, when you're looking for building aircraft. So the information needs to take you to the aircraft section rather than the train section. And if you've got lots and lots of information before you get to the bit you want, sometimes you get bored and you lose the reason that the – the road to the information was supplied to you. In other words it's waffled too much.”</p>
<p>Decision – making on well informed grounds</p>	<p>“I doubt it! I'd be surprised!”</p> <p>“I would say that the way to answer – that I could answer that is occasionally export managers will look to achieve business in areas perhaps they should never be in, ie: should you strictly speaking earn some money in going to Australia when you could never achieve enough money to pay for the visits or the promotional materials that you need? But because that could well be that you're led into where you want to go rather than where you should be going.”</p>
<p>Impact on decision – making / decision quality</p>	<p>“In a big company I would say that – ah, it's a difficult – that's again difficult. In a big company you probably could justify doing almost anything because it's worth the try. In a small company there is probably – let's give a good example. I spent quite a few years trying to get our products through into America and found it very, very difficult because the Americans have lots of nice stuff. They have lots of products that are... similar and inexpensive compared to mine, and I've got to ship there. And my other reason the market was through exhibitions and in a land somewhere where I was meeting potential distributors or whatever, which was being semi successful. But the road through that way, our</p>

	<p>competitors started in the market place. And he decided to do HIS route to market via exhibitions through Las Vegas. Now when I took a proposal forward to my management here on going to Las Vegas, the first thing they would consider is I was going to a gaming town where I was going to enjoy myself. So you know, it – would I be making the decision for going to promote my product in America because I wanted to go to Las Vegas, or am I going to actually try and plug my product or sell my product?”</p>
<p>Impact on decision implementation</p>	<p>“Well, the impact of the – of not being able to do it would mean they would probably – you would never be achieving any business within that area. So the information is then – should be reversed, ie: the opportunities to go into that type of area of the organisations that give you the opportunities to do the exhibitions/missions, whatever, should be looking for areas that do not appear to make it look like you’re enjoying yourself. That’s a good way of putting it, yeah. I did do month in fact in Las Vegas, by the way, working. It was semi successful but in absolute honesty, ninety per cent of the visitors that came to Las Vegas, not the exhibitors – were there to have fun. The exhibition was the excuse, the – that we were there as an excuse and they probably didn’t give us as much time to look at or actually consider us as – well, we used to go to Atlanta which is a non gaming city and a non fun city. Nice city but it’s a working city rather than a fun city.”</p>
<p>Information use in order to appear more competent</p> <p>The need to sell the firm’s export operations within the firm</p>	<p>“Yes. You can use the information that you’re going to build your own presentation on, material, to make you look more professional and more competent at what you’re trying to supply.”</p> <p>“In this firm no, because I think it’s a very – it’s got a very export orientated management. I would say in some firms yes, because in – if we went back seven years before the present chief executive, the chief exec – chairman there, yeah. You had to sell everything to him if you wanted to do it. The chief executive and the management here now can see the – are always looking for potential export. You know, it’s part of the way of life.”</p>
<p>Information use to increase the standing of exporting within the firm</p>	<p>“You probably could but the only thing that really orientates a firm that’s not export orientated is the potential of selling its wares, ie: it doesn’t matter what the information is, if it’s not something that you’re interested in – if you’ve got a full order book you’re not worried about export. If you haven’t got a full order book in your home trade you’re looking to move it somewhere else so you’re looking at export, then any company should be interested in moving into that market. But in reverse, if you’re very export orientated and you know, you’re selling a full order book abroad, you’re probably not terribly interested in your own home market place. You know,</p>

	your interest is dictated by your abilities of what – well, what you want to do at any one time.”
...and an interesting example...	“(Laughing) - Oh, that’s very true, yeah. That’s the answer! But the real answer, I mean I want to go – I take my wife out to her cousin’s in Vancouver. And the first thing that my wife’s cousin does in Maine is take her shopping. Then I’ll say well, why are you going shopping? You don’t want anything. And they’ll say well, yeah. But we need a lot. No, I say you don’t need anything. But they’ll say yeah. But we want to go shopping and we want to buy something. I say yeah. But you don’t need to buy anything. Want and need. And that’s the same in business. It’s your wants and needs against your market places at any one time.”
Distortion of export information	“They wouldn’t change the context of the information and supply it. They make change the context of the information that they pass forward to make it look pro or – for or against or whether they – back to the confidence of winning. If there was a project that maybe the director level considered we should be winning and the man who’s got to win it may well be altering the information to show that it can’t be won because his instinct and his gut feeling and his confidence is telling him we’re not going to. You know, so you cover your bases at an early stage then if you do win you look better.”

APPENDIX 3.5

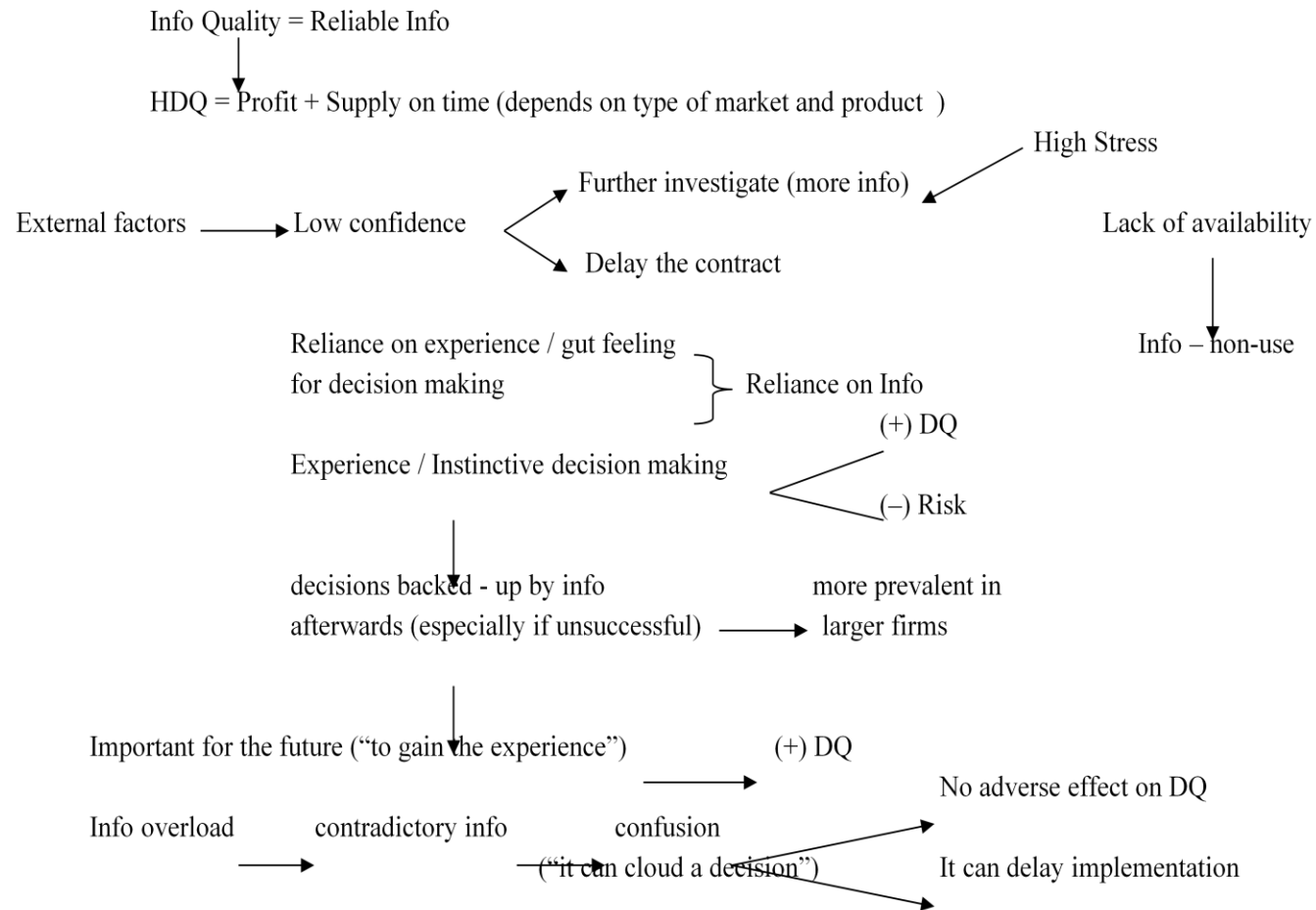
WITHIN-CASE DISPLAYS

(NETWORKS)

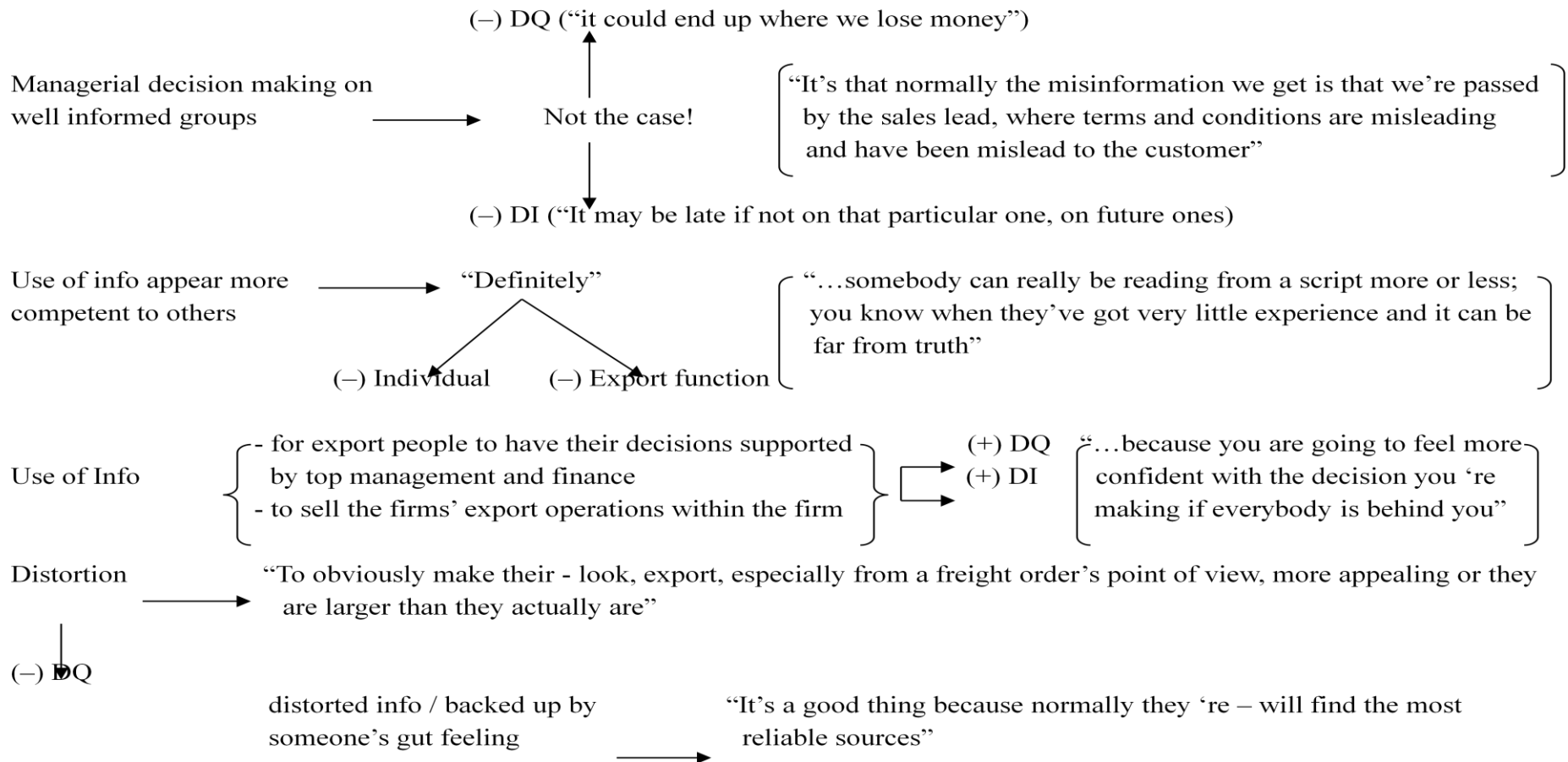
Company 1

Export objectives → Sales maximization

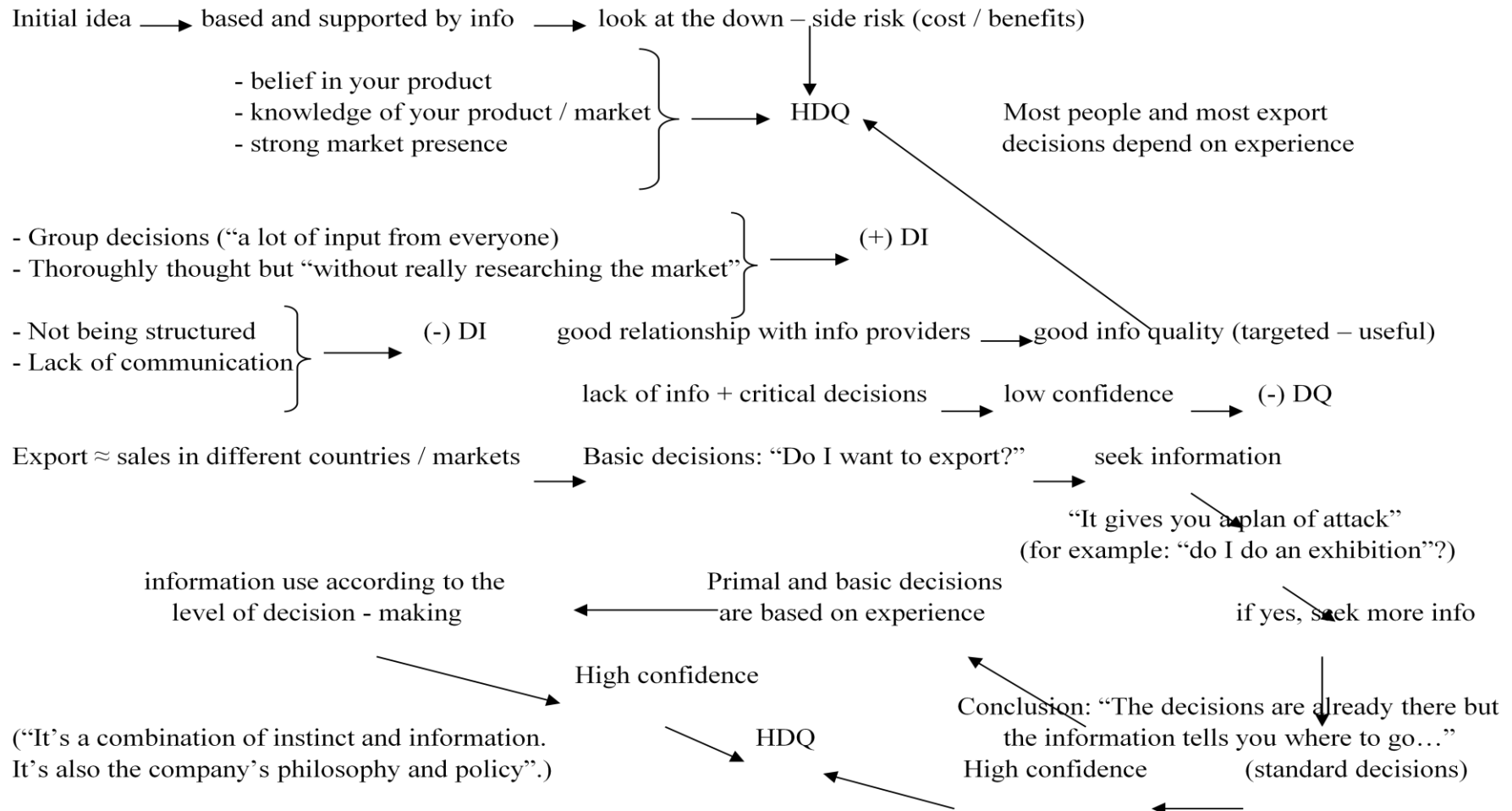
Effective DI = Having the info on customers' requirements to supply on time



Company 1



Company 2



Company 2

Instinct or information ? → It will depend on the cost → relatively low cost ⇨ gut feeling decision

- Decisions based on info
 → (+) DQ (“the result is much more fruitful”)
 → (-) DI (slower)

- Decisions based on instinct / experience → (+) DI (faster)

Export decisions do not need to be justified because there’d be a general policy so the basic decisions are there anyway.

Managers do not always make decisions on well informed grounds →
 { waste of time
 waste of effort
 waste of money }

Info is used in order to appear more competent
 → makes other people have confidence on you
 → good for the export function because this confidence reflects on the customer
 } → HDQ

Distortion
 { - it used to happen a lot in the past (now control is tighter)
 - bigger decisions – higher distortion
 - bigger companies will do it more
 - for the individual is a question of maintaining their jobs } → (-) DQ
 Info is used to increase the standing of exporting within the firm → (+) DI

Company 3

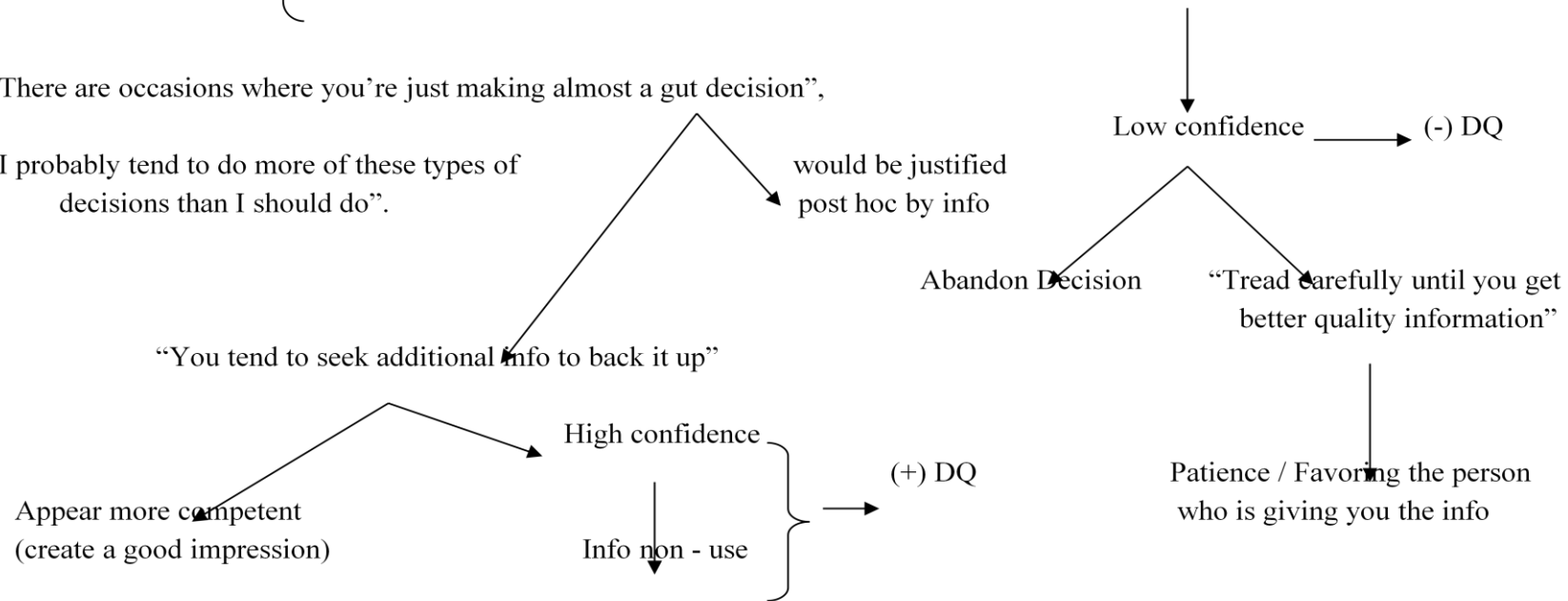
HDQ = "I would like to think it's made on good information; on good quality information."

Export information sources → "We tend to avoid paying wherever possible".

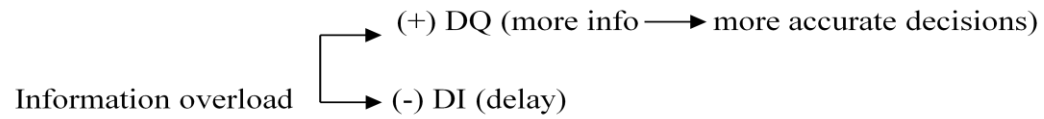
- Export Information Providers
- It is important to maintain good relationships with them
 - Information quality depends on them
 - "They will be feeding us with as much information so they can justify being our agents".
 - "They will tweak it a bit to suit your requirements"
 - "A lot of time the information we get is tilted towards the person or company that's providing it".

