

**CRANFIELD UNIVERSITY**

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**Sustained Monopolistic Business Relationships:  
A UK Defence Procurement Case**

**SCHOOL OF MANAGEMENT**

**PhD THESIS**



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**ANDREW S HUMPHRIES**

**Sustained Monopolistic Business Relationships:  
A UK Defence Procurement Case**

**Supervisor: Dr Richard Wilding**

**August 2003**

**This thesis is submitted in fulfilment of the requirements  
for the degree of Doctor of Philosophy**

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## Acknowledgements

This thesis represents for me a monumental achievement. Not only was it undertaken as a part-time activity in parallel with a busy 'day job' but, it also involved taking first steps in the hitherto unfamiliar domain of Academia. I do not make this introduction as a means of seeking approbation but, I believe the quality of my endeavour reflects even more conspicuously on those who have supported and guided me. These include my supervisor, Richard Wilding and my review team John Towriss, Moira Clark and Colin Pilbeam who provided the essential 'touch on the tiller' that kept me pointed in the right direction. I also wish to thank Kim James and the Cranfield School of Management faculty who organised an excellent Research Methodology Course and the superb group of individuals who constituted the PhD Year of 99 who gave me so much inspiration and fun. I am indebted to the Library for a service second-to-none and especially to Anita Beal, to whom no request for literature or information was ever too much trouble. I could not have carried out such an extensive research project without the support and sponsorship of a number of key individuals within the UK Defence Logistics Organisation who gave me open access to its Defence Procurement activities. I am extremely grateful to them. Last but not means least, I offer my sincere thanks to my wife Patricia, for her forbearance.

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## Declaration

I declare that I am the sole author of this work and that it has not been submitted for any other award. All sources of published information have been acknowledged in the text by the use of references.

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## Abstract

Business-to-business relationships within sustained monopolies, such as those within Defence Procurement, have received limited attention by Management Researchers. This is unusual because under these market circumstances typically there appear to be few incentives to achieve mutually beneficial outcomes despite their strategic policy importance. The purpose of this thesis is therefore, to determine the influential relationship factors between the UK Ministry of Defence and its Industrial partners within a predominantly monopolistic Defence Procurement business.

The approach adopted for this research project is exploratory and inter-subject area. It uses quantitative and supportive qualitative data to examine the problem through an economic model using Supply Chain Management, Relationship Marketing and Transaction Cost Economics. A self-selected census of 54 business relationships is carried out from both the buyer and supplier perspectives through staff questionnaires and team leader semi-structured interviews.

The findings from this research show, contrary to the expectation of the theoretical model, a positive relationship success situation with a spectrum of both positive and negative behavioural factors present. However, a significant adversarial influence is a suite of issues that are endemic to the business in question such as old products, obsolescence, staff and organisational upheavals, poor end-customer visibility and lack of investment in modern procedures and systems. Within the monopoly environment these accentuate managers' frustrations due to lack of freedom of action. The primary contribution of this research is therefore, an increased understanding of the business-to-business relationship dynamics within long-term,

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closely coupled, collaborative, business-to-business arrangements as exemplified by UK Defence and the results are likely to be of interest to both academics and managers.

# Chapter 1

## Introduction

### 1 Outline

This chapter, whose structure is shown in Figure 1.1, lays the foundations for the thesis. It first introduces the research by means of an overview of the project. Next the background is provided which sets the business environmental scene and describes the main actors. The business problem, the research question and supporting hypotheses are then rehearsed. The research is then justified, definitions are presented and the methodology is briefly described and justified. Finally, the thesis is outlined and its scope is specified.

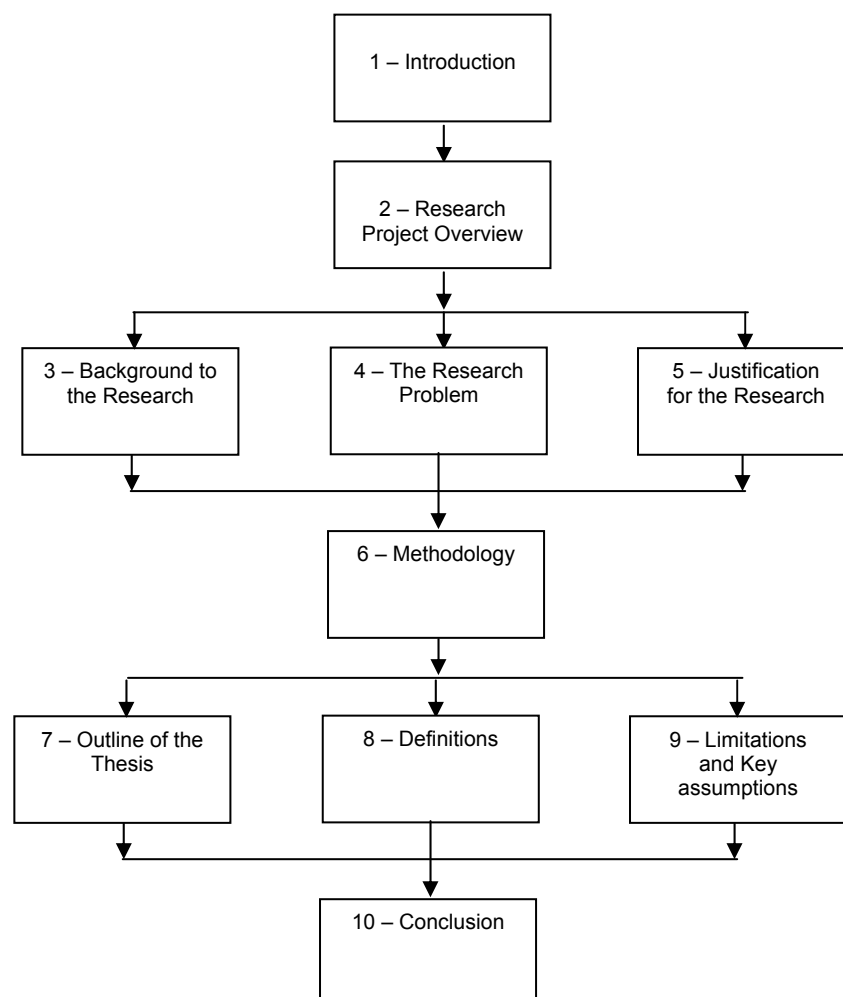


Figure 1.1. Chapter 1 Structure

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## 2 Research Project Overview

This thesis addresses an under-researched area of business-to-business relationships, namely that which exists where one or both parties has a monopoly of supply or demand (Fishwick, 1993). Many theories of buyer-seller relationships have discussed in general terms the concept of structural bonds and opportunism, but not adequately applied them to the extreme situation of monopoly buyer and monopoly seller relationships (Humphries & Wilding, 2004).

The thesis first summarises the difficulties faced by the UK Ministry of Defence (UK MoD) and its major industrial suppliers in moving away from traditional, adversarial relationships whilst facing increasingly monopolistic business dealings. The literatures covering the relational aspects of Supply Chain Management (SCM - the business area), Relationship Marketing (RM - business relationship variables) and Transaction Cost Economics (TCE - business exchange factors) are examined but, although they offer considerable knowledge and guidance to managers on competitive and limited small numbers markets, there is much less research in the region of sustained monopolistic business of the type found within UK Defence Procurement. The Organisations Failure Framework (Williamson, 1975) is selected from a number of options as the theoretical lens through which to view the problem. It provides a very clear affinity to monopolistic market failure situations and is therefore appropriate to the business problem and moreover, is amenable to support the descriptive features of the literature fields. This is a radically different approach that combines two or more subject areas with the aim of producing an outcome that is more than the sum of the parts (Starkey & Madan, 2001). An exploratory research programme, which uses a combination of quantitative and qualitative method within a selected part of the UK Ministry of Defence (UK MoD) Procurement organisation, is

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justified and the pattern of results is then analysed. As expected, negative relational features are found and are explained. However, positive relationship features from SCM, RM and TCE are also revealed. The thesis concludes that these findings offer an extension to knowledge about business dynamics within long term collaborative relationships of the specific type found within UK Defence Procurement, which is of interest to academics and of practical use to managers. Finally a number of opportunities for further research are identified.

The next Section introduces the background to the research.

---

### **3 Background to the Research**

At the beginning of this thesis it is essential to provide some background information about the UK Defence Procurement business environment, the 2 sides: the UK MoD and the Defence industries. This Section therefore describes their recent history, organisation, policies and their current relationship situation and unless otherwise indicated, the information has been drawn from the UK MoD website ([www.mod.uk/business/](http://www.mod.uk/business/), 2002).

#### **3.1 UK Defence Procurement**

To set the scene, the ending of the Cold War in 1989 after a 40 year arms race allowed the UK Government (in concert with other Western governments) to refocus its Defence expenditure to less costly, low intensity operations and to reap 'peace dividends' from reduced support costs. Thus between 1985 and 2000 the percentage of GDP spent on defence dropped from 5.1% to 2.5% and the spending on equipment reduced by over 40% in real terms (DASA, 2001). This situation began a radical change in the UK Defence Procurement business, which arguably is still in progress to this day (Humphries & Wilding, 2000).

#### **3.2 The UK MoD Position**

In reaction to the loss of planning and budget stability of the Cold War period the UK MoD organisation has been driven by operational, financial and political pressures to become smaller, flatter and more flexible by using out-sourcing, rationalisation, redundancies and stock reduction programmes (Cm 4446, 1999). It has formed new organisations, the Defence Procurement Agency to manage the procurement of new weapon systems and the Defence Logistics Organisation to support the weapon systems being used by the front line forces. These initiatives, together with the key policies, which underpin UK Defence Procurement today, are described below.



### 3.2.1 The Defence Logistics Organisation (DLO)

The DLO is the UK MoD body responsible for providing logistic support to the UK's Armed Forces. The DLO is the single largest organisations in the UK MoD, with an annual spend of over £4 billion and £22 billion worth of assets spread across some 88 major UK sites. It employs 43,000 staff (over 75% of the UK MoD's Civil Servants) and consists primarily of five major Business Units each providing specialist logistics for Air, Sea, Land, Communications and Defence Supply Chain (e.g. warehousing, distribution, fuel, munitions, postal and food). Its organisation structure is shown in Figure 1.2.

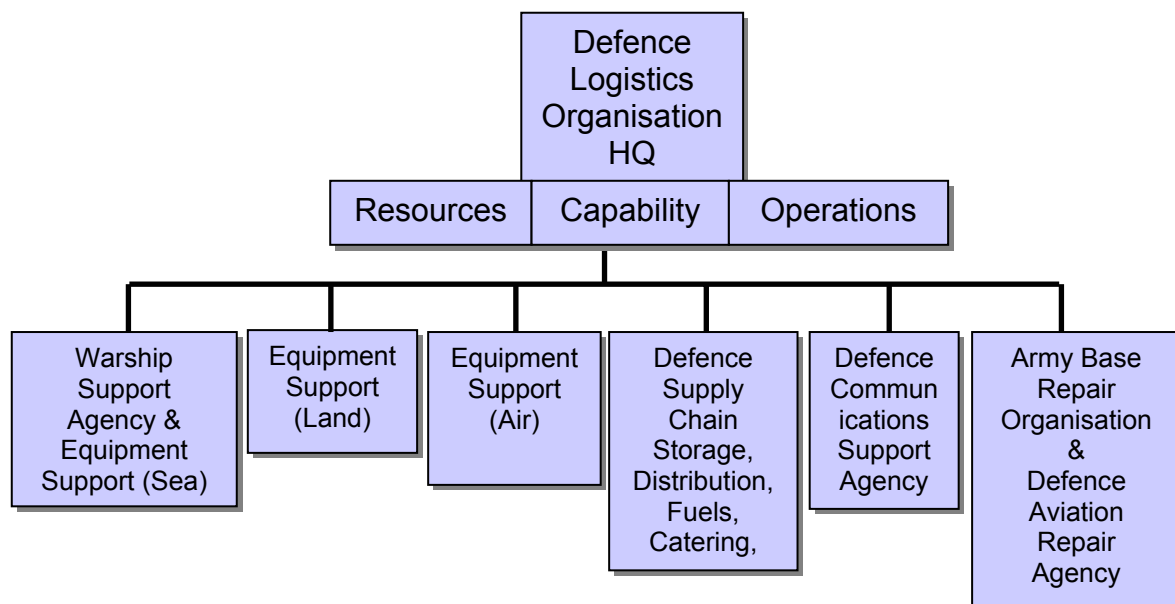


Figure 1.2. The Defence Logistics Organisation

An example Business Unit organisation structure is shown in Figure 1.3.

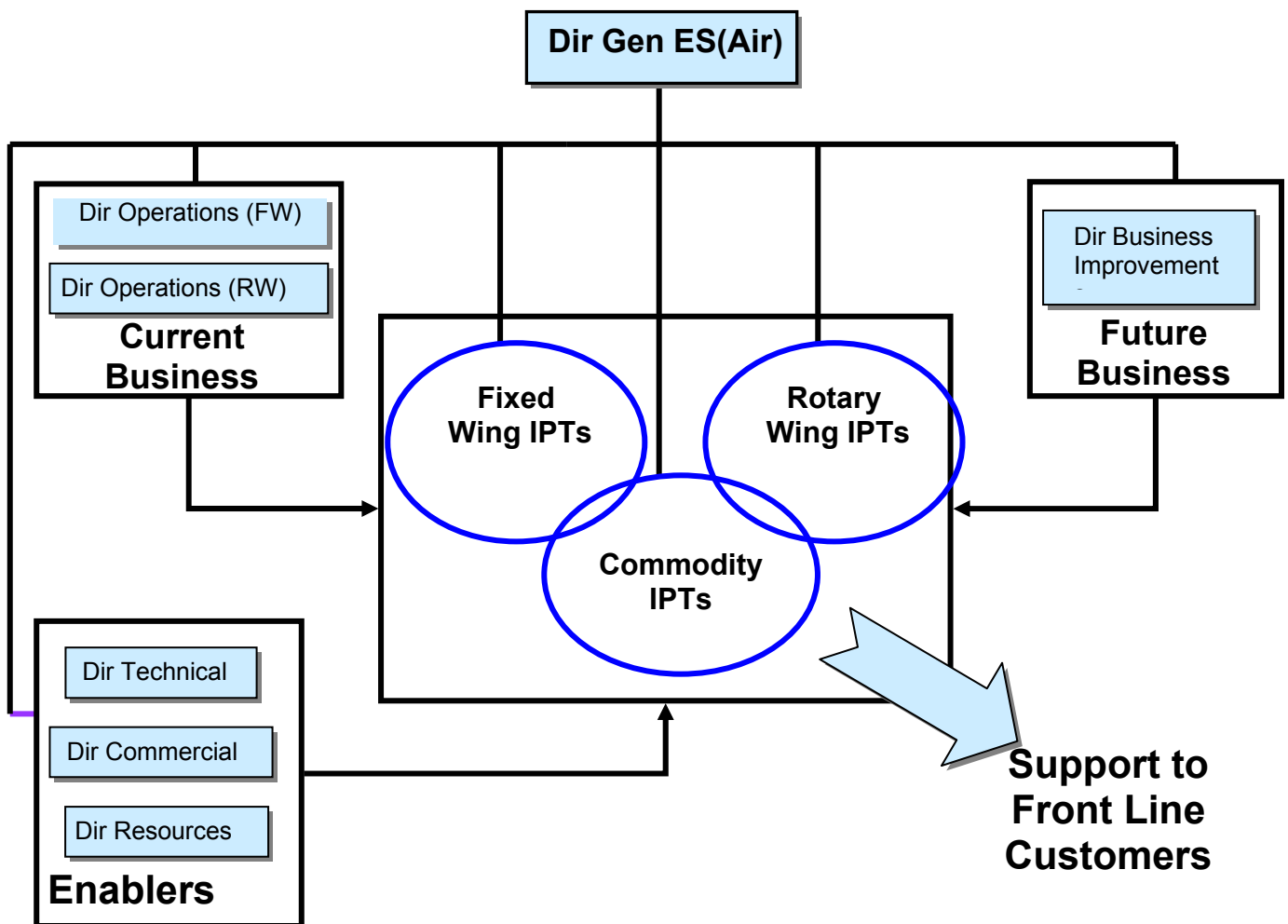


Figure 1.3. Air Business Unit Organisation

Many of these staff (24,800) work in 55 Integrated Project Teams (IPTs) (Sea – 18, Land – 11, Air – 19, Communications – 7) delivering support on individual pieces of equipment such as ships and aircraft. Each IPT is comprised of a multi-disciplinary group of staff comprising engineering, supply chain, commercial, finance, and industry personnel.

An example IPT organisation is shown in Figure 1.4.

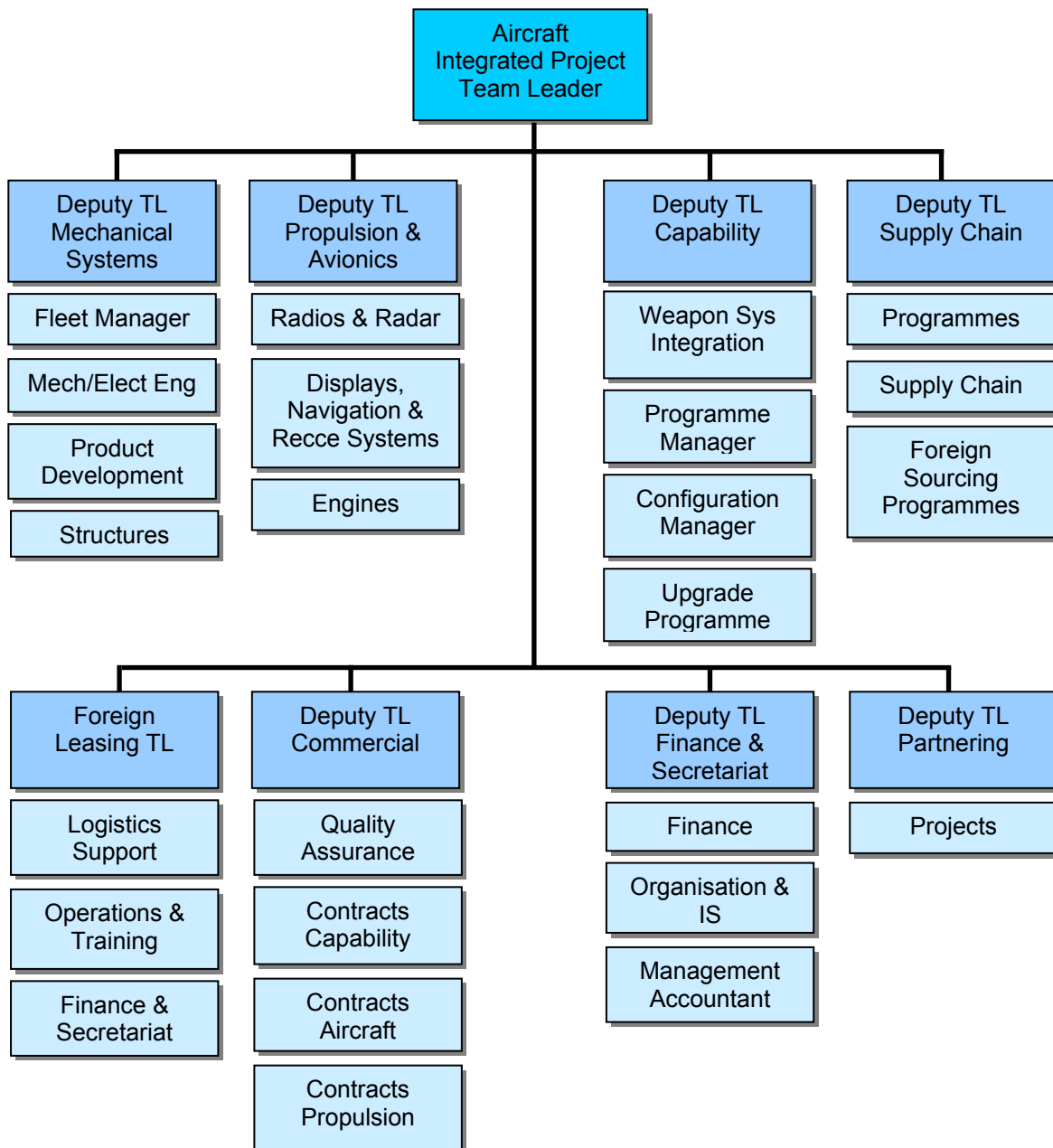


Figure 1.4. An Example Aircraft IPT Organisation

The DLO replaced the original Navy, Army and Royal Air Force logistics organisation and was established to implement efficiencies including reducing output costs by 20% by 2005 whilst ensuring that it continued to deliver and, indeed where appropriate, improve the quality of outputs. These savings were essential to ensure the availability of adequate funding required to maintain modern, capable front-line forces into the future. To make these savings needed an urgent step change in

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performance, which depended upon partnering with its main industrial suppliers to reduce costs and increase equipment reliability. In order to illustrate the DLO's intentions and beliefs with regard to internal process and external relationships improvement, the organisation's strategic objectives are listed below:

- We will provide training to develop the skills, competences and behaviour needed to deliver the transformation required and to enable everyone to realise their full potential.
- We will create a single Defence inventory, sharing information with our suppliers, and we will shorten and rationalise our supply chain.
- We will transform our relationship with industry to engage them more effectively in delivering support to our Armed Forces.
- We will reduce both the volume and value of stock held and ensure that all of our assets are exploited fully.
- We will make radical improvements to engineering support, particularly in repair and maintenance, to ensure both private sector suppliers and in-house agencies provide more complete and higher quality services.
- We will aggressively exploit the potential of e-business, which will be key to our business transformation programme.
- We will rigorously examine all parts of the DLO against the principle of achieving maximum integration of process and capacity across the organisation in order to remove overlap and duplication.

### **3.2.2 The Defence Procurement Agency (DPA)**

The 2<sup>nd</sup> key organisation within Defence Procurement is the Defence Procurement Agency (DPA) which is based at Abbey Wood in north Bristol. It was launched on 1 April 1999 as an Executive Agency of the UK MoD, replacing the UK MoD

Procurement Executive. With the mission 'to equip the Armed Forces' it aims to buy equipment and related services for the Armed Forces that meets their requirements and timescales, while achieving the best value for money for tax-payers. The DPA's objectives are to:

- buy weapons systems and platforms and manage major upgrades
- deliver projects within defined performance, time and cost bands
- provide certain procurement-related services, guidance and standards
- participate in the UK's military nuclear programmes.

With an annual budget of £6 billion, the DPA is the single biggest purchaser of manufactured goods in the UK. Its 4,300 staff are brigaded into 70 project teams managing 1,000 projects and more than 13,000 contracts. Approximately 14% of staff are military, the rest are civilian and there are over 1800 Engineers and Scientists. Its organisation structure is shown in Figure 1.5.

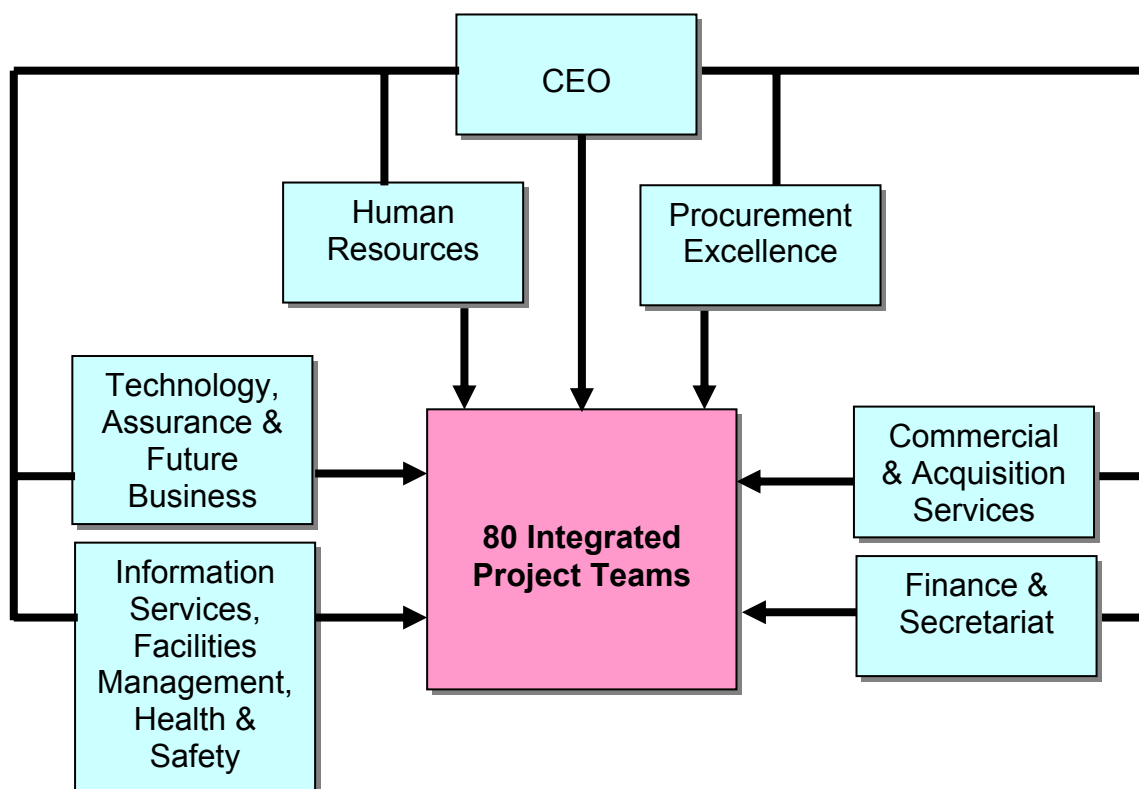


Figure 1.5. The Defence Procurement Agency

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For the financial year 2000/2001 the DPA delivered new equipment to the Armed Forces valued at over £3.5 billion, which included the Hercules C130J transport aircraft, the Apache Attack Helicopter and the Merlin HC Mark 3 Support Helicopter. 59 projects have individual values over £400 million (@ 1 Jan 2002) and the biggest project is Eurofighter. The DPA's vision is: 'to excel in delivering equipment to the Armed Forces by meeting our promises to our customers and developing the excellence of our people.'

### **3.2.3 UK Defence Procurement Policies**

UK Defence Procurement has developed and aggressively implemented a number of important policies to enable a more streamlined approach to the way it manages its relationships with industry. These are explained below.

Firstly, although it is increasingly difficult to achieve in practice – see sub-Section 3.3, *competition* is fundamental to achieving value for money and is used wherever possible. It is important not simply to accept the cheapest bid, but that which provides the best overall value for money, taking account of all the relevant factors. The entire life of a piece of equipment is considered, because support costs over its lifetime can far exceed the cost of acquiring it. Competition usually results in keen offers, but taut contract terms are required to ensure that value is delivered. Where possible, a single prime contractor is selected and, with the aid of clear specifications, made responsible for delivering a complete system, which meets the requirement. Firm (i.e. cash) or fixed prices (i.e. varying with inflation or other indices) are used wherever possible to ensure that the contractor carries financial risk. Where competition is either not possible or sensible, Ministry of Defence policy is "No Acceptable Price - No Contract" (NAPNOC), which is designed to ensure prices are fully agreed before a contract is let. Where longer contracts need interim

payments, they will be made only against the achievement of clearly defined performance milestones or acceptable delivery. Frequently a proportion of the payments will be retained until the equipment has been in service for a period and it can be sure that the specification has been met.

*Smart Acquisition:* Over recent years, various initiatives have been introduced to improve the management of Defence Procurement. These include improved risk assessment and management; integrated logistic support planning; enhanced consideration of reliability and maintainability, streamlined contractual procedures, improved communications and consultation with suppliers, whole life cost forecasting (Kirkpatrick, 2000) and more systematic consideration of defence industrial factors. The DPA is also open to innovative proposals from industry under the Government's Private Finance Initiative, where it can be shown that the introduction of private sector finance and management expertise can yield efficiencies, for example in training and support. All these concepts came together under the Smart Procurement (now called Smart Acquisition) Initiative (HC 138, 1998). Acquisition is defined as Requirements + Procurement + Support + Disposal and the integrated approach is designed to procure equipment for the Armed Forces *'faster, cheaper and better'* and where possible to employ partnering principles to improve the quality of business relationships. See the illustration at Figure 1.6.