"There are occasions where you're just making almost a gut decision",

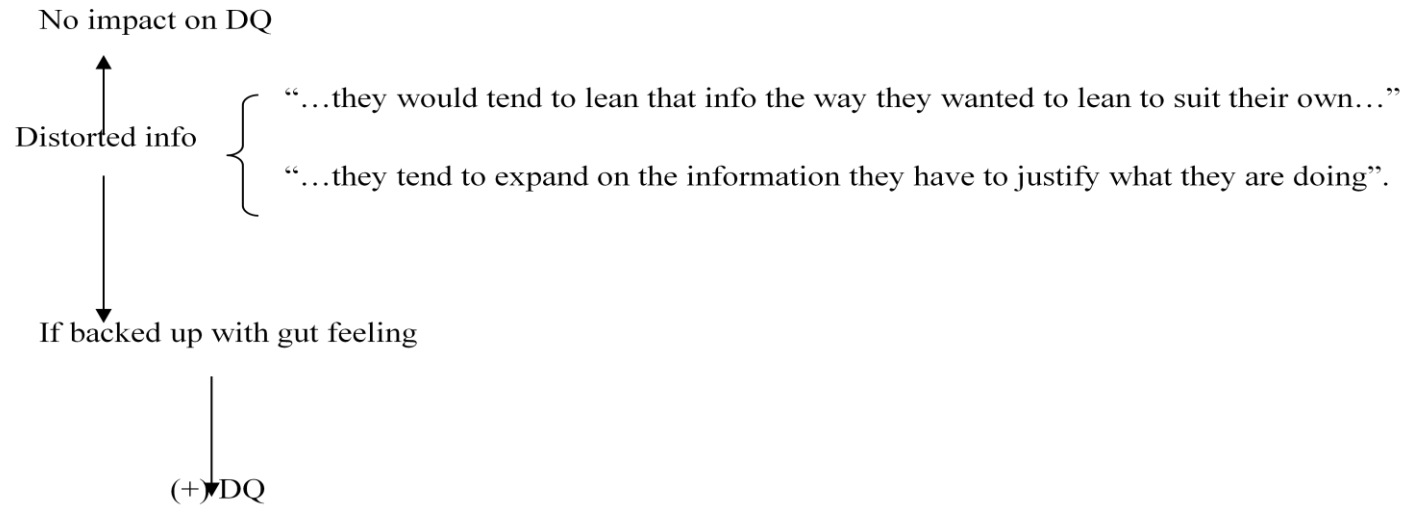
"I probably tend to do more of these types of decisions than I should do".



Company 3

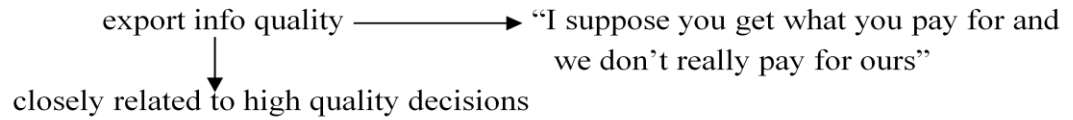
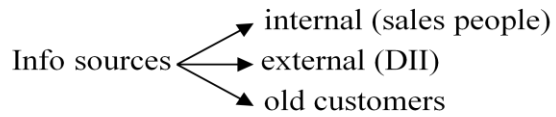


Use of info to increase the standing of exporting → “It becomes less of a mystery...”, “...they become receptive to the export business”.

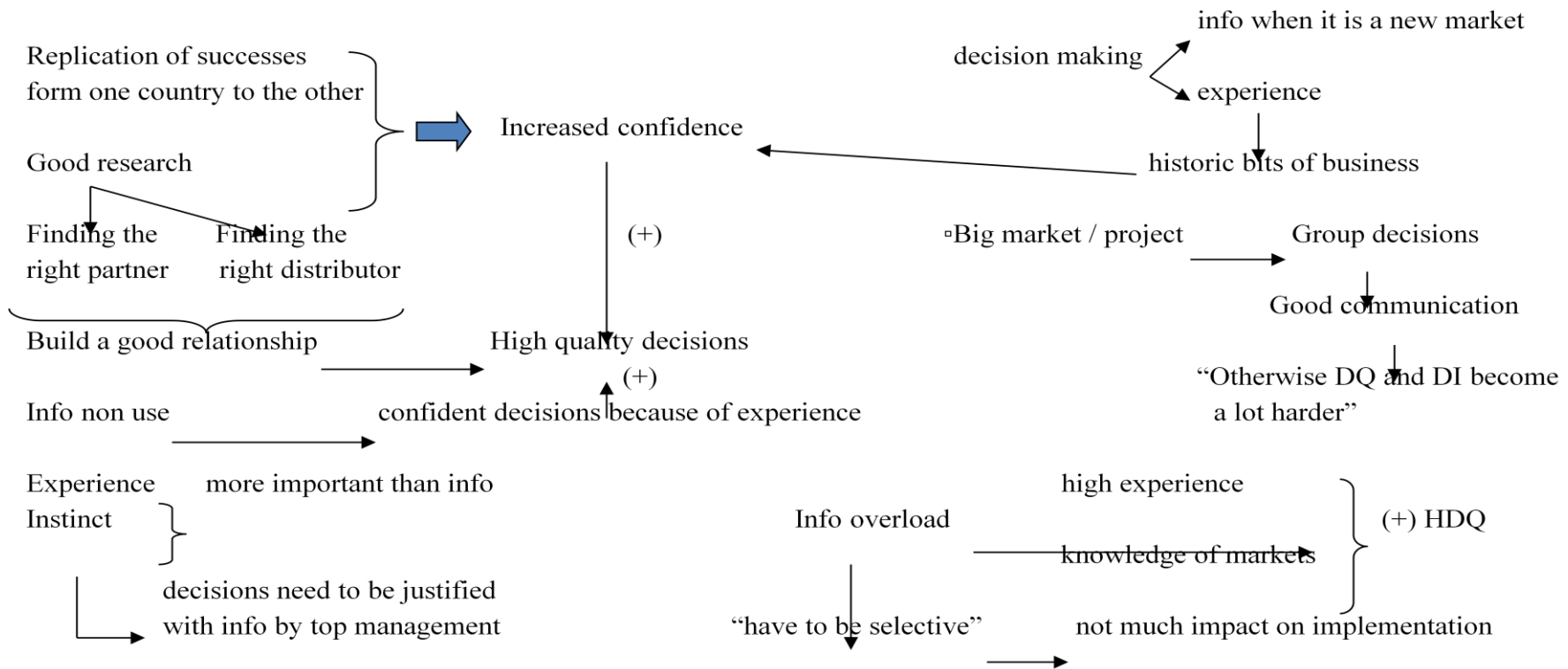


Company 4

External factors (political – economical) → Impede effective implementation



“I think, you know, people do use information but I think also it’s we want to do that so we will do it anyway”



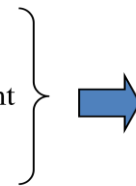
Company 4

Knowledge of the size of the market → good impression!
(basic knowledge – general demographics)

Knowledge is power → good for the individual

good for the export function
only if they share it (good communication)

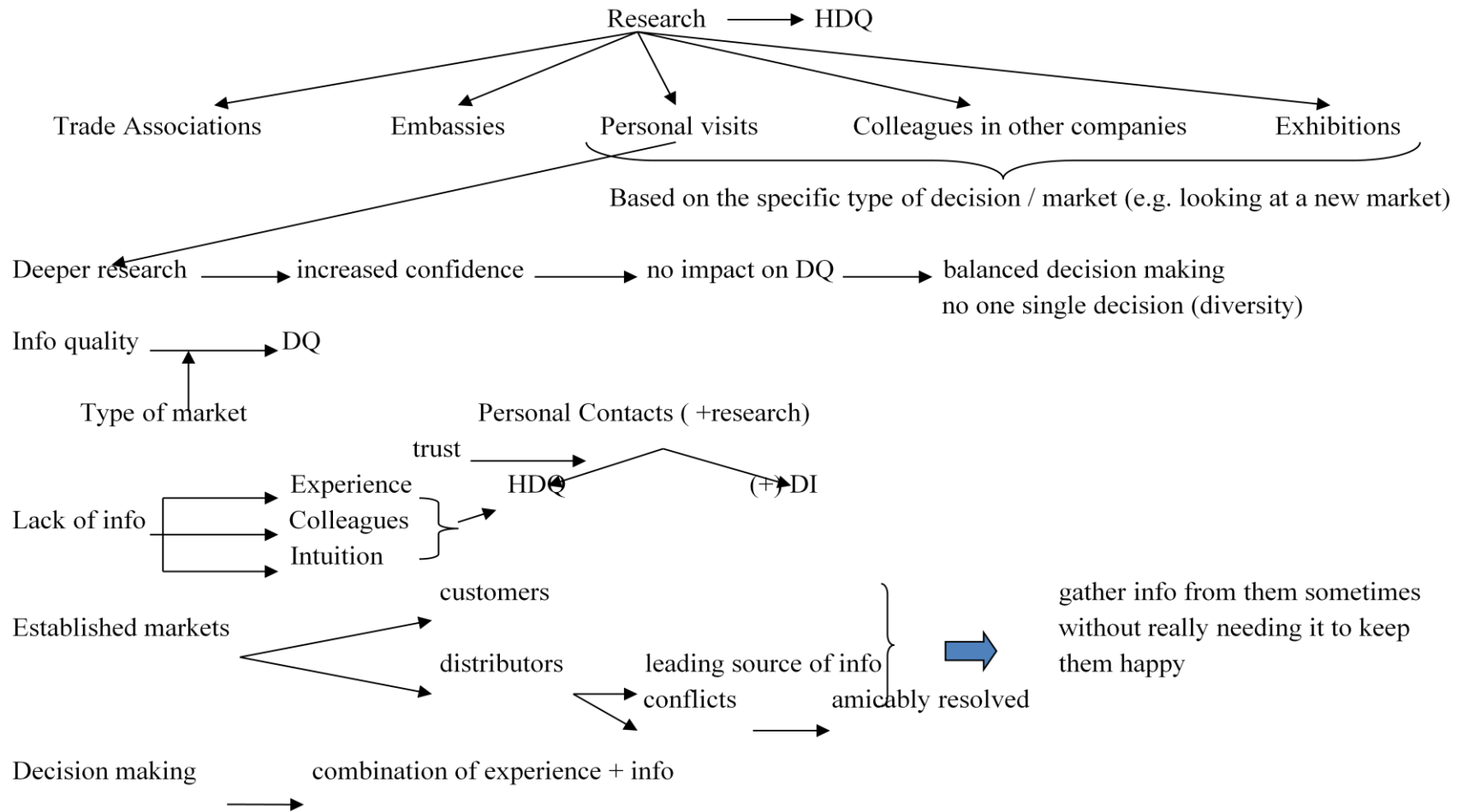
→ higher support by top management
and finance



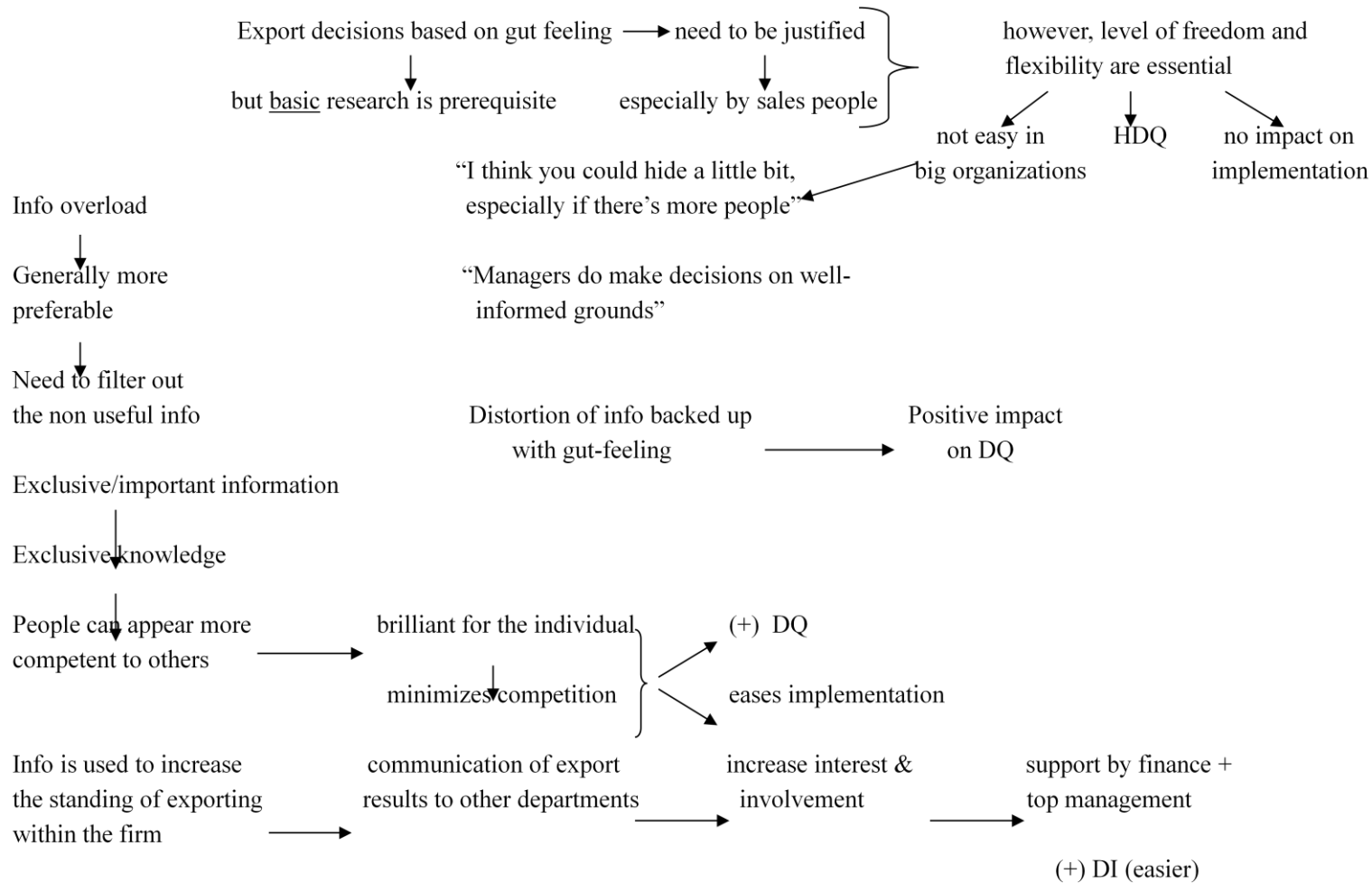
- a) more confidence → (+) HDQ
- b) longer to do → (-) DI

(-)
distortion of info → DQ

Company 5



Company 5



Company 6

- Type and importance of decision
(for example, DM based on history and policy)
- Cost of info
- DM in a “fairly cavalier sort of manner”
- Time constraints
- Low info availability

Info non – use

low confidence → move slowly → (-) DI

DM based on instinct/experience depends on the type of the decision
 An important decision needs to receive support from colleagues
 Needs to be carefully presented and researched (+) DI

Low confidence and high stress
 look for more info to back up a decision
 (“speaking personally, I feel more comfortable when I have lots of information”)

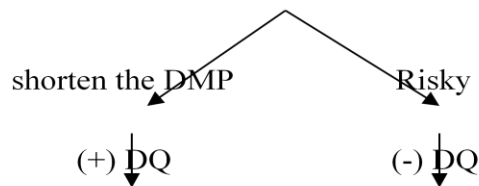
delay in DI → (+) DQ

(+) “If delaying it means the decision is better thought through”.

(-) “If the level of confidence is so low that you’re seeking more and more information and perhaps missing an opportunity”.

Role of info > Role of instinct

DM based on instinct/experience: “I’d like to say that I would allow the information to – I’d base my decision on the information rather than instinct but I’m not sure that’s a trustful answer”.



Company 6

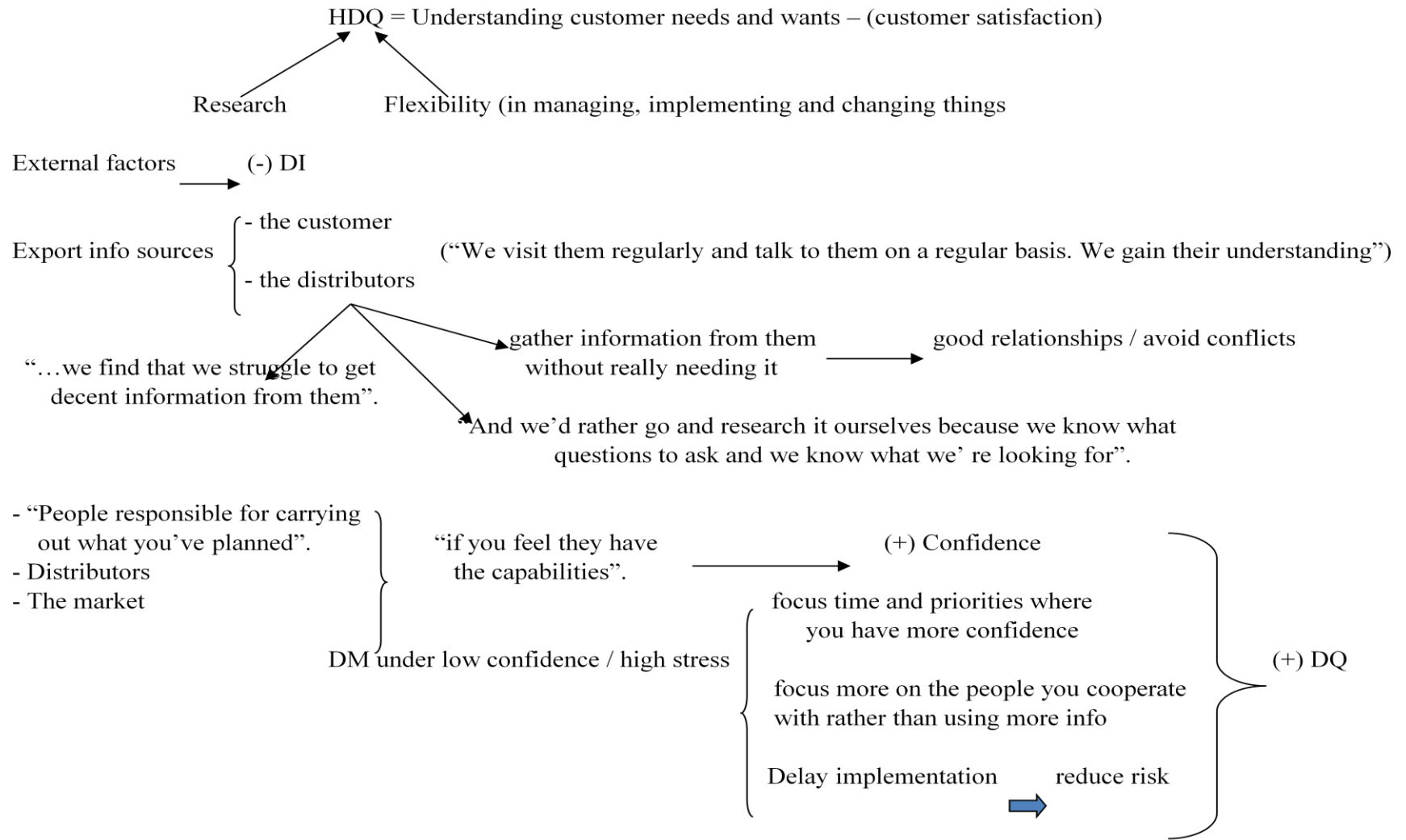
Overload → delay the decision → (-) DI

Justifying decisions by hard facts {
 Important when one wants to win support of colleagues
 “Export managers are more likely to justify decisions probably to the board of directors”
 More prominent to “larger firms”

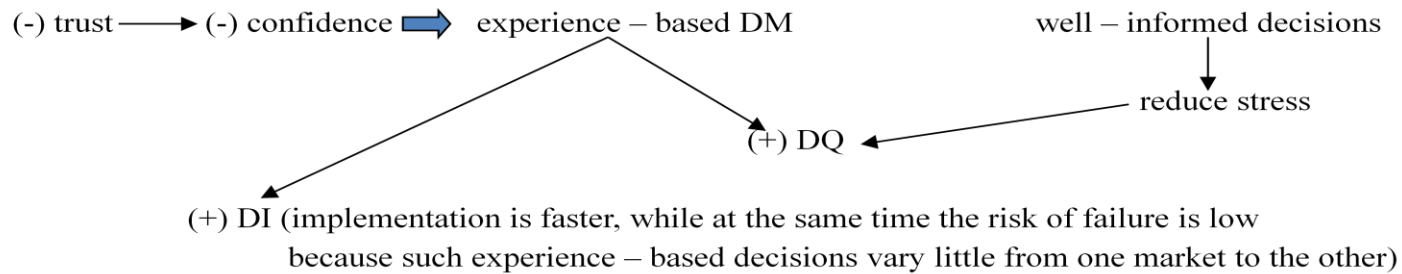
Distortion → “I’m sure people must do it sometimes”,..., “Maybe to support a gut instinct, a gut feeling, or try an justify a decision that’s already been made...”

↓
“...then future decisions would be very much more difficult to implement because the level of TRUST and confidence in the – that particular export manager’s judgement is called into question, doesn’t it?”

Company 7

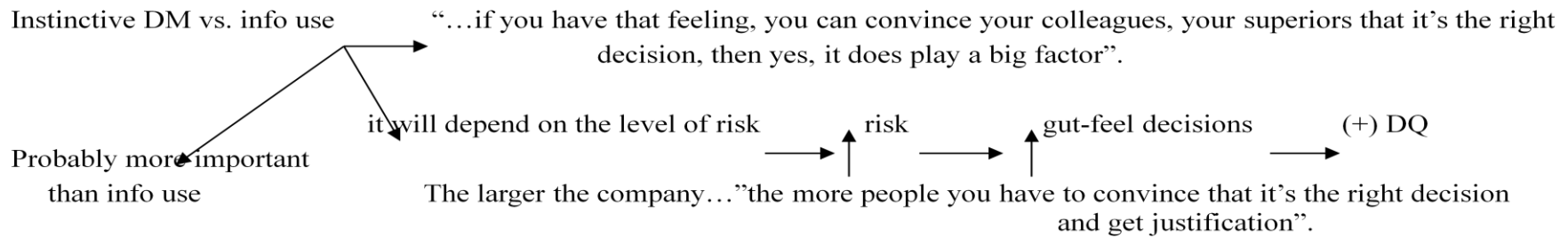


Company 7



-DM without using info } Inter – departmental involvement /
-Low info availability } collective decision - making

“...I would not make the decision in isolation. I would get a team together, a person from the production, a person from technical, a person from sales and a senior director...”



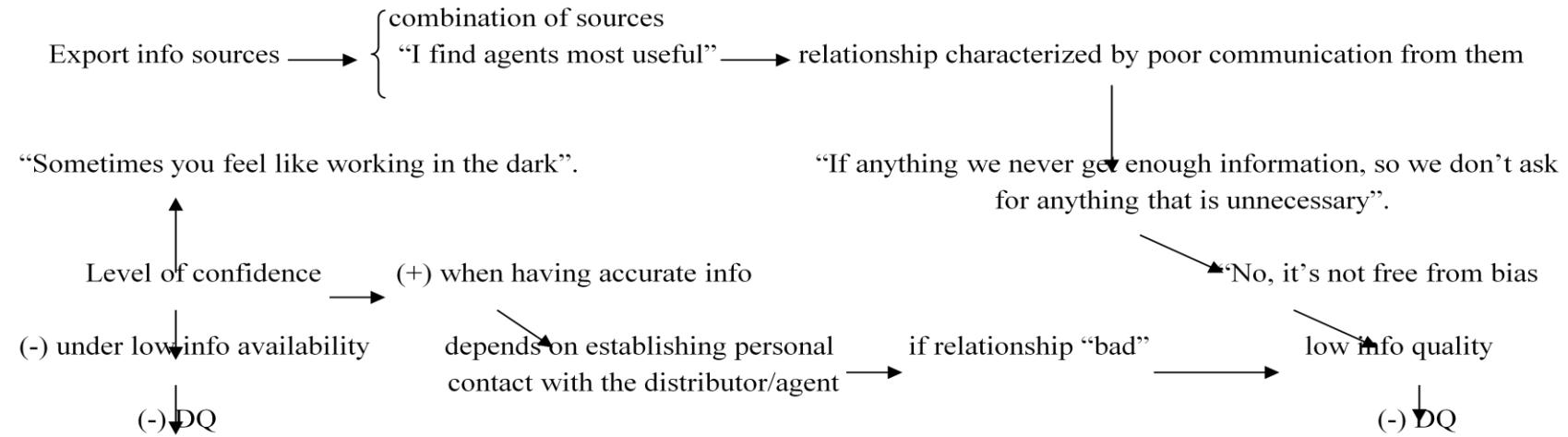
Overload / DM → depends on type of product (specific product → background information mainly)

Contradictory info/DM → “...it’s through networking with people who work in our sector, you begin to realize what’s happening”

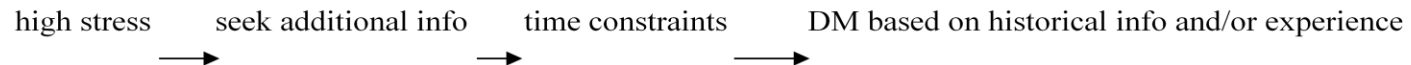
Company 8

Export objectives → going to vary from market to market

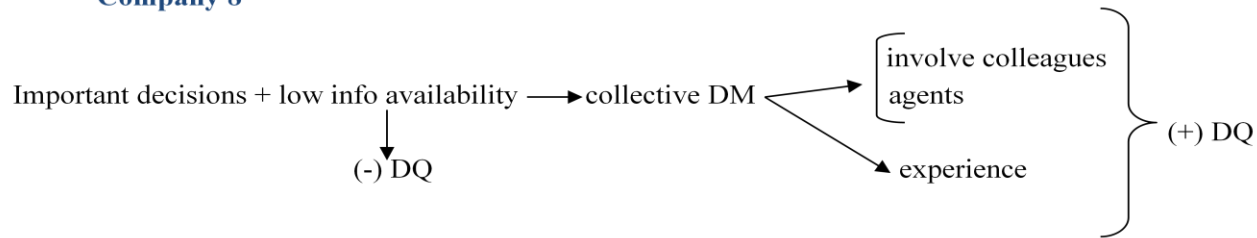
Important decisions / sensitive issues → high involvement - collective DM (“...it might take half a dozen people within the firm”)



“...so it took a fair bit of exchange of information because the agent probably wasn't aware of the implications of the tender so the agent had to become aware, he then had to look at what had been done historically and feed it back. So it was a bit of fine - tuning needed there”.



Company 8



Instinctive DM → "I'm not sure instinct is the righti don't think you make them instinctively, I think there has to be something you remember from the past to say, yes let's just go with this. I'm not quite sure on instinct".

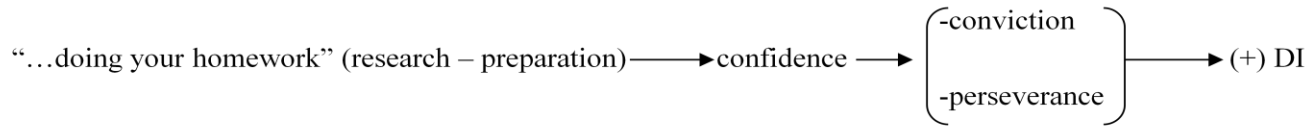
Gut feeling and Info use → (+) DQ (balanced view) "If it's experience – based then it's a very good decision. A very quick decision." → (+) DI

DM based on gut feeling → collection of info afterwards to enhance knowledge and likewise ease future decisions
 → use of info to justify such decisions ("So yes, we do try to back fill the information if you like").

Justification of export decisions with hard facts → { "We have to justify everything"
 "It's the large centralized companies that all want control, and control all the time means justification".

Overload → slows down DI → could cause conflict → (-) DQ

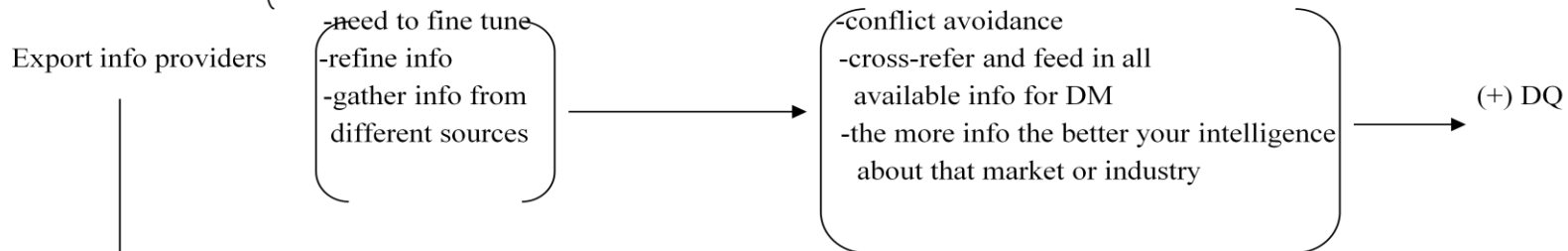
Company 9



The aspect of relationships is very important
(with suppliers, agents)

“...if you fundamentally believe that you made the right decision
in the first place then I think that taking the time to see it through is
time well spent”.

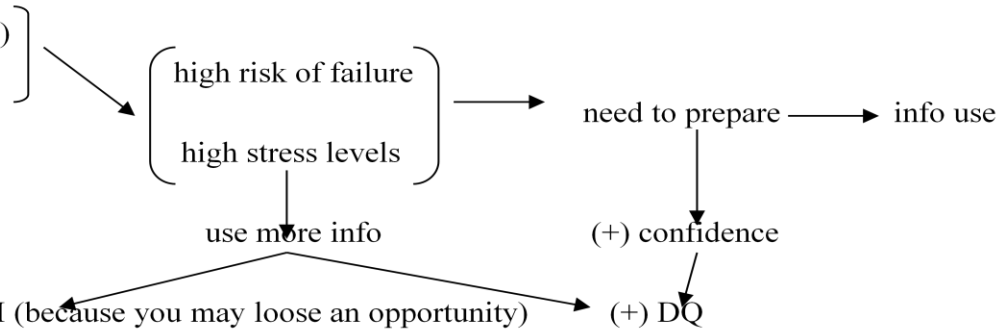
Export info sources $\left\{ \begin{array}{l} \text{-combination of things} \\ \text{-will depend on the country, the market, the situation...} \\ \text{-} \dots \text{I think it is quite often a sort of a gut feel really that there may be a market out there, a country that you're} \\ \text{not doing business with, that because of what you pick up in the media, what's in the news, whatever, you} \\ \text{have the belief that it could be a market worth pursuing. So that can quite often start things off...} \end{array} \right.$



Low info quality $\left\{ \begin{array}{l} \text{Information does sometimes miss the mark a little bit because of perhaps a lack of understanding as to exactly} \\ \text{what we actually want from them, but nonetheless they certainly have a value in the scheme of things. I'm not too} \\ \text{worried about that} \end{array} \right.$

Company 9

Big export decisions (importance of decisions)
 Entering a new market (type of decisions)

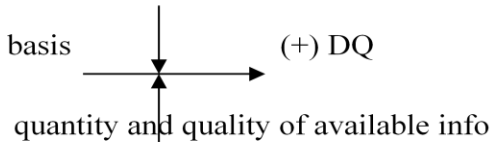


-low info availability
 -snap decisions
 -certain situations (e.g. when
 An agent is not performing well)

experience-based DM (“...you do that anyway but I think sometimes you’ve got to use it as the biggest factor...”)

type of decision

Gut feeling + (background or historical) information as a basis



“...it’s a question of knowing the sort of the background to the whole thing rather than needing to accumulate masses of information To make a decision. Many decisions are born out of business relationships...”

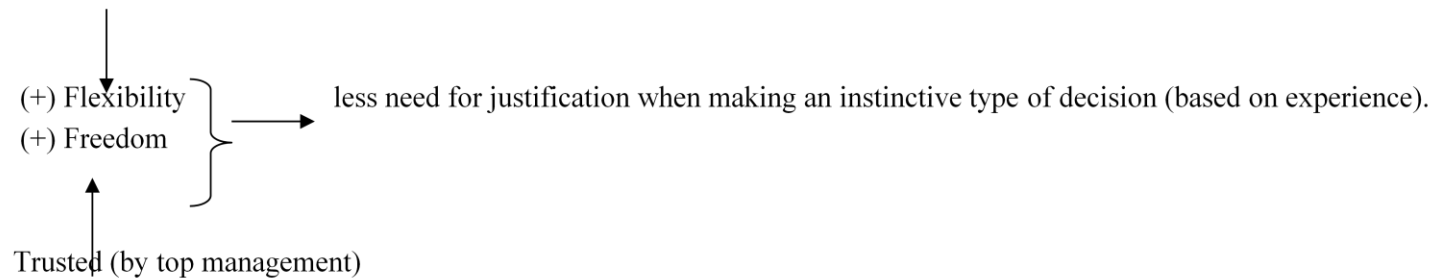
Instinctive DM

→ “I think it’s pretty important, yes, I mean the problem you have is when, if you’ve got some new information through and it’s totally at odds with your instinct then you have a problem. But that in my experience is rarely the case...” “probably with the years of experience I’ve accumulated I might let my instincts rule the day”.

Company 9

use of info for justification purposes → “I mean, one would hope that...if one had to take a decision based predominantly on instinct based on experience, one would hope that information that was forthcoming after the event would validate that decision and make you confident it was the right decision...”
“...and once again you perhaps sometimes have to refine your actions and decision making as you go along”.

Smaller and/or less structured firms



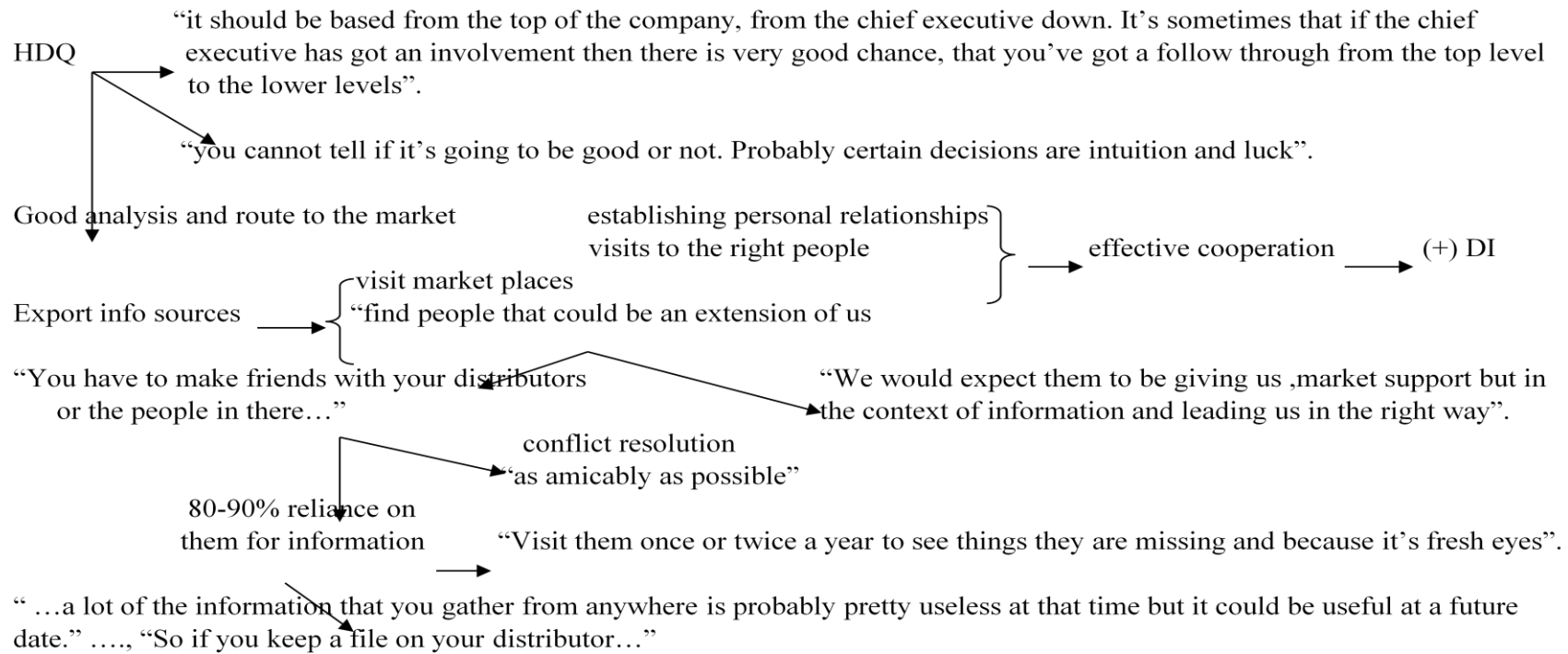
Overload / DQ → “I think if you try to digest it all and take it all into account it could lead towards indecision and time being lost” → (-) DQ

Use of info to increase the standing of exporting within the firm → “Yeah, I mean it comes back to people being informed and if people are informed in know the backgrounds then...ok I can put my own sort of angle on things and if I really think it is the right decision and it’s something where I need to have the approval of the financial controller or whatever then it’s up to me to make it clear I think it’s the right decision and justify it...so just come back to justification...to providing information”.

Company 10

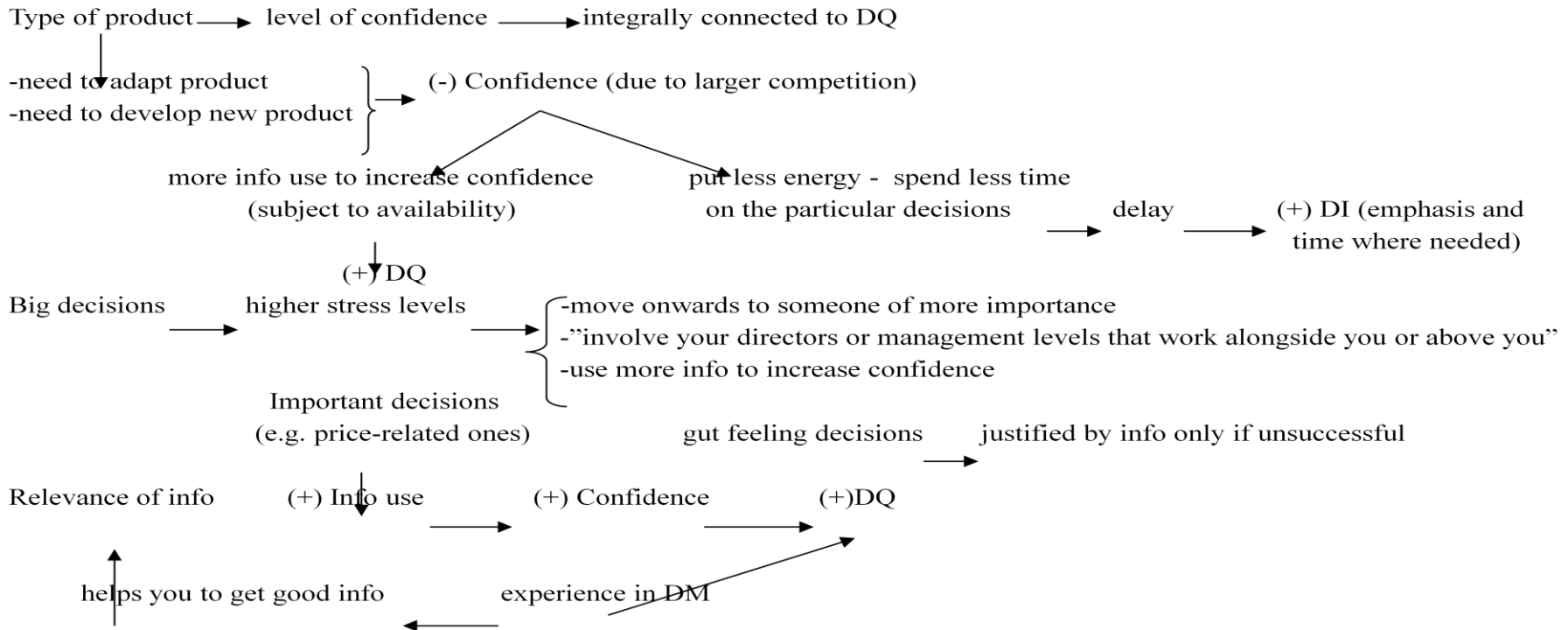
Export objectives = sales maximization

HDQ = “the one that you win” (in terms of achieving a sale)