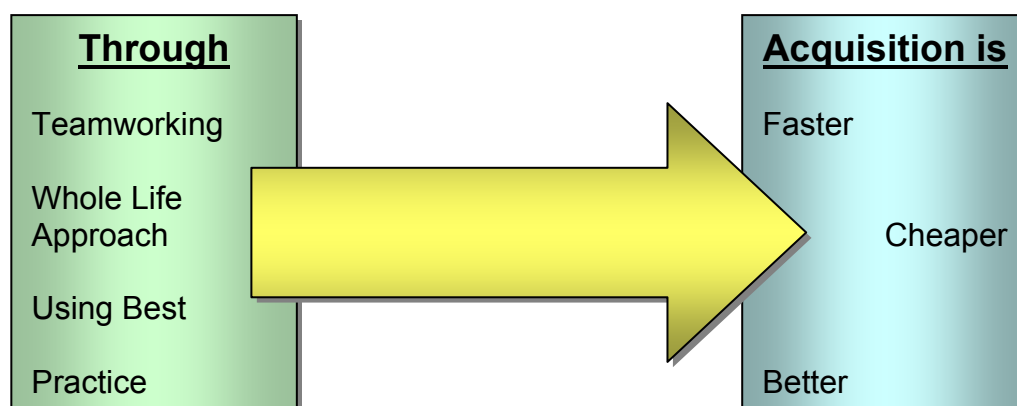


Figure 1.6. Smart Acquisition (www.mod.uk/business/, 2002)

Finally, in order to allow sufficient funds to maintain modern, capable, front-line forces whilst Defence budgets continue to fall, the Government has declared that 20% support cost savings are to be achieved (CM 4446, 1999) from its annual £10.1 Bn (DASA 2001) spend over the next 4 years.

### 3.3 The UK Defence Industries Position

The impact of the post-Cold War reduction in Defence spending on UK Defence firms has been serious. As a result of radical downsizing, employee numbers fell from 650,000 in 1985/86 to 345,000 in 1999/00 and half of these losses occurred between 1990 and 1995 (DASA 2001). Structurally, since 1980 the UK Defence industries (British Aerospace, Rolls Royce, Shorts, VSEL, Yarrow and Royal Ordnance) have gravitated from state to private ownership and following the downturn in income have concentrated through numerous mergers and acquisitions in efforts to reduce over-capacity (Hartley 1998). A more recent view of the concentration of Defence Industries in Europe is portrayed in Figure 1.7.

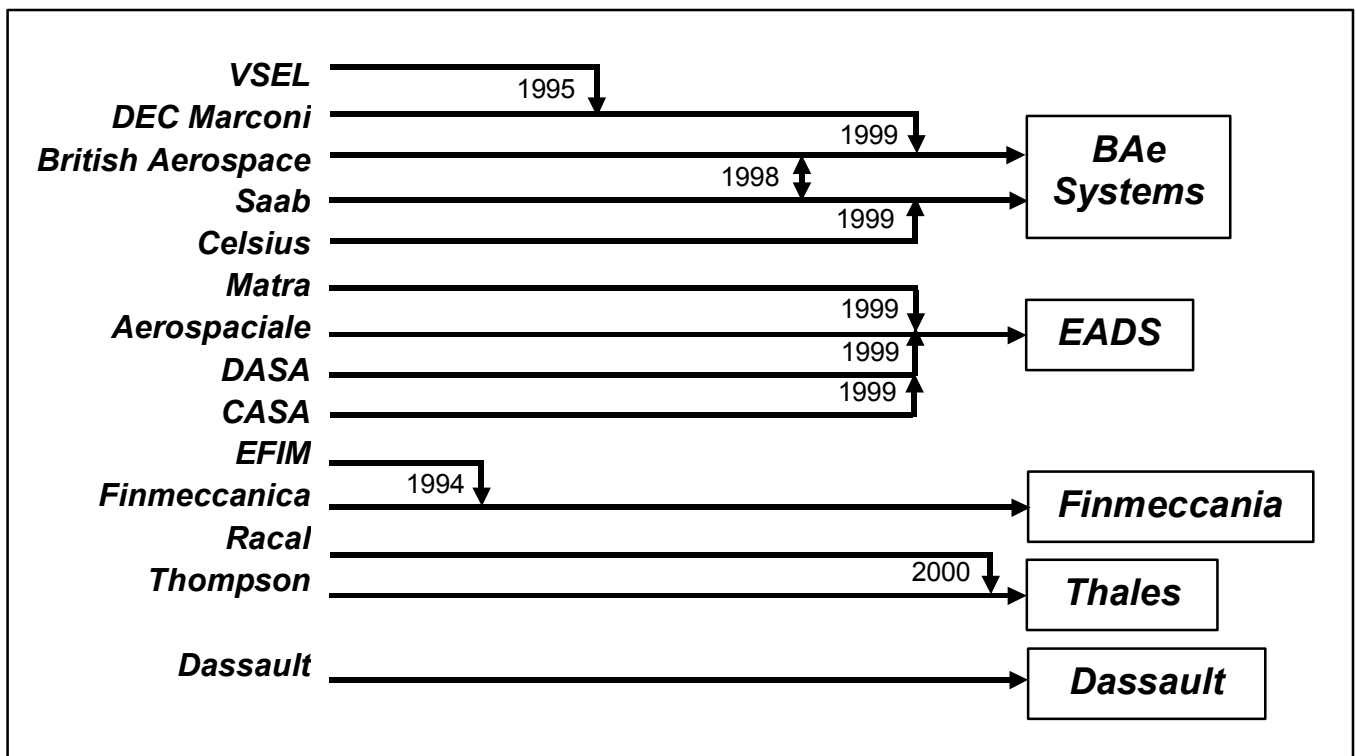


Figure 1.7. Consolidation of European Aerospace & Defence Industry (Humphries & Wilding, 2001b)



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Today the UK Defence industrial base is dominated by a small number of major companies who are '*virtual domestic monopolies*' (Hartley, 1998) and this is born out by the fact that the UK MoD spent 50.7% on equipment with only 11 contractors (DASA, 2001).

The UK Defence industries have a further strength with exports that have risen from £1,753 in 1985/86 to £4,406 in 1999/00 (DASA, 2001). These made a major contribution to the national balance of payments as well as reducing UK MoD's procurement costs by spreading overheads over a larger output. UK Defence firms also have a number of anti-competitive advantages. Many companies are involved in European and US collaborative projects such as the Eurofighter and the Joint Strike Fighter, which protect them from competition. Furthermore, there have been numerous instances when companies have made 'supply side adjustments' by merging or collaborating with other bidders for major contracts and further limited competitive forces (Hartley, 1998). Finally, although the UK MoD has opened up its Defence Procurement business to foreign competition such that between 1995/96 and 1999/00 foreign purchases rose from £246m to £1,660m, it is doubtful whether a contract would be let to an overseas supplier if in consequence a UK company went out of business (Hartley, 1998). Not only would this have a strategic defence capability impact but would doubtless encounter strong political opposition from industry groups, unions and regional economic interests (Hartley, 1998).

UK Defence industries may have been adversely affected by post-Cold War government spending cuts but the resultant market concentration together with national political and economic considerations has resulted in the formation of a powerful group of suppliers where opportunities for competition have disappeared in the majority of cases (Kilpatrick, 2001, Humphries & Wilding, 2004).

### 3.4 The UK Defence Procurement Relationship Environment

Both the UK MOD and its industrial suppliers clearly need each other to survive both in terms of the affordability of a credible national Defence capability and the promotion of a viable, indigenous, military industrial base (Kilpatrick, 2001). However, in an environment where monopoly, rapid change and increasingly tight economic factors predominate, their respective long-term objectives can only be met if they can overcome their traditional attitudes and achieve better co-operation (Hartley 1998). A diagram illustrating the situation showing the influences on both Industry and the UK MoD, their organisational dispositions, strategies and objectives is at Figure 1.8.

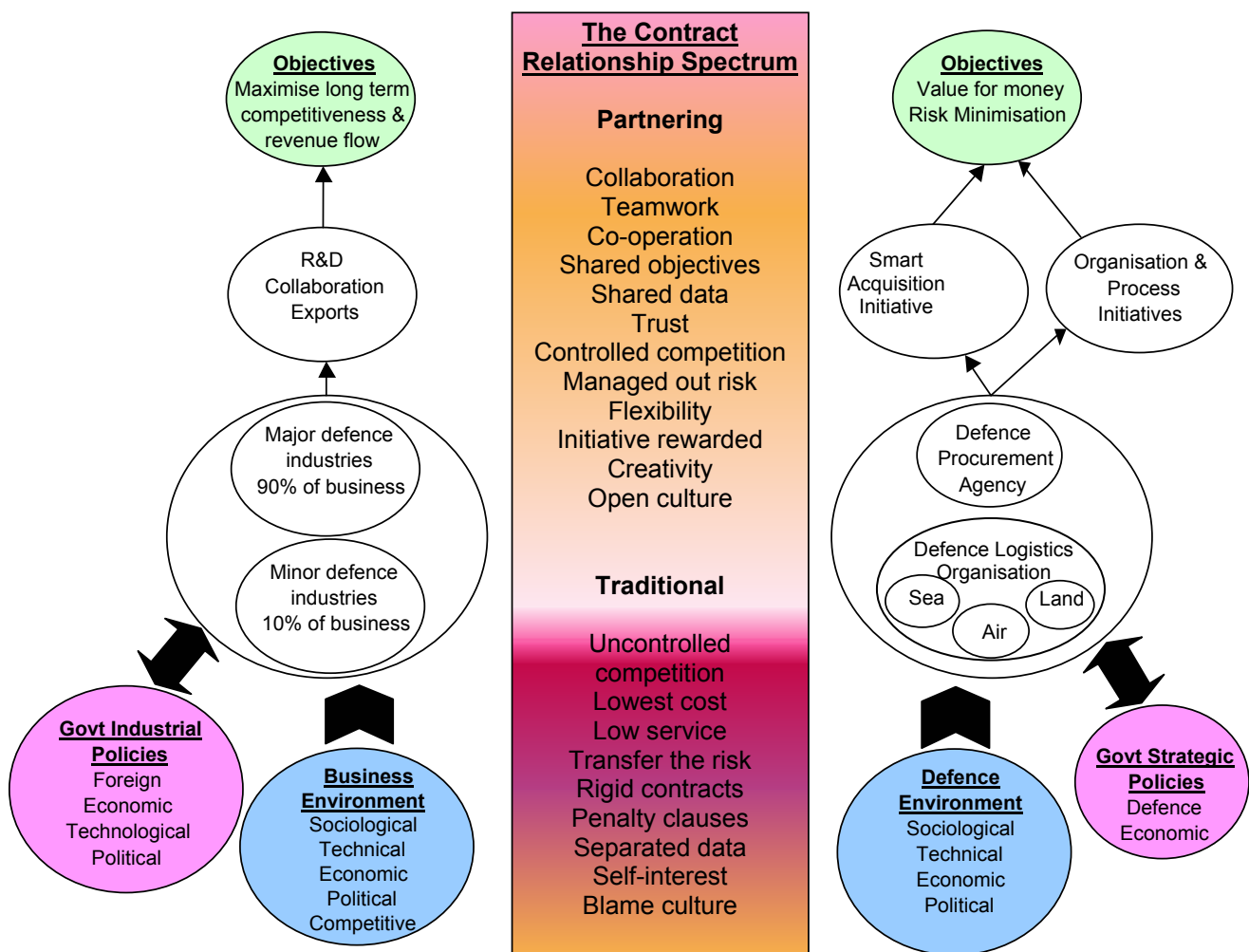


Figure 1.8. The UK Defence Procurement Environment (adapted from HC 138,1998 & Harland et al, 2000)

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A spectrum of potential procurement relationships is shown from partnering (relational) to traditional (transactional) but in practice this tends towards the adversarial, traditional end (HC 138, 1998).

The next Section summarises the business problem and introduces the Research Question (RQ) and supporting questions.

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## 4 The Research Problem

### 4.1 *Business Problem*

Having outlined the UK Defence Procurement situation, the business problem addressed by this research reflects the unusual nature of the field of study:

- How is it possible to improve the quality of sustained economic relationships to the benefit of both UK MoD and Industry within UK Defence Procurement in a monopoly market? (for a definition of relationships for the purposes of this research see the definitions in Section 6).

This study proposes that given an understanding of the environmental pressures imposed by a monopoly market, it is possible to determine the business and behavioural factors that may be employed to improve UK Defence Procurement relationships. It furthermore suggests that managerial emphasis must be placed upon balancing monopoly rather than competition with partnering (Humphries & Wilding, 2001a).

### 4.2 *Research Question*

Following on from the Introduction to this Chapter that provided an overview of the thesis and in particular the theoretical approach to the research, the initial RQ is thus:

- **To determine, using an appropriate theoretical framework, the behavioural and business factors that influence relationships between the UK MoD and its main industrial suppliers in a monopoly market.**

Each theoretical field defined in Section 6 and considered in detail in Chapter 2 (the Literature Review) reveals that much is known about business-to-business relationships in 'normal' or competitive markets but that much less is written about sustained monopolistic situations. As a result the following, initial-supporting

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questions must be answered by the research in order to provide enough evidence to satisfy the RQ:

- **Q1 – Can Supply Chain Management (SCM) partnering activities, processes and requirements from the commercial environment provide an understanding of the monopolistic relationships found within UK Defence Procurement?**
- **Q2 – Can Relationship Marketing (RM) behavioural variables provide an understanding of the monopolistic relationships found within UK Defence Procurement?**
- **Q3 – Can factors within Transaction Cost Economics (TCE) explain the dynamics within monopolistic UK Defence Procurement relationships?**
- **Q4 – Can the TCE Organisation Failure Framework be used as a theoretical lens with which to view the problem?**

The RQ and supporting questions are developed in detail in Chapter 2, Section 5 where the theoretical framework for the research project is also explained. The next Section justifies the research.

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## 5 Justification for the Research

A monopoly market in which there are significant degrees of economic and political power on the supply and procurement sides dominates the relationship between the UK MoD and its industrial suppliers (Hartley 1998, Humphries & Wilding, 2001c). Furthermore, this association has traditionally been adversarial where lack of trust has reduced efficiency and value outcomes (Parker & Hartley 1997). Against this background, in the 1999 Defence White Paper (Cm 4446, 1999) the Government made a clear statement of policy that its *Smart Procurement Initiative – faster, cheaper, better*, depended heavily on the concept of partnership in order to *reap the benefits of competition and collaboration* (Bruce George MP, 1998). The concept of Partnering has already been acknowledged by the private sector as ‘best practice’ in managing customer/supplier relationships to provide mutually beneficial results (Bechtel & Jayaram, 1997). The UK MoD believed that partnering would allow it to overcome the adversarial relationships within a Defence market containing few competitors (Kirkpatrick, 2001). However, despite clear strategic intentions, the practical implementation of partnering arrangements by the UK MOD has been slow, patchy and clouded by uncertainty over ways and means (HC 138, 1998). Furthermore, the fundamental differences of aims by both sides appear to make the selection of common objectives difficult and problematic (Defense News, 2000). Overcoming these difficulties is the business problem faced by UK MoD and its industrial suppliers under the Governments recently announced Smart Acquisition policy (Hansard, 2000). Given the current, high political priority to making partnering in UK Defence Procurement, this research is timely and potentially very influential in addressing the business problem described (Humphries & Wilding, 2001a).

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The empirical research available in the area of Supply Chain relationships covers both private and public sectors and includes limited research on short term, small numbers relationships between powerful, global industrial organisations. However, the majority of research is found within the commercial sector within '*normal*' (non monopoly) market conditions (Palmer, 2001, Parker & Hartley, 1997) and seldom covers both buyer and supplier perspectives (Ghoshal & Moran, 1996). Research in Transaction Cost Economics of public utility monopolies has tended to concentrate on governance issues and failed to take a fully integrate approach to the theory under these market conditions (Crocker & Masten, 1997). Thus from an academic perspective, the study extends the body of knowledge on sustained collaborative business dealings within the specific UK Defence Procurement environment using both buyer and supplier data and broadens business-to-business relationships research to the UK Defence sector. Moreover, the inter-subject area approach to this research using 3 subject areas produces '*transcendent*' insights that would not be perceived by the individual fields of interest working alone (Starkey & Madan, 2001). The findings of the study may also contribute to an understanding of business relationships within limited markets where near monopoly conditions develop in the Private Sector as a result of the globalisation and concentration of modern industries such as telecoms and media and, where long-term, closely coupled relationships exist.

The next Section outlines the approach taken to the research methodology.

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## 6 Methodology

The aim of the research is to determine the influential relationship factors between UK MoD and its Industrial partners within a predominantly monopolistic UK Defence Procurement business. Given the currency of the business problem it is considered necessary to produce the research knowledge in the context of its application with the aim of allowing as short a time as possible enable its dissemination and exploitation (Tranfield & Starkey, 1998).

This exploratory research therefore, took a wide, cross-sectional perspective in order to make a statement about the outcomes of broadly comparable experiences using numerical supporting evidence (Johnson, 1984). It relied upon the collection and analysis of large quantities of data to determine the range and strength of factors within the conceptual framework described in Section 5.5 of Chapter 2 – essentially a hypothesis testing approach (Huber & Power, 1985). However, it also took a relational perspective in identifying the main types of interaction and, also included data collection by qualitative methods in order to capture the richness of perceptions needed to gain insight into the subtleties and cultural depth of the business problem (Bailey et al, 2000). This was therefore Key Informant Research (Kumar et al,1993, Seidler,1974) using surveys supported by semi-structured interviews which allowed the results to be overlaid on the conceptual framework for statistical and qualitative analysis of the relationships between UK MoD and Industry. Similar research strategies have been operationalised on Supply Chain relationships by Lambert et al (1996), Metcalf et al (1992), Spekman et al (1998); on buyer-seller relationships within Relationship Marketing by Doney & Cannon (1997), Mohr & Spekman (1994), Moorman et al (1992), Morgan & Hunt (1994), Noordewier et al (1990); and business



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to business relationships within TCE by Nooteboom (1999), Parkhe (1993) and Buvik & Torger (2001). The research methodology is covered in detail in Chapter 3.

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## 7 Outline of the Thesis

Following this introduction, the report has the following chapter structure:

- *Chapter 2 Literature Review* – builds a theoretical foundation for the research by reviewing primarily the SCM, RM and TCE literatures, identifies research issues that are controversial or not answered by previous researchers, defines the research question and supporting hypotheses and finally, describes a conceptual framework for the research.
- *Chapter 3 Methodology* – justifies the methodology in terms of the research question and the literature review, identifies the sources of data appropriate to the focus of the study, describes the instruments and procedures used to capture and analyse data, specifies any known limitations. Finally, highlights any ethical issues.
- *Chapter 4 Data Analysis* – presents patterns of results and analyses them for relevance to the research by comparing them to the hypotheses and the research question.
- *Chapter 5 Conclusions & Implications* - summarises and justifies the contributions of the research, describes the implications for the wider body of knowledge, identifies practical implications for managers and lastly, suggests opportunities for further research.

The next Section makes clear a number of key terms used throughout this thesis.

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## **8 Definitions**

Definitions adopted by researchers are often not uniform so key and controversial terms are defined in this section to establish the positions taken in this report.

### **8.1 Supply Chain Management (SCM)**

There are many definitions of SCM and they are discussed in Chapter 2, Section 2.4 but one that suits the purposes of this research is 'an integrative, proactive approach to manage the total flow of a distribution channel (including procurement) to the ultimate customer' (Matthyssens & Van den Bulte, 1994). Integrative means closer relationships, including trust, commitment and collaboration between Supply Chain members to ensure the success of these arrangements (Spekman et al, 1998).

### **8.2 Relationship Marketing (RM)**

RM has many definitions and these are discussed in Chapter 2, Section 3. However, the following is an appropriate set of terminology for this research. RM is where all marketing activities are directed towards establishing, developing and maintaining successful relational exchanges (Morgan & Hunt, 1994). It involves designing and negotiating strategic partnerships with vendors and technology partners through which the firm deploys its distinctive competences to serve market opportunities (Webster, 1992).

### **8.3 Transaction Cost Economics (TCE)**

TCE was developed by Oliver Williamson's (1975, 1979, 1996) as part of the New Institutional theories which are discussed in Chapter 2, Section 4. He stated that the main purpose and effect of an economic organisation was to economise on the cost of transactions including negotiating and enforcing contracts and internal control and management (governance) overheads (Faulkner & De Rond, 2000, Palmer, 2001).

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## **8.4 Monopoly**

Monopoly/monopsony is where there is only one buyer/seller. A related term is Small Numbers (oligopoly/oligopsony) where there are few sellers/buyers. Professor Hartley (1998) asserts that within the UK Defence Procurement environment despite successive government policies to ensure adequate competition, spending reductions and global defence industry concentration have resulted in interdependence between few dominant organisations resulting in alternating détente and aggression usually over price. Thus because both sets of conditions (Small Numbers and Monopoly) have similar outcomes within the area of research and, *the pure economic theory that differentiates them is insignificant* (Fishwick, 1993), they are treated in this thesis as being synonymous.

## **8.5 UK Defence Procurement**

The UK MoD deals with many contractors for the supply of new equipment, repairs, spares and services. However, 50.7% of the total budget is spent with 11 contractors (DASA, 2001) where effectively a statutory monopoly pertains. This is the area of interest of this report.

The next Section outlines the thesis limitations of scope and key assumptions.

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## **9 Limitation of Scope & Key Assumptions**

### **9.1 Overall Approach**

This thesis describes an exploratory project designed to expose a phenomenon that has received limited attention by management researchers; long-term monopolistic relationships within UK Defence Procurement. The distinction between ‘normal’, competitive market business relationships and those within the target area defined as monopolistic (8.4, Chapter 2, sub-Sections 4.6) is made by specifying the special features found within the UK Defence Procurement market situation (see Chapter 2, sub-Sections 2.3.6 & 4.11) and then, by examining its subjects in the light of the theoretical framework using environmental factors (SCM, RM & TCE) from research carried out on businesses within competitive markets. The researcher’s ontology is described in Chapter 3, Section 2 but essentially takes a positivist approach although some qualitative data is also collected in order to add richness to the findings. The research deliberately does not attempt to identify a control situation for comparison purposes because of the difficulty of finding a truly representative example and, given that the target phenomenon is largely unknown, to avoid the danger of pre-judgement.

### **9.2 UK Defence Procurement**

Although the overall field of interest is UK Defence Procurement, this is comprised of two separate elements with different characteristics. The first (The DPA) is concerned with new equipment projects from conception, development and eventual procurement but is a specialised, long-term business where process improvements take time to materialise. The second area (The DLO) is responsible for the on-going support (spares and repairs) of in-service weapons systems and thus provided a more stable research environment although; the findings are likely to be useful to managers in both. It was also necessary to choose an area for research that could

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be adequately addressed within as short a historical timescale as possible in order to limit the impact of context changes and to allow results to be of use to current managers in both UK MoD and the Defence industries.

### **9.3 *Focus of the Study***

The object of this thesis is to research the monopolistic relationship between industry and UK MoD by collecting data from each side of a number of individual businesses located within the DLO. Each business is conducted in the UK MoD by an IPT and on the industry side by a contract team; this is the focus of the study.

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## **10 Conclusion**

This chapter laid the foundation of the report. It introduced the research problem and research question and hypotheses. Then the research was justified, definitions were presented, the methodology was briefly described and justified, the report was outlined and the limitations were given. The thesis will now proceed with a detailed description of the research starting with the Literature Review.

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## Chapter 2

### Literature Review

#### 1 Introduction

This Section reviews the relevant literature relating to the research and is organised in 5 Sections as shown in Figure 2.1.

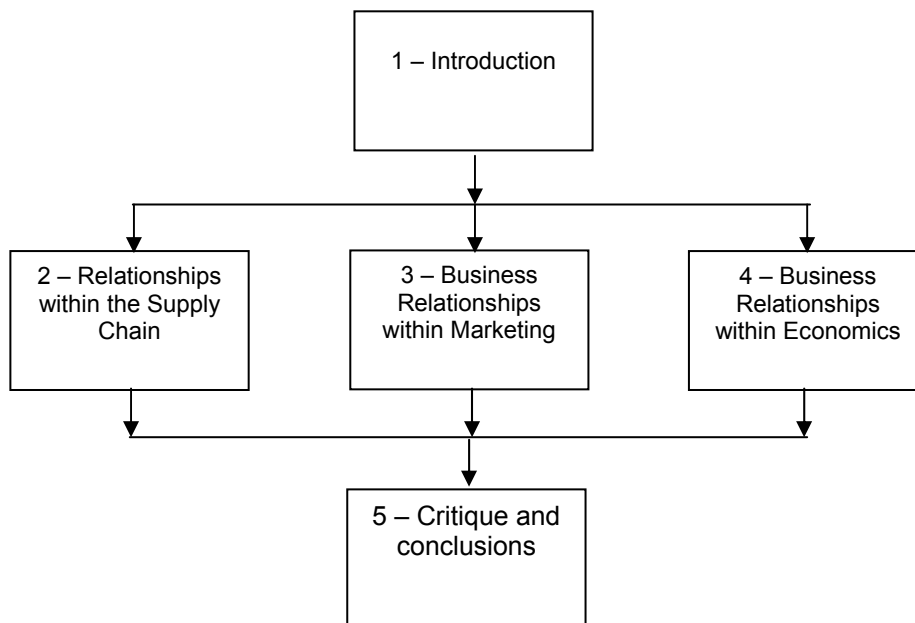


Figure 2.1. Literature Review Structure

The RQ is:

- **To determine, using an appropriate theoretical framework, the behavioural and business factors that influence relationships between the UK MoD and its main industrial suppliers in a monopoly market.**

The business problem is to establish successful partnering arrangements in a monopolistic environment which appears to foster adversarial relationships. As already mentioned in Chapter 1 (3.4), business relationships occupy a spectrum between partnering (relational) and traditional (transactional) types. Moreover, the ways in which companies manage their supply relationships are numerous and



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varied and have been advanced in diverse bodies of literature such as: supply chain management, logistics, transaction cost economics, strategic alliances, industrial marketing, purchasing and organisational behaviour (Zheng et al, 2000). Sections 2 - 4 examine the development of relational modes of business relationships mainly within (2) the Supply Chain, (3) Marketing and (4) Transaction Cost Economics perspectives although, it is impossible not to stray into other fields. Each of these Sections is structured in a similar manner and covers the evolution of transactional to relational ways of doing business, knowledge of monopolistic relationships, the impact on UK Defence Procurement and any potential, research-related questions. Finally, Section 5 critiques the literature and identifies the research gaps.

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## 2 Relationships within the Supply Chain

### 2.1 Introduction

The business of UK Defence Procurement is essentially the management of supply chain relationships in order to achieve *'the synchronisation of the physical flow of goods from sourcing to consumption'* (Tompkins, 2000). This Section therefore concentrates on the importance of relationships to Supply Chain Management (SCM) in order to seek parallels with the UK Defence Procurement business and to provide a context for an important aspect of the research environment.

SCM is covered by diverse bodies of literature which include SCM, logistics, transportation, transaction cost economics, strategic alliances, industrial marketing, purchasing and organisational behaviour (Zheng et al, 2000). This review touches on most of these areas although Transaction Cost Economics is omitted because it is covered specifically in Section 4. It does not intend to provide a comprehensive resumé of Supply Chain Management. If the reader wishes to discover such detail then, works such as Christopher (1998) and Lamming (1993) will provide an adequate starting point. Section 2 begins with a brief explanation of logistics as an important antecedent of the Supply Chain and its management. It then traces the evolution of supply chain concepts as they changed with the business fashion from transaction to relational dealings. Both public sector and small numbers applications are described. The Section then examines the relational requirements of successful SCM implementation and especially the necessary behavioural and attitudinal factors. A salient feature of the review is to highlight the issues surrounding the consequence of closer business-to-business relationships of increasingly smaller numbers. In the light of this review, it identifies a knowledge gap and specifies the

consequences for the design and execution of the research. This structure is shown in Figure 2.2.