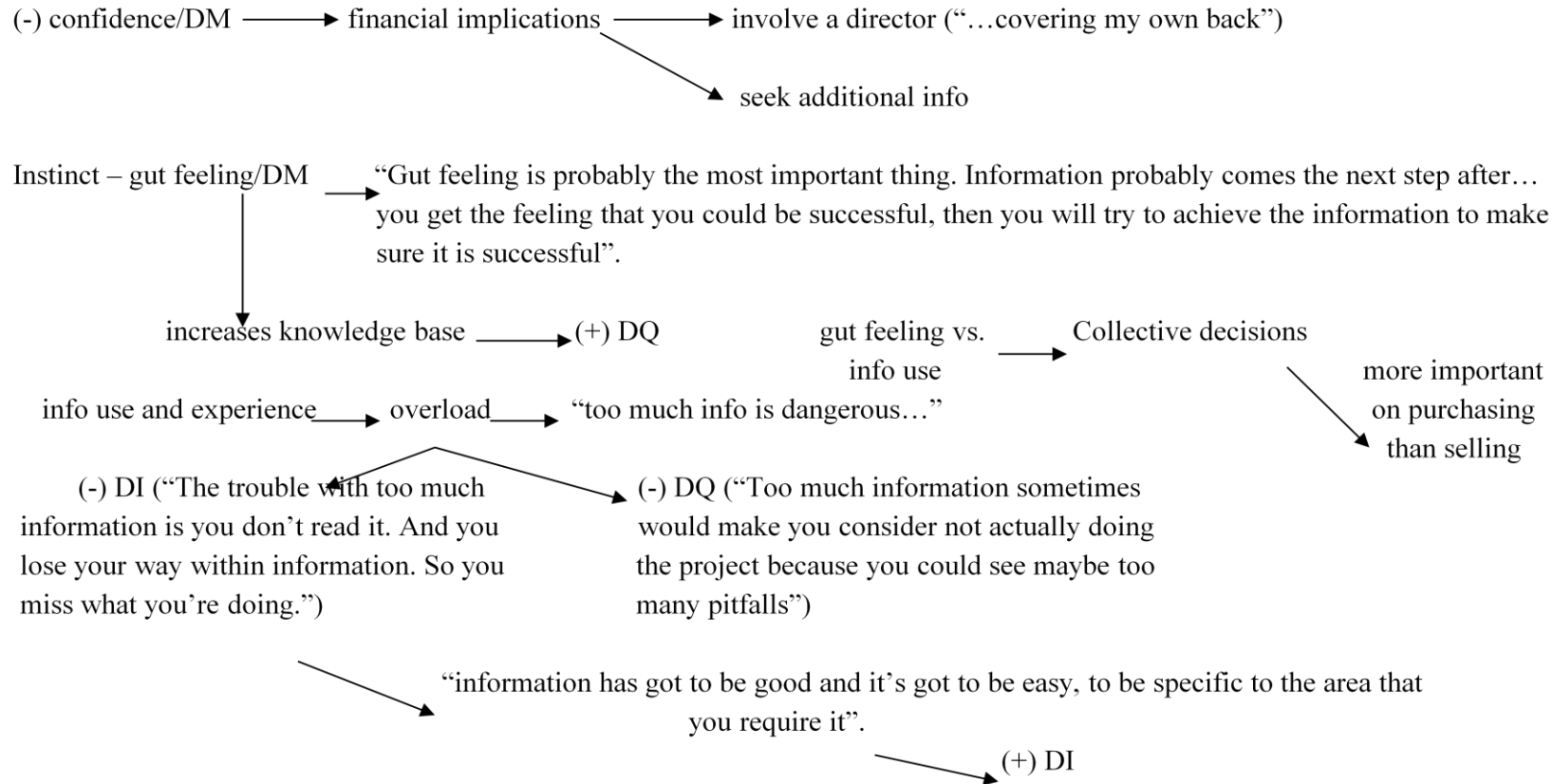


Company 10

- disparity/inequality of info
 - partial utility/application of info
 - ”And the decision makers may not be the people that are actually reading the information”
 - Ways/mechanisms according to which info is diffused across departments
(communication effectiveness – political infighting)
- } → Info non-use

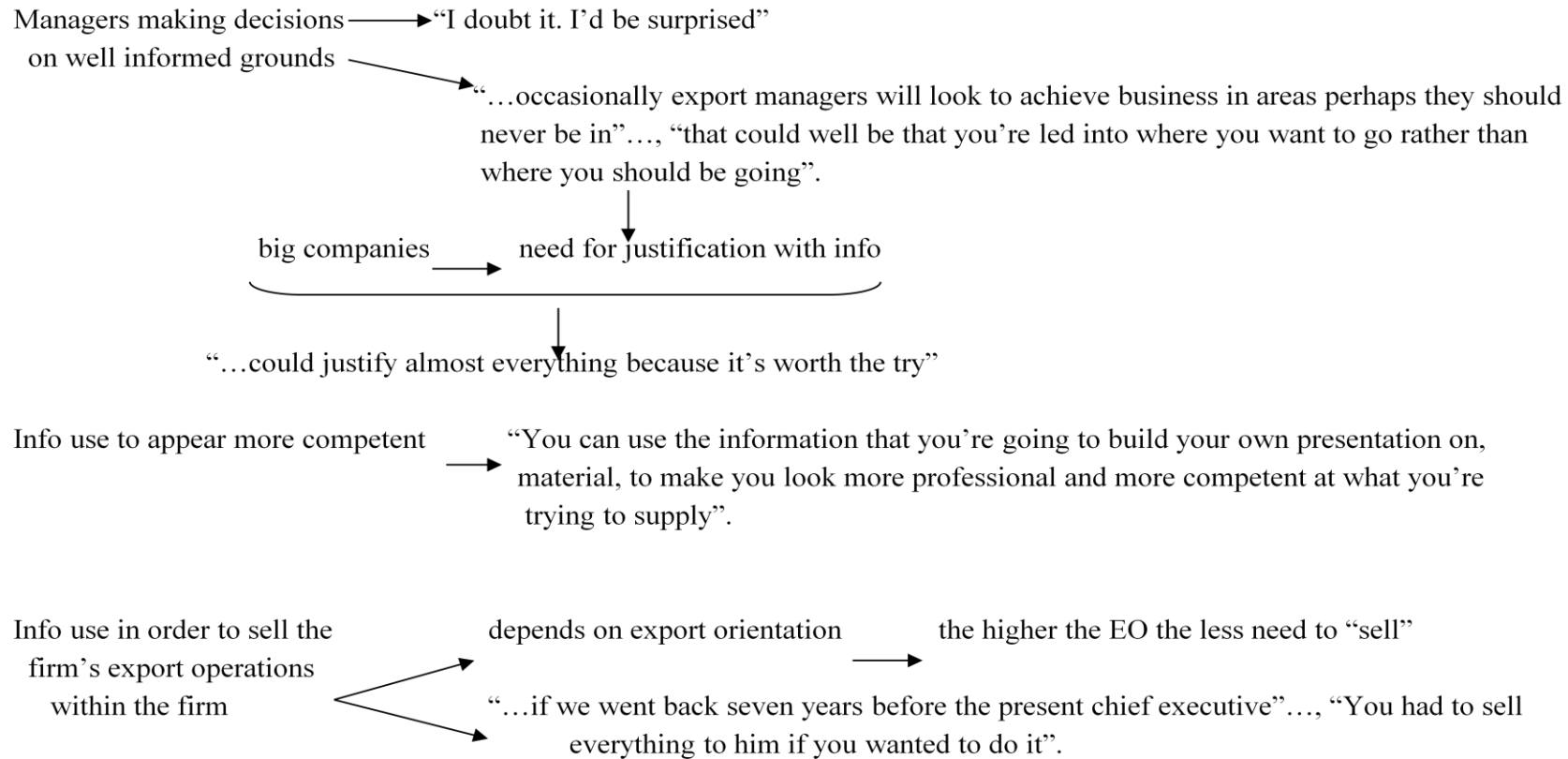


Company 10



“The person with the most experience in the area is the person that is the best person to make a decision”.

Company 10



APPENDIX 5.1

INTRODUCTORY LETTER

Mr. Evangelos Korobilis - Magas
Doctoral Candidate in Marketing
Loughborough University Business School
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Leics, LE11 3TU
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Fax: 01509 223961
Email: e.korobilis-magas@lboro.ac.uk

Company X
Address XYZ
Address XYZ
Address XYZ
Address XYZ

17 March 2008

Dear ...

As a Doctoral Candidate at Loughborough University Business School, I am currently undertaking a large-scale nationwide study of British exporters. Specifically, I am investigating how in the face of a turbulent trading environment, British exporters can best capitalise on their export activities (e.g., collection and use of export information, set-up and operation of export operations) in order to achieve optimal success in export markets (e.g., sales, profits, market share). Once analysed, the results will provide practical guidelines for enhancing export success.

The reason I am contacting you today is to ask for your time in filling out the study's questionnaire entitled "Export Decision-Making and Performance: A Study of British Exporters". The results of this survey will be used for academic purposes and are completely independent of any commercial entity.

I will be mailing you a copy of the survey questionnaire next week, and would be most grateful if you would agree to complete and return it in the FREEPOST envelope which I will provide. I am very aware of the demands on your time and the effort I am asking of you. In a bid to encourage you to respond to my plea and in recognition of your generosity, **I will send you at your request a managerial summary of the study's main findings.**

Furthermore, please let me first assure you that **the information collected will be treated in the strictest confidence.** Only my supervisors (Professor Anne Souchon, Chair of International Marketing, and Dr. Belinda Dewsnap, Lecturer in Marketing, also at Loughborough University) and I will have access to individual questionnaire responses. The data to be published from this survey will appear only in an aggregate form; no individual responses will at any time be made available to anyone other than my supervisors and myself. In addition, **to ensure personal anonymity** questionnaires, when returned will not bear the name of the individual respondent.

If you have any questions regarding the content of the questionnaire or the research project itself, please do not hesitate to contact me.

Yours sincerely,

*Mr Evagelos Korobilis- Magas
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APPENDIX 5.2

QUESTIONNAIRE

AND

COVER LETTER



**EXPORT DECISION-MAKING
AND PERFORMANCE:
*A STUDY OF
BRITISH EXPORTERS***

RESEARCH TEAM:

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SECTION I: YOUR EXPORT OPERATIONS

1. Please answer the following questions by circling the number of your choice on each of the four 7-point scales below.

In general, how much say or influence does the export function have on what goes on in your company?	None at all	1	2	3	4	5	6	7	Complete control
Can export staff influence the decisions of your company regarding things about which they are concerned?	Rarely	1	2	3	4	5	6	7	Always
Does top management consult with export staff when a problem comes up which involves exporting?	Sometimes	1	2	3	4	5	6	7	Always
If export staff have a suggestion for improving the export function or changing the export setup, how easy is it for them to get their ideas across to top management?	Fairly difficult	1	2	3	4	5	6	7	Extremely easy

2. Using the 7-point scale below, please indicate the extent to which you agree or disagree with the following statements by putting the numbers of your choice in the boxes provided.

Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly agree
1	2	3	4	5	6	7

The export function feels like they are their own boss in most export matters.....	<input type="text"/>
Export decisions can be made without checking with anyone else.....	<input type="text"/>
How things are done in exporting is left to the export staff.....	<input type="text"/>
The exporting team/person is allowed to do almost as it pleases in the export process.....	<input type="text"/>
Export staff can make their own rules.....	<input type="text"/>
There can be little action until top management approves an export decision.....	<input type="text"/>
If export staff wanted to make their own export decision, they would be discouraged.....	<input type="text"/>
Even small export matters sometimes have to be referred to top management for a final answer.....	<input type="text"/>
Approval by top management has to be sought sometimes before things can get done.....	<input type="text"/>
Any export decision has to be approved by top management.....	<input type="text"/>
The activities of our business functions (e.g., marketing/sales, manufacturing, R&D, finance/accounting, etc) are extremely well integrated in pursuing a common goal.....	<input type="text"/>
Export employees and those in other functional areas (e.g., R&D) always help each other out.....	<input type="text"/>
In this company there is a sense of teamwork going right down to the "shop floor".....	<input type="text"/>
There is an extremely strong collaborative working relationship between the export function and "operations".....	<input type="text"/>
Functional areas in this company always pull together in the same direction.....	<input type="text"/>
In this company, communication and group problem-solving are always enough to resolve issues and conflicts.....	<input type="text"/>
The way things are done in this export unit keeps changing.....	<input type="text"/>
Export staff often wonder if the nature of their job is going to change.....	<input type="text"/>
The export unit sometimes experiences uncertainty about when it is going to have a new boss.....	<input type="text"/>
The only thing we can be sure of in this export unit is that something is going to change.....	<input type="text"/>

The export unit is never evaluated based on a consistent criterion.....	<input type="checkbox"/>
The export unit can seem like they are always reorganising.....	<input type="checkbox"/>
Senior management sometimes talk down to export employees.....	<input type="checkbox"/>
Top managers always give full credit to ideas contributed by export employees.....	<input type="checkbox"/>
Top management can criticise export employees over minor things.....	<input type="checkbox"/>
Senior management staff expect far too much from export employees.....	<input type="checkbox"/>
Top management really stand up for export people.....	<input type="checkbox"/>
Senior managers provide much support to export staff in this firm.....	<input type="checkbox"/>
Senior managers are always happy to spend a lot of time helping export staff make decisions.....	<input type="checkbox"/>

3. Using the **9-point** scale below, please indicate the extent to which you agree or disagree with the following statements by putting the numbers of your choice in the boxes provided.

Disagree		Neutral		Agree		Strongly agree		Very strongly agree
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7	<input type="checkbox"/> 8	<input type="checkbox"/> 9

Senior management in our company...	
consider our exporting activities to be crucial to the business.....	<input type="checkbox"/>
is currently planning to significantly increase the company's exporting activities.....	<input type="checkbox"/>
consider exporting to be one of the most critical investments of resources.....	<input type="checkbox"/>
expect exporting to be a significant contributor to company performance.....	<input type="checkbox"/>
actively explore international market opportunities.....	<input type="checkbox"/>

4. By whom is export information used in your company? Please circle the numbers of your choice below. Tick the box(es) on the right if a particular function(s) does not exist in your firm. **Please note that export information refers to any piece of information particularly relevant to export decision-making (examples include, but are not restricted to, foreign customer preferences, competition in overseas markets, etc). This may have derived from formal sources (e.g., marketing research agencies) or informal sources (e.g. foreign distributors, export agents, customers, etc).**

	Never				Extensively				
Export personnel	1	2	3	4	5	6	7	n/a	<input type="checkbox"/>
Marketing/sales	1	2	3	4	5	6	7	n/a	<input type="checkbox"/>
Front line/service staff	1	2	3	4	5	6	7	n/a	<input type="checkbox"/>
Finance/accounting	1	2	3	4	5	6	7	n/a	<input type="checkbox"/>
Production/manufacturing	1	2	3	4	5	6	7	n/a	<input type="checkbox"/>
R&D	1	2	3	4	5	6	7	n/a	<input type="checkbox"/>
Top management	1	2	3	4	5	6	7	n/a	<input type="checkbox"/>

5. Using the **7-point** scale below, please indicate the extent to which you agree or disagree with the following statements by putting the numbers of your choice in the boxes provided.

Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly agree
<input type="checkbox"/> 1	<input type="checkbox"/> 2	<input type="checkbox"/> 3	<input type="checkbox"/> 4	<input type="checkbox"/> 5	<input type="checkbox"/> 6	<input type="checkbox"/> 7

- The export information we get is very accurate.....
- Most of the export information we receive is complete.....
- The export information we receive is easily interpretable.....
- The export information we get is usually objective.....
- Export information is accessible when we really need it.....
- The export information we get is usually up-to-date.....
- We invariably receive the export information that we need as soon as we need it.....
- Our export information is usually very useful for our export decision-making process.....
- The export information we get always adds value to the organisation.....
- The export information we receive is always usable.....
- We believe that the export information we receive is credible.....
- We find it easy to understand the export information we receive.....
- The export information we get is always reliable.....
- Export information is always readily available.....

6. Using the scales below (1 = Strongly disagree; 7 = Strongly agree), please indicate your level of disagreement/agreement by circling the number of your choice on each of the 4 scales.

The export team/person has sometimes made mistakes because it didn't have enough information	1 2 3 4 5 6 7	The export team/person has sometimes made mistakes because it had too much information to handle
The export team/person sometimes feels frustrated with never having enough information	1 2 3 4 5 6 7	The export team/person sometimes feels overwhelmed by the high volume of export information that it is given
The export team/person sometimes feels that it has insufficient information to make decisions	1 2 3 4 5 6 7	The amount of export information that the export team/person has to know makes them feel overloaded at times
The export team/person sometimes suffers from having access to too little export information	1 2 3 4 5 6 7	The export team/person sometimes experiences confusion as a result of having to handle too much information

7. Using the 7-point scale below, please indicate the extent to which you agree or disagree with the following statements by putting the numbers of your choice in the boxes provided.

Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly agree
<input style="width: 30px; height: 20px;" type="text" value="1"/>	<input style="width: 30px; height: 20px;" type="text" value="2"/>	<input style="width: 30px; height: 20px;" type="text" value="3"/>	<input style="width: 30px; height: 20px;" type="text" value="4"/>	<input style="width: 30px; height: 20px;" type="text" value="5"/>	<input style="width: 30px; height: 20px;" type="text" value="6"/>	<input style="width: 30px; height: 20px;" type="text" value="7"/>

- Export information is actively sought in response to a specific decision at hand.....
- Export information is always used specifically to make a particular export decision.....
- Decisions based on export information are always more accurate than wholly intuitive ones.....

Our confidence in making export decisions is increased as a result of export information.....	<input type="text"/>
Without export information, decisions made would be very different.....	<input type="text"/>
Export information is translated into significant practical action	<input type="text"/>
Export information is preserved so it can be used by individuals other than those who collected it....	<input type="text"/>
The majority of export information is not used.....	<input type="text"/>
Export information often has little decision relevance.....	<input type="text"/>
Any uncertainty associated with export activity is greatly reduced by export information.....	<input type="text"/>
The same piece of export information is often used for more than one export decision.....	<input type="text"/>
Export information is often used in a surveillance mode rather than a decision mode.....	<input type="text"/>
Export information gathering is often done as a matter of course to help decision-making.....	<input type="text"/>
We often use export information to keep the company knowledge base updated.....	<input type="text"/>
Export information gathered for a specific problem always loses its value over time.....	<input type="text"/>
No export decision would be made in this company without using export information.....	<input type="text"/>
Export information is sometimes used to maintain good relationships with information suppliers.....	<input type="text"/>
Information is sometimes used to justify an export decision already made.....	<input type="text"/>
Information that is used to justify an export decision is sometimes collected and/or interpreted after the decision has been made.....	<input type="text"/>
Export marketing information is sometimes used to reinforce expectations.....	<input type="text"/>
Export information is sometimes not considered in the making of decisions for which it was originally requested.....	<input type="text"/>
Instinct/intuition is often combined with export information when making export decisions.....	<input type="text"/>
Sometimes, manipulating export information to justify export decisions really made on the basis of instinct, is unavoidable.....	<input type="text"/>
It is inevitable that key executives will sometimes distort export information in passing it on.....	<input type="text"/>
Export information is sometimes taken into account to justify the cost of having acquired it.....	<input type="text"/>
Information is used to back up hunches prior to the implementation of an export decision.....	<input type="text"/>
If export information is difficult to obtain, guesses have to be made instead.....	<input type="text"/>
Export information frequently supports export decisions made on other grounds.....	<input type="text"/>

8. Using the 7-point scale below, please indicate the extent to which you agree or disagree with the following statements by putting the numbers of your choice in the boxes provided.

Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly agree
<input type="text" value="1"/>	<input type="text" value="2"/>	<input type="text" value="3"/>	<input type="text" value="4"/>	<input type="text" value="5"/>	<input type="text" value="6"/>	<input type="text" value="7"/>

We use export information specifically to feel more confident about our export decisions.....	<input type="text"/>
Our primary purpose in using export information is to feel secure in our export decisions.....	<input type="text"/>
We use export information specifically to reduce any anxiety we feel about making decisions.....	<input type="text"/>
We deliberately use export information to feel good about the decisions we make.....	<input type="text"/>
We use export information specifically to reduce any feelings of vulnerability in making decisions..	<input type="text"/>

Export information is often used to secure support for exporting.....	<input type="text"/>
We use export information to leverage/get access to resources within the firm.....	<input type="text"/>
We use export information to consolidate the export function's position within the firm.....	<input type="text"/>
Using export information is a good way to make other people in the firm receptive to exporting.....	<input type="text"/>
We use export information to portray to others the competence of the export function.....	<input type="text"/>
Export people use information in such a way as to create a good impression.....	<input type="text"/>
Our use of export information increases the confidence other departments have in us.....	<input type="text"/>
It is not unusual for export information to be used for political purposes.....	<input type="text"/>
Export information is often used to build awareness of, and commitment to, exporting.....	<input type="text"/>

9. Please indicate the extent to which your company has developed the following skills by putting the numbers of your choice in the boxes provided:

Skill poorly developed			Skill moderately developed			Skill very well developed
<input type="text" value="1"/>	<input type="text" value="2"/>	<input type="text" value="3"/>	<input type="text" value="4"/>	<input type="text" value="5"/>	<input type="text" value="6"/>	<input type="text" value="7"/>

In this company, we have developed...

the ability to identify sources of export market information.....	<input type="text"/>
a base of specific information on export sales opportunities.....	<input type="text"/>
a base of specific information on overseas market legislation/regulations relative to our company's products/business.....	<input type="text"/>
an ability to interpret the degree of quality of export market information.....	<input type="text"/>
a base of specific information on export distribution methods/practices.....	<input type="text"/>
an understanding of foreign business practices.....	<input type="text"/>
an understanding of how to best conduct market research in foreign markets.....	<input type="text"/>
good abilities in the official languages of the foreign markets we export to.....	<input type="text"/>

10. Using the 7-point scale below, please indicate the extent to which you agree or disagree with the following statements by putting the numbers of your choice in the boxes provided.

Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly agree
<input type="text" value="1"/>	<input type="text" value="2"/>	<input type="text" value="3"/>	<input type="text" value="4"/>	<input type="text" value="5"/>	<input type="text" value="6"/>	<input type="text" value="7"/>

We constantly try to implement technical innovations for our export markets.....	<input type="text"/>
We actively seek to develop innovative ideas for our export markets.....	<input type="text"/>
Innovation is readily accepted as a "way-of-life" in the export function.....	<input type="text"/>
Export employees are always rewarded for innovative ideas that work.....	<input type="text"/>
Innovation for export markets is never perceived as too risky.....	<input type="text"/>
Innovation for export markets is always encouraged.....	<input type="text"/>
Our export decisions are always based on the best available information.....	<input type="text"/>

- Our export decisions are based on valid assumptions.....
- The export decisions made help the export function achieve its objectives.....
- Our export decisions are consistent with the export function's current strategy.....
- Export decisions made contribute to the overall effectiveness of the export function.....
- Our export decision formulation process is high quality.....
- We implement our export decisions in a high quality manner.....
- The export decisions we make are innovative.....
- The export decisions we make are comprehensive.....
- The execution of export decisions is high quality.....

- It takes us no time at all to decide how to respond to our export competitors' price changes.....
- If a major competitor were to launch an intensive marketing campaign targeted
at our export customers, we would implement a response immediately.....
- If we came up with a great export marketing plan, we would implement it in a timely fashion.....
- We are quick to respond to significant changes in our export competitors' pricing structures.....
- When we find out that export customers are unhappy with the quality of our service, we take
corrective action immediately.....
- When we identify a new export customer need, we are quick to respond to it.....
- Export customers' complaints are very quickly responded to in our company.....
- When we find that export customers are unhappy with the appropriateness of our
product or service, we take corrective action immediately.....

11. Using the 7-point scale below, please indicate the extent to which you agree or disagree with the following statements by putting the numbers of your choice in the boxes provided.

Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly agree
<input type="text" value="1"/>	<input type="text" value="2"/>	<input type="text" value="3"/>	<input type="text" value="4"/>	<input type="text" value="5"/>	<input type="text" value="6"/>	<input type="text" value="7"/>

During export decision-making we...

- develop many alternative courses of action to achieve the intended objectives.....
- conduct multiple examinations of any suggested course of action the project members
want to take.....
- thoroughly examine multiple explanations for the problems faced and for the
opportunities available.....
- search extensively for possible alternative courses of action to take advantage of
the opportunities.....
- consider many different criteria before deciding on which possible courses of action to
take to achieve the intended objectives.....

SECTION II: EXPORT ENVIRONMENT

1. Using the same 7-point scale, please indicate the extent to which you agree or disagree with the following statements by putting the numbers of your choice in the boxes provided.

The technology that is relevant to our export markets is changing rapidly.....	<input type="text"/>
Technological changes provide big opportunities for our export operations.....	<input type="text"/>
A large number of new product ideas have been made possible through technological breakthroughs.....	<input type="text"/>
In our export markets there are many "promotion wars".....	<input type="text"/>
One hears of a new competitive move in our export markets almost every day.....	<input type="text"/>
In our foreign markets, aggressive selling is the norm.....	<input type="text"/>
Our export customers' product preferences change quite a bit over time.....	<input type="text"/>
New export customers tend to have product-related needs that are different from those of our existing export customers.....	<input type="text"/>
Our export customers tend to look for new products all the time.....	<input type="text"/>

2. Using the scale below, please indicate the extent to which you agree or disagree with the following statements by putting the numbers of your choice in the boxes provided.

Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly agree
<input type="text" value="1"/>	<input type="text" value="2"/>	<input type="text" value="3"/>	<input type="text" value="4"/>	<input type="text" value="5"/>	<input type="text" value="6"/>	<input type="text" value="7"/>

The following regulatory features tend to have a strong impact across your export markets:

Foreign restrictions on the number of competitors in a specific market.....	<input type="text"/>
Foreign transportation and handling regulations.....	<input type="text"/>
Foreign government pricing regulations.....	<input type="text"/>
Overseas environmental protection (pollution, noise, etc) law.....	<input type="text"/>
Foreign regulations relating to product resale.....	<input type="text"/>

SECTION III: ABOUT YOUR COMPANY (PLEASE CONSIDER ONLY YOUR UK-BASED OPERATIONS)

- Which industry does your firm operate in? _____
- Approximately what percentage of your firm's sales is generated by:

Physical goods	_____ %
Services	_____ %
TOTAL	100 %
- Approximately what percentage of your firm's sales is generated by:

Business to business goods	_____ %
Consumer goods	_____ %
TOTAL	100 %
- How long has your company been in business? _____ years OR since _____

5. How long has your firm been exporting? _____ years OR since _____
6. Do you have a separate export department? (please tick one box) Yes No
7. How many full-time staff are employed by your company? (only consider those on your UK payroll) _____
8. Of these, how many are directly involved in exporting matters? _____
9. Of these, how many deal exclusively with exporting? _____
10. How many countries does your firm export to? _____
11. In your view, is your organisation best described as: *very small* 1 2 3 4 5 6 7 *very large*
12. Approximately, what has been your average TOTAL sales turnover over the last three years? £ _____
13. Over the last three years, approximately what has been your company's average TOTAL profit (before tax) as a percentage of sales (before tax)? _____ %
14. Approximately what percentage of total sales turnover is derived from exports? _____ %
15. Approximately what percentage of total profits is derived from exports? _____ %
16. Overall, how satisfied are you with your performance over the past 3 years, along the following dimensions? (Please circle the appropriate number on each scale below).
- | | Very
dissatisfied | | | | | | | Very
satisfied |
|----------------------|----------------------|---|---|---|---|---|---|-------------------|
| Export sales volume | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| Export market share | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| Export profitability | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
| Export market entry | 1 | 2 | 3 | 4 | 5 | 6 | 7 | |
17. Over the past 3 years, what has been the average annual growth/decline rate of your EXPORT SALES?
_____ % Growth / Decline (delete as appropriate)
18. Over the past 3 years, what has been the average annual growth/decline rate of your EXPORT PROFIT?
_____ % Growth / Decline (delete as appropriate)
19. How do you think your average annual EXPORT SALES growth/decline compares to the industry average? (Please circle the number of your choice on the scale provided).
- Poor* 1 2 3 4 5 6 7 *Outstanding*
20. How do you think your average annual EXPORT PROFIT growth/decline compares to the industry average? (Please circle the number of your choice on the scale provided).
- Poor* 1 2 3 4 5 6 7 *Outstanding*
21. Overall, how PROFITABLE has exporting been over the past 3 years?
- | | | | | | | | | | |
|-----------|--------------------------|---|---|---|---|---|---|---|------------------------|
| 2004/2005 | <i>Very unprofitable</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 | <i>Very profitable</i> |
| 2005/2006 | <i>Very unprofitable</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 | <i>Very profitable</i> |
| 2006/2007 | <i>Very unprofitable</i> | 1 | 2 | 3 | 4 | 5 | 6 | 7 | <i>Very profitable</i> |
22. Overall, how would you rate your company's EXPORT PERFORMANCE over the past 3 years?
- Poor* 1 2 3 4 5 6 7 *Outstanding*

Continued overleaf...

1. What is your job title? _____

2. Using the 7-point scale below, please indicate the extent to which you agree/disagree with the following statements, by putting the numbers of your choice in the boxes provided.

Strongly disagree	Disagree	Slightly disagree	Neutral	Slightly agree	Agree	Strongly agree
<input type="text" value="1"/>	<input type="text" value="2"/>	<input type="text" value="3"/>	<input type="text" value="4"/>	<input type="text" value="5"/>	<input type="text" value="6"/>	<input type="text" value="7"/>

- I'm always courteous even to people who are disagreeable.....
- There have been times when I was quite jealous of the good fortune of others.....
- I sometimes try to get even rather than forgive and forget.....
- At times I have really insisted on having things my way.....
- I have never deliberately said something that hurt someone's feelings.....
- I sometimes feel resentful when I don't get my way.....
- No matter who I'm talking to, I'm always a good listener.....
- I'm always willing to admit it when I make a mistake.....
- I am sometimes irritated by people who ask favours of me.....
- I have never been irked when people expressed ideas very different from my own.....
- I like to gossip at times.....
- There have been occasions when I took advantage of someone.....
- It is sometimes hard for me to go with my work if I am not encouraged.....
- There have been times when I felt like rebelling against people in authority even though I knew they were right.....
- On a few occasions, I have given up doing something because I thought too little of my ability.....

This concludes the questionnaire.

Thank you very much for your time and valuable contribution to the study.

To receive a free copy of the final report from this study, please enclose your business card along with the questionnaire in the reply envelope, or enter your email address below
 (please use block capitals): _____

Loughborough University Business School use only

Survey wave: P / M 1 / 2

Survey code:

Questionnaire received: ___ / ___ / 200__



Mr. Evagelos Korobilis - Magas
Doctoral Candidate in Marketing
Loughborough University Business School
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Leicestershire, LE11 3TU
Tel: 01509 223646
Fax: 01509 223 961
Email: e.korobilis-magas@lboro.ac.uk

Company X
Address XYZ
Address XYZ
Address XYZ
Address XYZ

02 April 2008

Dear ...

Further to my letter dated 17 of March 2008, please find enclosed the Loughborough University Business School questionnaire titled "Export Decision-Making and Performance: A Study of British Exporters". As explained in my earlier correspondence, this questionnaire is the basis for a study on how in the face of a turbulent trading environment, British exporters can best capitalise on their export decision-making activities in order to achieve optimal export success in export markets. Once analysed, the results will provide clear directions on how exporters can best achieve fit between internal processes and environmental conditions, and also practical guidelines for enhancing export success.

I would be most grateful if you could help with my project by completing the questionnaire and returning it in the FREEPOST return envelope provided. I am very aware of the demands on your time and the effort I am asking of you. In a bid to encourage you to respond to my plea and in recognition of your generosity, **I will send you at your request a managerial summary of the study's key findings.**

Furthermore, please let me first assure you that **the information collected will be treated in the strictest confidence.** The data to be published from this survey will appear only in an aggregate form; no individual responses will at any time be made available to anyone other than my supervisors and myself. Please be advised also that the results of this survey will be used for **academic purposes only** and are completely independent of any commercial entity. In addition, **to ensure personal anonymity,** questionnaires, when returned will not bear the name of the individual respondent.

If you have any questions regarding the content of the questionnaire or the research project itself, please do not hesitate to contact me.

In advance, thank you very much for your help; it is invaluable to the success of my project.

Yours sincerely,

Mr Evagelos Korobilis - Magas
Doctoral Candidate in Marketing
Loughborough University Business School

APPENDIX 5.3

REMINDER CARD



I hope that you received my questionnaire on **Export Decision-Making and Performance** more than a week ago. If you have already returned it, I am very grateful. If you have not yet had the chance to complete the questionnaire, I would like to take this opportunity to tell you that I am still very keen to obtain your response, since your opinions will make an important contribution to the quality of this nationwide study. I confirm that all replies are kept strictly confidential. If you did not receive a copy of the questionnaire, or have any questions about this study, please do not hesitate to contact me. I look forward to your response.

Yours sincerely,

Evangelos Korobilis-Magas

Doctoral Candidate in Marketing

Loughborough University Business School, Ashby Road, Loughborough, Leics LE11 3TU
Tel: 01509 223646. Email: e.korobilis-magas@lboro.ac.uk

APPENDIX 5.4

REMINDER COVER LETTER

Evangelos Korobilis - Magas
Doctoral Candidate in Marketing
Loughborough University Business School
Ashby Road, Loughborough
Leicestershire, LE11 3TU
Tel: 01509 223 646
Fax: 01509 223 961
Email: e.korobilis-magas@lboro.ac.uk

Company X
Address XYZ

07 May 2008

Dear ...

I recently asked for your help with a Loughborough University Business School survey of British exporters on export decision-making and performance maximisation. If you have already returned the questionnaire, I would like to apologise for contacting you again and take this opportunity to thank you for your valuable time and effort.

If, on the other hand, you have not yet had the chance to complete the questionnaire, I would be extremely grateful if you could find the time to do so. I am well aware that I am imposing on your busy schedule, but your answers are critical for the accuracy of this research and your participation could really make the difference between success and failure of the study.

Let me quickly remind you what the study is about. I am undertaking a large-scale nationwide study of British exporters. Specifically, I am investigating how British exporters can best capitalise on their export decision-making activities (e.g., collection, dissemination and use of export information, coordination of export and non-export functions, flexibility of export decision-making, managerial learning processes, etc) in the face of a turbulent environment, in order to achieve optimal success (e.g., sales, profits, market share) in export markets. Once analysed, the results will provide clear and practical guidelines for enhancing export success.

I enclose a new questionnaire and a FREEPOST return envelope for your convenience. I am very aware of the demands on your time and the effort I am asking of you, and your potential reluctance to take part. In a bid to encourage you to respond to my plea, and should you wish it, I **will send you a summary of the study's main findings**, in recognition of your generosity in assisting Loughborough University Business School in our research endeavours. Once more, please rest assured that **the information collected will be treated in the strictest confidence**. Only my supervisors (Professor Anne Souchon, Chair of International Marketing, and Dr Belinda Dewsnap, Lecturer in Marketing also at Loughborough University) and I will have access to individual questionnaire responses, and the data to be published from this survey will appear only in an aggregate form (no individual responses will, at any time, be made available to anyone other than Dr Souchon and myself). Also, questionnaires, when returned, will not bear the name of the individual respondent, ensuring personal anonymity.

If you have any questions regarding the content of the questionnaire or the research project itself, please do not hesitate to contact me.

Yours sincerely,

Evangelos Korobilis - Magas
Doctoral Candidate in Marketing
Loughborough University Business School

APPENDIX 5.5

FOLLOW-UP LETTERS

Evangelos Korobilis - Magas
Doctoral Candidate in Marketing
Loughborough University Business School
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Fax: 01509 223 961
Email: e.korobilis-magas@lboro.ac.uk

Company X
Address XYZ
Address XYZ
Address XYZ
Address XYZ

21 May 2008

Dear ...

Please would you help me? I have spent nearly 4 years studying for a PhD in marketing, and the key to my work lies in the questionnaire on export decision-making that I sent you recently. I very much understand that you are under severe time-pressure and reluctant to commit the time to fill it in, and I apologise for contacting you again. Nevertheless, I was hoping you would take into account the importance of this survey to the success of my studies.

In order to complete my PhD, I require 200 responses, and have yet to reach this target. As a result, your response to the questionnaire is crucial. Let me reassure you once more of the confidentiality of all responses and the fact that data is amalgamated so that no individual response can be identified.

I plan to mail you another copy of the questionnaire next week, and would be most grateful if you would agree to complete and return it in the FREEPOST envelope which I will provide. If you have any questions regarding the content of the questionnaire or the research project itself, please do not hesitate to contact me. Thank you very much in advance.

Yours sincerely,

Evangelos Korobilis - Magas
Doctoral Candidate in Marketing
Loughborough University Business School

Evangelos Korobilis - Magas
Doctoral Candidate in Marketing
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Company X
Address XYZ
Address XYZ
Address XYZ
Address XYZ

29 May 2008

Dear ...

Further to my letter dated 21 May 2008, please find enclosed a copy of my questionnaire titled "Export Decision-Making and Performance: A Study of British Exporters". May I take this opportunity to reiterate that your contribution is essential to the success of my doctoral study.

I would be most grateful if you could complete the questionnaire and return it in the FREEPOST return envelope provided. Furthermore, please let me again assure you that **the information collected will be treated in the strictest confidence**. Please be advised also that the results of this survey will be used for **academic purposes only**.

I would like to thank you very much in advance for your help, and, as a minimum expression of my gratitude for your time and effort, I will be sending you a managerial summary of the study's key findings.

Yours sincerely,

Evangelos Korobilis - Magas
Doctoral Candidate in Marketing
Loughborough University Business School

APPENDIX 5.6

ARMSTRONG and OVERTON (1977) TEST RESULTS

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
INCO1	Equal variances assumed	.295	.589	-.376	65	.709	-.117	.311	-.738	.504
	Equal variances not assumed			-.375	63.950	.709	-.117	.311	-.739	.505
INCO2	Equal variances assumed	.602	.440	.158	65	.875	.053	.332	-.611	.716
	Equal variances not assumed			.158	62.449	.875	.053	.333	-.613	.718
INCO3	Equal variances assumed	5.036	.028	.351	65	.726	.119	.340	-.559	.798
	Equal variances not assumed			.353	62.632	.726	.119	.339	-.558	.796
INCO4	Equal variances assumed	.357	.552	-.557	65	.579	-.170	.305	-.780	.440
	Equal variances not assumed			-.556	63.772	.580	-.170	.306	-.781	.441
INCO5	Equal variances assumed	1.985	.164	1.061	65	.293	.386	.364	-.341	1.113
	Equal variances not assumed			1.064	62.840	.291	.386	.363	-.339	1.111
INCO6	Equal variances assumed	1.673	.200	.268	65	.789	.081	.302	-.523	.685
	Equal variances not assumed			.269	63.568	.789	.081	.302	-.521	.684
INCO7	Equal variances assumed	3.143	.081	1.776	65	.080	.628	.354	-.078	1.335
	Equal variances not assumed			1.785	60.037	.079	.628	.352	-.076	1.333
INCO8	Equal variances assumed	.125	.725	-.528	65	.599	-.197	.373	-.942	.548

	Equal variances not assumed			-.527	63.735	.600	-.197	.374	-.944	.550
INCO9	Equal variances assumed	2.686	.106	.018	65	.985	.006	.342	-.676	.689
	Equal variances not assumed			.018	60.763	.986	.006	.343	-.679	.692
INCO10	Equal variances assumed	.035	.853	-.020	65	.984	-.006	.305	-.615	.602
	Equal variances not assumed			-.020	64.958	.984	-.006	.305	-.615	.602
INCO11	Equal variances assumed	1.065	.306	1.132	65	.262	.275	.243	-.210	.761
	Equal variances not assumed			1.138	60.114	.260	.275	.242	-.209	.760
INCO12	Equal variances assumed	1.532	.220	1.368	65	.176	.402	.294	-.185	.989
	Equal variances not assumed			1.371	64.112	.175	.402	.293	-.184	.988
INCO13	Equal variances assumed	4.881	.031	.695	65	.490	.230	.331	-.431	.891
	Equal variances not assumed			.699	58.305	.487	.230	.329	-.429	.888
INCO14	Equal variances assumed	.804	.373	-.184	65	.855	-.064	.349	-.761	.632
	Equal variances not assumed			-.184	63.448	.854	-.064	.348	-.759	.631
INCO15	Equal variances assumed	.195	.660	1.778	65	.080	.608	.342	-.075	1.291
	Equal variances not assumed			1.780	64.817	.080	.608	.341	-.074	1.290
INCO16	Equal variances assumed	.796	.376	1.342	65	.184	.566	.422	-.276	1.408
	Equal variances not assumed			1.340	63.723	.185	.566	.422	-.278	1.410
AFF1	Equal variances assumed	.250	.619	-.651	65	.517	-.245	.376	-.995	.506
	Equal variances not assumed			-.650	63.816	.518	-.245	.376	-.997	.508

AFF2	Equal variances assumed	1.965	.166	-.734	65	.466	-.267	.363	-.993	.459
	Equal variances not assumed			-.732	62.531	.467	-.267	.364	-.995	.462
AFF3	Equal variances assumed	.112	.739	-	65	.236	-.492	.411	-1.313	.329
	Equal variances not assumed			1.197	64.514	.235	-.492	.410	-1.312	.328
AFF4	Equal variances assumed	.560	.457	-	65	.049	-.737	.368	-1.472	-.002
	Equal variances not assumed			2.003	63.622	.049	-.737	.367	-1.470	-.004
AFF5	Equal variances assumed	.903	.346	-.640	65	.525	-.251	.393	-1.035	.533
	Equal variances not assumed			-.639	64.221	.525	-.251	.393	-1.037	.534
NU1	Equal variances assumed	.617	.435	.253	65	.801	.090	.357	-.623	.803
	Equal variances not assumed			.253	64.715	.801	.090	.357	-.622	.802
NU2	Equal variances assumed	.014	.905	.203	65	.840	.072	.353	-.634	.778
	Equal variances not assumed			.203	64.983	.840	.072	.353	-.634	.778
NU3	Equal variances assumed	1.933	.169	.433	65	.666	.154	.355	-.555	.862
	Equal variances not assumed			.434	64.006	.666	.154	.354	-.554	.861
NU4	Equal variances assumed	.104	.748	.070	65	.945	.024	.347	-.669	.717
	Equal variances not assumed			.070	64.960	.945	.024	.347	-.669	.717
NU5	Equal variances assumed	3.772	.056	.221	65	.826	.075	.341	-.605	.756
	Equal variances not assumed			.220	61.441	.826	.075	.342	-.608	.759
LEG1	Equal variances assumed	.067	.796	.438	65	.663	.152	.348	-.542	.846