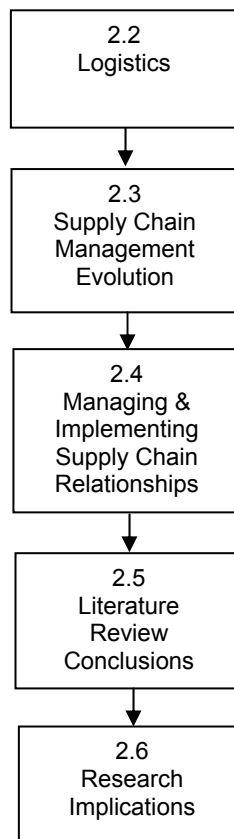


Figure 2.2. Structure of Section 2.

## **2.2 Logistics**

A precursor to SCM is logistics which, in its original operational guise, can be epitomised in the military connotation (Christopher, 1998). In NATO military terminology this is the movement and maintenance of forces where maintenance involves functions including administration, medical, engineering, supply and transportation and where supply encompasses procurement and warehousing (JWP 0-01, 1997). This operational perspective in a commercial situation is defined by Langley et al (1992) as a process of planning, implementing and controlling the efficient, effective flow and storage of goods, services and related information from point of origin to point of consumption for the purposes of conforming to customer

requirements. In essence both these concepts represent a similar business planning and operational framework (Christopher, 1992) as shown in Figure 2.3 but it is noticeable that relationships do not feature in either because interfaces with external agencies are seen as managed through formal agreements such as contracts which prevent opportunistic behaviour (Peck et al, 2000).

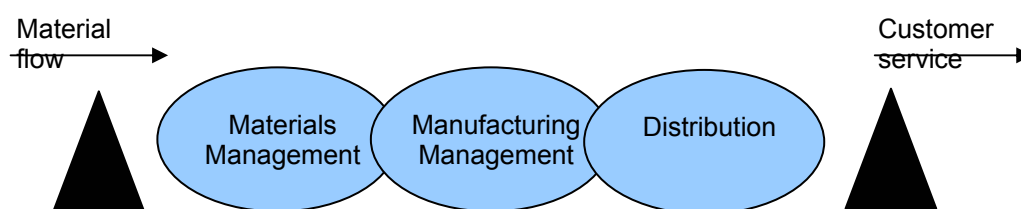


Figure 2.3. Internal Logistics Integration (Stevens, 1989)

Despite this premise, it was realised that losses in value at the interfaces between firms would inevitably lead to reduction in internal efficiency. Moreover, traditional power positions where the importance of employing economic power was a driving objective – achieving the ‘vantage point’ within the supply chain (Lamming, 1993) - also eventually reduced overall value flows to supply chain members and lowered customer satisfaction (Cox & Lamming, 1997). This behaviour was characterised within the UK automotive industry in the 1980s and early 90s where head to head competition to obtain the lowest possible prices resulted in arms-length relationships and adversarial mistrust (Sako et al, 1994).

The next few sub-Sections describe why this internally focussed approach changed and how management concentration on the supply chain offered the potential to extend business capabilities in a globalised, competitive environment. Because it is possible that the very large Defence Procurement business contains a wide range of relationships at various stages of maturity, this review exposes a spectrum of views that represent the main themes from the literature.

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### **2.3 Supply Chain Management Evolution**

Strong business pressures in the last 10 years have included scarcity of resources, increased competition, globalisation of markets, faster change and higher customer expectations (Hines, 1999, Lambert et al, 1996, Scott & Westbrook, 1991). These have resulted in increased external focus, vertical disintergration as companies have out-sourced non-core activities, concentration on improving operational efficiency, adoption of Just-in-Time supply and a recognition of the necessary contribution of other supply chain players (Harland, 1996a). The importance of co-ordinated processes (Cooper et al, 1997), both up and down the channel of distribution (Christopher, 1992), of supply chains as multi-organisational networks (Cooper et al, 1997, Spekman et al, 1998), of value webs and coordinated collectives (Peck et al, 2000), of industry-spanning entities (Langley et al, 1992), of concentration on interfunctional total costs – especially excessive inventory holdings (Cavatino, 1992, Peck et al, 2000) have been clearly identified. The ability to gain flexibility through agility (Christopher, 1997, Wilding, 1999) and to achieve lean supply (Hines, 1999) through the *quasi-firm* (Lamming, 1993) offers prospects of a more integrated and holistic approaches. A realisation that customer service directly results from the combined effects of all the supply chain components (Stevens, 1989) and can provide a unique type of customer value (Langley et al, 1992) have forced the pace to adopt more relational approaches. In the UK MoD improved value for money in the post Cold War environment have been the principle drivers for change (Cm 4446, 1999) and has brought about a similarly radical review of the role and conduct of logistics. The next sub-Section turns to Partnership Sourcing which specifically addressed the requirements of relational supply chain dealings.

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### **2.3.1 Partnership Sourcing**

Macbeth & Fergusson (1994) describe Partnership Sourcing (a CBI/DTI sponsored approach) as a means of rationalising supplier numbers to achieve process integration and improved quality consistency through long term relationships. They emphasised the importance of a change in mindset in order to achieve the necessary commitment, trust and continuous improvement. Ellram (1991) defines purchasing partnerships as long-term, trusting agreements where the risks and rewards are shared. Partnership Sourcing stemmed from Japanese history and culture and is illustrated by Toyota's policy where the assembler controls the relationship, the specialist abilities of the supplier (not present in the assembler) are crucially important and, shared capital or financial ties avert opportunism. This was a step away from the traditional view of the supply chain but it continued to accept that some companies would dominate others, even in a paternal way, and partnership remained a 'one way street' (Lamming, 1993).

### **2.3.2 Lean Supply**

A further step in the evolution of supply chain relationship thinking is Lean Supply. This replaces traditional, wasteful, inefficient and adversarial contracting practices (Lamming, 1993) and is the key to unlocking the goodwill in the relationship in order to become interdependent (Lamming et al, 2001). Each process step is broken down and fully optimised with tasks and complexity shared in order to create a *frictionless flow of value-enhancing activities* (Lamming, 1993). The aim is to use radical techniques to do things differently, not old things better, and concentrates on removing waste through lean production rather than economies of scale (Lamming et al, 2001). Lean Supply requires external resource management skills in order to analyse, frame, negotiate and manage contracts and relationships (Cox & Lamming,

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1997) and as for partnership sourcing, attitudinal reorientation was essential to achieve the necessary step change (Lamming, 1993). Very much in the same vein is a related field known as 'agility'. Its main points, known as the 7 steps, are: substitute information for inventory, work smarter, not harder (eliminate or reduce non-value adding activities), partner with suppliers to reduce in-bound lead-times, seek to reduce complexity (e.g. common platforms), move from push to pull through vendor managed inventory, manage processes not just functions and use appropriate performance metrics (e.g. time based measures) (Lamming, 1993, Christopher, 1998). This overall approach is emphasised as a key relationship success factor because although soft issues such as trust and commitment are important, process efficiency is at the heart of the value chain (Harland, 1995).

### **2.3.3 Supply Chain Networks**

In recognition of the complex webs of supply chain relationships created and managed by firms came the concept of Networks. The concept originated from industrial networks – linked activities, tied resources and bonded actors (Zheng et al, 2000) – and represents a set of supply chains embodying the flow of goods and services from original source to end customers where firms play several roles simultaneously (Christopher, 1992, Harland, 1996b, Hines 1996). This overturns the idea of a simple linear flow and concern for purely up-stream purchasing and encourages a shared responsibility for the health and performance of the relationship. It builds on the work of the Industrial Marketing Group (described more fully in the next Section – 3.6) and research in automotive, consumer electronics, drugs and health care, pharmaceuticals and banking indicate that firms can achieve success in managing the supply chain network value chains (Harland, 1996b). Zheng et al, 2000 suggested there were 4 integrating elements: equipment and resources, human resources, materiel and inventory and, facility configuration. The

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critical success factors were risk and benefit sharing, conflict resolution and information sharing. Although this theory usefully sheds light on more complex relationship structures it concentrated on focal firms (the dominators) and suggested that firms coped reactively rather than followed any particular strategy (Harland, 1996b).

#### **2.3.4 Supply Chain Management**

SCM can be seen as an integrative, proactive approach (Matthyssens & Van den Bulte, 1994) to manage the total flow of a distribution channel to the ultimate customer – like ‘*a well-balanced and well-practiced relay team*’ (Cooper & Ellram, 1993). Another definition that highlights its ‘board level’ importance is the strategic management of the network of organisations that are involved in the up-stream production and down-stream distribution processes and activities associated with the satisfaction of customers and maximisation of both current and long term profitability is (Christopher, 1992, 1998, Cox & Lamming, 1997, Harland, 1996a). It is located between vertically integrated systems and those where the channel members operate completely independently and it aims to reduce inventory, to increase customer service reliability and build a competitive advantage for the channel (Boddy et al, 2000, Cavinato, 1992, Hines & Jones, 1996).

A key feature of SCM is an early decision to reduce the number of suppliers in the chain (the elimination of multiple sourcing) (Ellram, 1991) because maintaining close, intense relationships can be very expensive in management effort (Cavinato, 1992, Langley & Holcomb, 1992). The intention is to have no more ‘partners’ than necessary and to work more closely, effectively, and over the longer term, (Peck et al, 2000, Scott & Westbrook, 1991) with those who have the most critical impact on the overall operation (Cooper et al, 1997). Japanese lean automotive producers



have typically 300 suppliers compared to 1000-2500 in the west and operate a determined policy of supplier base reduction – moving from away from multi-sourced, adversarial trading - towards closer relationships with fewer, key partners (Harland, 1996a, Hines 1996). It is hoped that deeper, inter organisational alliances/partnerships can evolve and focus on the whole Supply Chain rather than diluting each company's efforts through conflicting goals (Anscombe & Kearney, 1994). In fact Bechtel & Jayaram (1997) and Perks & Easton (2000) extend this concept further to suggest that SCM provides a business environment in which firms closely co-operate rather than compete to achieve mutual goals and are incentivised to join in collaborative innovation (Harland, 1996a). With fewer, strategic partners it is possible to share confidential demand information and to reduce uncertainty and therefore safety stocks, which lower costs and order cycle time (Cooper & Ellram, 1993, Lamming, 1993, Bechtel & Jayaranth, 1997). To this end the use of e-commerce is a prime example of what Tompkins (2000) calls *quality communications*. SCM's operational concepts are represented in Figure 2.4.

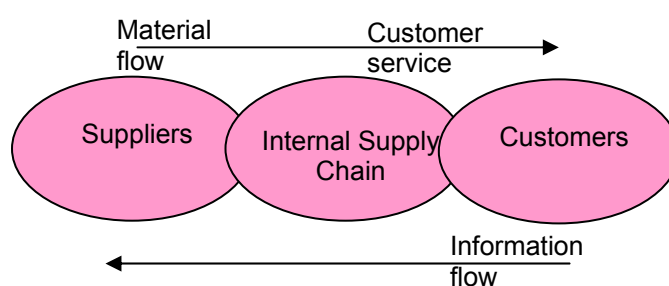


Figure 2.4. External Logistics Integration – SCM (adapted from Stevens, 1989)

The integrated Supply Chain view uses a number of terms that indicate the need for closer relationships, including trust, commitment, co-operation, co-ordination and collaboration between Supply Chain members to ensure the success of these arrangements (Christopher, 1997, Hines & Jones, 1996, 1999, Spekman et al, 1998). Both Stevens (1989) and Hulme (1997) point out that integration of this

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nature is more than a change of scope; it is more significantly a change in attitude away from the adversarial attitude of conflict to one of mutual support and co-operation.

However, SCM appears to implicitly require a move towards a limitation of the number of market players involved – small numbers and, this demands a more complex set of management challenges to achieve success. Ellram (1991) propose that SCM avoids some of the main drawbacks of vertical integration including limiting competition, increasing risk and diseconomies of scale. Nevertheless, Macbeth & Fergusson (1994) suggest that despite the availability of modern information systems, the practice of managing Supply Chain players is wasteful of resources and drags performance backwards rather than promoting continuous improvement. Moreover, Cooper et al (1997) believe that achieving true Supply Chain integration was '*a lofty and difficult goal*' and research indicates that companies continue to struggle to operationalise SCM principles such that they support dynamically changing business influences (Braithwaite, 1998).

### **2.3.5 Public Sector Supply Chains**

The review up to this point has predominantly concentrated on concepts developed in the private sector but in comparison, relatively little research has examined SCM within the public sector (Harland et al, 2000). Networking theory considers focal firms but not the larger systems of public sector supply and, describes important context variables but does not consider regulation. Porter's (1980) strategic management framework focuses on individual firm's vertical integration strategies compared to their competitors but does not consider the non-competitive aspects of the private sector. All offer some generalisable features that are relevant but no one model or framework comprehensively addresses public sector SCM relationships

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(Harland et al, 2000, Zheng, 1998). Harland et al, (2000) in their UK Health Authority research list the following distinctive features of public sector supply chain organisations:

- Service: Large and specific.
- Customers: remote.
- Stakeholders: complex, difficult to integrate, crucial to success.
- Market: dedicated suppliers.
- Availability of alternatives: reduced.
- Accountability: national interest rather than shareholders.
- Regulation: the government makes the rules and can sanction anti-competitiveness.
- Investment cycles: long compared to annual reports and returns on investment.
- Government theme: politics.

These factors are confirmed by Brooks & Pawar's (2000) research which also concludes that the public sector is *different* and that the correlation to commercial supply chain relationships cannot be taken as straight forward. However, given that SCM aims to manage a limited number of complex business-to-business relationships over a longer term, there are some fundamental similarities of principle that seem to apply.

### **2.3.6 Small Numbers**

Leading on from an introduction to public sector supply chain relationships, it is clear that limited markets/small numbers will tend to exist naturally where specialised services such as utilities, health and defence are provided for the common good.

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Nevertheless, many of these have been subject to deregulation in recent years and agencies such as the rail companies have been formed with some exposure to competitive conditions (Harland et al, 2000). Despite the anti-trust activities of national governments, examples of small numbers and strong market power relationships between dominant firms in the civil sector are to be found. Typically, the price competition 'wars' between major supermarkets with their own brands versus global companies such as Marlboro cigarettes, Coca Cola and Pepsi and between major market players such as Walmart and Rubbermaid, in the early/mid 1990s displayed some characteristics similar to those found between UK Defence Procurement organisations and their major suppliers. The giant brand owners initially forced the supermarkets to support high prices for their products however in response the latter promoted the development of high quality alternatives such as Virgin Cola and Cott Corporation carbonated drink products and eventually restored a balance of power and prevented destructive, adversarial influences from destroying long term relationships (Christopher, 1997). This is reminiscent of the Levene reforms which forced the UK Defence Industries to accept that long term prosperity depended on a balance of power between the sides (Cm 4446, 1999). Furthermore, although Walmart forced Rubbermade to climb down over price level maintenance, subsequently Rubbermade lost its direction and market share requiring Walmart to offer support (Basury et al, 2001). This equates to the rescue by the UK Government of Westlands after the EH101 helicopter project problems and BAe Systems after the Nimrod Airborne Early Warning aircraft project failure (Cm 4446, 1999). These examples provide useful insights into the dynamics of power confrontations between powerful organisations but, the balance of power changes within the UK Defence Procurement monopolies are effected as much by public interest considerations as by commercial forces. UK Defence Procurement

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relationships exhibit a number of explicit differences in most, if not all, of the following characteristics that set them apart from commercial examples:

- Not of the same duration (some over 50 years, average is 20 years).
- Not of the same size (many individual contracts are worth over £250m).
- Not the same strategic (industrial/political) significance (high government interest in employment, trade and international relations).
- Not the same adversarial tradition.
- Incapable of marketisation due to industry structure (few, highly specialized firms).
- Output clarity is problematic (leading edge technology, security, high R&D costs, small production runs, very long equipment lives with inherent support difficulties).
- Both sides equally powerful without the benefit of alternative market choices – marriage without the option of divorce.
- Small numbers deemed to be within the public interest and thus free from anti-trust regulation.

A more technical discussion about monopoly conditions from an economics perspective is in sub-Section 4.6 later in this thesis.

### ***2.3.7 Supply Chain Evolution – Conclusions***

The review has shown that traditional business relationships linked to logistics have given way to the manifestly increased benefits that may be available from more relational supply chain approaches. A variety of evolutionary steps have developed during the last 20 or so years and although the principles are clearly evident, their application in practice as a different relationship strategy has revealed management challenges. Research in the public sector reveals fundamental similarities with

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subtle differences in SCM to those in the private sector and the differences between small numbers power relationships UK Defence Procurement are even more marked. For the purposes of the design and execution of the research, a number of supply chain management principles have been found that can useful sought in the organisations to be examined. The remainder of this Section expands on the characteristics of closer supply chain relationships and the attitudes that need to be adopted to achieve success.

#### ***2.4 Implementing & Managing Supply Chain Relationships***

This sub-Section considers the relational factors that underpin SCM and acts as an introduction to the next sub-Sections where partnering is examined in greater detail. As already described, depending on the business strategy employed, a spectrum of relationships between the transactional and relational are found and these include a variety of power positions. At one end formal contracts with specified benefits and fixed terms may be found. At the other end co-operative development, commitment and attitudinal change may occur (Harland, 1995). Relationships may comprise those loosely connected with friction, those with conflict resolution but no shared destiny, those where joint strategy is formulated collaboratively and finally where innovation achieves sustained competitive advantage (Harland, 1996b). Other illustrative views of these dimensions are shown in Figure 2.5.

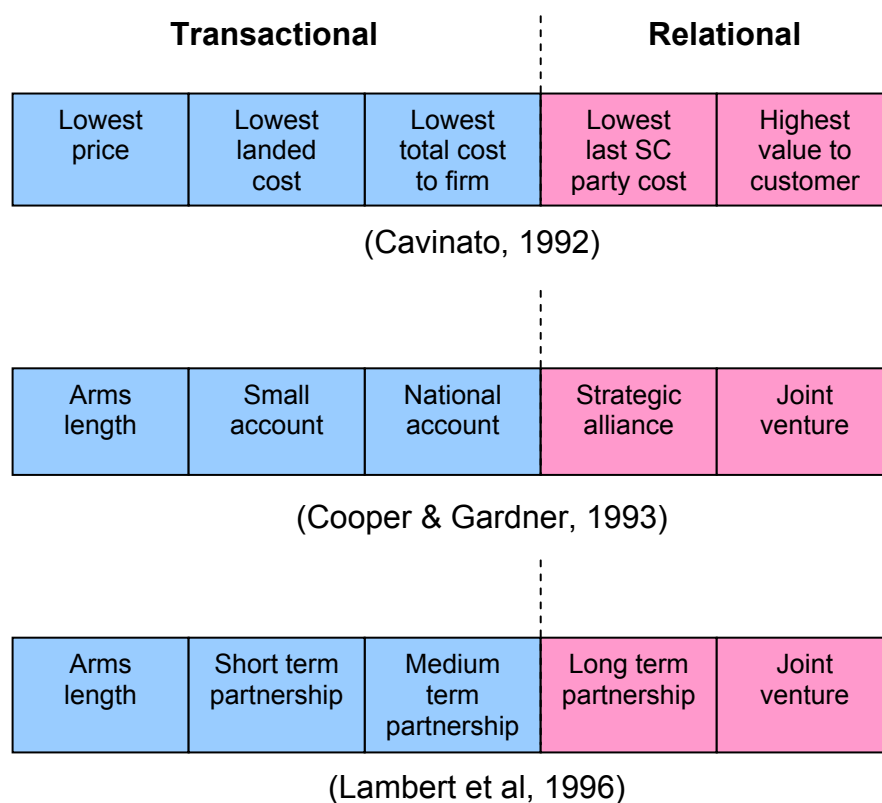


Figure 2.5. Continuums of Relationship Styles

The next sub-Section examines the characteristics of relational business arrangements under the generic term 'partnering'.

### 2.4.1 Partnering

Empirical evidence suggests that close relationships between customers and suppliers has a beneficial impact on performance. Customer and supplier commit to continuous improvement and shared benefits by exchanging information openly and resolving problems by working together (Sako et al, 1994). Relational supply chain business dealings are given a number of labels. Bechtel & Jayaram (1997) define partnering/partnerships as demand-led, integrated, inter-company relationships based on collaboration. Boddy et al (2000), Hulme (1997), Olsen & Ellram (1997) and Zheng et al, (2000) and add that such relationships are long-termed and focussed on complex, problem solving. Lambert et al (1996) propose that partnering is a tailored business arrangement based on mutual trust, openness, shared risks

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and rewards that leverages the skills of each partner to achieve competitive performance not achieved by individual partners. Christopher (1992, 1997) and Harrison (1990) use the term '*co-makership*' to describe a seamless, end-to-end pipeline or virtual corporation between the supplier and the customer based on high quality processes, co-operation, inter-dependence, openness, trust, commitment, shared goals, open information flows and long-term, mutual benefits. Lamming et al, (2001) propose that by harnessing the unique capabilities of partnership it is possible to create a shield from system-level forces. Sako et al (1994) suggest partnership is a complex concept whose success depends upon length of time to build trust. When mistrust is entrenched, a shift from adversarial to co-operative relationship styles is extremely difficult. Cooper & Gardner (1993) describe interorganisational relationships consisting of enduring transaction flows and linkages that come about because of a variety of reasons including necessity (monopoly), asymmetry (a dominant partner), reciprocity (co-operation and co-ordination), efficiency (cost reduction) and stability (risk reduction). Ellram & Edis (1996) and Boddy et al (2000) use very similar terms to describe collaborative buyer-seller relationships as '*co-destiny*' situations although they also mention the obligational nature of the arrangement to overcome opportunistic temptations. Finally, a succinct description is '*an arrangement where suppliers and customers are inextricably linked*' (Spekman et al, 1998, Weinstein, 1992).

The thinking on relational business arrangements such as partnerships, alliances and strategic alliances (Olsen & Ellram, 1997) covers a wide field. It generally presents a holistic (Langley & Holcomb, 1992) approach to managing the Supply Chain involving technology, process and information links (Christopher, 1992, 1997, Scott & Westbrook, 1991) based on trust and long-term commitment with the ultimate aim of securing improved economic returns for all chain members



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(Weinstein, 1992, Hines & Jones, 1996). Nevertheless, Anscombe & AT Kearney (1994) warn about the dangers of misconceptions inherent in the use of a generic partnering concept and especially its implication of a common, ideal solution. Partnering contains a multitude of dimensions such that each business relationship needs to be tailored precisely to generate mutual competitive advantage. Lastly, the importance of clear objectives at the outset and regular, honest reviews are underlined (Humphries & Wilding, 2001c). Marks & Spencer's sudden break away from its 30 year relationship with its clothing supplier William Baird during 1999 might not have been such a shock if this advice had been taken (Daily Telegraph, 1999) and illustrates the point that even 'perfect' arrangements can end in acrimony. The identification of this diversity of relationship types within Supply Chain partnerships provides is an important factor in the design and execution of the research as must the expectation that imperfect forms are likely to be found.

UK Defence Procurement relationships are certainly long term, inextricably linked and characterised by complex problems. This research aims to reveal how their partnerships are affected by the small numbers situation. The next sub-Section covers in more detail the key, management success factors required to under-pin close business relationships.

#### ***2.4.2 A Partnering Process***

In this sub-Section Lambert et al's (1996) Partnering Process model in Figure 2.6 is used as a means of illustrating the main success factors identified within the literature. It should be noted that via the Feedback loop, the model hopes to describe a virtuous circle of continuous improvement and sustainment (Humphries & Wilding, 2004). The Drivers, compelling reasons to partner, are not mentioned

because they have already been covered in sub-Section 2.3. Firstly therefore, the facilitators that influence the mindset of potential partners, are considered.

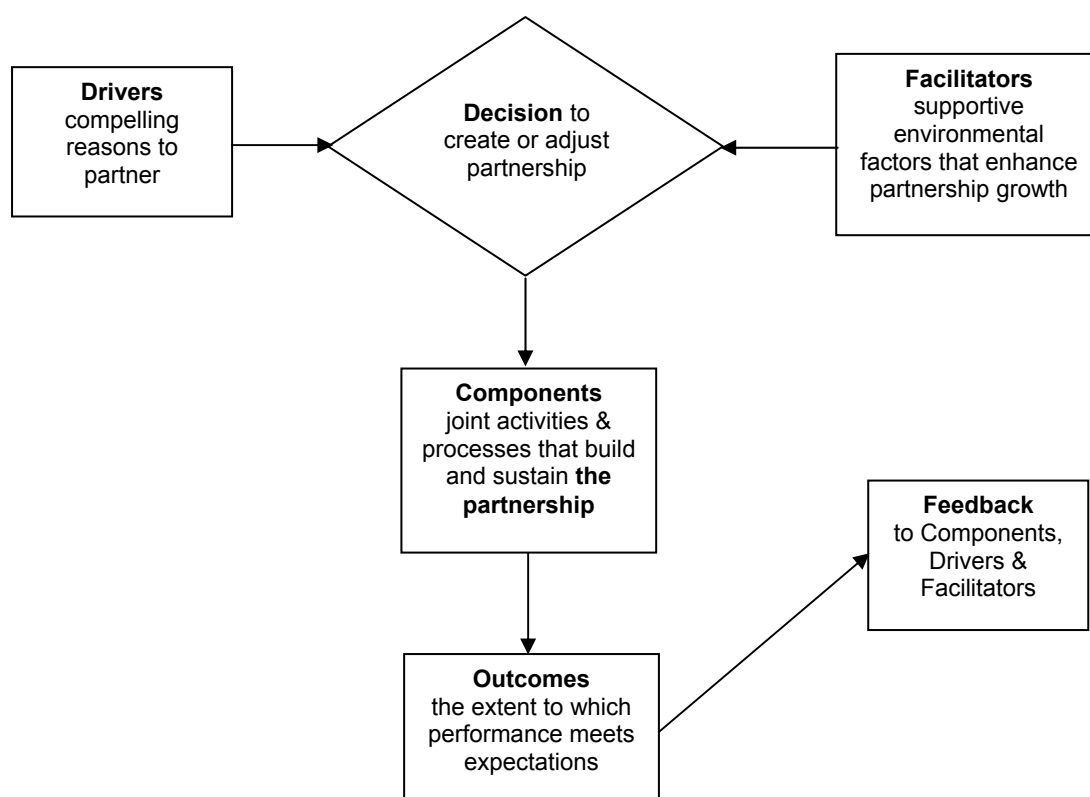


Figure 2.6. The Partnering Process (adapted from Lambert et al, 1996)

### 2.4.3 Partnering Facilitators

At the outset any suspicion resulting from previous experience of past bad or opportunistic behaviour (Anscombe, 1994) which has created a '*sour atmosphere*' between the parties must be firmly laid to rest by an affirmation of future good conduct, which will be confirmed by later deeds. An understanding of the relative power/dependence positions of the respective parties is important. Scott & Westbrook (1991) offer a matrix in Figure 2.7 that puts this issue into perspective. Where the power positions of 2 parties are equally balanced they have little option but to partner because they cannot otherwise co-exist peacefully. Cox et al, 2000, Olsen & Ellram (1997) and Anscombe (1994) recommend working openly within the relative power/dependence positions to develop a successful portfolio of business

relationships. Christopher (1992) insists that closer integration must not imply ownership or domination.