	Equal variances not assumed			.439	64.901	.662	.152	.347	-.541	.846
LEG2	Equal variances assumed	2.829	.097	-.230	65	.819	-.080	.348	-.774	.614
	Equal variances not assumed			-.229	63.465	.819	-.080	.348	-.776	.616
LEG3	Equal variances assumed	.490	.487	-.672	65	.504	-.278	.414	-1.105	.548
	Equal variances not assumed			-.674	63.798	.503	-.278	.413	-1.103	.547
LEG4	Equal variances assumed	.016	.898	-.315	65	.754	-.122	.387	-.895	.651
	Equal variances not assumed			-.315	64.961	.754	-.122	.387	-.895	.651
LEG5	Equal variances assumed	.510	.478	-.482	65	.631	-.161	.335	-.829	.507
	Equal variances not assumed			-.481	63.925	.632	-.161	.335	-.831	.508
LEG6	Equal variances assumed	3.348	.072	-.419	65	.676	-.139	.333	-.803	.525
	Equal variances not assumed			-.421	62.655	.676	-.139	.331	-.802	.523
LEG7	Equal variances assumed	.003	.956	-	65	.317	-.387	.384	-1.153	.380
	Equal variances not assumed			1.007	64.998	.317	-.387	.384	-1.153	.380
HAP1	Equal variances assumed	1.726	.194	-.124	65	.902	-.047	.378	-.802	.708
	Equal variances not assumed			-.124	63.952	.902	-.047	.379	-.803	.710
HAP2	Equal variances assumed	.243	.623	-	65	.218	-.402	.323	-1.047	.243
	Equal variances not assumed			1.244	65.000	.218	-.402	.323	-1.047	.243
HAP3	Equal variances assumed	.015	.904	-.623	65	.536	-.217	.348	-.912	.479
	Equal variances not assumed			-.624	64.666	.535	-.217	.348	-.911	.478

HAP4	Equal variances assumed	.381	.539	-.530	65	.598	-.189	.356	-.900	.522
	Equal variances not assumed			-.529	62.556	.599	-.189	.357	-.902	.525
HAP5	Equal variances assumed	.220	.641	-.460	65	.647	-.171	.371	-.911	.570
	Equal variances not assumed			-.460	64.947	.647	-.171	.371	-.911	.570
SOC1	Equal variances assumed	.007	.933	-.933	65	.354	-.360	.386	-1.131	.411
	Equal variances not assumed			-.935	64.062	.353	-.360	.385	-1.129	.409
SOC2	Equal variances assumed	3.851	.054	.255	65	.800	.091	.356	-.621	.802
	Equal variances not assumed			.254	58.758	.801	.091	.358	-.625	.807
SOC3	Equal variances assumed	.219	.641	-.582	65	.562	-.234	.401	-1.035	.568
	Equal variances not assumed			-.583	64.434	.562	-.234	.401	-1.034	.567
SOC4	Equal variances assumed	.014	.905	-	65	.016	-.929	.374	-1.677	-.182
	Equal variances not assumed			2.483	64.983	.016	-.929	.374	-1.676	-.182
SOC5	Equal variances assumed	.169	.682	-	65	.051	-.753	.379	-1.510	.004
	Equal variances not assumed			1.987	64.971	.051	-.753	.379	-1.509	.003
VAL1	Equal variances assumed	2.456	.122	-	65	.094	-.583	.343	-1.267	.101
	Equal variances not assumed			1.701	64.286	.093	-.583	.342	-1.266	.100
D1	Equal variances assumed	.087	.768	-.769	65	.445	-.278	.362	-1.000	.444
	Equal variances not assumed			-.770	64.800	.444	-.278	.361	-.999	.443
D2	Equal variances assumed	.159	.692	.163	65	.871	.067	.410	-.752	.886

	Equal variances not assumed			.164	64.748	.871	.067	.409	-.751	.885
D3	Equal variances assumed	.057	.812	-.162	65	.872	-.052	.320	-.690	.586
	Equal variances not assumed			-.162	64.951	.872	-.052	.319	-.689	.586
D4	Equal variances assumed	1.058	.307	-.494	65	.623	-.172	.349	-.869	.524
	Equal variances not assumed			-.495	63.831	.622	-.172	.348	-.867	.523
D5	Equal variances assumed	.163	.687	-.138	65	.891	-.051	.370	-.789	.687
	Equal variances not assumed			-.138	64.808	.891	-.051	.370	-.789	.687
D6	Equal variances assumed	.245	.622	-.886	65	.379	-.341	.385	-1.110	.428
	Equal variances not assumed			-.885	64.648	.379	-.341	.385	-1.111	.429
LPS1	Equal variances assumed	.206	.652	-	65	.160	-.591	.416	-1.422	.239
	Equal variances not assumed			1.422	64.909	.159	-.591	.415	-1.421	.238
LPS2	Equal variances assumed	.007	.933	-	65	.160	-.600	.421	-1.441	.242
	Equal variances not assumed			1.423	64.553	.159	-.600	.421	-1.440	.241
LPS3	Equal variances assumed	.206	.651	-	65	.242	-.428	.363	-1.153	.297
	Equal variances not assumed			1.180	64.973	.242	-.428	.363	-1.153	.296
LPS4	Equal variances assumed	.761	.386	-	65	.107	-.558	.341	-1.239	.123
	Equal variances not assumed			1.637	64.799	.107	-.558	.341	-1.239	.123
LPS5	Equal variances assumed	3.148	.081	-	65	.172	-.491	.355	-1.201	.219
	Equal variances not assumed			1.382	63.579	.173	-.491	.356	-1.202	.220

EPS1	Equal variances assumed	.092	.762	- 65 2.422	.018	-.850	.351	-1.551	-.149
	Equal variances not assumed			- 64.70 2.421 0	.018	-.850	.351	-1.552	-.149
EPS2	Equal variances assumed	.000	.985	- 65 1.037	.303	-.392	.378	-1.146	.362
	Equal variances not assumed			- 64.92 1.038 1	.303	-.392	.377	-1.145	.362
EPS3	Equal variances assumed	1.162	.285	- 65 1.034	.305	-.373	.361	-1.094	.348
	Equal variances not assumed			- 64.91 1.034 6	.305	-.373	.361	-1.094	.348
EPS4	Equal variances assumed	.297	.588	-.210 65	.834	-.080	.381	-.841	.681
	Equal variances not assumed			-.211 64.41 4	.834	-.080	.380	-.840	.679
EPS5	Equal variances assumed	.126	.723	.046 65	.963	.016	.343	-.670	.702
	Equal variances not assumed			.047 64.57 6	.963	.016	.343	-.669	.701
DQ1	Equal variances assumed	.990	.324	2.037 65	.046	.607	.298	.012	1.202
	Equal variances not assumed			2.045 62.04 0	.045	.607	.297	.014	1.200
DQ2	Equal variances assumed	.051	.822	1.439 65	.155	.496	.345	-.193	1.185
	Equal variances not assumed			1.438 64.78 8	.155	.496	.345	-.193	1.186
DQ3	Equal variances assumed	.414	.522	1.113 65	.270	.337	.303	-.268	.941
	Equal variances not assumed			1.115 64.69 7	.269	.337	.302	-.267	.941
DQ4	Equal variances assumed	.265	.609	.522 65	.603	.157	.300	-.443	.757
	Equal variances not assumed			.522 64.84 0	.604	.157	.301	-.443	.757
DQ5	Equal variances assumed	.002	.961	-.069 65	.945	-.022	.322	-.665	.620

	Equal variances not assumed			-.069	64.625	.945	-.022	.322	-.665	.621
DQ6	Equal variances assumed	.094	.760	.553	65	.582	.176	.319	-.461	.814
	Equal variances not assumed			.553	64.976	.582	.176	.319	-.461	.814
DQ7	Equal variances assumed	.002	.966	1.306	65	.196	.417	.319	-.221	1.055
	Equal variances not assumed			1.306	64.921	.196	.417	.319	-.221	1.055
DQ8	Equal variances assumed	2.608	.111	.322	65	.748	.102	.318	-.533	.738
	Equal variances not assumed			.323	61.830	.748	.102	.317	-.531	.736
DQ9	Equal variances assumed	1.686	.199	1.254	65	.214	.410	.327	-.243	1.063
	Equal variances not assumed			1.257	63.885	.213	.410	.326	-.242	1.062
DQ10	Equal variances assumed	.436	.512	.370	65	.713	.116	.313	-.510	.741
	Equal variances not assumed			.371	63.860	.712	.116	.312	-.508	.740
SIZE	Equal variances assumed	.470	.496	-.198	65	.844	-.069	.347	-.762	.625
	Equal variances not assumed			-.198	63.861	.844	-.069	.348	-.763	.626

APPENDIX 6.1

HARMAN'S ONE-FACTOR TEST

Component Matrix^a

	Component		
	1	2	3
LEG	.731		
NONUSE		.596	.578
AFF	.632		
DIST	.470	.627	
EPS	.712		
LPS	.772		
HAP		.581	
DQ		-.620	.568
PERFORMANCE		-.431	.629

Extraction Method: Principal Component Analysis.

a. 3 components extracted.

Rotated Component Matrix^a

	Component		
	1	2	3
LEG	.686		
NONUSE		.795	
AFF	.645		
DIST		.667	
EPS	.784		
LPS	.829		
HAP		.760	
DQ			.817
PERFORMANCE			.777

Extraction Method: Principal Component Analysis.

Rotation Method: Varimax with Kaiser

Normalization.

a. Rotation converged in 4 iterations.

Rotated Component Matrix^a

	Component		
	1	2	3
LEG	.686		
NONUSE		.795	
AFF	.645		
DIST		.667	
EPS	.784		
LPS	.829		
HAP		.760	
DQ			.817
PERFORMANCE			.777

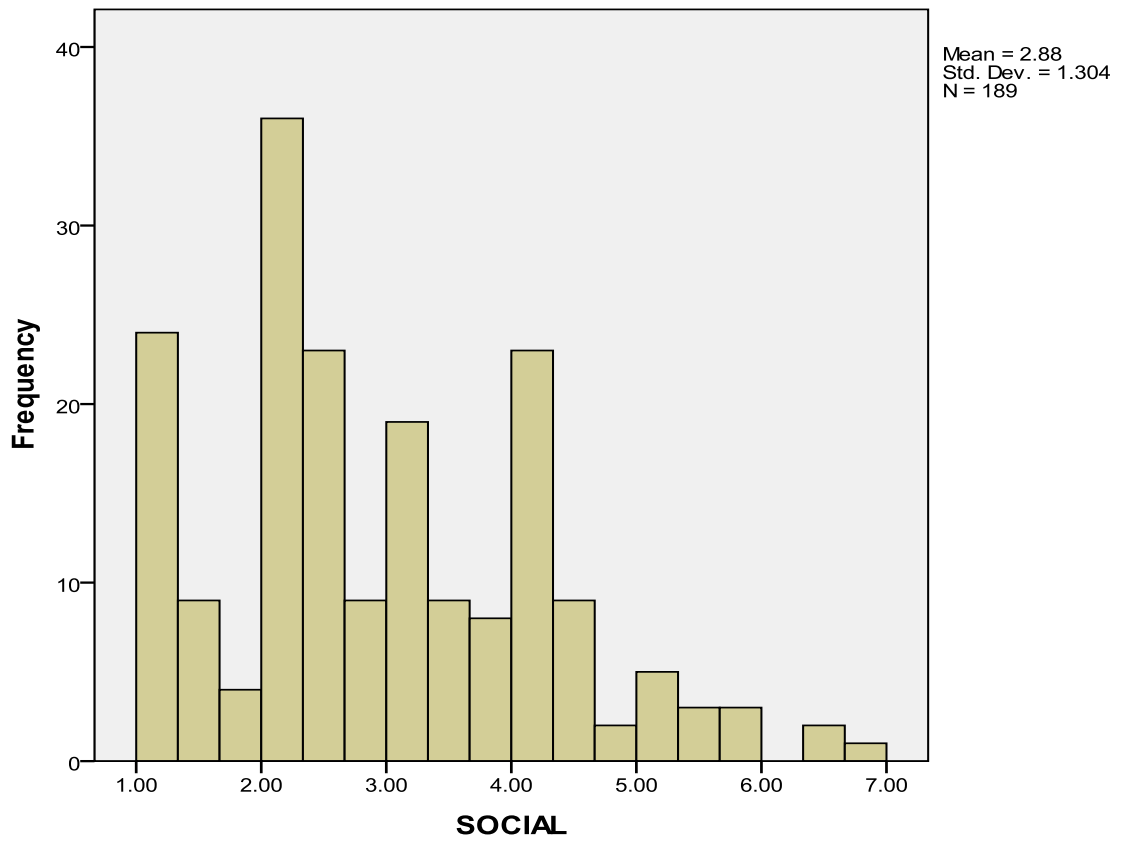
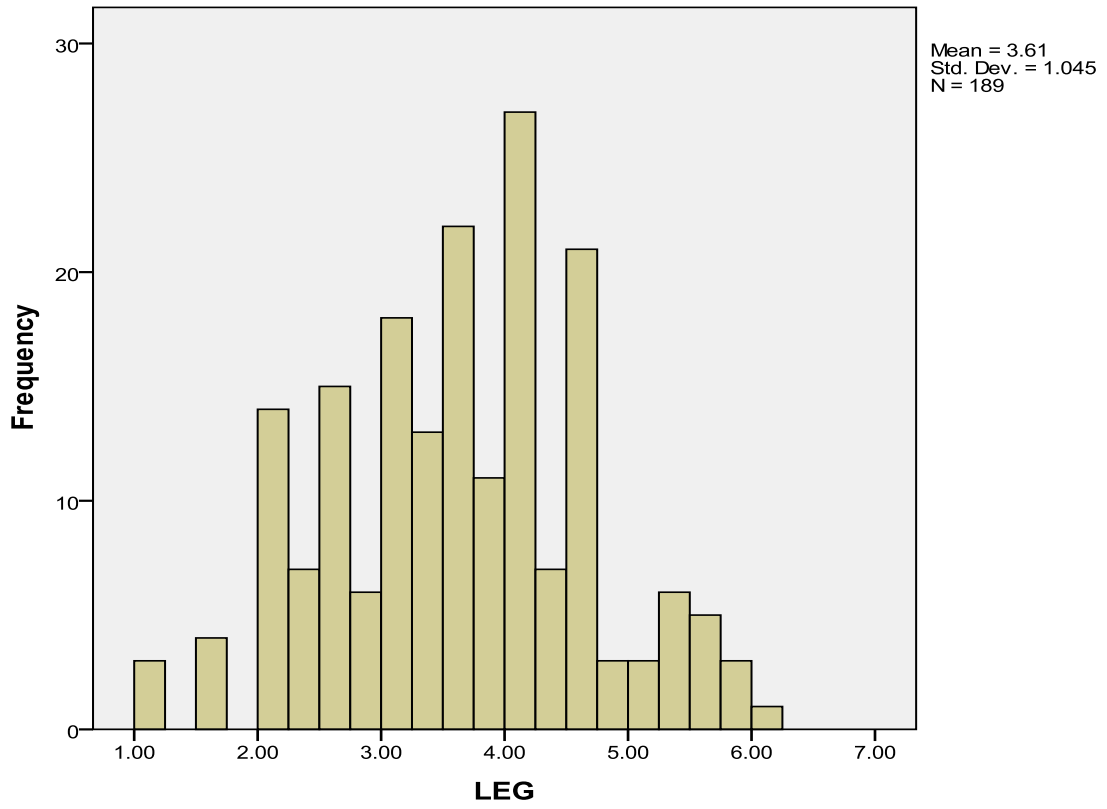
Extraction Method: Principal Component Analysis.

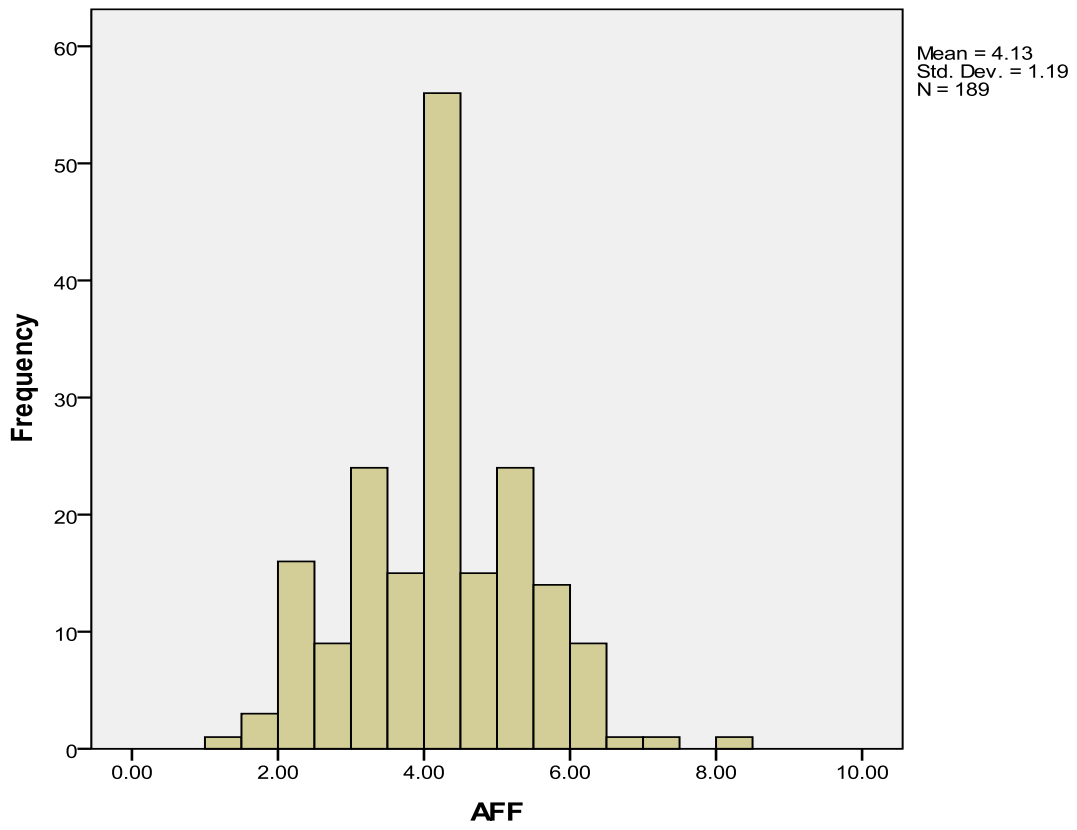
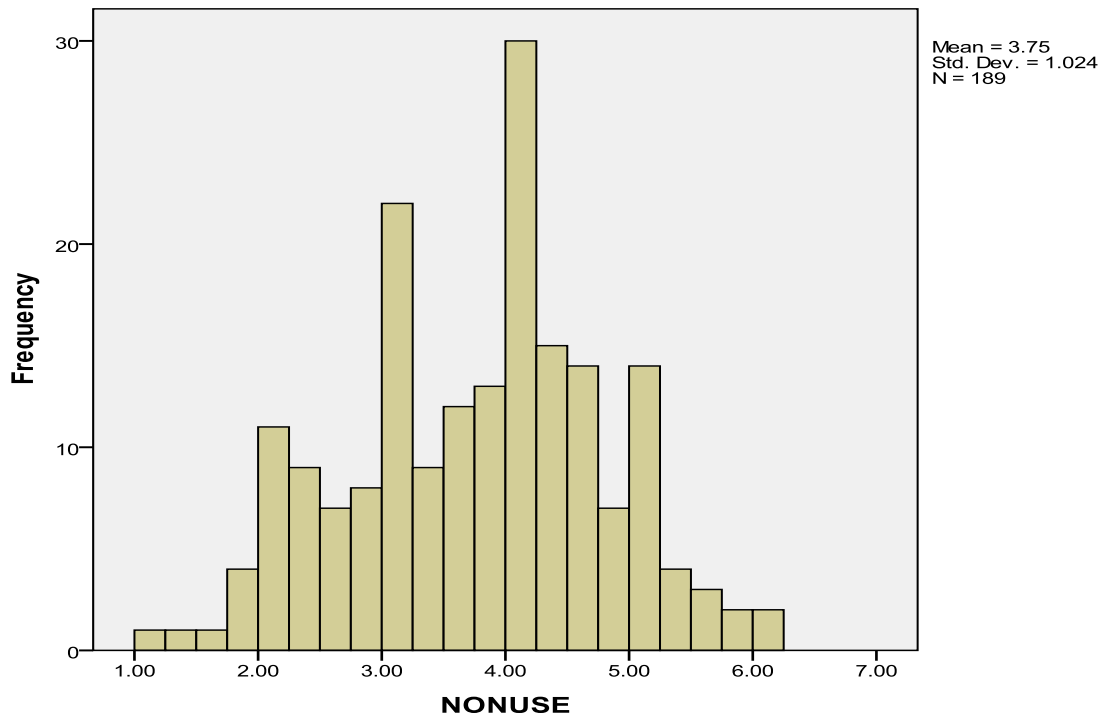
Rotation Method: Varimax with Kaiser