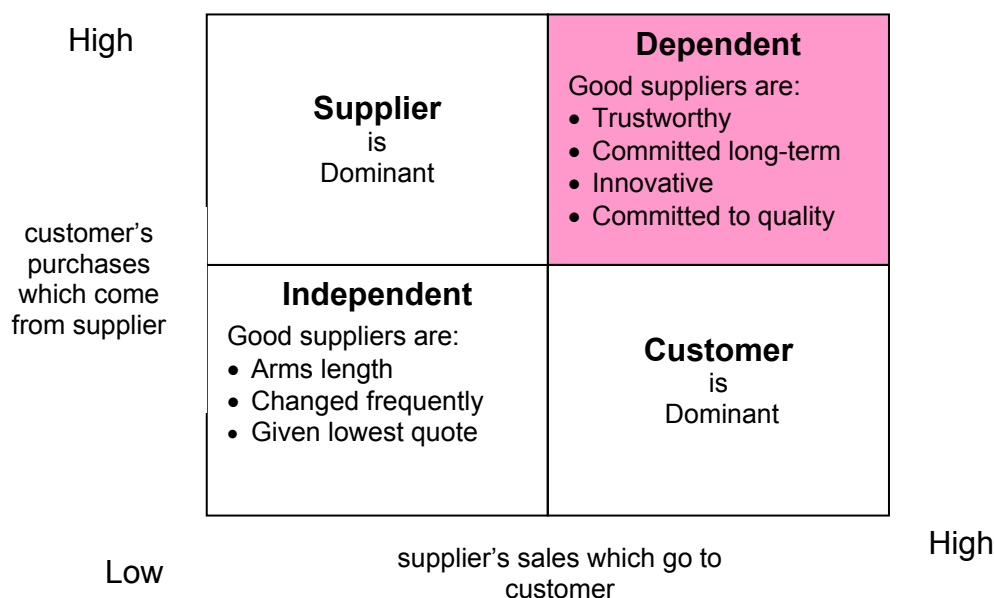


Figure 2.7. Customer/Supplier Dependence Grid (adapted from Scott & Westbrook, 1991)

#### 2.4.4 Partnering Decision

At the point of deciding to partner is important to understand the implications and specialised uses of the types of relationship that will emerge. Cox et al (2000) and Cooper et al (1997) believe the parties should be wary of setting up a monopoly because of the risks associated with single sourcing and because of the attentions of the regulatory authorities. Cooper & Gardner (1993) contrast Joint Ventures with Strategic Alliances. In the former only a broad charter describes the relative bargaining powers of the parties and their expected contributions; the expected outcomes are more important than risk reduction on the way. Strategic Alliances on the other hand, seek to achieve efficiency and stability, particularly when dealing with new technology development uncertainties (Tompkins, 2000). They accept the realism of the tensions between parties and seek to balance them within a long-term, pragmatic working arrangement (Lamming, 1993, Perks & Easton, 2000).

Having described the Drivers, Facilitators and the Partnering Decision, this Sub-section considers the Components – joint activities and processes that sustain the partnership.

### 2.4.5 Partnering Components

An overview of the literature reveals a comprehensive list of management actions required for partnering success. A summary of partnership-enhancing activities and processes is shown in Figure 2.8.

	Boddy et al (2000)	Christopher (1997)	Cooper & Ellram (1990)	Cooper & Ellram (1997)	Cooper & Gardner (1993)	Cooper & Ellram (1991)	Harrison (1990)	Hulme (1997)	Mattysens (1994)	Boddy et al (2000)	Stevens (1989)	Tompkins (2000)	Cox, Lamming (1997)	Harland (1996b)	Lamming (1993)
Framework contracting	X	X	X			X	X	X							X
Corp culture matching			X	X	X							X			X
Long term cost/investment sharing	X	X	X	X		X		X	X	X	X	X		X	X
Information sharing	X	X	X		X					X	X	X	X		
All level management			X	X							X				
Frequent, interactive communications				X	X	X	X		X			X	X		
Joint planning		X		X	X					X		X		X	
Cross firm controls & co-ordination – teams		X			X	X				X					
Joint service level systems		X				X			X					X	
Technology sharing & product development		X				X	X		X		X	X	X		X
Joint problem solving						X	X		X	X		X		X	
Joint quality systems							X		X			X			X
Linked IS – e-commerce		X					X					X			
Joint performance measurement	X						X		X			X		X	
Joint logistics & purchasing roles		X	X	X					X		X		X	X	
Joint marketing		X							X						

Figure 2.8. Partnership-Enhancing Activities & Processes

In addition to the list of management actions in Figure 2.8, both Christopher (1997) and Cooper et al (1997) recommend a change in organisation structure that facilitates improved communications between companies. The next sub-Section examines the main factors that bear upon the management of supply chain relationships.

#### 2.4.6 Interface Management

An apposite representation of the interface management situation between firms is known as the Bow-tie/Diamond perspective shown in Figure 2.9. This exposes the crucial importance of transparency and the management of inter-firm relationships.

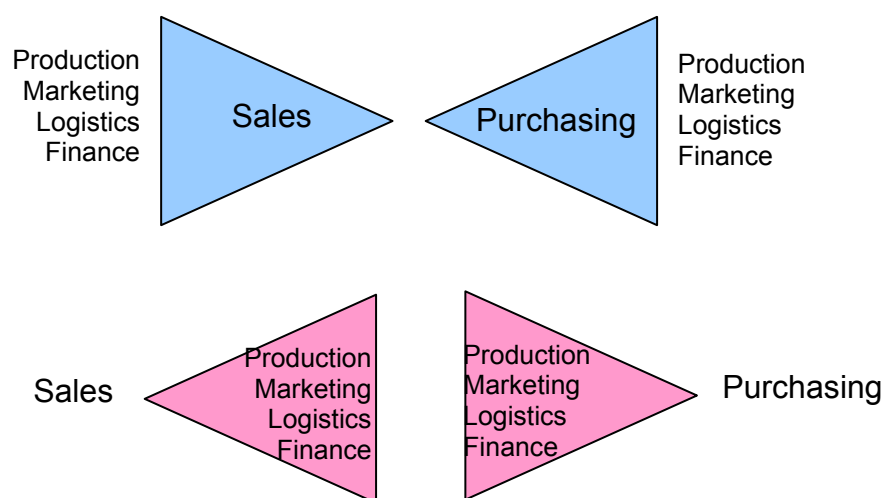


Figure 2.9. Bow-Tie vs. Diamond Perspectives (Christopher, 1997)

In many firms even though the need to co-operate is recognised, tension still exists because of the need to retain control over costs, intellectual property rights and price (Cox & Lamming, 1997). This is a particularly strong issue in the high technology, UK Defence Procurement relationships. Transparency needs to be treated as an integral element of the supply chain relationship rather than a property of the system (Lamming et al, 2001). It is essential to realise the benefits resulting from greater openness including the demystification of arcane, obtuse or possibly illegal practices.

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It goes beyond better communication and must include joint pooling/sharing of risk. This distinguishes it from other customer-driven approaches such as supplier development and open-book accounting which were often used by the powerful customer to intervene in suppliers' processes in order to improve quality and drive down costs. The flaw in this logic is the customer requires the supplier to risk exposing sensitive data without protection and often results in risk-hedging by providing distorted or corrupt information. It is important to move towards value transparency where the parties create, nurture and deliver value for the benefit and continued existence of the relationship. However, organisations must have the capability to absorb, exchange and benefit from this policy which involves managing risk with identified, additional, associated returns. However, risk management is not commonly found within the skill sets of purchasing personnel and this leads into a review of the purchasing function; arguably the key role that manages business-to-business supply chain relationships (Lamming et al, 2001).

Dealing with suppliers has traditionally been assigned to lower levels of the organisation; a clerical matter of establishing lines of supply for purchased goods and services specified by an expert whose technical expertise is assumed to encompass the commercial niceties and logistical realities of inter-firm dealing. Policy is thus separated from practice. Moreover, purchasing has changed as a result of strategic sourcing, SCM, supplier assessment and relationship development. In organisations such as Fisons and the Nottingham Health Authority (Harland, 1996b) the replacement of purchasing function by a more strategic role for those who manage technology flows and supplies of products and services that result from very long term relationships suggest that the traditional Sales & Purchasing departments may even disappear. Moreover, the management of operations may become part of Supply Management (Cooper et al, 1997, Cox &

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Lamming, 1997). Christopher (1997) believes their roles will change and grow into Key Account Management and Category Management. The importance of joint activities in these areas is becoming recognised as a leading integration facilitation role for logistics personnel.

It seems to be clear that extensive, open, honest communications are the key activities because they not only act as the 'oil' to lubricate the working of Lambert et al's (1996) Partnering process but, they also support the feedback that sustains and improves the relationship. However, good communications do not just occur by accident. They need to be encouraged by a change in mindsets and behaviours away from the traditional adversarial to a more accommodating variety. This is addressed in more depth in the next sub-Section.

#### **2.4.7 Behavioural Requirements**

This sub-Section examines the attitudinal side of Supply Chain relationships by considering the roles of human behaviours and trust in business partnering arrangements. The Supply Chain literature does not extend deeply into sociological theory but instead concentrates on describing those practical aspects of human relationships that enable the operation of successful partnerships. Ellram & Edis (1996), Lambert et al (1996) and Naude & Buttle, (2000) believe that '*conventional thinking*' (non technical/sociological terminology) about relationships should also be applied to improve the performance of existing partnering arrangements. Figure 2.10 encapsulates these views and the term trust is mentioned as an essential component. This key behavioural variable is examined more closely in the following paragraph.

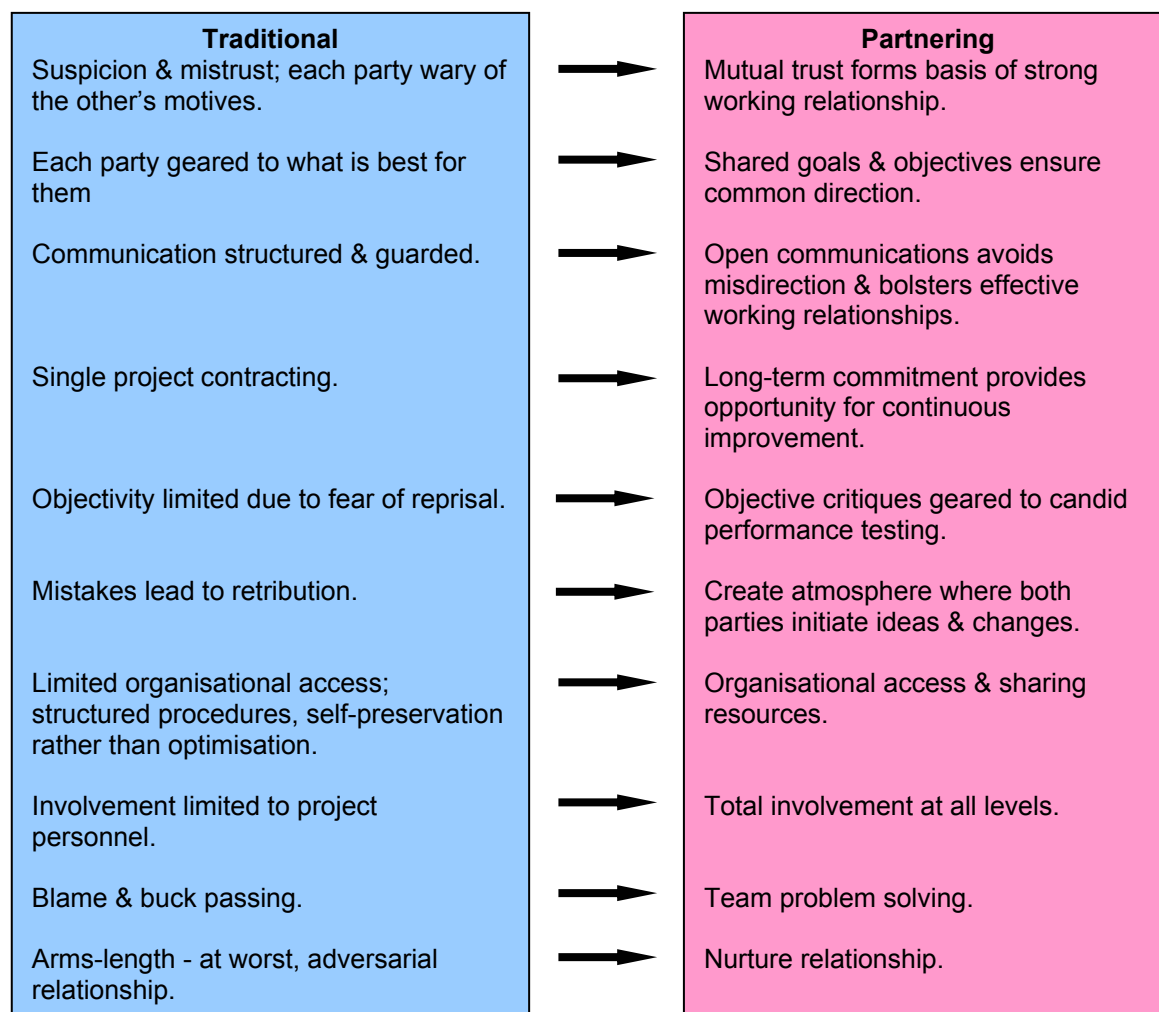


Figure 2.10. Paradigm Shift in Relationships (adapted from Ellram & Edis, 1996)

Contracts (2.2) and Power (2.3.1) have already been mentioned as forms of 'relationship control' or bargaining strength. Peck et al (2000) believe Trust is a bilateral form of control that is learned through past interactions. This matches Cooper et al's (1997) simple definition of a cyclical process of making commitments, following them through and communicating the results. The more complete and frequent the cycle, the more impressive the commitment and the greater the trust – there are some links here to Figure 2.6. Olsen & Ellram (1997) and Ellram (1991) also suggest that loyalty is an important factor in this cycle. Macbeth & Ferguson (1994) consider that trust takes a long time to grow and that it can be destroyed by



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'one stupid action', which implies that the cycle in Figure 2.6 could be halted and possibly enter a failure cycle. Naude & Buttle (2000) and Hines & Jones (1996) also add that trust is the cornerstone of relationship commitment. Rapid, accurate communication mechanisms are suggested as the key to preventing local problems from endangering the relationship but, it is just as important to build up a culture of 'do as you say,' sensitivity, dedication and goodwill (Tompkins, 2000). Macbeth & Ferguson (1994) also hint at the importance of personal relationships by adding that the tendency to 'churn' (turnover) staff does not help in building and maintaining trust. Wilding (1999) is more specific on the importance of emotional intelligence (EQ) to the success of agile Supply Chain arrangements. In EQ (Goleman, 1998) trustworthiness means maintaining standards of honesty and integrity through close collaboration to build-up credibility.

The literature generally agrees that a significant change in attitude at the organisational and personal levels is essential to the success of closer Supply Chain relationships.

#### ***2.4.8 Implementing & Managing Supply Chain Relationships - Conclusions***

This review has identified that effective inter-firm relationships depend upon a number of complex components such as information, knowledge, history, forecasts, ethics, personal relationships, attitudes and hunches (Cox & Lamming, 1997). Furthermore, trust, friendliness and other soft features of long term co-operative relationships will not guarantee greater understanding and satisfaction. It is important to understand the gap between expectations and perceptions of performance in areas such as timing, volume, speed, cost/price, quality and to make the improvements that count. The greater the dependence the more important is measuring and monitoring performance (Harland, 1995, 1996a, 1996c).

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In concluding this Section it is important not to underestimate the practical difficulties in making Supply Chain partnering work, a point that has been emphasised throughout the review of the literature. Most managers and academics are fully aware of the principles of SCM but so often the espoused values do not meet the theory in use (Braithwaite, 1998) and successfully implemented examples are few (Spekman et al, 1998). The main obstacle seems to be motivating chain members and company staff by communicating a clear vision of the benefits to be achieved in an environment of great complexity and uncertainty (Boddy et al, 2000, Harland, 1996b). The strong advice is to maintain pressure on achieving simple objectives and exercise leadership in carrying them out (Braithwaite, 1998, Lamming, 1993, Tompkins, 2000). It is also important not to overlook the feedback loops in the Partnering Process model in Figure 2.6 where failure might overturn the intentions to achieve a *'virtuous circle'* and instead instigate an increasingly adversarial relationship (Humphries & Wilding, 2001c). Lambert et al (1996) are clear that without frequent, honest performance monitoring and joint problem-solving, a new relationship will not gather momentum and achieve the intended benefits.

Thus, Supply Chain partnering concepts have a crucial importance in operationalising this research. The ideas examined in these sub-Sections and especially the partnership-enhancing activities and processes in Figure 2.8 together with the behavioural concepts in Figure 2.10 offer a number of important factors that can be sought within the researched organisations.

## **2.5 Supply Chain Literature Review Conclusions**

This review of the Supply Chain literature from a relational perspective implicitly identifies that there are almost identical business imperatives (2.3) that persuaded the UK MoD and the commercial world to develop operational logistics (2.2) into a

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holistic Supply Chain approach (2.4) that, in complex situations, demands closer relationships between partners to achieve success. A review of the evolution of concepts and practices in the supply chain (2.3.1–2.3.6) traces the progress from transactional to relational approaches within the overarching requirement of firms to provide more integrated, complex and agile logistics services at less cost. The solution is clearly to select a few business partners whose close co-operation can make the necessary difference and involves changing from traditional, arms-length to a fully relational approach (2.3.7). There is less research on public sector supply chain relationships although, this reveals similar operational drivers but with different stakeholder influences (2.3.5). Limited research on the power positions between major industry players offer some useful insights into the dynamics of short term, small numbers situations. However, the reinstatement of power equilibrium within the UK Defence Procurement situation occurs through political rather than competitive forces and the relationships exhibit a number of defining characteristics that further differentiate them from commercial examples (2.3.6).

The Section continued with a review of the concepts for managing and implementing Supply Chain relationships (2.4). A generic term for operationalising relational supply chain dealings is partnering (2.4.1) which can have many forms because the detailed arrangements will be tailored to the business need. Nevertheless, a process suitable for examining proposed or existing partnering arrangements was reviewed (2.4.2-2.4.5) as were the means of managing supply chain interfaces (2.4.6). The complex mix of factors necessary to practically establish, maintain and manage supply chain relationships was identified. Transparency of action, information and intention appeared to be critical success factors as was the need to treat supply chain relationships as strategic assets rather than operational matters

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(2.5). The need to change attitudes and behaviours was emphasised throughout the literature with a strong focus on building and maintaining trust. (2.4.7).

## **2.6 *Implications for the Research***

SCM depends upon co-operative relationships throughout the Supply Chain in order to achieve benefits for all participants (Stevens, 1989) and the literature contains a great deal of advice on how this should be achieved. However, although there is this holistic view (Christopher, 1997), in practice it is generally operationalised as the integration of chains of suppliers in order to better satisfy customers (Peck et al, 2000). Although suppliers have recognised the need for integration with their customers, the literature contains limited empirical research on modelling and studying end-to-end Supply Chain relationships (Cooper et al, 1997, Bectel & Jayaram, 1997). It is also apparent that full SCM implementation is not being achieved for other reasons (Spekman et al, 1998). Firms are still taking a short-term view which tends them towards adversarial relationships based upon power abuse (Braithwaite, 1998) and the development of partnering relationships is being obstructed by poor communications allied to reluctance to accept attitudinal change (Anscombe & Kearney, 1994, Hines & Jones, 1996). Nevertheless, the importance of achieving good business-to-business relationships through partnering as a foundation for achieving the operational benefits of SCM in both Private and Public Sector situations is clearly identified (Brooks & Pawar, 2000, Cooper et al, 1997, Harland, 1996b). However, supply chain research has concentrated mainly on competitive market operations and although there are some useful insights from the power confrontations between major industry players in small numbers situations, the research sheds only limited light on prolonged, small numbers, supply chain relationships of the very specific type found within UK Defence Procurement.

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The RQ aims:

- **To determine, using an appropriate theoretical framework, the behavioural and business factors that influence relationships between the UK MoD and its main industrial suppliers in a monopoly market.**

This review of the Supply Chain literature examined the relational features of the business in question in order to identify the key features that would allow a research programme to be designed and implemented. However, although it only found a few examples of empirical research, it did discover a considerable amount of best practice advice on SCM operations, Supply Chain partnering and the behavioural factors that support success that can be used in the design and implementation of the research. But, this knowledge was found mainly within competitive markets environments. It quite clearly provided little insight into Supply Chain relationships within the sustained monopolies found with the UK Defence Procurement and this is therefore a gap in the knowledge. The following question is thus raised:

- **Q1 – Can SCM partnering activities, processes and requirements from the commercial environment, such as those encapsulated in Figure 2.8, provide an understanding of the monopolistic relationships found within UK Defence Procurement?**

SCM literature provides a view of business improvement measures that is largely pragmatic and generally concentrates on optimisation of material flows between value chain partners (Hines, 1999). Although it considers relational, behavioural variables that enable business-to-business relationship success, its stand-point is naturally from a SCM perspective. In order to explore these features in greater depth, this thesis now turns to the Relationship Marketing field which considers that all marketing activities are directed towards establishing, developing and maintaining

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successful relational exchanges (Morgan & Hunt, 1994). This involves designing and negotiating strategic partnerships with customers and technology partners through which the firm deploys its distinctive competences to serve market opportunities (Webster, 1992). The intention in the next Section is therefore to seek a greater depth of view on close business-to-business relationships from a review of the Relationship Marketing literature.

### 3 Business Relationships from a Relationship Marketing

#### Perspective

#### 3.1 Introduction

The Relationship Marketing (RM) literature provides comprehensive views of the various styles used by firms when they do business with each other (Morgan & Hunt, 1994) and these may also be of value when examining UK Defence Procurement's monopolistic relationships. Such perspectives do not just draw on Marketing for inspiration but they also extend into the fields of Behavioural Psychology, Sociology, Organisation and Transaction Cost Economics.

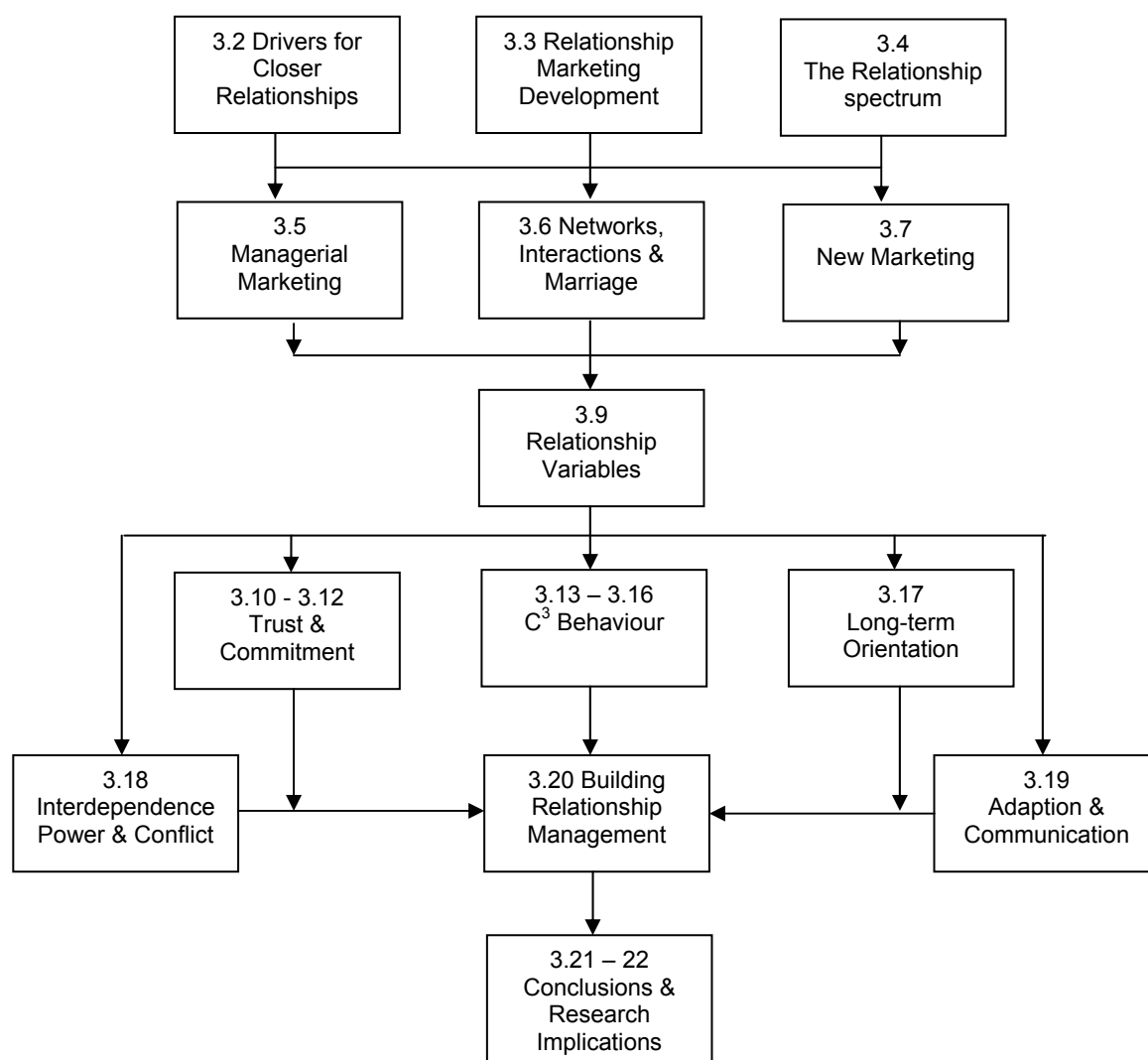


Figure 2.11. Structure of Section 3

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With the exception of Economics, which will be covered separately in Section 4, this Section's structure is shown in Figure 2.11. Its aims are to explore the business drivers, the development of various schools of thought, the key behavioural variables and the management implications of business-to-business relationships, to identify a gap in the knowledge and, to consider the implications for designing and implementing the research.

### **3.2 Drivers for Closer Business Relationships**

In the last 20 years competitive pressures have forced companies to become more reactive to the satisfaction of rapidly changing, specific customer needs in global markets and this has prompted a search for reduced transaction costs and more efficient, agile processes (Christopher, 1997, Tuten & Urban, 2001). Two main solutions have been adopted. Firstly, quality systems, such as TQM, have encouraged 'reverse marketing' starting with the customer (demand driven/flexible manufacturing) and moving back to procurement process efficiencies (reduced cycle times and inventory). Secondly, the need to optimise the Supply Chain has stimulated the use of IS tools and networks and highlighted the importance of Supply Chain relationships using fewer, key suppliers (Lewin & Johnston, 1997) to build competitive advantage (Wilson, 1995) throughout the Value Chain (Evans & Berman, 2001). This competitive advantage includes access to new technologies, information, skills and markets, increased capabilities to provide a wider range of products and services and, improved management that realises the importance of customer satisfaction, customer retention and relationships to the firm's performance (Mohr & Spekman, 1994, Sheth & Sharma, 1997, Tuten & Urban, 2001). When allied to a concentrating and globalising trend of business, these factors have produced a dramatic shift from domestic, transactional sourcing to a 'New



Procurement Paradigm' based upon global, relational sourcing (Sheth & Sharma, 1997) as illustrated in Figure 2.12.

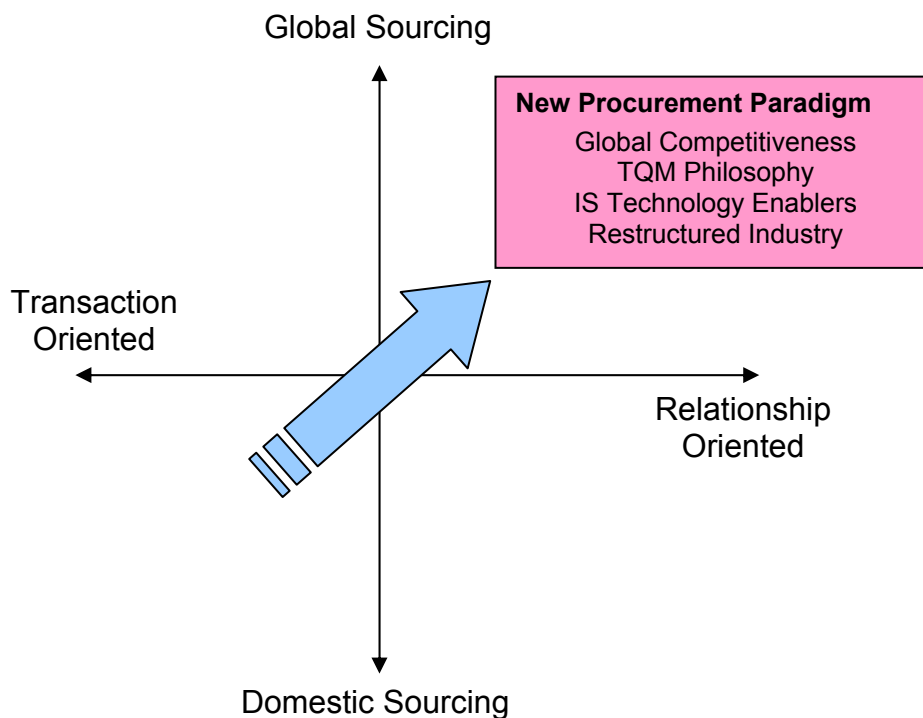


Figure 2.12. Strategic Shift in Organisational Buying Behaviour (adapted from Sheth & Sharma, 1997)

The RM literature concludes that strategic industrial environmental influences have resulted in businesses recognising the need to construct and maintain closer relationships. This supports the findings in Section 2 for Supply Chain Management and emphasises the need for the research methodology design and implementation to adopt this position as a starting point.

### **3.3 Relationship Marketing Development**

As organisations have migrated from bureaucratic hierarchies to more flexible and decentralised structures and, buyer-seller relationships have become less adversarial, the role of marketing within the firm has changed. RM thinking has also evolved to keep pace with the changing business environment. The next few sub-

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Sections first consider concepts from a relationship spectrum perspective and then trace the main schools of thought from the 1970s to the present.

### **3.4 *The Relationship Spectrum***

As an alternative to the Anglo/US, competitive style of business relationships, the Japanese Keiretsu model proposed avoidance of confrontation as a solution to disputes (Gundlach & Murphy, 1993). Such an approach required discrete market transactions to be displaced by closer, long-term relationships between buyers and sellers (Lewin & Johnston, 1997, Sheth & Sharma, 1997). Furthermore, the concept of value creation through collaboration rather than exchange depended on purposeful co-operation using a web of operational and interpersonal connections and structures (Dyer & Chu, 2000, Moss Kanter, 1994, Palmer, 2001). Three further spectrum views of relationship types are illustrated in Figure 2.13, which includes those shown in Figure 2.5 from the SCM literature for comparison. A very similar pattern is revealed with adversarial forms giving way to closer structures such as joint ventures, alliances and partnerships.

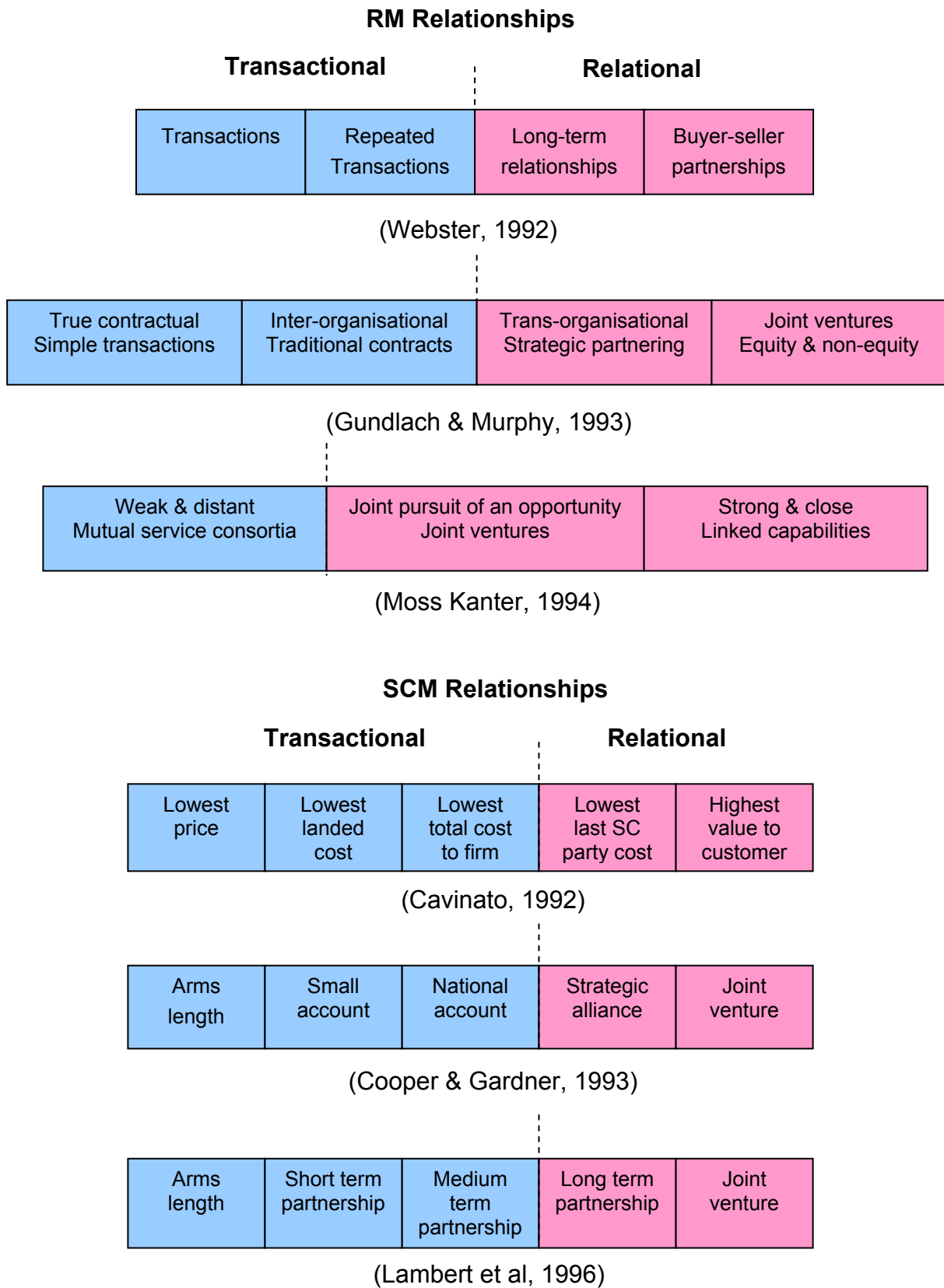


Figure 2.13. Relationship Spectrums – SCM & RM Comparison

These illustrative spectrums show that firms now contemplate a wider range of business relationships than previously and these may even extend to groups of co-operating, similar product/service companies known as sourced service consortia (Kakabadse & Kakabadse, 2000, Perks & Easton, 2000). The term partnership, as already introduced in 2.7, is therefore a broad concept with a number of definitions. A generic description from RM is a purposive strategic relationship between independent firms who share compatible goals and strive for mutual benefit. Linkage takes place in form and substance that goes beyond the conventional flow of products and paper (Mohr & Spekman, 1994). Business-to-business relationships may take many forms and moreover, firms may be involved in more than one at any time. They are likely to classify suppliers/customers according to their importance and adopt a portfolio approach to create and manage appropriate relationships as illustrated in Figure 2.14.

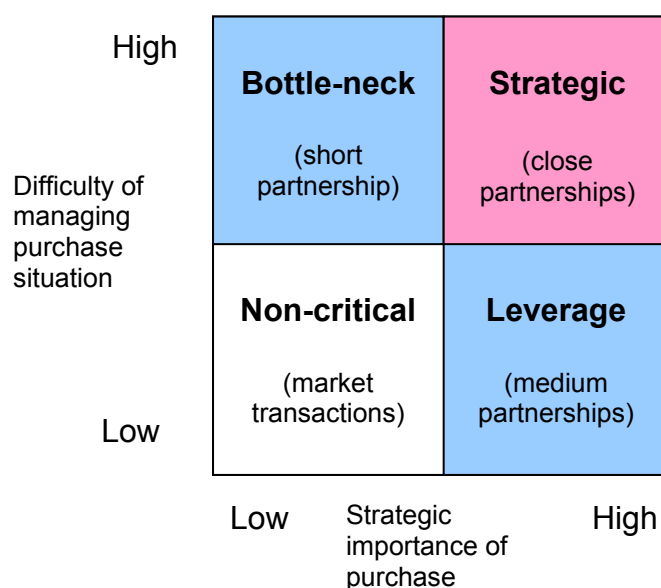


Figure 2.14. Adopted Portfolio Model (Olsen & Ellram, 1997)

### 3.5 Schools of Thought – Managerial Marketing

The original American Marketing Association definition of managerial marketing was *the performance of business activities directed towards, and incident to, the flow of*

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*goods and services from producer to consumer.* The emphasis was on discrete transactions, planning, control and profit maximisation (Webster, 1992) and the primary focus was the exchange relationship with the aim to *preclude killing and stealing* (Dwyer et al, 1987). This concept is otherwise known as Sales Management which thrived in large organisations in the 1970s and 80s and usually operated in an adversarial mode (McDonald et al, 1997). This phase approximates to the transactional end of a Relationships Spectrum shown in Figure 2.13. At the extreme end of the spectrum it is possible to encounter a relatively short term phenomenon where small numbers pertain and global companies such as Walmart and Rubbermaid enter a potentially mutually destructive confrontation, in this case over price. Basury et al (2001) reported that although at first Walmart was able to impose its will on Rubbermaid, it finally had to make a reasonable accommodation in order to overcome a situation where adversarial behaviour became equally disempowering and financially damaging to both parties.

### **3.6 Schools of Thought – Networks, Interactions and Marriage**

The first move away from Managerial Marketing was the theory of Industrial Networks which saw pairs of firms in dyadic relationships forming focal, value-added partnerships and, together with a secondary network of other firms, managing the flow of goods and services around a specific market opportunity (Anderson et al, 1994). This offered a first insight into the complexity of business relationships and a realisation that they could be other than adversarial (McDonald et al, 1997).

The need to find richer meaning in these relationships was explored through the work of the European Industrial Marketing Group (IMP) led by Hakan Hakansson in 1982 (Ford, 1980, Metcalf et al, 1992, Wilson, 1995). They saw complex interactions between firms within networks and measured the degree of closeness of their relationships terming the result 'embeddedness' (Anderson et al, 1994). They

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particularly saw relationships as a valuable resource and an investment to increase economic and technological efficiency and, to serve as an information channel and a means of reducing uncertainty (McDonald et al, 1997).

A further development beyond the IMP's Interactionist perspective was the Marriage Analogy which saw building and sustaining customer and infrastructure relationships requiring similar relationship qualities to those in marriage (McDonald et al, 1997, Tuten & Urban, 2001). As a result of dealing closely with a partner a firm achieves reduced uncertainty, managed dependence, exchange efficiency and social satisfaction (Dwyer et al, 1987, Moss Kanter, 1994). Additionally, maintenance of the arrangement requires bilateral investment, a long-term perspective and the avoidance of legal remedies to secure co-operation (Gummesson, 1999, Gundlach & Murphy, 1993). However, Palmer (2001) has warned that although closer relationships add value to end-customers and reduce costs for producers, in actuality the long term effect may be to restrict consumer choice and reduce the incentive of producers to reduce their costs because of the effects of diminished competition. This phase of Relationship Marketing development brought a clear view of the variety and closeness of many business-to-business relationships and became the precursor of the current 'New Marketing' approach.

### ***3.7 Schools of Thought – New Marketing***

New Marketing reflects the view that all marketing activities are directed towards establishing, developing and maintaining successful relational exchanges (Morgan & Hunt, 1994). It involves designing and negotiating strategic partnerships with vendors and technology partners through which the firm deploys its distinctive competences to serve market opportunities (Webster, 1992). The quintessential manifestation of New or Relational Marketing is Key Account Management (KAM). Here, the strategic importance of relationship building and maintenance is

recognised by the appointment of senior managers to provide high level expertise and management to this key task (McDonald et al, 1997). Cases where KAM has been implemented successfully include Fisons PLC and the Nottingham Health Authority (Cox & Lamming, 1997) and in the National Health Service Supplies Organisation (Harland, 1996b). It is also notable that the KAM concept has also become a descriptor for various types of relationships from a Relationship Marketing perspective as shown in Figure 2.15. Pre-KAM indicates the parties are scanning the market; Early KAM is a transactional stage; Mid KAM means a preferred supplier; Partnership KAM is single sourcing and, Synergistic KAM refers to shared process delivery.

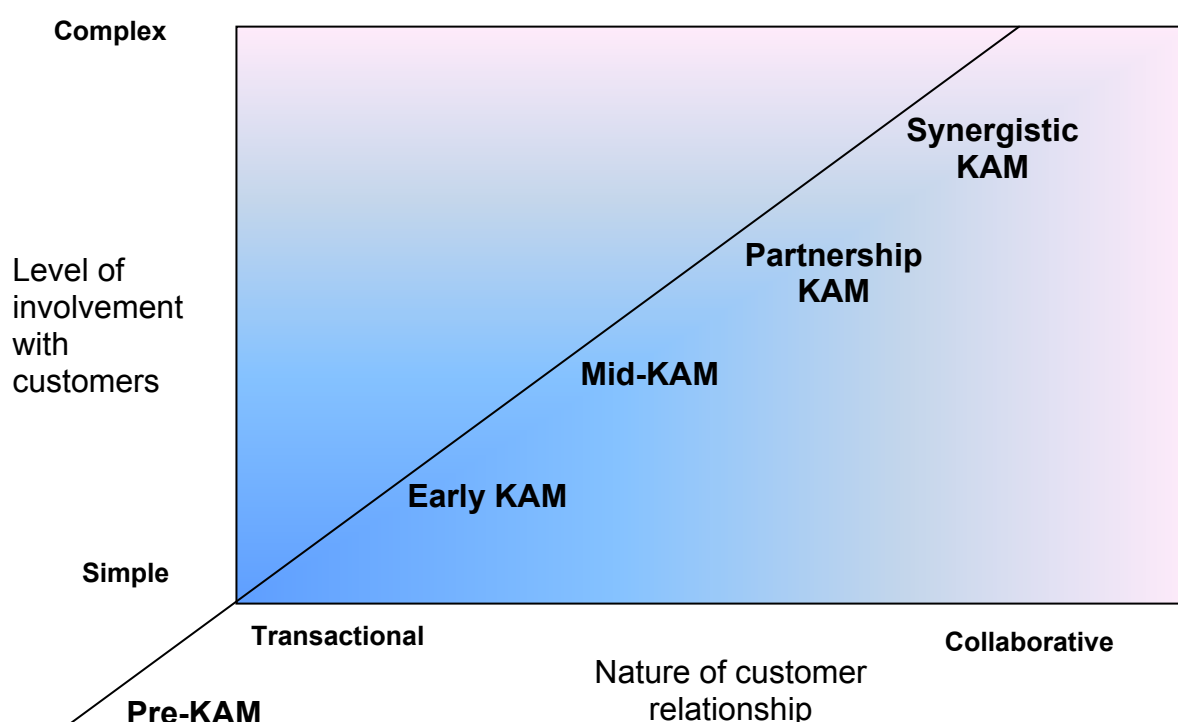


Figure 2.15. Key Account Relational Development Model (McDonald et al, 1997)

### **3.8 Relationship Marketing Relationships – Conclusions**

This Section has so far considered the importance of relationships to marketing by outlining the drivers for business change and the development of RM from

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transactional to relational perspectives. It has shown that a wide range of relationship forms are possible from quite simple ones such as the 'marriage analogy' to Synergistic KAM and, that firms may adopt different types depending on the depth and extent of their business dealings. Moreover, this pattern appears to be reflected in SCM although from its particular conceptual standpoints. The review did not find any instances of long term monopolistic relationships although it did find evidence of power confrontations between global industries. The implications for this research are that its design and implementation must take into consideration the trend towards relational business-to-business dealings and the expectation that within Defence Procurement a spectrum of relationship types will exist.

### **3.9 Relationship Variables**

The next few sub-Sections address the behavioural variables (such as trust and commitment) used within the schools of thought. The aim is to identify the important features that build and sustain successful business-to-business relationships so that the research design and implementation can seek out these features within Defence Procurement monopolies. A digest of the RM writers reviewed is contained in Figure 2.16 and it can be seen that there is a reasonable consensus on the importance of a relatively short list of variables. A number of them have been grouped because they are particularly related but in fact there are many links between them in a rich seam of business, organisational and behavioural interactions. These are reviewed next.



Writer	Trust	Commitment	C <sup>3</sup> Behaviour (Coordination, Collaboration, Cooperation)	Long Term Orientation	Interdependence, Power, Conflict	Adaptation & Communication	Culture Change
Axelrod, 1984	X		X				
Cowles, 1997	X						
Currall & Inkpen, 2000	X		X		X		
Doney & Cannon, 1997	X						
Doz & Baburoglu, 2000		X	X		X		
Dyer & Chu, 2000		X					
Eisenhardt et al, 1997					X		
Evans & Berman, 2001			X		X		X
Faulkner & de Rond, 2000	X		X		X		
Frow, 2001	X	X		X	X		
Gaski, 1884						X	
Goleman, 1998	X						
Gulati, 1995	X						
Gummesson, 1999					X		
Hatch, 1997					X		
Kramer, 1999	X						
Kumar, 1996	X						X
Lewin & Johnston, 1997				X	X		
Madhok, 2000		X				X	X
McDonald et al, 1997			X				
Metcalf et al, 1992			X			X	
Mohr & Spekman, 1994			X		X		X
Moorman et al, 1992		X					
Morgan & Hunt, 1994	X	X					
Moss Kanter, 1994			X			X	
Naude & Buttle, 2000		X					
Oliver, 1990		X	X	X			
Palmer, 2001			X	X	X		
Rousseau et al, 1998	X						
Rugmen & D'Cruz, 2000			X	X			
Sheth & Sharma, 1997	X	X			X		X
Stern & Reve, 1980			X		X		
Tuten & Urban, 2001	X				X	X	
Watson, 1999					X		X
Williamson, 1996	X						
Wilson, 1995		X				X	X

Figure 2.16. A Digest of Business-to-Business Relationship Behavioural Variables

### 3.10 Trust and Commitment

Although trust and commitment are separate concepts, for the purposes of this thesis they are considered together because of their complex interrelationship. This

is encapsulated in Morgan and Hunt's (1994) seminal Commitment-Trust theory shown in Figure 2.17.

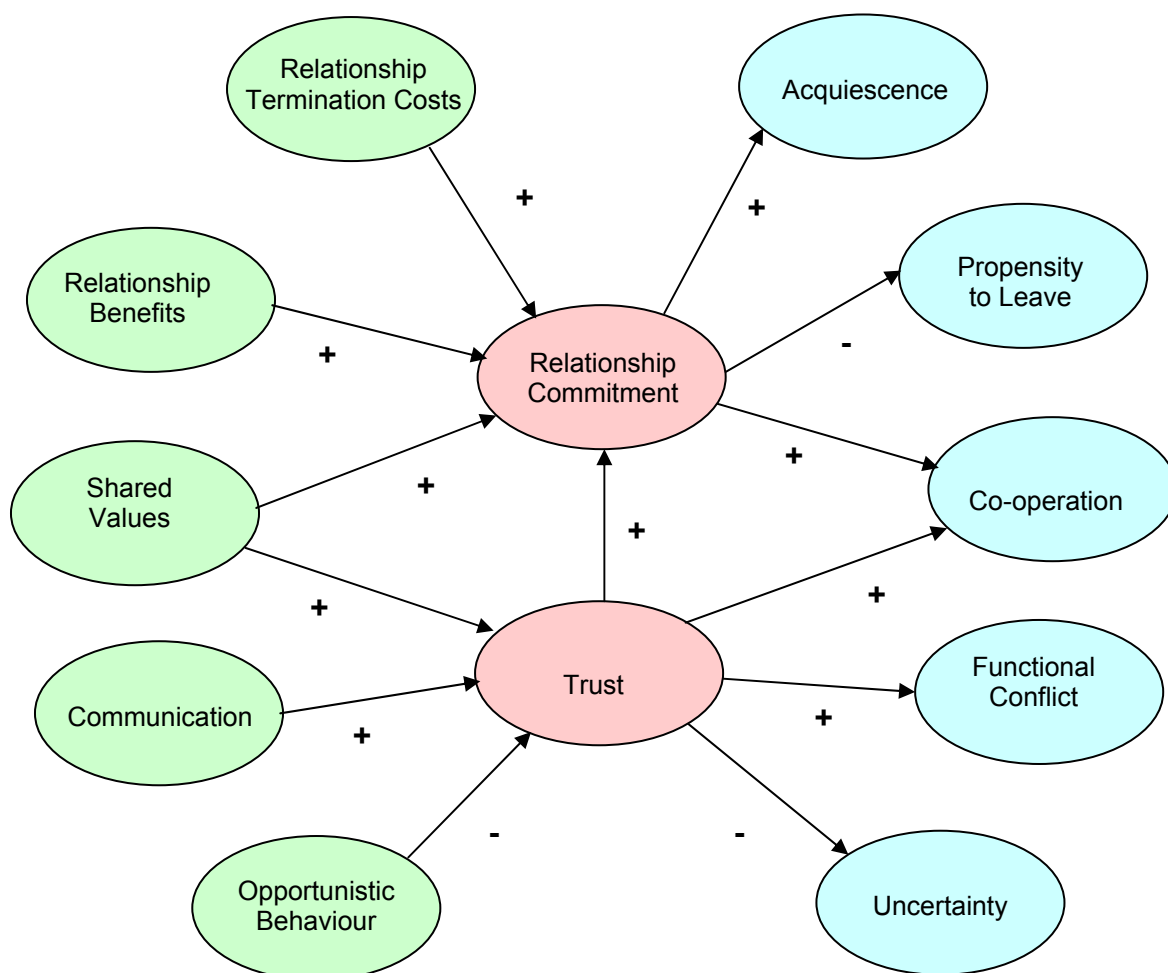


Figure 2.17. The Commitment-Trust Theory (Morgan & Hunt, 1994)

Their empirical research demonstrated that the positive and negative precursors in green impacted on the development of trust and commitment, which generated the beneficial outcomes shown in blue. In effect, trust and commitment acted to emphasise positive relationship benefits and reduce the impact of inherently negative influences. Furthermore, other research has confirmed these findings in terms of their importance to the stability and productiveness of business-to-business

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relationships (Currall & Inkpen, 2000, Dyer & Chu, 2000, Sheth & Sharma, 1997) and to SCM relationships in Section 2.10.

### **3.11 Trust Analysed**

As already mentioned, trust is a keystone of business-to-business relationships and therefore for the purposes of this research it is important to be clear on its meaning within this context. Trust is portrayed as a complex entity, which is not easy to measure (Gulati, 1995) in an extensive literature. This review therefore samples the salient concepts with the intention of deriving a perspective appropriate to the research.

There appears to be a consensus that trust integrates micro level psychological processes and group dynamics with macro level institutional arrangements or more simply that it encapsulates dispositions, decisions, behaviours, social networks and institutions (Rousseau et al, 1998). Trust enables co-operative behaviour, promotes improved relationships, reduces harmful conflict and allows effective response in a crisis (Doney & Cannon, 1997, Gundlach & Murphy, 1993, Kumar, 1996, Mohr & Spekman, 1994). It can be a psychological state that comprises the intention to accept vulnerability based upon positive expectations of behaviour of the other party and can thus be a substitute for more formal control methods (Kramer, 1999, Moorman et al, 1992). Trust requires risk (a perceived probability of loss) (Cowles, 1997, Currall & Inkpen, 2000, Moorman et al, 1992), uncertainty (over the intentions of the other party) (Doney & Cannon, 1997), interdependence (where the interests of one party cannot be achieved without reliance on the other) and choice (alternative options are available) as essential conditions (Kumar, 1996). Both Economics and Games Theory (Axelrod, 1984) see trust as a stable phenomenon that either exists or doesn't (Gulati, 1995). Others see it as being 'caused' (eg. by previous good experience, institutional reputation, and commitment) and affecting factors such as

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openness, reliability and honesty (Doney & Cannon, 1997, Goleman, 1998). A more simplistic assessment is a combination of all these elements in a richer interaction between parties which sometimes requires a leap in faith to achieve but, the result is the creation of a reservoir of goodwill and the incentive to *go the extra mile* (Kumar, 1996). Thus, in an era of more flexible organisation forms, there is a shift from institutional (where trust is represented by the firm, brand or product) to relational trust (where trust is enshrined in what people do) (Gulati, 1995, Rousseau et al, 1998) which ties in with the development of Relationship Marketing itself.

Having considered some of trust's more esoteric meanings it is also possible to find definitions that illustrate its crucial importance and effects in industrial and marketing contexts (Cowles, 1997). It is present when a party has fundamental belief/confidence that the other partner will act reliably and with integrity in the best interests of the other (Cowles, 1997, Dwyer et al, 1987, Ganesan, 1994, Kramer, 1999, Lewin & Johnston, 1997, McDonald et al, 1997, Morgan & Hunt, 1994, Wilson, 1995).

In conclusion, there is little doubt that repeated cycles of exchange, risk-taking and successful fulfilment of expectations strengthen the willingness of parties to rely upon each other and, as a result expand the relationship, in effect producing a virtuous circle that can be developed and promoted (Doney & Cannon, 1997, Goleman, 1998, Gulati, 1995, Gundlach & Murphy, 1993, Moorman et al, 1992). The alternative, untrustworthiness, may precipitate a downward spiral of conflict leading to diminished operations or failure (Currall & Inkpen, 2000). This is how trust is viewed as a concept by this thesis.

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### **3.12 Commitment**

Commitment is viewed as an outcome of trust because without it, the relationship lacks credibility and growth potential (Frow, 200, Gundlach & Murphy, 1993, Anderson et al, 1994, Naude & Buttle, 2000). Commitment is defined variously in the literature as the belief by an exchange partner that the relationship with another is so important as to warrant maximum effort to maintain it indefinitely (Morgan & Hunt, 1994). The desire to expend considerable additional effort in building the relationship is a recurring theme (Lewin & Johnston, 1997, Mohr & Spekman, 1994) as is an implicit or explicit pledge or enduring desire to maintain a valued relationship (Moorman et al, 1992, Wilson, 1995). At the interactive level there can be an implication of stability, loyalty and sacrifice in both interorganisational and interpersonal dealings (Frow, 2001, Gundlach & Murphy, 1993).

In summary, trust and commitment are strong, supportive factors that are communicated explicitly by action and without which a sound relational exchange will fail to deliver full benefits. However, both require an enormously challenging learning curve to deliver effectively but, the benefits are better customer service, superior communication and increased joint profitability (Dyer & Chu, 2000, Ganesan, 1994, Hines & Jones, 1996, Watson, 1999). This research will need to seek out data that exposes these features and to identify if they exist in the same way within sustained monopoly businesses.

### **3.13 Co-operation, Co-ordination and Collaboration (C<sup>3</sup>)**

The co-operation, co-ordination and collaboration variables are closely related in the literature and for this reason they have been grouped in this thesis as an entity called C<sup>3</sup> Behaviour. The literature differentiates both behavioural and action aspects and these are reviewed in the next sub-Sections.

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### **3.14 C<sup>3</sup> Behaviour**

Co-operative, co-ordinating and collaborative (C<sup>3</sup>) behaviour is defined as working together/jointly to bring resources into a required relationship to achieve effective operations in harmony with the strategies/objectives of the parties involved, thus resulting in mutual benefit (Humphries & Wilding, 2004). C<sup>3</sup> Behaviour is seen as being essential to maintain a successful business partnership (Axelrod, 1984, Metcalf et al, 1992) especially when it is linked with commitment to the achievement of shared, realistic goals (Lewin & Johnston, 1997, Sheth & Sharma, 1997, Stern & Reve, 1980, Wilson, 1995). Morgan & Hunt (1994) and Oliver (1990) also describe the importance of pursuing mutually beneficial interests but additionally emphasise the fundamentally co-operative nature of business life characterised by balance and harmony. These views are significant because they provide a concept of the boundary markers within which productive relationships can take place (Mohr & Spekman, 1994) and can often lead to the discovery of even more successful ways to co-operate and new objects of co-operation (Doz & Baburoglu, 2000).

### **3.15 C<sup>3</sup> Behaviour in Action**

In this context these variables are defined as similar or complementary, co-ordinated actions needed to achieve mutual outcomes with reciprocation over time (McDonald et al, 1997, Metcalf et al, Moorman et al, 1992, Oliver, 1990, Sheth & Sharma, 1997). At a higher level, co-operation, co-ordination and collaboration rather than pure exchange are used to create real value; an organisational competence known as 'collaborative advantage' which requires developed mechanisms, structures, skills and processes (Anderson et al, 1994, Moss Kanter, 1994). And then there is the more product-oriented approach that mentions collaboration or coalescing between buyers and sellers to produce quality products and contain costs over an indefinite stream of transactions (Rugman & D'Cruz, 2000). The importance of capitalising on

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supplier's expertise by early involvement in early design phase is also mentioned (Metcalf et al, 1992, Stern & Reve, 1980).