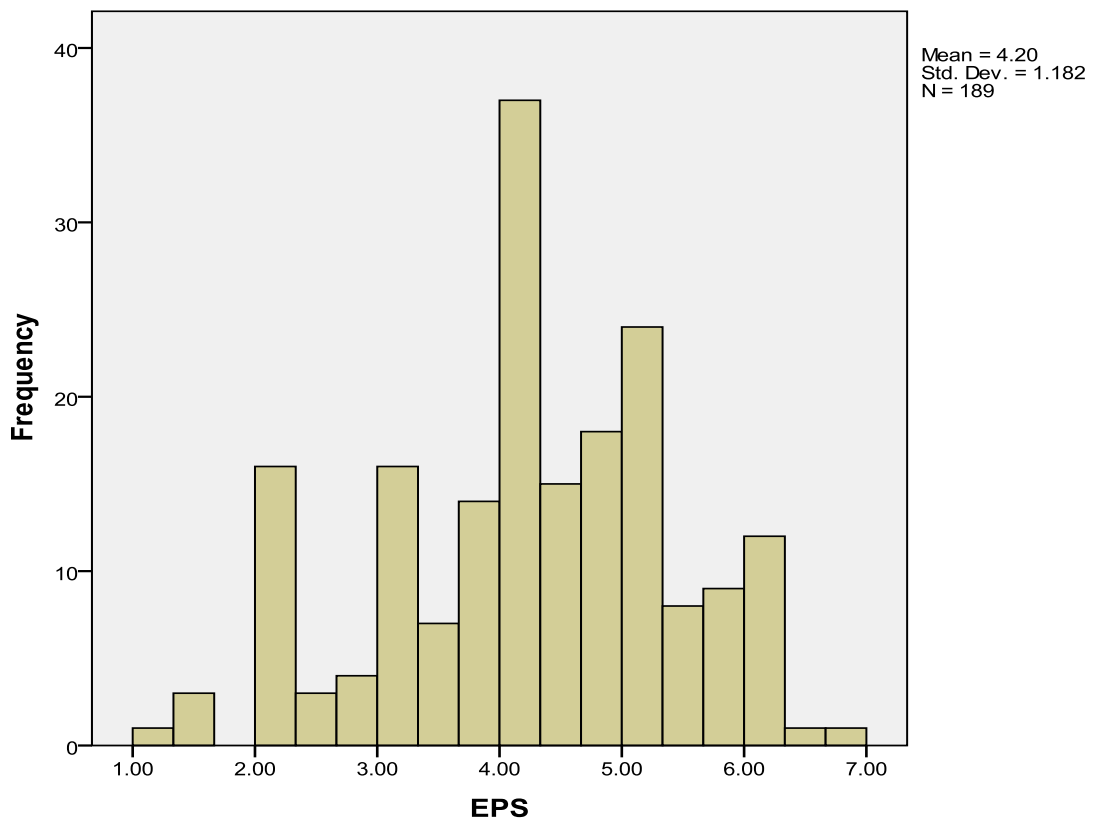
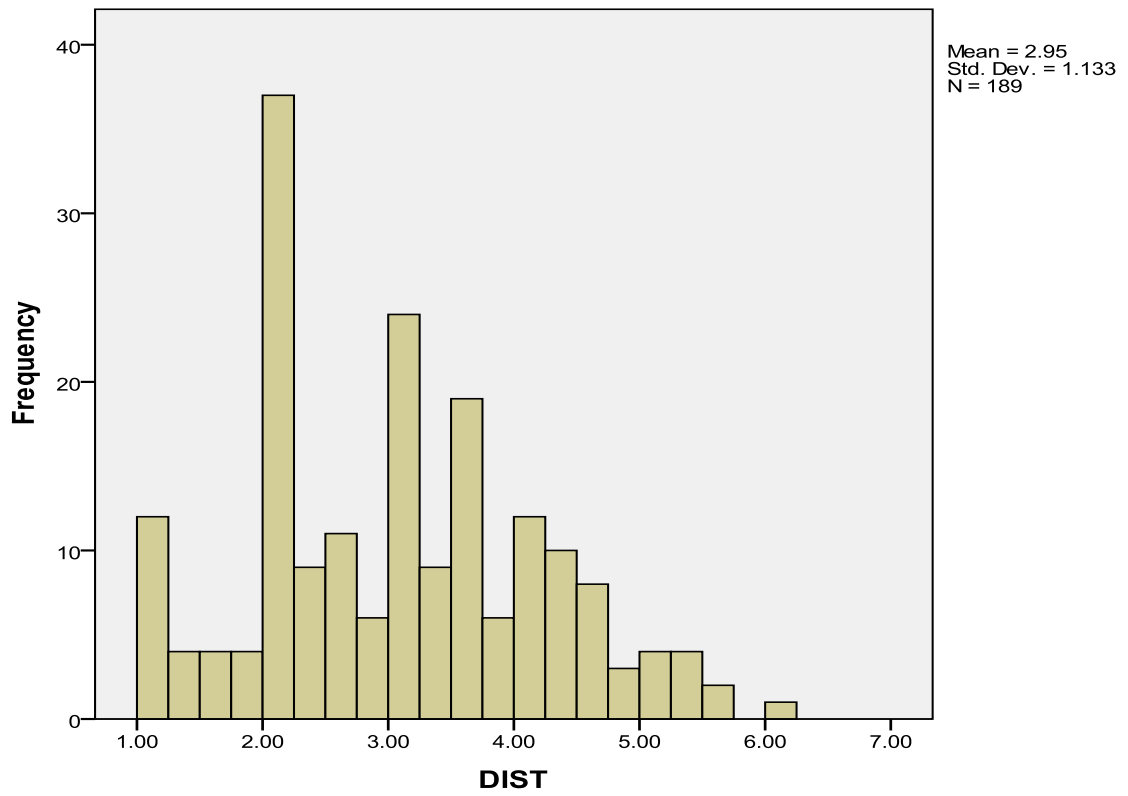
Normalization.

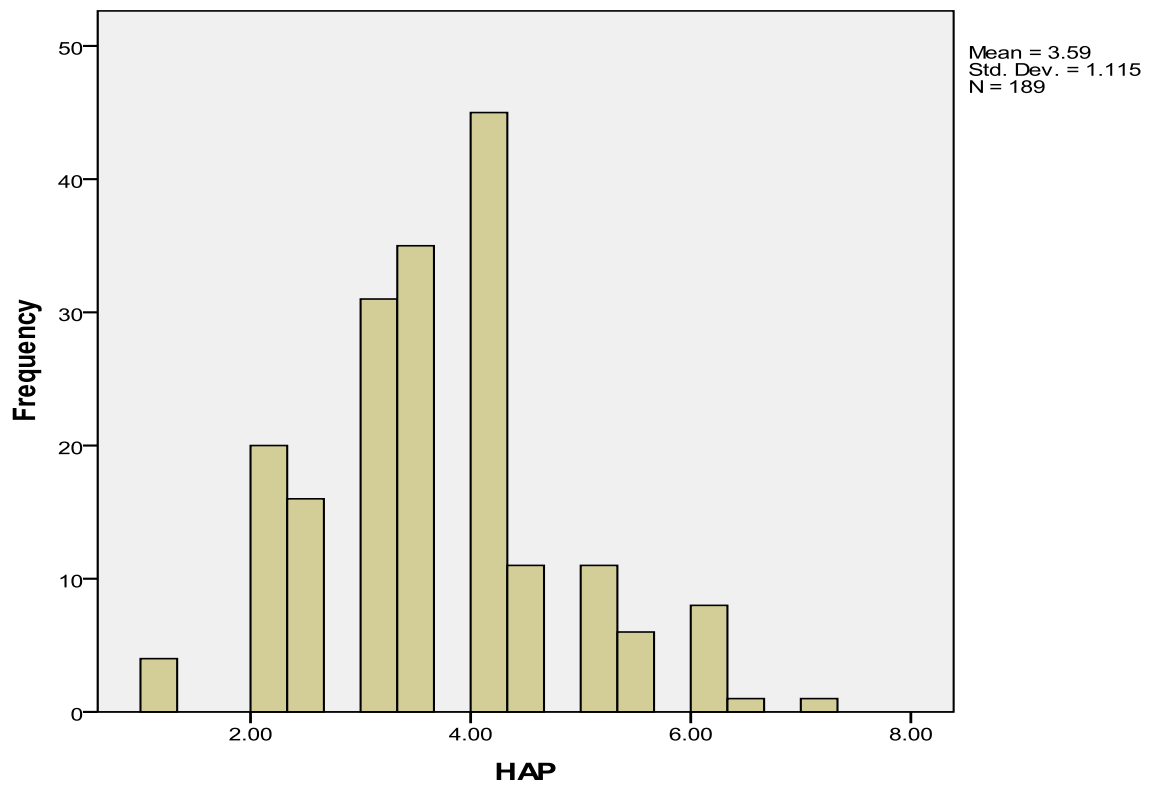
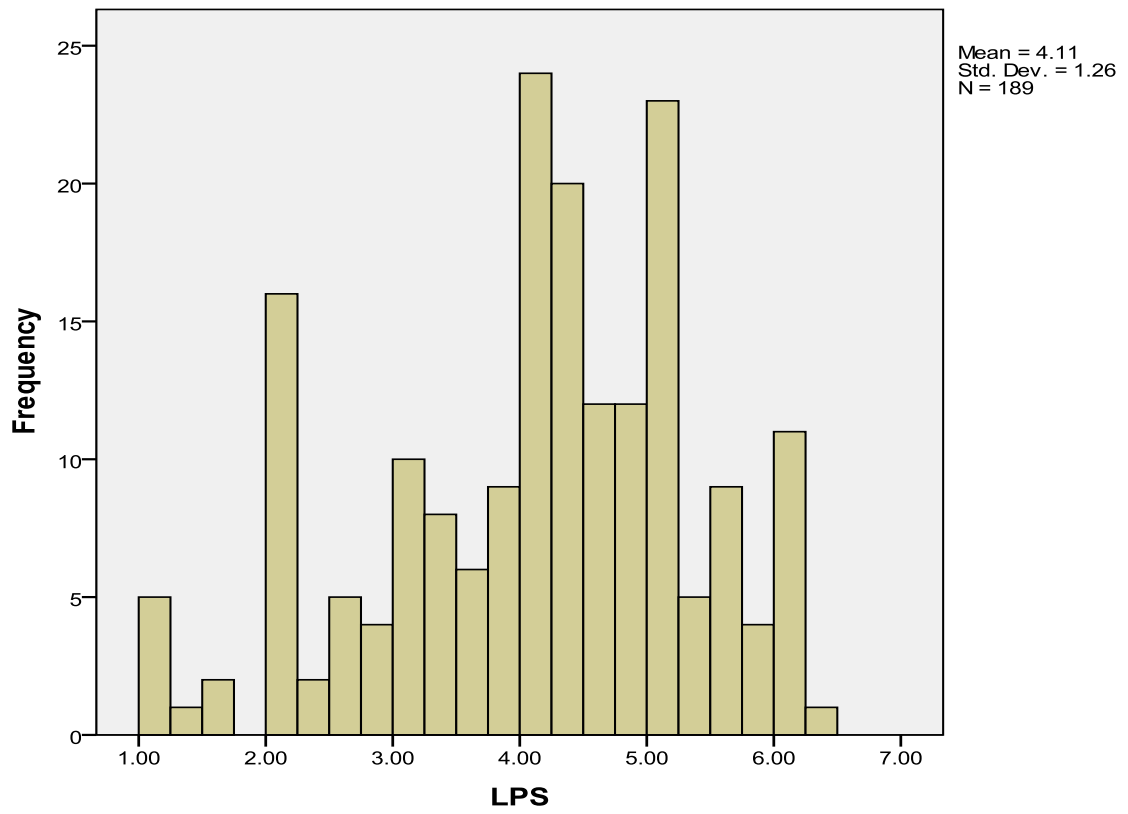
APPENDIX 6.2

HISTOGRAMS AND BASIC DESCRIPTIVE STATISTICS FOR SYMBOLIC USE DIMENSIONS



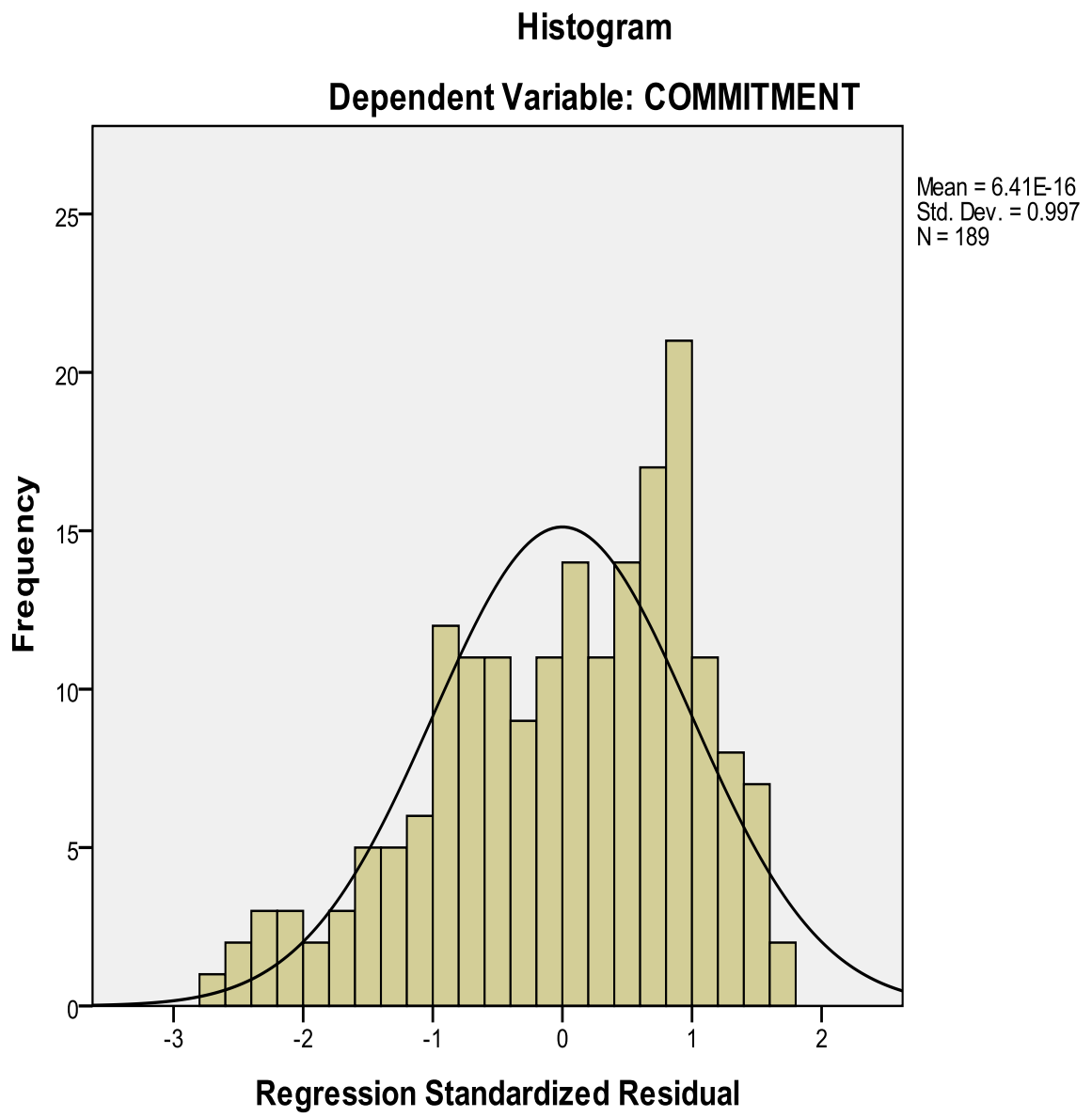




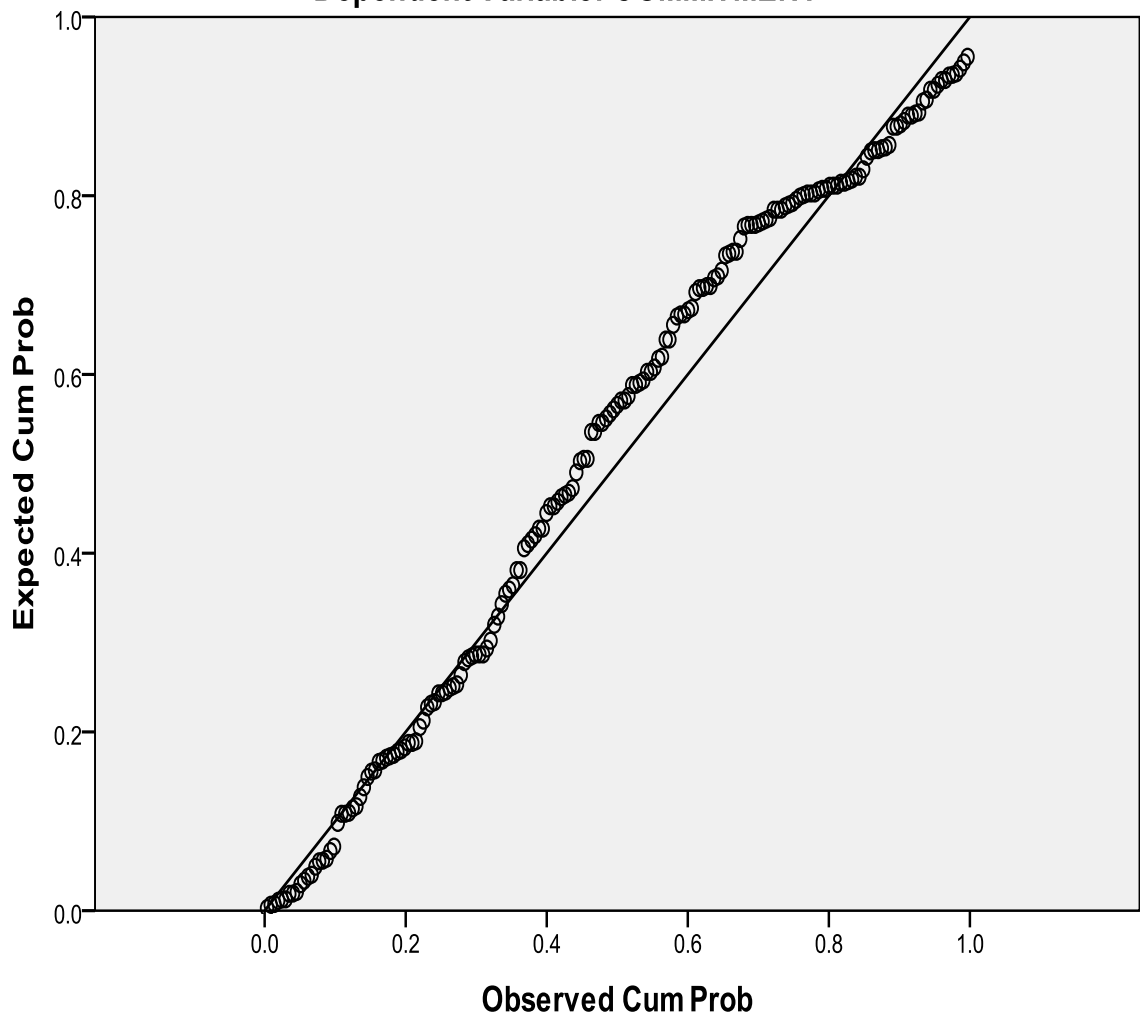


APPENDIX 7

RESIDUAL PLOTS FOR REGRESSIONS

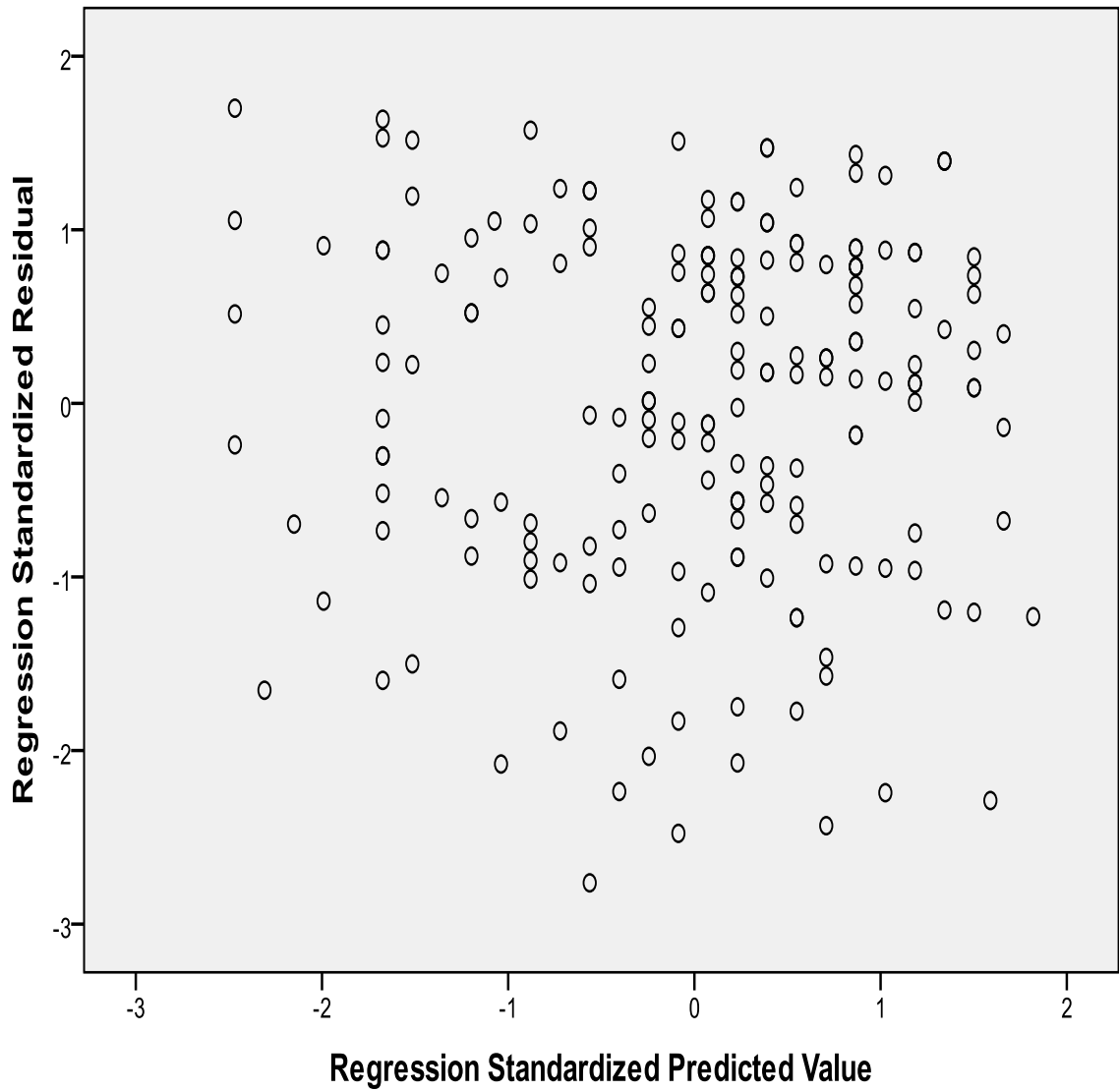


Normal P-P Plot of Regression Standardized Residual
Dependent Variable: COMMITMENT