### **3.16 C<sup>3</sup> Behaviour Conclusions**

C<sup>3</sup> Behaviour is an essential factor in contributing to the practical success of business-to-business relationships. It signifies joint endeavours to achieve common objectives and hence relationship success. The research design will need to seek data from the organisation context under scrutiny to find evidence of this behavioural variable to determine its part in answering the Research Question.

### **3.17 Long-term Orientation**

A long-term orientation is an essential prerequisite for moving away from adversarial relationship because it suggests continuity, stability, predictability and working together consistently to achieve sustained competitive advantage and an opportunity to build trust and commitment (Oliver, 1990, Rugman & D'Cruz, 2000). This attitude is also instrumental in increased morale, co-operation and improved dispute settlement procedures (Ganesan, 1994, Lewin & Johnston, 1997). It is therefore concluded that this factor should feature in the research design and implementation.

### **3.18 Interdependence, Power and Conflict**

As already mentioned when discussing trust, a business relationship will not survive unless both sides are dependent upon each other to achieve their objectives and any loss in individual autonomy is compensated through the expected gains (Mohr & Spekman, 1994). A key outcome of interdependence is reduced temptation to act opportunistically and thus a tendency to prolong the relationship (Lewin & Johnston, 1997). Interdependence is built and reinforced by both parties investing in the relationship. Such investments are likely to be non-retrievable such as funds, equipment, IS, tacit knowledge, skills and management time (Ganesan, 1994, Gulati, 1995, Sheth & Sharma, 1997, Wilson, 1995). However, Doz & Baburoglu (2000)

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suggest that unless there is clear, mutual interdependence, the benefits that might result from co-operation may be ignored by managers steeped in a tradition of open competition.

'Power-play' is also an important factor that determines whether an interdependent relationship will survive. Power is itself a complex variable with both beneficial and destructive properties, even when not exercised overtly. Unbalance, or asymmetry, can make one partner susceptible to the power and influence of the other (Ganesan, 1994, Gundlach, 1993, Gummesson, 1999, Hatch, 1997, Tuten & Urban, 2001). In the worst case where monopoly conditions apply the result may be mutual imprisonment where neither side has an exit option and complaints are ignored (Gummesson, 1999). However, this need not be destabilising as long as the perception of equity (a relationship between equals (Watson, 1999)) remains in terms of sharing the outcomes and participation in the venture (Gaski, 1984, Kumar, 1996, Lewin & Johnston, 1997, Moss Kanter, 1994, Stern & Reve, 1980). An illustration of this point is shown in Figure 2.18 where equitable use of power can build trust.



	The Power Game	The Trust Game
<b>Modus Operandi:</b>	Create fear	Create trust
<b>Guiding Principle:</b>	Pursue self-interest	Pursue what's fair
<b>Negotiating strategy:</b>	Avoid dependence by playing multiple partners off against each other  Retain own flexibility but lock in partners by raising their switching costs	Create interdependence by limiting the number of partnerships  Both parties signal commitment through specialised investments to lock them in
<b>Communication:</b>	Primarily unilateral	Bilateral
<b>Influence:</b>	Through coercion	Through expertise
<b>Contracts:</b>	Closed, formal, detailed, short term  Use competitive bidding frequently	Open, informal, long term  Check market prices occasionally
<b>Conflict management:</b>	Reduce conflict potential through detailed contracts  Resolve conflicts through legal system	Reduce conflict potential by selecting partners with similar values & by creating mutual understanding  Resolve conflicts through procedures such as mediation or arbitration

Figure 2.18. Moving from the Power Game to the Trust Game (Kumar, 1996)

Destructive conflict (opponent-centred behaviour ( Stern & Reve, 1980)) should not be confused with functional conflict (creative abrasion (Eisenhardt et al, 1997)). The latter's freedom to disagree (Moorman et al, 1992) takes place in an atmosphere of trust and not only enables the productive resolution of disagreements but also produces innovation from teamwork (Hatch, 1997). Thus conflict and co-operation are seen as complementary processes and as significant behavioural variables, should be incorporated in the research design to determine if they are also important to UK Defence Procurement monopolies.

### ***3.19 Adaption and Communication***

The need for investments such as money and skills to support dependence has already been mentioned however, a different type of investment is that which adapts to the needs of the relationship. Examples are products, procedures, inventory management, attitudes, values and goals and these mark a commitment to maintain

the relationship (Humphries & Wilding, 2004). The extent to which these adaptations are made will depend on the type and complexity of the product/service, the depth of information exchanged and the extent of organisational social and operational contacts and degree of co-operation required (Metcalf et al, 1992). The interaction of these factors is shown in the IMP Model at Figure 2.19.

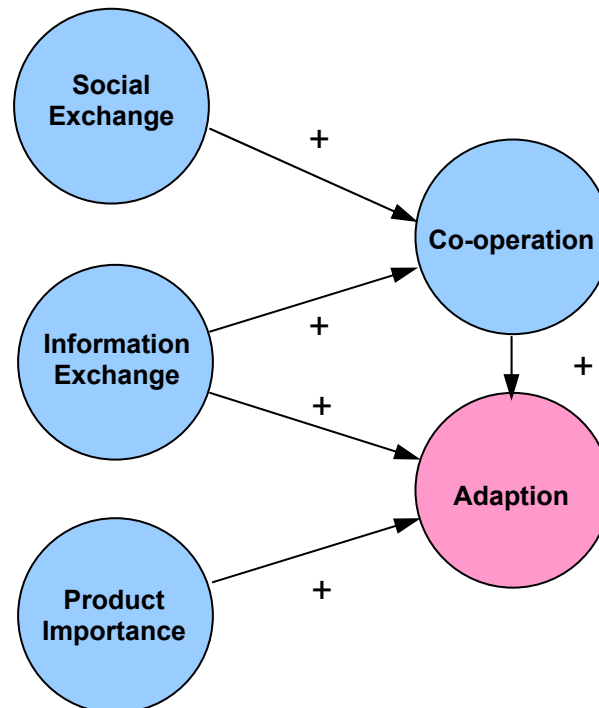


Figure 2.19. The IMP Interaction Model (Metcalf et al, 1992)

Successful adaption is dependent upon multi-level, intensive communications (Morgan & Hunt, 1994, Moss Kanter, 1994, Tuten & Urban, 2001). They flow through honest, open channels from joint planning and goal setting where mutual expectations are established and measured and allow the breadth and depth of the complex interaction to be managed (Gaski, 1984, Mohr & Spekman, 1994, Oliver, 1990, Wilson, 1995). At the operational level, clear guidelines on the sharing of proprietary information and technology influence product development, costs, sales and revenues and increase commitment (Gulati, 1995, Kumar, 1996, Lewin & Johnston, 1997, Moorman et al, 1992, Wilson, 1995).

Both adaption and communication are considered to be key behavioural variables that would provide important indicators to relationship success in this research.

### **3.20 Building Relationship Management**

In the last few sub-Sections a number of key relationship variables have been reviewed. The importance of trust and commitment, co-operation, co-ordination and collaboration, long-term orientation, interdependence, power and conflict and finally adaptation and communication are clear. Moreover, they provide a suite of business relationship features which, although based in competitive market conditions, offer a means of gauging the success of the monopolistic businesses that the Research Question seeks to explain. The table in Figure 2.20 summarises a number of management measures that can be taken to improve and sustain a business partnership and encapsulates a combination of the behavioural variables reviewed. It thus gives an possible view of the ideal conditions that could be found and offers some research design possibilities.

<ul style="list-style-type: none"> <li>• <b>First Generation Partnering:</b> <ul style="list-style-type: none"> <li>• Agreeing mutual objectives.</li> <li>• Making decisions and resolving problems openly as agree at the start of the project.</li> <li>• Aiming at targets that provide continuous measurable improvements.</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• <b>Second Generation Partnering:</b> <ul style="list-style-type: none"> <li>• Develop strategy jointly.</li> <li>• Embrace participating firms fully.</li> <li>• Ensure equity by allowing all to be rewarded on the basis of fair prices and profits.</li> <li>• Integrate firms through co-operation and trust.</li> <li>• Benchmark performance accurately.</li> <li>• Establish best practice processes and procedures.</li> <li>• React to feedback positively and quickly.</li> </ul> </li> </ul>
<ul style="list-style-type: none"> <li>• <b>Third Generation Partnering:</b> <ul style="list-style-type: none"> <li>• Understand the client's business and its success factors.</li> <li>• Take joint responsibility for key outputs.</li> <li>• Turn the main processes into a seamless chain of value-adding activities.</li> <li>• Mobilise full partnership development expertise.</li> <li>• Create expert teams and Key Account Managers.</li> <li>• Innovate jointly.</li> </ul> </li> </ul>

Figure 2.20. The Three Generations of Partnering (Watson, 1999)

However, important culture changes are also required and these may not be so clear-cut or easy to implement. Firstly there is a need to develop a management philosophy or corporate culture where companies can operate in a climate of trust and openness (Evans & Berman, 2001, Mohr & Spekman, 1994). Perhaps this can be accomplished by changing the reward systems which reinforce the behaviours that generate trust, mutual goals and adaption (Wilson, 1995) but, the difficulty of changing the mindsets of staff should not be underestimated (Sheth & Sharma, 1997, Watson, 1999). Finally, although a number of writers note the importance of rich interpersonal relationships (Gulati, 1995, Moorman, 1992, Moss Kanter, 1994, Palmer 2001) to the growth of trust, others express a more pragmatic view of business partnerships where close personal relationships are not essential and where enlightened self-interest operates such that both press hard for advantage but stay within their trust compact (Faulkner, 2000, Goleman 1998, Kumar, 1996, Wilson, 1995).

In summary, business relationships depend on a clear understanding of each party's needs and the maintenance of an agreed framework within which to prosecute shared objectives. This conclusion is summarised in Figure 2.21.

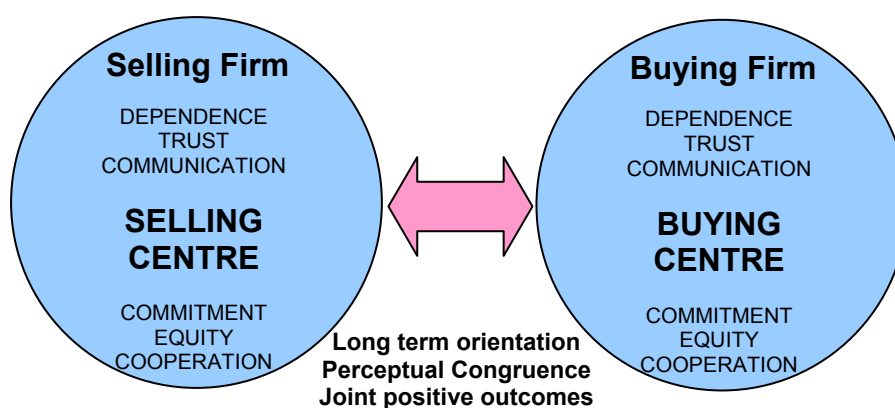


Figure 2.21. An Interactive Model of Buyer-Seller Relationships (Lewin & Johnston, 1997)

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### **3.21 Relationship Marketing Conclusions**

This review of the RM literature has concentrated on the specific factors that explain the essence of practical business-to-business relationships. It first identifies the competitive pressures for closer business relationships (3.2) and then shows that RM theory has evolved from transactional roots to a relational form (3.3 & 3.4). This development, from Managerial Marketing (3.5), Networks, Interactions and Marriage (3.6) to the New Marketing and Key Account Management of today, (3.7) is reviewed and indicates a field that has kept in step with business and organisation developments (3.8). The next series of Sub-Sections introduced key relationship behavioural variables (3.9) and examined the contribution of trust and commitment (3.10 – 3.12), co-operation, co-ordination and collaboration (3.13 – 3.16), long-term orientation (3.17), interdependence, power and conflict (3.18) and, adaptation and communication (3.19) to successful business-to-business relationships. Finally, and in order to draw the components together, sub-Section 3.20 provides some advice to managers on cultural issues and implementation. Overall, the literature has benefited by drawing selectively from other theoretical fields in order to offer richer insights into some of the more complex areas of human interaction in business.

### **3.22 Implications for the Research**

The RM literature covers a very wide field that encompasses the Supply Chain, Procurement, Economics, Games Theory, Organisation, Sociology and Behavioural Psychology as well as Marketing (Gundlach & Murphy, 1993, Sheth & Sharma, 1997). As a result it lacks consistency and also in some areas, depth (Kakabadse & Kakabadse, 2000). Furthermore, some key concepts and assertions have become axiomatic and therefore not subjected to sufficient theoretical or practical scrutiny (Palmer, 2001). Research has also tended to concentrate on vendor/retailer rather than vendor/end customer relationships (Ganesan, 1994) and this has resulted in

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limited modelling of complete relationship chains (McDonald et al, 1997, Rousseau et al, 1998). Nevertheless, an understanding of the complexity of business relationships, the behaviours that are important to success and important guidance to managers on improving business relationships (Evans & Berman, 2001) has been presented.

The RQ aims:

- **To determine, using an appropriate theoretical framework, the behavioural and business factors that influence relationships between the UK MoD and its main industrial suppliers in a monopoly market.**

The development of RM thinking has to some extent mirrored that of the UK MoD and its industrial suppliers such that both see strategic interaction at a relational rather than a transactional level (CM 446, 1999). The literature describes a complex suite of relationship variables that provide some insights to the improvement of relationships within UK Defence Procurement and offer factors that can be employed in the research design and its implementation. However, the literature mostly describes relationships in the commercial environment within 'normal' markets and only rarely considers the impact of negative factors such as lack of relationship choice or exit as found within the essentially monopolistic situation in UK Defence Procurement. This is a clear gap in the knowledge. The following question is therefore raised:

- **Q2 – Can RM behavioural variables, especially those shown in Figure 2.16, provide an understanding of the monopolistic relationships found within UK Defence Procurement?**

Both the SCM and RM literatures provide analysis of 'normal' market business relationships and their improvement which are useful to support the design and

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implementation of this research project but neither field offers an explanation of the economic drivers for closer business relationships nor the monopoly phenomenon itself. For these reasons the thesis next reviews the Economics literature.

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## **4 Business Relationships from an Economics Perspective**

### ***4.1 Introduction***

Having identified business relationship practices, procedures and behaviours from the SCM & RM literatures that will support the design and implementation of a research project, it is necessary to seek further key components from the Economics literature in order to fully address the RQ. This Section now examines the development of economic theories to rationalize the types of relationship that occur between purchasers and vendors within business transactions (the contract environment) and moreover, seeks a theory to explain the relational dynamics within the monopoly phenomenon. The structure of the Section is shown in Figure 2.22. First the origins of relational economics are traced and the theme is followed through contract theory into Oliver Williamson's influential transaction cost economics (TCE) ideas (Hill, 1990). In TCE the main tenets of the theory are reviewed and in particular the interaction of human behavioural inputs that can lead to market failure and monopoly is identified. The Section then examines the importance of selecting contracting methods that are appropriate to the transaction and relationship type and this then leads to a review of how TCE deals with trust in business-to-business relationships. The development of classical TCE beyond Williamson towards a relational form is then summarised and the impact of TCE on relationships within UK Defence Procurement is examined. Finally, a gap in the knowledge is identified, a supporting research question is posed and, the implications for designing and implementing the research are outlined.



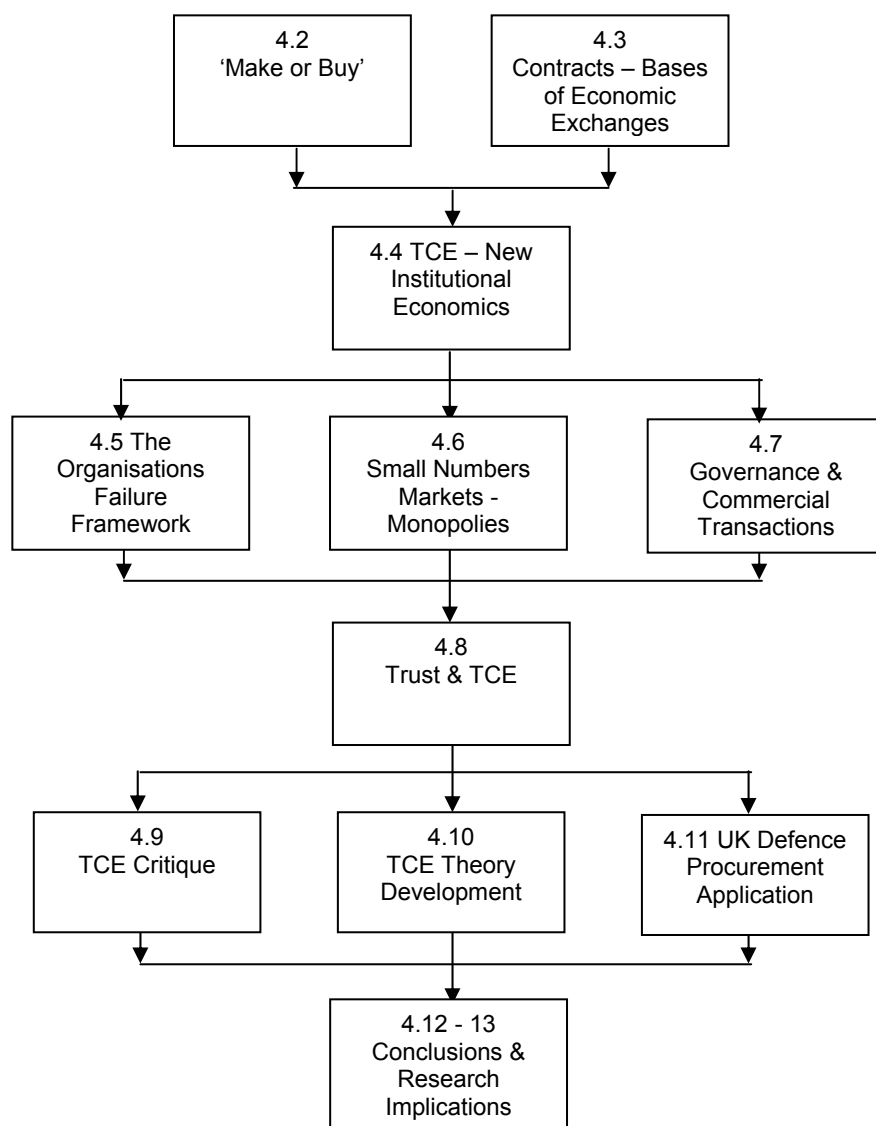


Figure 2.22. Structure of Section 4

## 4.2 'Make or Buy'

In the nineteen thirties economists were exhorted to make the assumptions surrounding their theories clear and above all, correspond to the 'real world' (Coase, 1937). Previously, the concept of the price mechanism was seen as the principle factor in the operation of the market. However, Coase (1937) observed that because every transaction had a cost including that of organisation, contracting and control, in some cases it was thus cheaper to do the work in-house (he coined the term *vertical integration*) and in others it was cheaper to buy the good or service in the open

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market – the make or buy decision. Furthermore, instead of managers being pawns in an economic game, it was entrepreneurs who decided how resources should be allocated (Nooteboom, 1999).

### **4.3 Contracts – The Bases of Economic Exchanges**

Given that managers have a leading part to play in the decisions surrounding economic exchanges, it is important to mention the management framework used; contract law. A legalistic definition of a contract is: '*a promise or set of promises for the breach of which the law gives a remedy or the performance of which the law in some way recognises a duty*' (Macneil, 1980). A less arcane view is a relationship between parties that enables them to plan, negotiate and consummate their business (Gundlach & Murphy, 1993). However, because contract doctrine encompasses such a wide range of complex, socio-legal components such as bankruptcy law and fraud, remedies to enforce promise-keeping are the weakest in the legal system and extremely costly to pursue (Macaulay, 1963). In consequence as business deals become more extended (through transactional to relational) it is important to have a range of contracting options available that can cope with both the length and depth of business transactions. Macneil (1980) accordingly offered 3 classifications of contracts:

- *Classical*: where all relevant future contingencies are described and discounted – for example the spot market where a simple, one-off purchase is made.
- *Neoclassical*: contracts are long-term agreements executed under conditions of uncertainty where 3<sup>rd</sup> party assistance is often used to resolve disputes and to evaluate performance – an outsourcing operation is a good example of this.
- *Relational*: based upon the improbability of determining the partners' relative legal positions because contracts are essentially incomplete due to a lack of information and the difficulty of anticipating contingencies at the outset.

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Thus despite its early positivist doctrines, changes in the way business was done persuaded economic and legal thinkers that business relationships depended on more subtle factors than market forces and the 'small print' of contracts. This underpins the findings from the SCM & RM literature where market pressures were shown to be the drivers for a move from transactional to relational business dealings with an economic, theoretical basis.

#### **4.4 TCE - New Institutional Economics**

Having accepted that business relationships needed to include a measure of flexibility to deal with more complex contracts, New Institutional Economists devised theories to account for the 'human element' (Nooteboom, 1999). These were encapsulated within a sub-field of Economics called TCE. Williamson's (1975, 1979, 1996) main thesis centred on micro economic issues dealing with transactions and costs where a bottom-up analysis was essential to provide detailed explanations of what was happening in firms and markets. Following on from Coase, he defined the control circumstances under which transactions took place as Governance with institutions such as firms (make) and markets (buy) as alternative modes. The main purpose and effect of an economic organisation was to economise on the cost of transactions including negotiating and enforcing contracts and internal control and management overheads (Faulkner & De Rond, 2000, Palmer, 2001). The make or buy decision was thus clear because the use of complex structures to govern simple transactions was unnecessarily expensive whilst using a simple structure to govern complex transactions caused strain. In his quest for realism, Williamson incorporated a series of human variables into his theory and constructed a model to explore their interactions. Thus TCE focussed on adopting appropriate forms of governance to minimise the risks associated with opportunistic behaviour (Faulkner & De Rond, 2000, Madhok, 2000, Nooteboom, 1999). TCE features will be useful to

this research by providing a number of theoretical business relationship mechanisms that will be covered later in this Section. However, first the next Section describes Williamson's (1975) economic Organisations Failure Framework, which explains the foundations of TCE and potentially offers a theoretical framework for this research.

#### 4.5 The Organisations Failure Framework

The Organisations Failure Framework shown in Figure 2.23 shows how TCE saw the limitations of personal performance tending to reduce the effectiveness of economic exchange. Although not overtly a causal model, it provides a powerful view of the

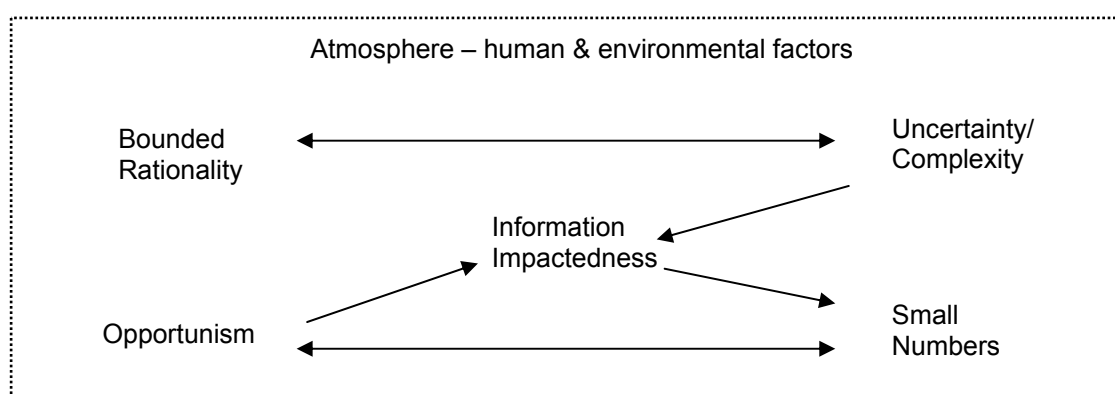


Figure 2.23. The Organisations Failure Framework (Williamson, 1975)

influences that exist within a 'failing market' where the increased costs of participation tend to accelerate its decline and force market concentration logically to the point where a monopoly is created. The Framework's elements are described as follows:

- *Bounded Rationality*: Herbert Simon's (1957) concept suggested that people have only so much capacity to rationalise what is going on around them and therefore naturally limit their performance to the adequate rather than the optimum. (This is contrary to the TCE view where people (economic agents) are assumed to make rational decisions based on a finite information act and a

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given ability to assimilate and order the information they have available to them) (Williamson, 1975). This compounds and is compounded by

- *Uncertainty/complexity*: which describes the difficulty people have in making sense of complex current and future events.
- *Information Impactedness*: results from both Uncertainty/Complexity and Opportunism which refer to the imbalance caused by selective information disclosures, and distortions (such as inflating cost figures in order to justify higher prices) which are difficult or expensive to verify at the time and which undermine the durability of contract arrangements (Liston-Heyes, 1995).
- *Opportunism*: is a lack of candour or honesty and includes self-interest seeking with guile. This factor can be especially debilitating if the exchange involves transaction-specific human and physical capital investments (asset specificity). Examples are management time, skilled labour and IS links. The higher the asset specificity (committed investment) the greater the risk of opportunism and that financial returns will be dissipated by organisation safeguards (Hill, 1990). Moreover, highly specific investments can give one party excessive power over the other or, because of the fear of loss, can lock a partner into the deal when he would rather leave i.e. trust and/or altruism are assumed not to coexist in transactions (Williamson, 1979). Opportunism also contributes to Information Impactedness where the use of information is deliberately obfuscated.
- *Small Numbers /Monopoly market*: the reduction of business choices resulting from poor information leads to the need for sophisticated controls that are only found in or close to the firm and thus may result in a failure of market conditions (Williamson, 1979). Furthermore, this reduction in market power will interact negatively with business people's altruistic principles and thus help to perpetuate an unsatisfactory market. In these circumstances partnership might be seen as

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*'just another way of appeasing the customer with slightly less guile'* (Lamming, 1993).

In summary, Williamson accepted that economic theory must acknowledge human input in order to be realistic but primarily it was a weakness to be overcome. His assertion that a failure of the market could lead to unsatisfactory small numbers/monopoly conditions is considered in more depth in the next sub-Section and is particularly pertinent to this study because of the monopolistic market that exists within UK Defence Procurement.

#### **4.6 Small Numbers Markets - Monopolies**

Key to this thesis and its aim of understanding the monopolistic businesses within UK Defence Procurement is a definition of the monopoly condition and its effects. Small Numbers (Williamson, 1975) is otherwise known as oligopoly/oligopsony where there are few sellers/buyers. Monopoly/monopsony is where there is only one buyer/seller, a bilateral monopoly. Because both sets of conditions have similar outcomes where restriction in the market have adverse effects of varying degrees to both customers and suppliers (Fishwick, 1993), in this review Small Numbers and Monopoly are taken to be synonymous.

Although Williamson (1996) believed that TCE explained the 'small numbers' phenomenon, he considered that nothing good could come from a technical monopoly which is *'no more than a manifestation of 3 evils'*: private unregulated monopoly (eg. arguably the Microsoft Corporation), private regulated monopoly (eg. the Post Office) and, government operation (eg. Defence). Moreover, without the pressure of the market, monopolies tend to be prone to inefficiency, decay and flabbiness because costs are poorly controlled and service quality is low (Hirschman, 1970). Although parties have options of 'voice' and 'exit' in the face of a monopoly,

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the costs of exit (leaving the market) may be high and as a result 'lock' the participants into an increasingly dissatisfying arrangement (Hirschman, 1970). Moreover, due to the possibility of ruling out further business opportunities, there may be a reluctance to ('voice') protest or appeal to outside authorities (Hirschman, 1970). There has nevertheless, been considerable TCE research into 'inevitable natural monopolies' found in public utilities (Crocker & Masten, 1996, Rindfleisch & Heide, 1997, Williamson, 1996) but this has generally concentrated on the difficulties of making appropriate governance choices to maintain private and public interests rather than the achievement of improved performance (Crocker & Masten, 1996). Williamson's dislike of the unnaturalness of the small numbers/monopoly condition and the dangers of allowing human foibles to intervene in the market to allow it to occur is unmistakable however, in the UK monopoly is not illegal and action is only taken if it is against the public interest (Fishwick, 1993). Moreover, US Government antitrust laws have always intimated that collusion (an agreement between two or more parties for a deceitful or fraudulent purpose (Palmer, 2001)) was illegal but, recent guide-lines have acknowledged that competitors in modern markets may also need to collaborate eg. for research and joint ventures. The same is true of Articles 85 and 86 of the Treaty of Rome where the definition of 'workable competition' is itself open to interpretation. Therefore, the boundary between legal and illegal activities is still open to substantial opportunities for misunderstanding and misinterpretation (Palmer, 2001, Strutton et al, 2001). Such findings introduce a measure of ambiguity to the overall assessment of the monopoly market condition, none more so than the definition and interpretation of 'the public interest' (Fishwick, 1993, Palmer, 2001).