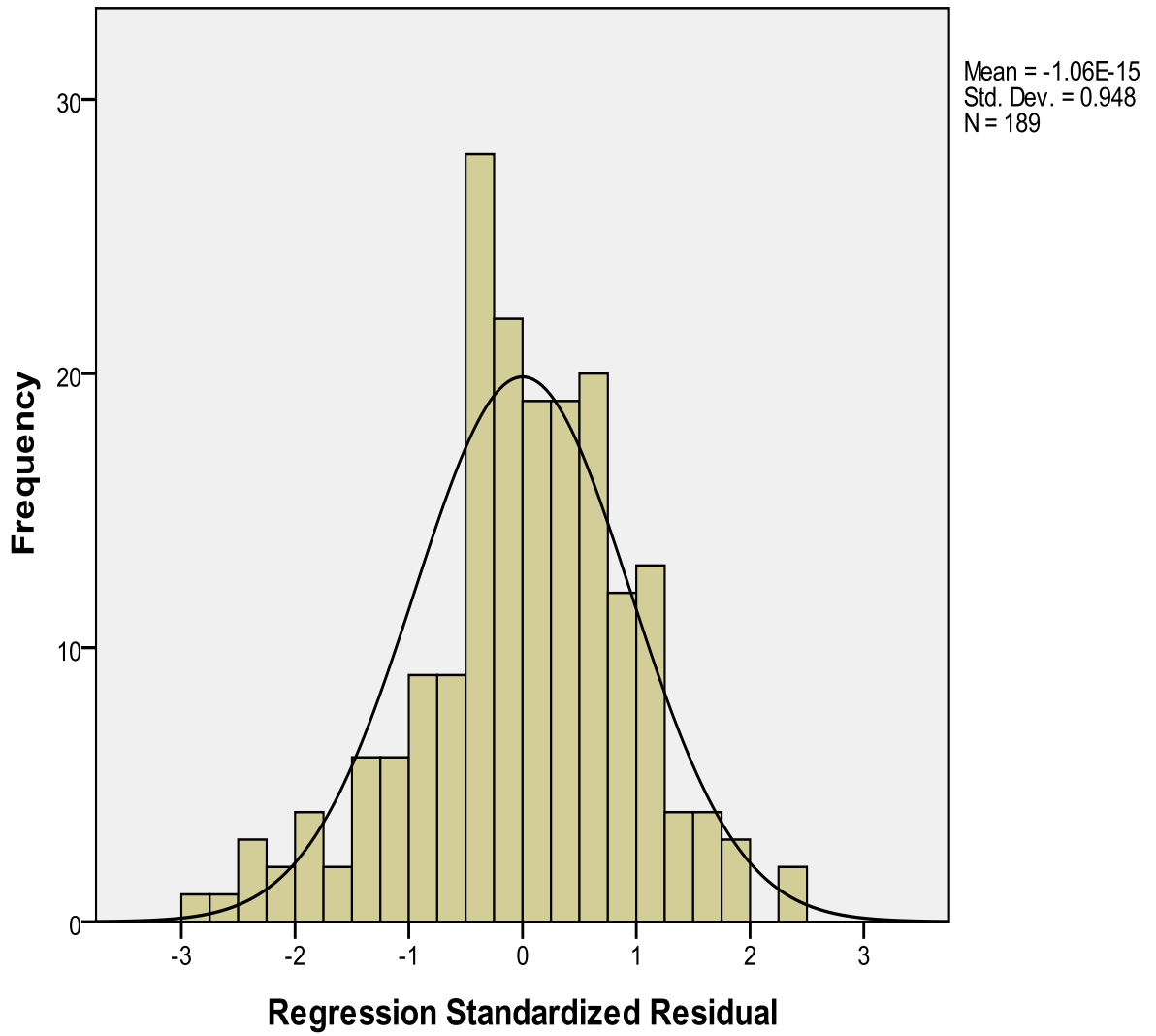
Scatterplot

Dependent Variable: COMMITMENT



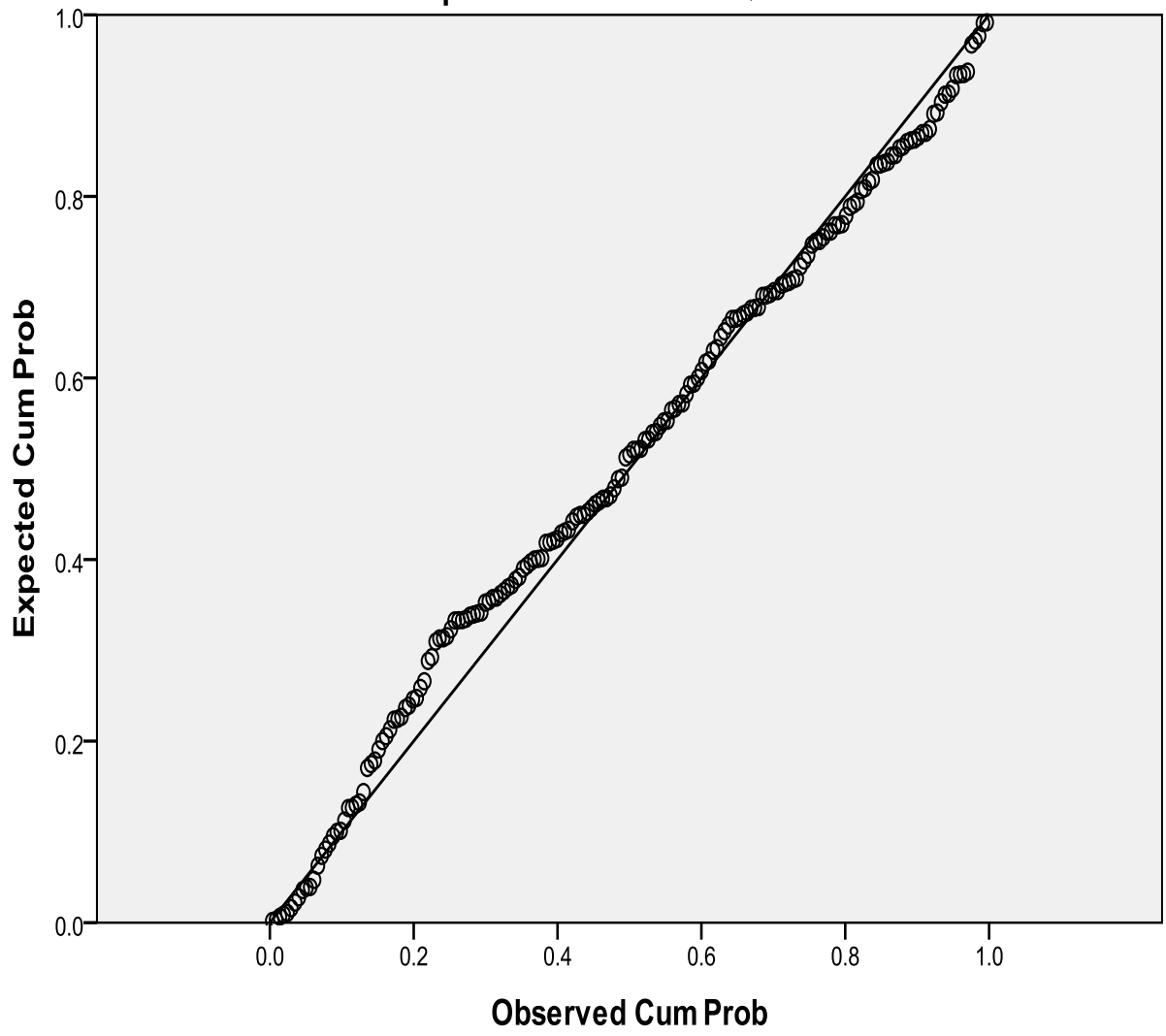
Histogram

Dependent Variable: DQ



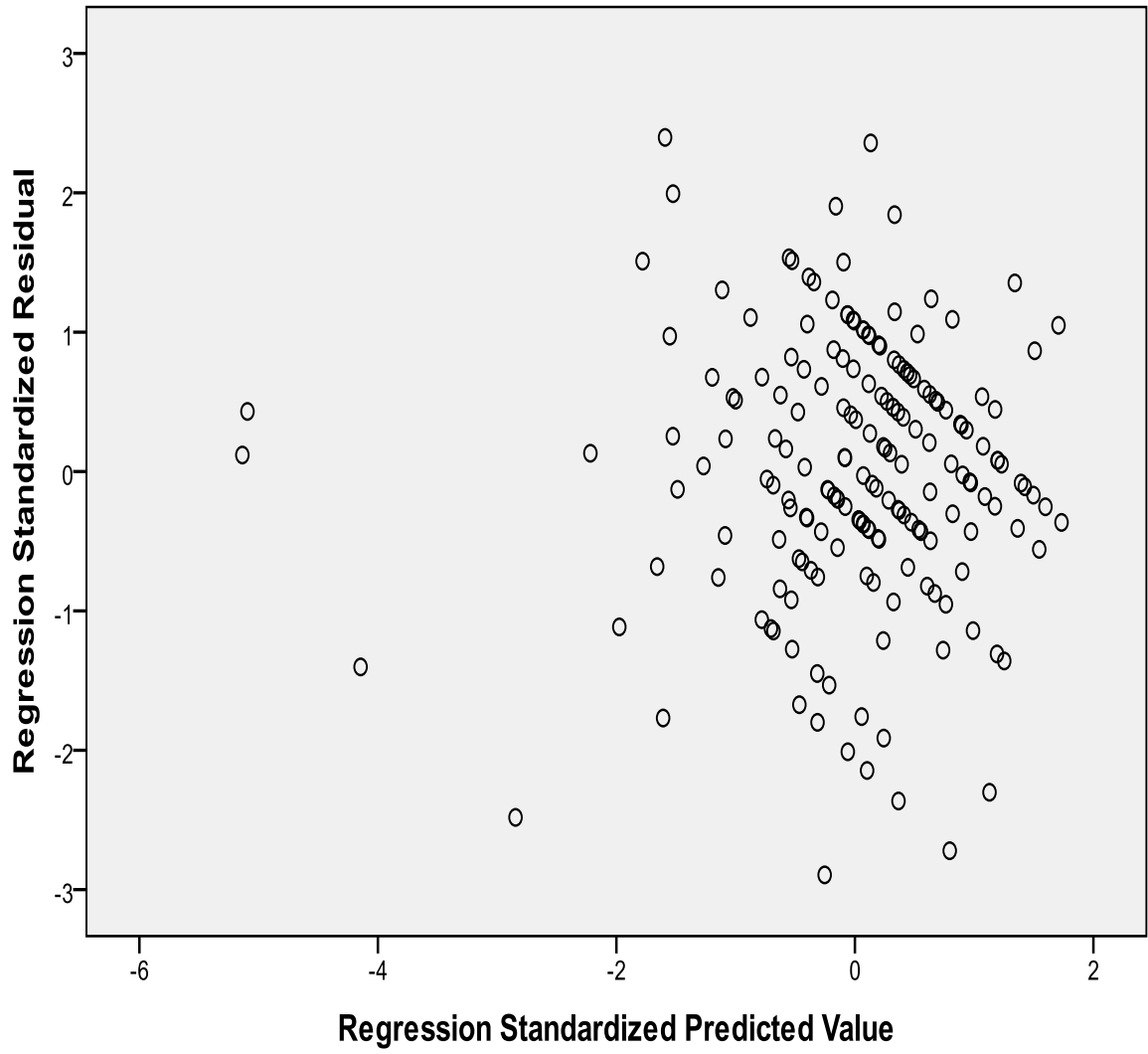
Normal P-P Plot of Regression Standardized Residual

Dependent Variable: DQ



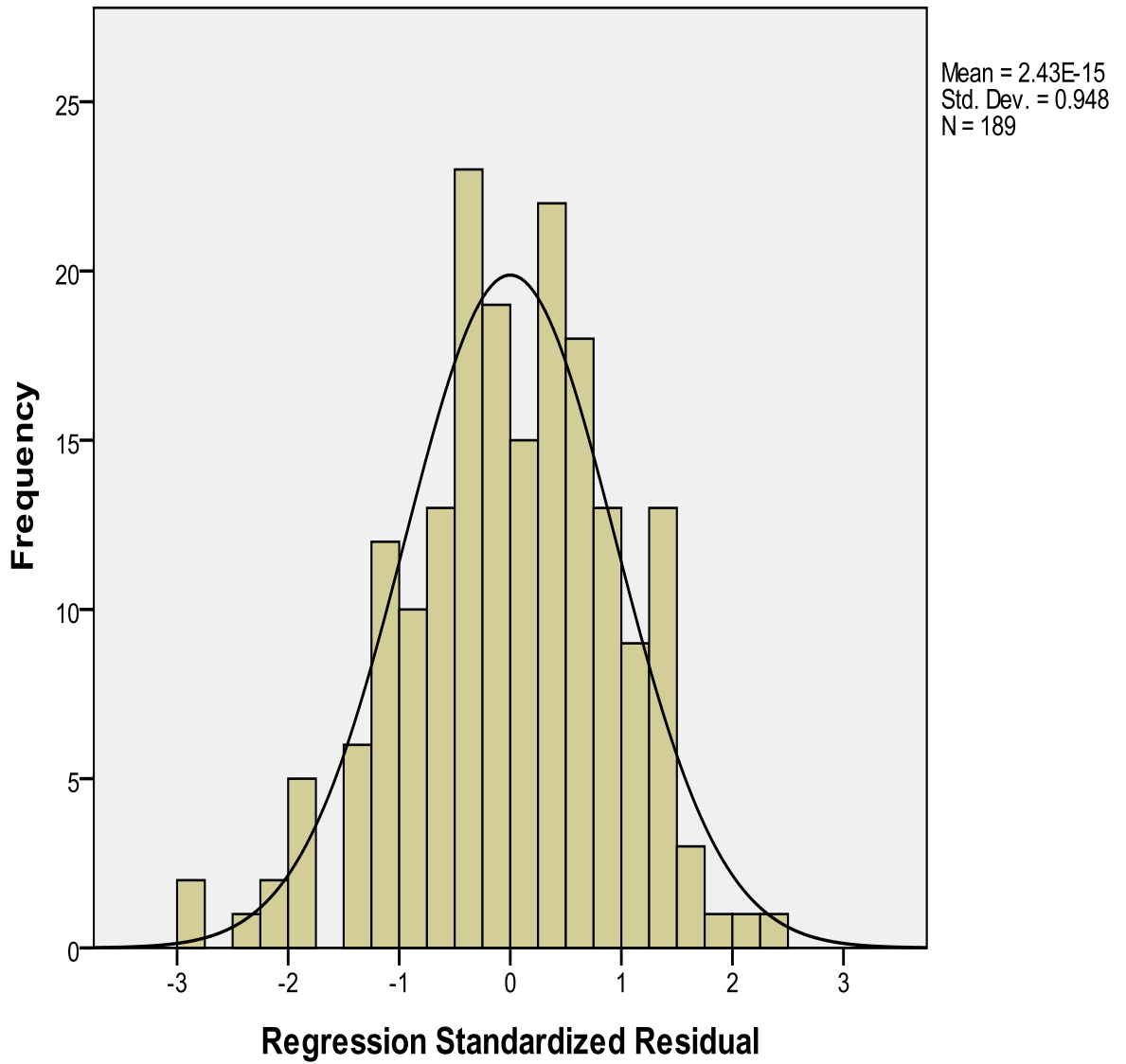
Scatterplot

Dependent Variable: DQ



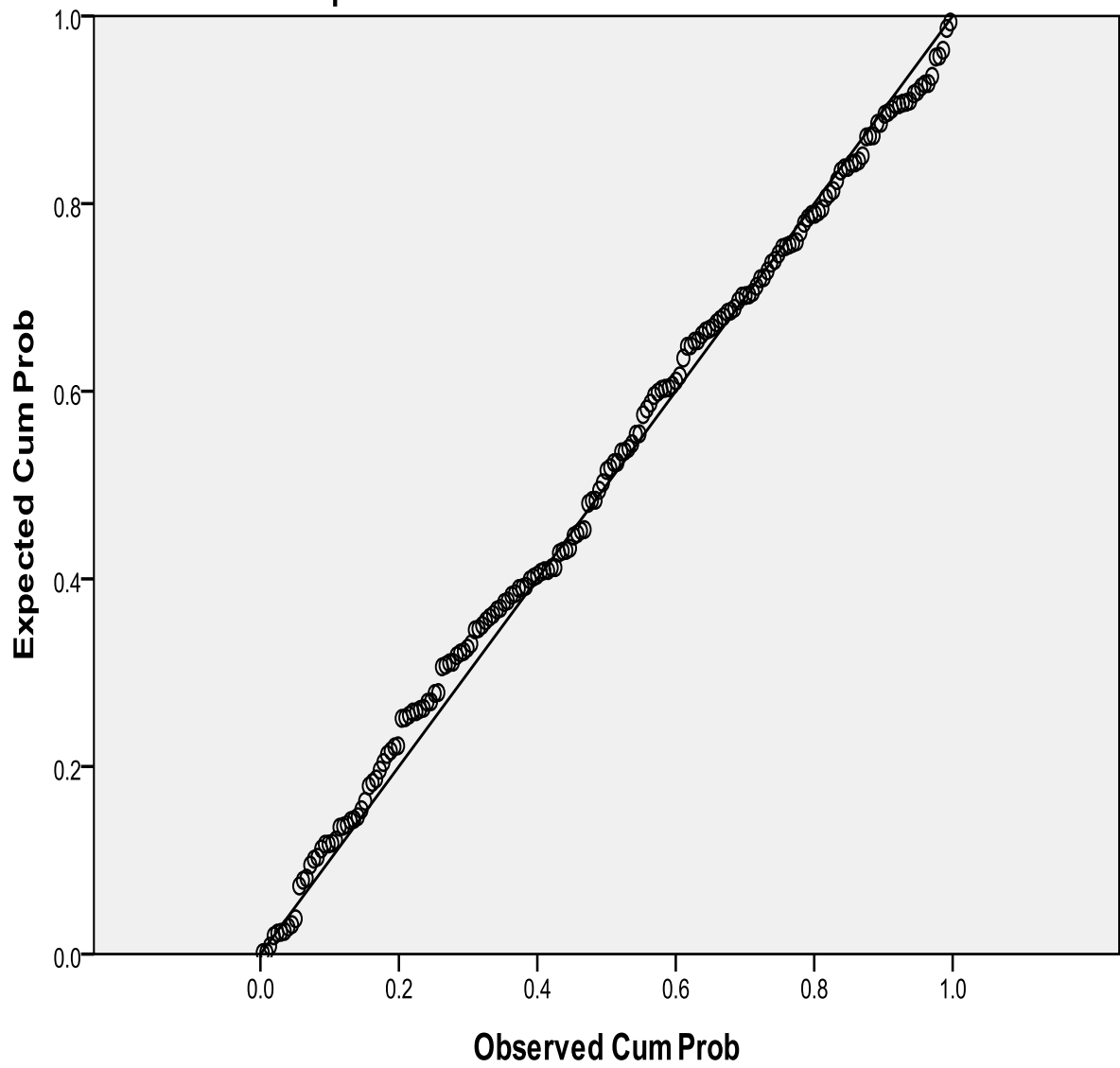
Histogram

Dependent Variable: PERFORMANCE



Normal P-P Plot of Regression Standardized Residual

Dependent Variable: PERFORMANCE



Scatterplot

Dependent Variable: PERFORMANCE