This sub-Section has summarised the pertinent literature on the monopoly condition and has concluded that it is generally viewed as a short-term failure of normal

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competition that will be overcome by the legal process or by regulatory governance. However, governments may be ambivalent about the application of the law due to interpretation of what is in or not in the public interest. Many UK Defence Procurement contracts, which operate as government-supported stable monopolies thus, appear to occupy this ambivalent position.

#### **4.7 Governance and Commercial Transactions**

Having so far introduced TCE and monopoly, the next 2 sub-Section summarise TCE's perspective on relational business dealings in order to determine the theoretical approach of economics to the RQ. Williamson's (1979) views on the purpose of governance changed over time. Initially the approach was pragmatically to protect the interests of the respective parties and adapt the relationship to changing circumstances. His development of more detailed contracting categories are compared with those of Macneil (1980), a Neoclassical Economist, which were reviewed in 4.3 as follows and summarised in a table at Figure 2.24.

- *Market Governance*: equivalent to Classical contracting and involving non-specific transactions of both occasional and recurring nature eg. purchasing standard software packages.
- *Bilateral Governance*: equivalent to Neoclassical contracting and involving both non-specific and highly idiosyncratic, occasional transactions. Highly idiosyncratic exchanges involve specialised physical and human capital (asset specificity) where the benefits can only be realised as long as the relationship is maintained (Palmer, 2001). Third party arbitration is used to assist with dispute settlement. An example is a running contract to repair combat aircraft hydraulic components.
- *Transaction-specific Governance*: equivalent to Relational Contracting and sometimes known as hybrid governance, involving recurring transactions of the



mixed and idiosyncratic kinds. Adaption of contracts can only be accomplished by mutual agreement eg. a development contract for aircraft stealth technology. (The next logical step, as transactions become progressively more idiosyncratic, is Unified Governance which means vertical integration or internal organisation) or potentially monopolistic conditions.

		Investment Characteristics		
		Nonspecific	Mixed	Idiosyncratic
Frequency	Occasional	Market Governance (Classical contracting)	Bilateral Governance (Neoclassical contracting)	
	Recurrent		Bilateral Governance (Relational contracting)	Unified Governance

Figure 2.24. Comparing Williamson's and MacNeil's Governance Structures (Adapted from Williamson, 1979)

Given that relational contracting and bilateral governance should be used for recurrent transactions involving long term investment in building relationships typical of co-operative activity, Williamson believed that these specific assets would generate mutual dependence and serve as 'hostages' against opportunism. However, although hybrids offered advantages of avoidance of market uncertainty and failure and, the cost of establishing hierarchies, problems of control made them unstable (Faulkner & De Rond, 2000). This is illustrated in the following 2 cases.

Arnt Buvik and Torger Reve's (2001) empirical research demonstrated that where the deployment of specific assets such as the customisation of products and tailoring of production by the supplier together with joint product design, inter-firm dependence may increase to such an extent that a bilateral monopoly may be

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created and with this will cause greater exposure to opportunism. The research found that in these circumstances the safeguarding of assets at risk was accomplished by increased use of tighter contracts, a less relational outcome. Secondly within public utility 'natural monopolies', Crocker & Masten's (1996) empirical research suggested that long term contracts based on competitive franchise bidding became unstable because of the lack of governance provisions to manage uncertainty. Conversely, where regulation had been imposed to provide this missing flexibility, the very factor tended to undermine the commitment needed to instil incentives into the relationships. It must therefore be concluded that the selection of the most appropriate methods of governance is extremely situation and time-specific.

In his book *The Mechanisms of Governance* (1996), Williamson's attitude to the human aspects of contract relationships seemed to harden when he redefined the focus of governance as '*identifying, explaining and mitigating contract hazards*'. Due to the temptations to fall prey to bounded rationality and opportunism, all complex & long-term contracts were unavoidably incomplete and must be able to adapt to changing circumstance but, Williamson made no mention of Relational Contracting and moreover, mutual dispute settlement was not seen as viable outside of the firm. The latter point is counter to both Macaulay (1963) and Macneil (1980) who believed that relational contract disputes were ill served by the law and that the parties must be prepared to find mutually satisfactory solutions through other more co-operative means.

To summarise, although TCE identifies a range of contracting options that can be matched to the depth and frequency of business transactions and these have been supported by empirical research, due to the uncertainties associated with ensuring

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performance over distant time horizons, the literature provides few clear solutions. This perspective suggests that in viewing UK Defence Procurement monopolies, they may be expected to manifest a predominance of unpredictably unsatisfactory business characteristics.

#### **4.8 Trust and TCE**

This sub-Section explores the concept of trust within TCE to determine whether it offers a contribution to the design and implementation of research that will examine long-term monopolies. *'Trust may arise from prior dealings with a party, from the mores of the general society or particular business community'* (Macneil, 1980). Williamson's earlier work (1975) advances this idea by saying that additional savings could accrue at the interface between the partners as the contracts evolved through communication and experience so that both institutional and personal trust relationships developed. Here was the understanding that trusting relationships involved the parties in agreeing to adapt to unanticipated contingencies in a mutually profitable manner and that trust therefore, reduced the risk of opportunistic behaviour (and also transaction costs) in a long-term exchange relationship (Williamson, 1979). This logical deduction helped to explain the working of more relational forms of contracting but he then played down the potential gains by saying that in practice the temptations of opportunism made the attainment of trusting relationships a *'utopian dream'*.

Although Williamson originally acknowledged the concept of trust, more recently (1996) he clearly expressed his doubt about the economic reality of trust as *'the illusive notion'* used by social scientists as a user-friendly term. Half in jest he added that *'the only reliable human motive is avarice'* in which case, what economically motivates what social scientists have called trust? He went on more significantly to explain that a farsighted, calculative approach to commercial contracting was

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required that relied on cost-effective contractual safeguards rather than trust. Furthermore, efficiency and credibility, including reputation (Hill, 1990), were based upon calculativeness where failures to perform/reciprocate were not forgotten or forgiven and would result in sanctions if they persisted. Williamson did acknowledge that personal trust could exist at a personal level within the family but the business world was organised in favour of '*cynics, not innocents*'. This perhaps, indicated some notions of confusion over the very meaning of trust itself. In conclusion, Williamson clearly discounted the efficacy of trust as a behavioural driver in economic exchanges, proposing instead that '*credible commitments*' were key and these were driven by economics, not altruism. Thus when viewed through a TCE 'lens', UK Defence Procurement monopolistic business relationships are likely to exhibit few examples of genuine trust.

#### **4.9 TCE Critique**

Although TCE introduced greater realism to classical economics, offered a range of contracting methods and stressed the efficiency and cost minimisation rationale for business relationships, it was not a dynamic theory (Besanko et al, 2000). It ignored the resource-based approach to strategy (concentrating on transactions rather than the ability of an organisation to dynamically configure itself to meet new market opportunities), did not consider innovation or issues such as risk, synergy, effectiveness and, the relational aspects of co-operation such as trust which evolve over time and change the nature of the transactions themselves (Faulkner & De Rond, 2000, Nooteboom, 1999). Instead it advocated individuals' focus on self-interest and opportunism which demanded tighter contracts and institutional controls rather than more altruistic human behaviours such as trust and commitment (Nooteboom, 1999). Moreover, the business world realised that a predominant orientation of safeguarding against opportunistic behaviour endangered the level and

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quality of the relationship between partners and adversely affected the level of value attained through collaboration (Madhok, 2000).

Although there has been considerable empirical research in the TCE field which has been used to investigate a broad range of exchange-related issues including horizontal interorganisational relationships, it has not been well-integrated and no study has examined Williamson's (1975) Organisations Failure Framework in its entirety (Rindfleisch & Heide, 1997). Thus, although it is possible to explain small numbers/monopoly markets (Fishwick, 1993) using the Framework and TCE concepts such as asset specificity and opportunism and, governance options such as long-term contracts (Franchise Bidding) and regulation (Crocker & Masten, 1996, Palmer, 2001, Williamson, 1996), there is little consensus on achieving successful performance in sustained monopoly conditions of the type found in UK Defence Procurement (Parker & Hartley, 1997). Nevertheless although TCE offers a primarily mechanistic perspective, it is supported by a wealth of reasonably consistent empirical research (Crocker & Masten, 1996) and therefore provides a useful, theoretical explanation for business transactions, which can be used in this research as a means of focussing other theoretical approaches.

#### **4.10 TCE Theory Development**

TCE theory has not stood still despite remaining within the shadow of its inspirational architect (Pessali & Fernandez, 1999). The drivers for change have come from rapid developments in technology and the competitive environment which have forced firms to use more flexible organisation and external relationship structures in order to access skills, knowledge, markets and technology (Van de Ven et al, 1984). TCE's '*monochrome*' view of the economic organisation as an efficiency-driven, market or hierarchy containing calculative, self-interested employees who must be watched and controlled (Ghoshal & Moran, 1996, Kramer, 1999, Ring & Van de Ven, 1992)

does not seem to fit. As a result, theory development has transitioned towards a relational form and this is summarised in Figure 2.25.

Development Stage	Theory	Writers
Classical TCE	Markets & Hierarchies	Williamson, 1975, 79, 96
Stage 1: Discrete Concepts	<ul style="list-style-type: none"> <li>• Non-calculative people – trustworthiness from culture</li> <li>• Co-operative behaviour from Gaming theory (Axelrod, 1984) reduce opportunism</li> <li>• Governance inseparability; firms' choices are limited by current customs &amp; practices</li> <li>• Pursuit of joint value by firms; expected gains may outweigh initial transaction costs</li> <li>• Relational governance; reducing uncertainty by flexibility, assistance, information, monitoring, continuity, expectation</li> </ul>	Craswell, 1993, Barney, 1990, Coleman, 1990 Hill, 1990, Parkhe, 1993  Argyres & Porter Liebskind, 1999 Zajac & Olsen, 1993  Noordewier et al, 1990  Van de Ven et al 1984
Stage 2: Concept Development	<ul style="list-style-type: none"> <li>• Social power; generates cohesive behaviour, feedback of society on firm</li> <li>• Firms are embedded in networks of internal and external social relationships</li> </ul>	Pessali & Hernandez, 1999 Selznick, 1996 Granovetter, 1985
Stage 3: Theory Building	<ul style="list-style-type: none"> <li>• Clan association; socialisation as principle mechanism for mediation and control</li> <li>• Embedded relationships; trust, equity, obligation and custom</li> </ul>	Ouchi, 1980  Ring & Van de Ven, 1992 Kramer, 1999
Stage 4: Fully Relational	<ul style="list-style-type: none"> <li>• Trust, commitment, tolerance, perseverance, organisational linkages, information pooling, joint planning &amp; control, benefits sharing overcome transaction cost limitations</li> <li>• Values, trust, commitment, co-operation enable innovation &amp; long-term competitive advantage</li> </ul>	Beamish & Banks, 1987 Faulkner & De Rond, 2000  Ghoshal & Moran, 1996

Figure 2.25. TCE Theory Development from Transactional to Relational

Although Williamson 'broke the mould' as an economist by introducing human factors into his theories, he sought to treat them as uncertain components that needed to be controlled (Granovetter, 1985, Pescali & Fernandez, 1999). A key theme that emerged from the TCE theory developers was that people were more likely to associate with the goals of the firm if they were inspired by '*higher moral values*' (Argyres, 1999, Beamish & Banks, 1987, Ouchi, 1980) and if there was trust, that co-operation would be reciprocated (Kramer, 1999). It was concluded that under a more mutually oriented relationship a high level of safeguards against

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opportunism may not be necessary because there will be a greater proneness to forbearance, greater and more willing sharing of information which lowers asymmetries and opportunities to combine resources more productively outside the scope of the contract (Madhok, 2000). Finally, the growth of trust and goodwill do their part in attenuating opportunism by helping to stabilise relationships by increasing tolerance, avoiding conflicts, raising communication levels and replacing decision-making with consensus-building (Faulkner & De Rond, 2000).

This sub-Section has reviewed literature that attempts to mitigate the harsh, economic approach of New Institutional Economists to relational exchanges with views that take account of a modern business environment characterised by alliances and partnerships. This is illustrated in Figure 2.25. However, these ideas are often difficult to relate back to the TCE theory where the cost of doing business largely determines whether or not this was done in the open market, within closer relationships or in-house (Pessali & Fernandez, 1999). This thesis thus acknowledges the contribution of post-Williamson academics but for the purposes of the research, concentrates on SCM and RM for its relational business-to-business concepts.

#### ***4.11 TCE - UK Defence Procurement Application***

Before drawing this Section to a close, and to illustrate the points introduced at the end of 4.6, the next part considers UK Defence Procurement from a TCE perspective in order to show the difficulties of explaining a sustained monopolistic business situation using established economic theory. Contract and economic writers conclude that there is a spectrum of economic relationships that range between in-house production and the spot market (Hartley & Parker, 1997, Macneil, 1980, Williamson, 1975). However, as shown in Figure 2.26,

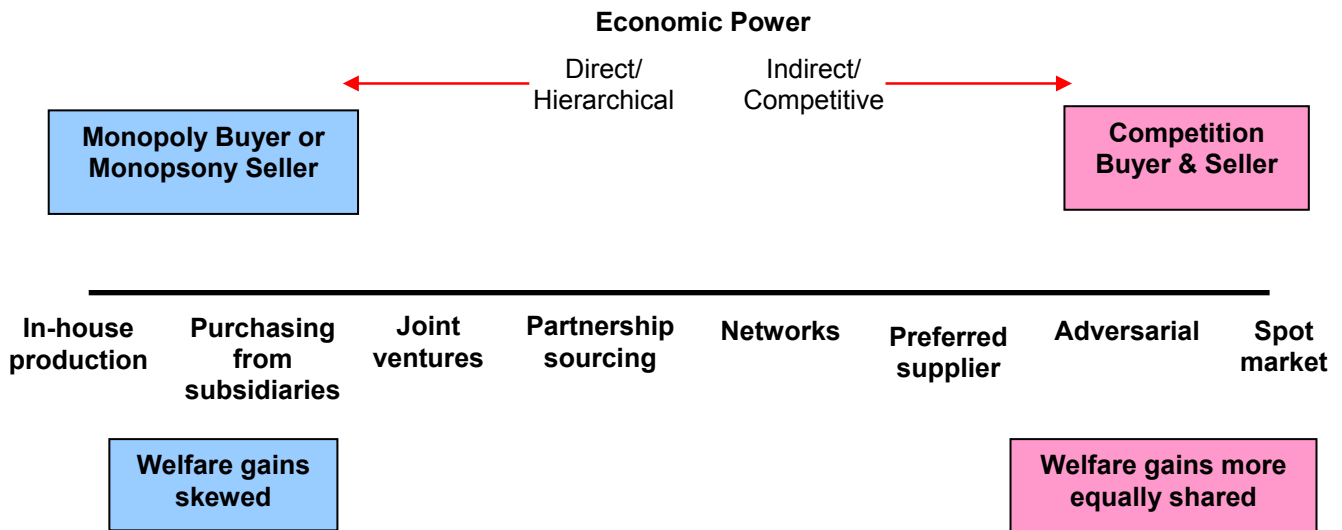


Figure 2.26. The Procurement Continuum (Parker & Hartley, 1997)

where either party has disproportionate power (monopoly or monopsony), equivalent to Williamson's Organisations Failure condition (Williamson, 1975), then the welfare benefits will be unbalanced. This will induce a strong incentive to break out of an unsatisfactory condition and move towards the open market end of the spectrum as happened with the break-up of the US Bell Telephone Company a few years ago (Crocker & Masten, 1996, Grant, 1995, Palmer, 2001).

Parker and Hartley (1997) suggest that the UK MoD should accept that its major procurements operate under monopoly or near-monopoly conditions rather than attempting to maintain a competitive semblance, that adversarial competition should be abandoned and collaboration based on long-term, trusting relationships should be established. But, apart from suggesting that the UK MoD's past performance in managing complex projects has not been good, they merely say that any search for solutions will not be straightforward and Crocker & Masten (1996) support this view. UK Government policy is moving away from regulation (cost-plus and price-cap arrangements) because of its perceived inability to maintain control of prices and promote innovation. However, the difficulty of drafting necessarily incomplete, long-



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term contracts is also proving to be problematic. Perhaps the lack of clarity identified by Strutton et al (2001) on government policy towards competition and collusion is also a factor that militates against decisive action. Potentially, performance may also depend on relational variables such as trust and commitment as well as governance.

This sub-Section has shown that UK Defence Procurement monopolies can be described by TCE theory but the results are complex and unpredictable. This research starts from this descriptive baseline and attempts to show and explain what actually happens in practice.

#### ***4.12 TCE Conclusions***

This Section has reviewed the Contracting and TCE literature in order to identify the part played by human relations within economic exchanges. In 4.2 and 4.3 it identifies that early writers such as Coase and Macneil saw a need for a relational approach to long-term exchanges between businesses. In 4.5 and 4.6 Williamson's Organisations Failure Framework shows how human factors play a part in TCE and if uncontrolled, can lead to a breakdown of the market and the formation of a Small Numbers/Monopoly situation. This is particularly important because at face value it seems to correlate with the situation within UK Defence Procurement today where there is often little incentive to co-operate. In 4.7 it was concluded that although TCE offers a range of contract forms that firms can use, they are not relational in nature and this point is reinforced in 4.8 where Williamson's view of trust in business is shown to be entirely calculative. In 4.9 a critique of TCE was offered and in 4.10 a review of literature covering the development of TCE in response to a more fast moving, competitive environment clearly indicates a change in direction towards a relational form. Finally in 4.11, the difficulty that UK Defence Procurement faces in improving relationships within a monopoly market is highlighted.

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### **4.13 Implications for the Research**

The RQ aims:

**To determine, using an appropriate theoretical framework, the behavioural and business factors that influence relationships between the UK MoD and its main industrial suppliers in a monopoly market.**

In trying to understand the exchange motivations within UK Defence Procurement using TCE theory it is possible to explain small numbers/monopoly markets (Fishwick, 1993) using the Organisations Failure Framework (Williamson, 1975) shown in Figure 2.23 and TCE concepts such as asset specificity and opportunism. But, the literature only explains these conditions so far as they represent short-term, unnatural phenomena (Palmer, 2001, Williamson, 1996) or in governance choices (Crocker & Masten, 1996, Williamson, 1996). In the stable monopoly situation which prevails in UK Defence Procurement, it appears that contrary to the view that extremes of market conditions will inevitably result in pressures to escape (Williamson, 1975), the result is an impasse where neither side has the power or the motivation to improve the relationship (Parker & Hartley, 1997). Moreover, governance options and performance/relational issues in this situation are not made clear. There is thus a clear gap in the theoretical knowledge on the practical application of TCE in sustained, monopolistic economic exchanges involving high degrees of asset specificity, complexity and uncertainty as experienced in major UK Defence Procurements.

The following supporting question is therefore posed:

- **Q3 – Can factors within Transaction Cost Economics (TCE) such as Asset Specificity and Opportunism help to explain the dynamics within monopolistic UK Defence Procurement relationships?**

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Williamson's (1975) Organisations Failure Framework in Figure 2.23 provides a means of describing the human factors, which create and sustain a monopoly. It is thus proposed that this theory could be tested to determine if it is valid within the sustained, UK Defence Procurement monopolies. The following supporting question is therefore posed:

- **Q4 – Can the TCE Organisations Failure Framework be used as a theoretical lens with which to view monopolistic relationships within UK Defence Procurement?**

Having reviewed the SCM, RM and TCE literatures and raised a number of questions, the next part of this thesis draws these threads together into a succinct statement of objectives for the research project based upon the need to test a theoretical model.

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## **5 Critique of the Literature and Identification of Research Gaps**

### **5.1 Introduction**

This Section provides a critique of the three literature areas reviewed in Sections 2, 3 and 4. It also identifies the 'gaps' in the literature with the supporting questions that will be addressed by the Research Question. The Section finally proposes and justifies a theoretical framework for the research.

### **5.2 Relationships within the Supply Chain**

The Supply Chain literature includes SCM, logistics, transportation, strategic alliances, industrial marketing, purchasing and organisational behaviour (Zheng et al, 2000). It covers a variety of transactional to relational business relationships both in the public and private sectors where issues of power dominance are described. However, although suppliers have recognised the need for increased integration with their customers, the literature contains limited empirical research on modelling and studying both end-to-end supply chain relationships and long-term dyadic interactions between major partners (Christopher, 1997, Cooper et al, 1997, Bectel & Jayaram, 1997). Moreover, although it is acknowledged that there are advantages in reducing the number of suppliers within highly collaborative situations and, the literature describes a wealth of operational and behavioural success factors, the disadvantages of reduced flexibility and competition are only covered in restricted depth. Lastly, it is widely accepted that co-operative supply chain relationships achieve benefits for the participants (Christopher, 1997, Stevens, 1989) however, it is also apparent that full SCM implementation is not being achieved because partners are still taking a short-term view which generates adversarial practices such as power abuse, lack of transparency, poor communications and reluctance to adopt attitudinal change (Anscombe & Kearney, 1994, Braithwaite, 1998, Hines & Jones, 1996). Research into these failure situations is comparatively rare. In conclusion,

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from a review of an extensive body of literature the concepts of SCM appear to be well known by academia and business but research is limited in some key areas on how practically to achieve it. Furthermore, this research has covered the private and public sectors as well as small numbers situations and revealed many common factors as well as specialised nuances (2.8). Nevertheless, the SC literature has not covered the prolonged, monopolistic supply chain relationships of the specialised type found within UK Defence Procurement. This leads to the following question:

- **Q1 – Can SCM partnering activities, processes and requirements from the commercial environment, such as those encapsulated in Figure 2.8, provide an understanding of the monopolistic relationships found within UK Defence Procurement?**

The SCM literature provides a view of business improvement measures that is largely pragmatic and generally concentrates on optimisation of material flows between value chain partners (Hines, 1999). Although it considers relational, behavioural variables that enable business-to-business relationship success, its stand-point is naturally from a SCM perspective. In order to explore these features and to seek a greater depth of view on close business-to-business relationships the thesis turned to the Relationship Marketing field where ‘all marketing activities are directed towards establishing, developing and maintaining successful relational exchanges’ (Morgan & Hunt, 1994). Moreover, this involves designing and negotiating strategic partnerships with vendors and technology partners through which the firm deploys its distinctive competences to serve market opportunities (Webster, 1992).

### **5.3 Relationships within Relationship Marketing**

The Relationship Marketing literature covers a very wide field that encompasses the Supply Chain, Procurement, Economics, Games Theory, Organisation, Sociology

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and Behavioural Psychology as well as Marketing (Gundlach & Murphy, 1993, Sheth & Sharma, 1997). As a result it lacks consistency and also in some areas, depth (Kakabadse & Kakabadse, 2000). Furthermore, some key concepts and assertions have become axiomatic and therefore not subjected to sufficient theoretical or practical scrutiny (Palmer, 2001). Research has also tended to concentrate on vendor/retailer rather than vendor/end customer relationships (Ganesan, 1994) and this has resulted in limited modelling of complete relationship chains (McDonald et al, 1997, Rousseau et al, 1998). Nevertheless, the development of understanding of the complexity of business relationships within networks from Dyadic through Interactionist to Key Account Management is clearly and usefully portrayed in sub-Sections (3.5) (3.6) (3.7). There is also an extensive literature on behavioural variables (3.9) and especially on trust/commitment (3.10 - 17), power (3.18) and communication (3.19), which provide valuable guidance on improving business relationships (Evans & Berman, 2001). Overall, the literature reviewed concentrates on commercial companies within 'normal' markets and provides no insight into monopolistic UK Defence Procurement relationships (3.22). These conclusions lead to the following question:

- **Q2 – Can RM behavioural variables, especially those shown in Figure 2.16, provide an understanding of the monopolistic relationships found within UK Defence Procurement?**

Both the SCM and RM literatures provided analysis of 'normal' market business relationships and their improvement, which is useful to support the design and implementation of this research project. However, neither field offers an explanation of the economic drivers for closer business relationships or the monopoly phenomenon itself. For these reasons the paper next reviewed the Economics literature.

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#### **5.4 Relationships within TCE**

TCE draws upon Law, Economics and Organisation theory as base disciplines (4.3) and thinking has been dominated by Oliver Williamson's seminal ideas in the field (4.4) (Gundlach & Murphy, 1993). Although Williamson's essentially legal and calculative approach (Macneil, 1980, Hill, 1980) to human business motivations has been softened by academics in the last 10 years as part of a general trend away from transactional business dealings (4.10), many of his underlying theories on why firms decide to make or buy are still valid (Pessali & Fernandez, 1999). However, although there has been considerable empirical research in the TCE field which has been used to investigate a broad range of exchange-related issues including horizontal interorganisational relationships and public utility monopolies, it has not been well-integrated and no study has examined Williamson's (1975) Organisations Failure Framework in its entirety (Rindfleisch & Heide, 1997). In trying to understand the exchange motivations within UK Defence Procurement using TCE theory it is possible to explain small numbers/monopoly markets (4.6) (Fishwick, 1993) using the Organisations Failure Framework (4.5) (Williamson, 1975) but only so far as they represent short-term, unnatural phenomena (Palmer, 2001, Williamson, 1996) or governance options (Crocker & Masten, 1996). In the stable monopoly situation which prevails in UK Defence Procurement (4.11), it appears that contrary to the view that extremes of market conditions will inevitably result in pressures to escape (Williamson, 1975), the result is an impasse where neither side has the power or the motivation to improve the relationship (Parker & Hartley, 1997). This review leads to the following questions:

- **Q3 – Can factors within Transaction Cost Economics (TCE) such as Asset Specificity and Opportunism explain the dynamics within monopolistic UK Defence Procurement relationships?**

- 
- **Q4 – Can the TCE Organisations Failure Framework be used as a theoretical lens with which to view monopolistic relationships within UK Defence Procurement?**

### **5.5 *The Research Question***

From the literature review four questions were identified and described in 5.2, 5.3 and 5.4. The following Research Question is therefore derived:

- **RQ – To determine if it is possible to obtain an understanding of the monopolistic relationships within UK Defence Procurement using Williamson’s Organisations Failure Framework and to identify if SCM, RM and TCE relational and behavioural factors influence these relationships.**

### **5.6 *The Monopoly Phenomenon and a Conceptual Framework for Research***

In order to answer the research question it is essential to be able to relate Supply Chain relationships to UK Defence Procurement monopoly conditions i.e. where there are few or single buyers and sellers and where both sides are trapped within a disempowered relationship. A search of the literature for a suitable model with which to examine this situation suggested 2 relationship power perspectives. First, Michael Porter’s (1980) five forces model of competitive advantage asserted that business relationships were characterised by a short-term orientation, arms-length competition and the exercise of market power (Harland et al, 2000, Rugman & D’Cruz, 2000, Zheng, 2000). However, although participants may aim to achieve market dominance by limiting competition through the creation of barriers to entry, this did not accurately represent the situation within UK Defence Procurement monopolies where equally powerful ‘partners’ can be locked in a ‘deadly embrace’ from which neither can escape (Humphries & Wilding, 2004). Andrew Cox et al (2000) saw the combination of resource utility and scarcity creating a power regime in which the involved parties employed adversarial/non-adversarial and arms-length/collaborative



arrangements, depending on their relative power positions provided an alternative view. These options are shown in the matrix at Figure 2.27.

		Way of Working	
		Arms-Length	Collaborative
Relative Share of Value Appropriation	Inequality	Adversarial Arms-Length Relationship	Adversarial Collaborative Relationship
	Equality	Non-Adversarial Arms-Length Relationship	Non-Adversarial Collaborative Relationship

Figure 2.27. Relation Power Analysis (Cox et al, 2000)

Unfortunately the difficulty of finding a useful model with which to view UK Defence Procurement is illustrated when considering Cox et al's (2000) approach in the light of a situation where neither party has choice over the selection of relationship strategy, where equality of power really means equally disempowered and where the overall result is likely to be a 'zero-sum game' (Basury et al, 2001, Christopher, 1997, Parker & Hartley, 1997). It is therefore evident that although Porter and Cox et al provide perspectives on the appropriate use of power within a business relationship, both were optimised for use in 'normal' markets and thus unfortunately do not provide a robust framework for extending thinking on long-term, monopoly relationships (Humphries & Wilding, 2004).

TCE provides an explanation of the monopoly (small numbers) phenomenon. When the cost of managing the risk associated with human factors such as opportunism

became too high, the market could break down and force a firm to internalise the business, in effect creating an internal monopoly (Faulkner & de Rond, 2000) (4.7). However, in the stable monopoly situation that prevails in UK Defence Procurement, the opportunity to escape, even at a cost, is not available and the result is an impasse where neither side has the power or the motivation to improve the relationship (4.11) (Parker & Hartley, 1997). Oliver Williamson's (1975) Economic Organisations Failure Framework (4.5) illustrates this self-defeating situation which although stylised, seems to have face validity in the UK Defence Procurement situation because the factors it represents are readily observable. However, on the premise that the Defence Procurement environment contains a spectrum of business relationships it is possible to represent the poles as success and failure cycles as shown in Figures 2.28 and 2.29 (Wilding & Humphries, 2002). The self-reinforcing Success Cycle is similar to Lambert et al's (1996) Partnering Process described in 2.4.2.

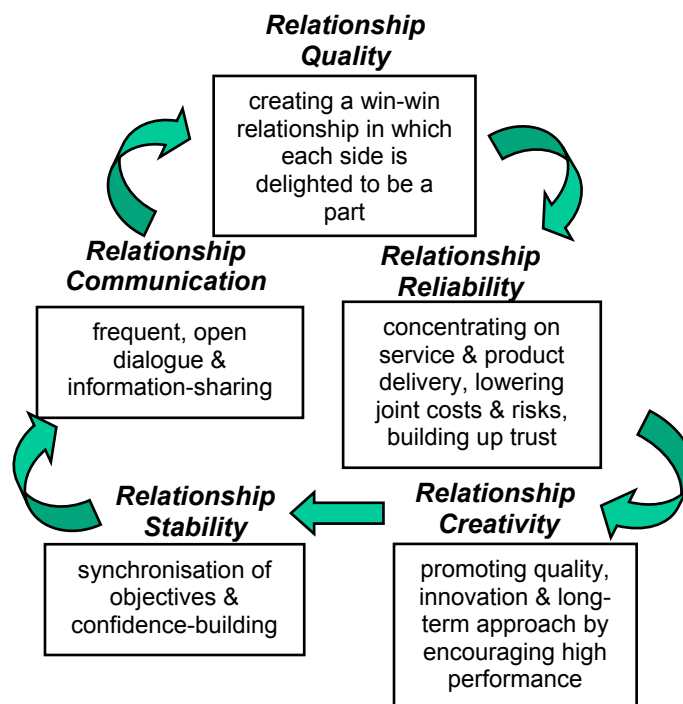


Figure 2.28. Business Relationship Success Cycle

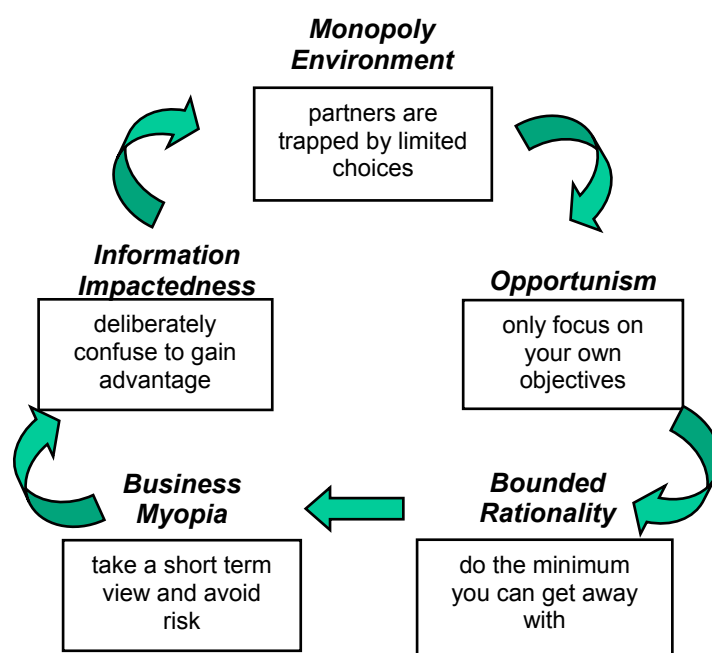


Figure 2.29. Business Relationship Failure Cycle

The research strategy is thus to determine which combination of business-to-business relationship success factors are effective at reversing the unsatisfactory output of the monopoly model. An example of possible Supply Chain, Relationship Marketing and TCE 'antidotes' superimposed against corresponding factors in the Economic Organisations Failure Framework is shown in a conceptual framework that encapsulates the propositions and research question at Figure 2.30. It should be noted that the model is not considered as causal. Williamson (1975) cited almost 3000 times, described the arrows in the framework, as 'influences within an environment', which lead to market failure. On the grounds that little enough is known about the sustained monopolistic situation as a whole, this thesis therefore considers the 5 major components individually in the light of the 3 most relevant theoretical disciplines and does not directly address any interactions between them.

The yellow boxes contain the elements of the Organisations Failure Framework (Williamson, 1975) and encapsulate Question 4 (Q4) and from a TCE perspective, Question 3 (Q3). The green boxes contain variables from the Relationship Marketing literature that represent ‘antidotes’ to the TCE elements that undermine market equilibrium and thus encapsulate Question 2 (Q2). They are incidentally, supported by post-Williamson TCE researchers (4.10). The blue boxes contain examples of business actions from the Supply Chain literature that can operationalise the corresponding relational variables and therefore encapsulate Question 1 (Q1). Examples from the literature of how this framework might be envisioned are as follows:

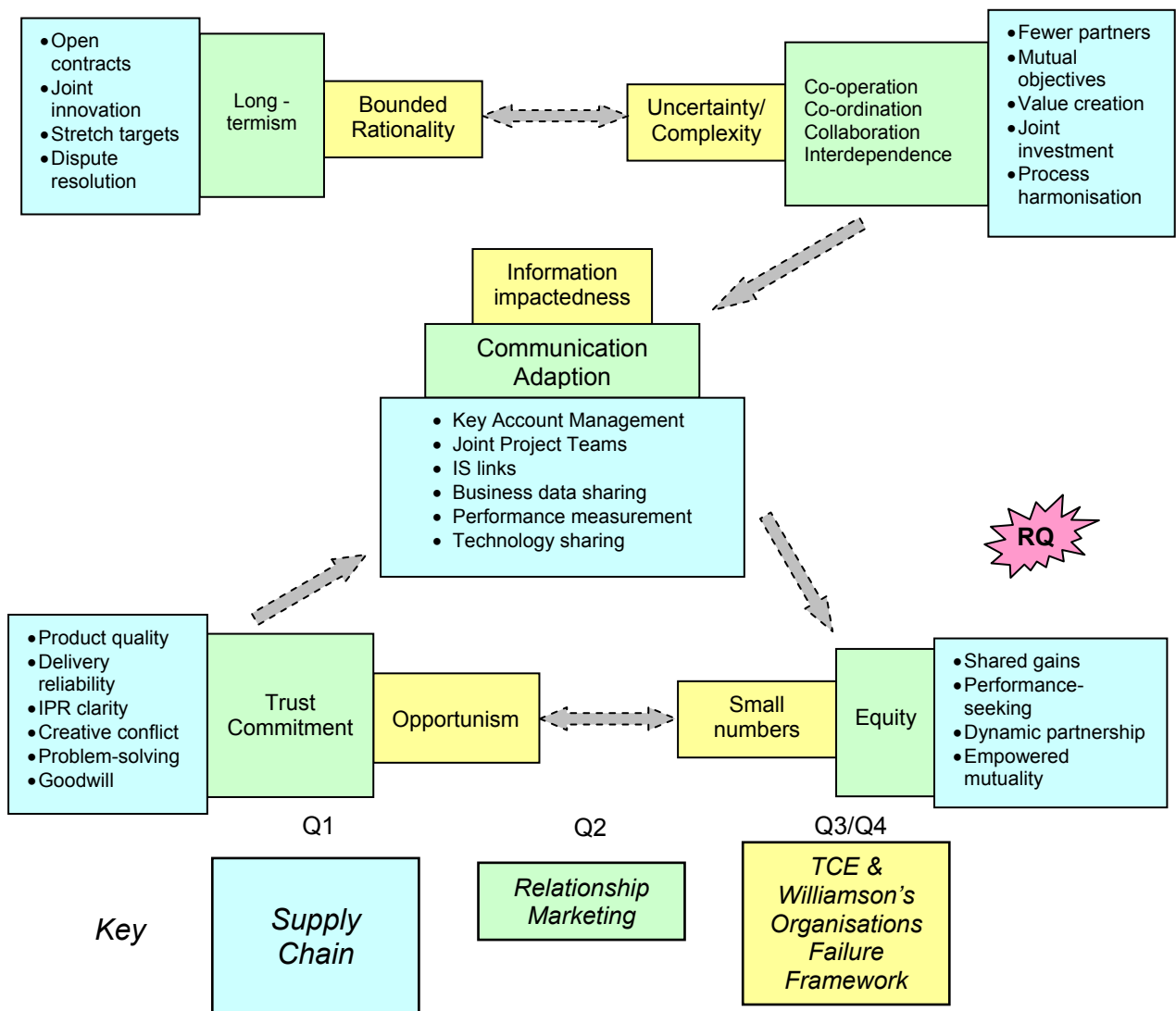


Figure 2.30. Conceptual Framework for Research

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- Bounded Rationality can be reversed by enabling mutual creativity through approaches such as open contracts (Cooper & Ellram, 1993), joint innovation, applying stretch targets, ensuring disputes are resolved quickly and fairly and finally by taking a long-term view of the relationship (Ganesan, 1994).
  - Uncertainty/Complexity may be overcome by building relationship stability and creating a framework for successful business (Peck et al, 2000, Zheng et al, 2000). Working more closely with fewer partners (Ellram, 1991, Lewin & Johnston, 1997, Boddy et al, 2000), pursuing mutual objectives through value creation (Lamming et al, 2001), joint investment and harmonised processes (Cooper et al, 1997, Harland, 1996a, Madhok, 2000), actively managing the relationship interface through key account management and innovative procurement processes (Cox & Lamming, 1997) and, through C<sup>3</sup> Behaviour, building interdependence (Moss Kanter, 1994, Spekman et al, 1998).
  - Information Impactedness can be defeated by creating a communication environment optimised for success (Sheth & Sharma, 1997). This involves implementing multiple communication links at all level between firms (Mohr & Spekman, 1994, Morgan & Hunt, 1994) including KAM, IS (Harrison, 1990), sharing business and design data, objective performance measurement (Matthyssens, 1994), transparency in jointly managing risk (Cox & Lamming, 1997) and, responding quickly to the needs of your partner (McDonald et al, 1997).
  - Opportunism is a dangerous effect that is quite difficult to reverse and requires measures to strengthen the relationship by creating a reliable business infrastructure. A focus on the quality of the relationship outputs (Christopher, 1997, Harrison, 1990) including operational efficiency (Harland, 1996a, Lamming, 1993), is key as is clarity over the boundaries of the relationship

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(Noordewier et al, 1990). A creative approach to conflict and problem solving (Hatch, 1997, Hulme, 1997) helps to sustain impetus and finally the building of goodwill, trust and commitment (Beamish & Banks, 1987, Faulkner & De Rond, 2000) by incrementally building on achievements through credible commitments creates a virtuous circle (Goleman, 1998, Doz & Oguz, 2000).

- Lastly, the Small Numbers syndrome can be overturned by incentivising a quality relationship where the gains are both shared and highly rewarding (Watson, 1999, Zajac & Olsen, 1993). Both sides feel empowered to strive dynamically for the mutual good (Cooper & Gardner, 1993) and above all true equity in the relationship overcomes any power imbalance (Eisenhardt et al, 1997, Kramer, 1999, Lamming et al, 2001).

The objective of the Research Question (RQ) is to determine the factors (both business and behavioural) from the overall framework that can result in the Small numbers position changing from a 'zero-sum game' (Axelrod, 1984) to an equitable, empowered relationship (Parker & Hartley, 1997). It is therefore proposed that the conceptual research framework could be tested by an appropriate methodology and used to answer the research question. This approach would not only allow Williamson's model to be tested at a high level but it would also be possible to identify best and worst practices and therefore the factors that bring relationship success.

### **5.7 Conclusion**

Section 5 has drawn together the findings from the literature review, identified gaps and defined appropriate sub-issues to support the research question. Finally, it has constructed a conceptual framework for the research. The next Chapter will address the Research Methodology.

## Chapter 3

### Methodology

#### 1 Introduction

So far, this thesis has introduced the business background to the research in Chapter 1. Chapter 2 described a review of appropriate literatures, highlighted specific gaps that supported the formulation of a research question and finally presented a theoretical framework for research. In Section 1.4 of Chapter 1 an introduction to the methodology was presented; Chapter 3 builds on that introduction by describing, justifying and providing assurance that appropriate procedures were followed. An illustration of the structure of Chapter 3 is shown in Figure 3.1.

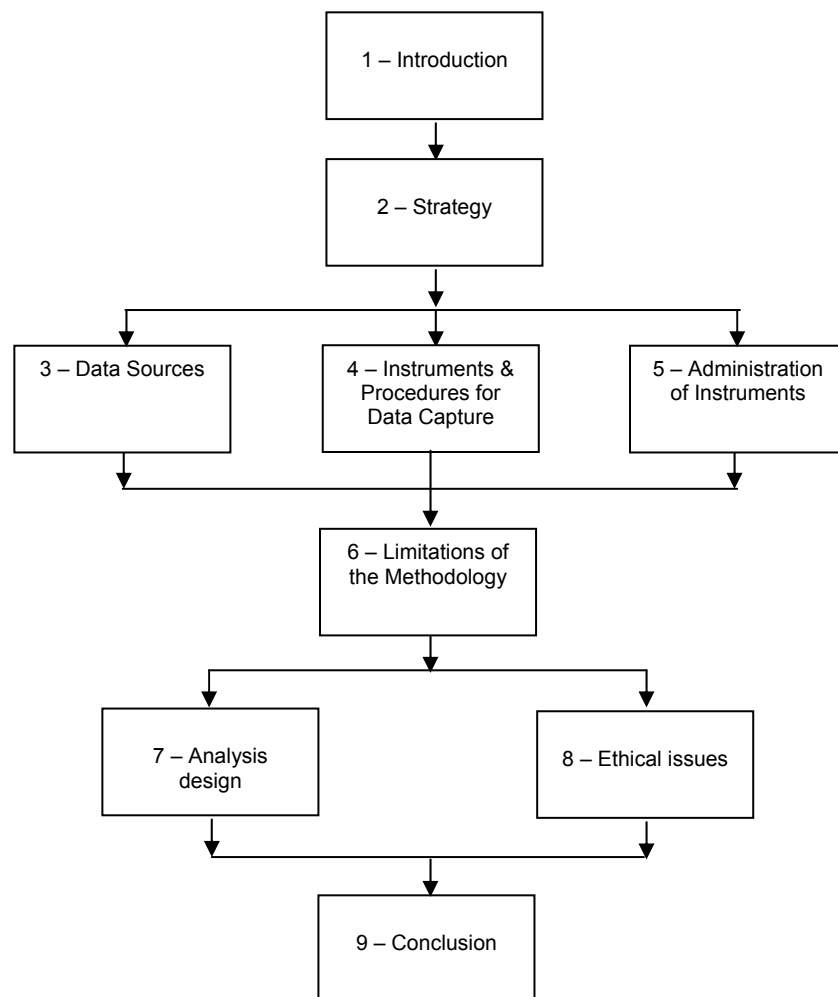


Figure 3.1. Methodology Chapter Structure

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Firstly the methodology is justified in terms of the research question and the literature review. The sources of data appropriate to the focus of the study are identified and the instruments and procedures used to capture and analyse data together with any known limitations are described. Finally, some ethical issues are highlighted.

The next Section presents and justifies the research strategy.



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## 2 Strategy

This Section provides the rationale for the selected project methodology and describes the key reliability, validity and generalisability considerations that were taken into account in order to underpin its claim to be a serious piece of academic research.

### 2.1 Research Drivers

The purpose of this research is to explore, understand and explain the influential relationship factors between UK MoD and its Industrial partners within UK Defence procurement in order that inter-organisation relationships might be improved. As stated in Chapter 1, the business problem is an urgent one and involves several organisations that spend large sums of public money and have a considerable influence over the effectiveness of national defence. Moreover, there appears to be only limited research in the specific area of interest – sustained, monopolistic relationships within the UK Defence Procurement environment. It is therefore essential to adopt research methods and supporting philosophical approaches that facilitate the production of rapid, comprehensive results that will be both useful to business policy-makers and ‘interesting’ to academics (Davis, 1971). Tranfield & Starkey (1998) describe this as a Mode 2 knowledge-production study where *‘knowledge is produced in the context of application with the intention of allowing short time to market dissemination and exploitation’* whilst maintaining scholarly quality and relevance (Whitely, 1984, Pettigrew, 1996, Huff, 2000). Hines (1997) recommended that when undertaking research which aims to provide practitioners with added value it should offer a route to effective implementation, a checklist for success and, a continuous improvement approach.

## 2.2 Qualitative versus Quantitative Approaches

The Conceptual Framework described in Section 5.5 of Chapter 2 shows counter-posing, positive business-to-business relationship factors superimposed on an established model of negative, monopolistic environments. This research aims to collect data on the relationships within the field of interest in order to test the usefulness of the model and to determine the relational and behavioural factors that influence them. There are 2 possible approaches to the form of research namely: quantitative methods, which are associated with the positivist paradigm and qualitative methods of the phenomenologist or humanistic paradigm (Hirschman, 1986). The strengths and weaknesses of both these approaches are shown in Figure 3.2.

<b><u>Quantitative</u></b>	<b><u>Qualitative</u></b>
<p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>• Wide coverage</li> <li>• Fast &amp; economical</li> <li>• Hypothesis &amp; theory testing</li> <li>• Considerable relevance to policy decisions</li> </ul> <p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>• Inflexible, artificial &amp; reductionist</li> <li>• Not effective in explaining process</li> <li>• Not effective in explaining the significance people attach to actions</li> <li>• Not good at generating theories</li> <li>• Do not offer policy-makers solutions</li> </ul>	<p><b>Strengths</b></p> <ul style="list-style-type: none"> <li>• To examine change processes over time</li> <li>• Understand people's meanings</li> <li>• Adjusts to new issues and ideas as they emerge</li> <li>• Theory &amp; hypothesis development</li> </ul> <p><b>Weaknesses</b></p> <ul style="list-style-type: none"> <li>• Time and resource consuming</li> <li>• Analysis &amp; interpretation of data is subjective</li> <li>• Hard to control pace, progress &amp; end-point</li> <li>• Low credibility by policy-makers</li> </ul>

Figure 3.2. Comparison of Quantitative & Qualitative Methods (Adapted from: Easterby-Smith et al, 1991)

Because of the need to take a high level approach to the research in order to open up the field of study and to use existing theory in order to explain the phenomenon of interest (what is happening), this thesis relies primarily on the use of quantitative

methods (Huber & Power, 1985). However, an important objective is also to provide managers with guidance on the nature of actions needed to solve the business problem (why it is happening) and therefore qualitative research is also utilised to add richness to the quantitative data (Easterby-Smith et al, 1991). It is for these reasons that a combination of Popper's Critical Rationalism (Walace, 1971) and Bhaskar's Realism (Blaikie, 1993) approaches which support both quantitative and qualitative research phases have been selected. This represents the reality of research, which involves compromise between pure positions (Easterby-Smith et al, 1991) and is crystallised in the 2-stage research process that is illustrated in Figure 3.3.

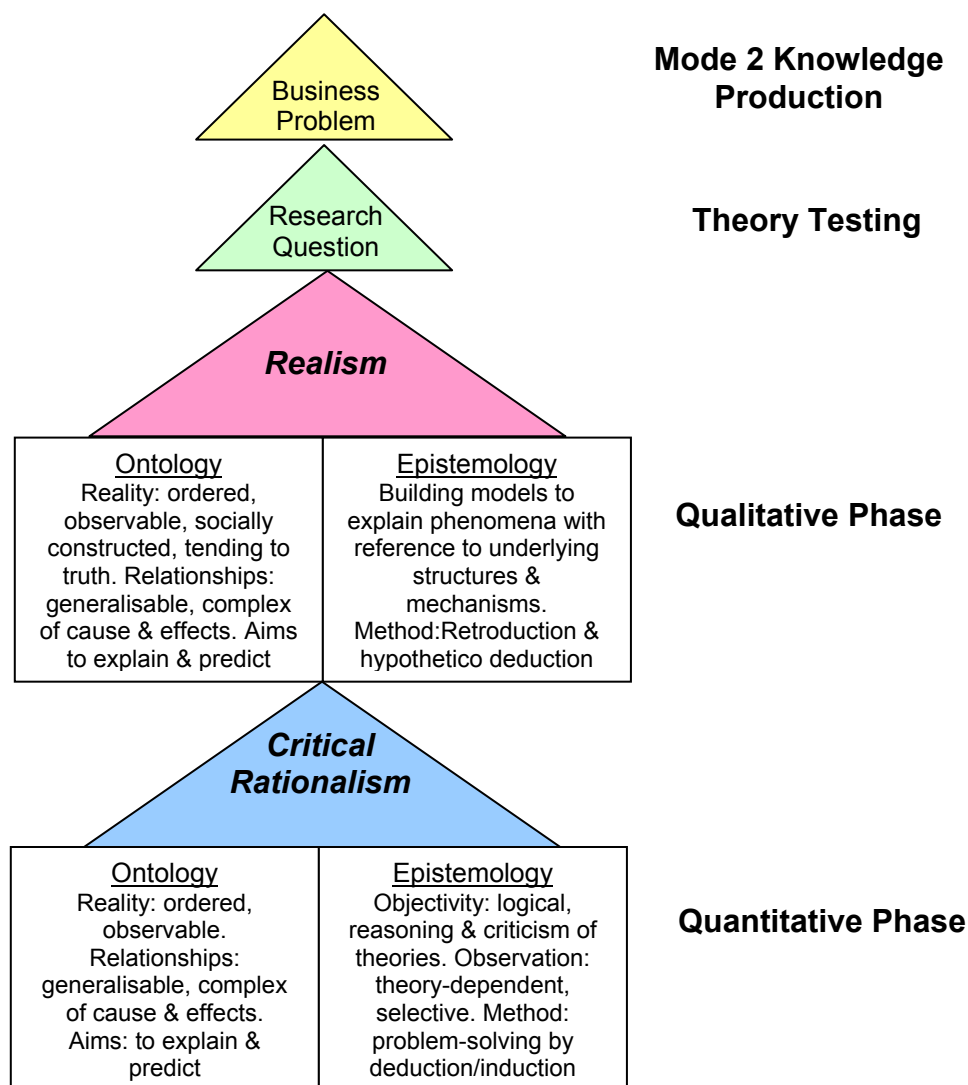


Figure 3.3. Research Strategy Overview

### **2.3 *The Selected Research Approach***

This research therefore, takes a wide, cross-sectional perspective in order to make a statement about the outcomes of broadly comparable experiences (from similar organisations) using numerical supporting evidence (Johnson, 1984). It relies upon the collection and analysis of large quantities of data to determine the range and strength of factors within the Conceptual Framework described in Section 5.5 of Chapter 2 – essentially a hypothesis testing approach (Huber & Power, 1985). However, it includes some data collection by qualitative methods in order to capture the richness of perceptions needed to gain insight into the subtleties and cultural depth of the business problem; measures based on self-report play an important role because they elicited informed opinion (Bailey et al, 2000). Hence, each of the 5 elements from the Conceptual framework shown in Figure 2.30 in Chapter 2 and described more fully in Section 4.1 namely: Bounded Rationality, Uncertainty/Complexity, Information Impactedness, Opportunism and Small Numbers, are operationalised within selected constructs namely: Relationship Development, Relationship Stability, Communication, Relationship Strengthening and Relationship Quality (Anderson, 1987), so that data can primarily be captured by surveys and supported by semi-structured interviews. The results can then be subjected to statistical and qualitative analysis of the relationships between MoD and Industry. This is therefore a survey research methodology which makes use of key informant research which involves the selection of multiple individuals who are knowledgeable (Kumar et al,1993, Seidler,1974) with respect to the phenomenon of interest. Within a survey they provided information at the aggregate or organisational focus of the study by reporting on group and organisational properties rather than personal attitudes or behaviours (Philips, 1981). In interviews they act as

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informants to report their perceptions and judgements of the constructs offered (Anderson, 1987).

Similar research strategies have been operationalised on Supply Chain relationships by Harland (1996b) and (1996c), Lambert et al (1996), Metcalf et al (1992), Spekman et al (1998); on buyer-seller relationships within Relationship Marketing by Doney & Cannon (1997), Mohr & Spekman (1994), Moorman et al (1992), Morgan & Hunt (1994), Noordewier et al (1990); and business to business relationships within TCE by Nootboom (1999), Parkhe (1993) and Buvik & Torger (2001).

#### **2.4 *Triangulation***

A further supporting justification for the use of a combination of methodologies (quantitative and qualitative) in the study of the same phenomenon is triangulation. This provides a number of benefits including improved accuracy of judgement through cross-comparison, ensures results variance is due to trait (the data captured from respondents) not method (bias inherent in the data capture instruments), enhances belief that the results are valid and not a methodological artefact, helps to uncover deviant results and overall enhances external validity (Jick, 1979).

#### **2.5 *Rejected Alternatives***

The possibility of using archival measures is discounted because of their limited ability to measure internal organisational processes (Bailey et al, 2000), because of their general paucity and inconsistency across the large number of organisations to be surveyed (Schwenk, 1985), and because of their failure to take into account more recent events and data (Boyd et al, 1993). From preliminary discussions with both sides within UK Defence Procurement these reasons were clearly justified. Other types of research are considered but rejected on the grounds that they do not meet the overall research aims. In particular longitudinal approaches such as Case

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Studies, Action Research, Co-operative Inquiry and Grounded Theory might provide extremely interesting results from a small sub-set of the business in question. However, because little is known about the total phenomenon (business-to-business relationships within sustained monopolies), concentration on a small area over a longer period is unlikely to reveal conclusions on the scale required ie. to be able to understand the macro-level dynamics at work in a very large environment. Similar arguments prevail against the use of experimental and ethnographic methods.

### **2.6 Reliability, Validity and Generalisability**

From the broadly positivist, philosophical perspective adopted for this research (Easterby Smith, 1991), reliability (or convergent validity) involves determining whether or not the measures used will yield the same results on different occasions (assuming the phenomenon of interest remains substantially the same) (Schwenk, 1985). Validity (or discriminant validity) means whether or not an instrument (e.g. a questionnaire) measures what it is supposed to measure (Bagozzi et al, 1991, Sapsford, 1999). Lastly, generalisability asks what is the probability that patterns observed in a sample will be present in the wider population from which the sample is drawn (Sapsford, 1999). Key informant research presents a number of specific challenges that must be faced in order to achieve reliability, validity and generalisability. The next few sub-Sections examine the factors that needed to be considered when designing Key Informant Research methods appropriate to this project and especially how to deal with Random and System Errors that can undermine reliability, validity and generalisability. A cross-reference to the important research design and implementation considerations in this Chapter is provided in Figure 3.12 at the end of this Chapter.

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## **2.7 *Random Errors***

Because key informants are asked to perform complex, judgements on potentially sensitive or controversial issues, errors and biases will occur which attenuate observed relationships and may induce inference errors (Bagozzi et al, 1991, Kumar et al, 1993, Philips, 1981). These have been classified into Organisational, Perceptual and Personality circumstances that may predispose informants to a particular response.

## **2.8 *Organisational Effects***

The particular circumstances that affect an organisation, both externally and internally, together with the different roles and time served within them will influence the quality of responses from informants and result in reduced correspondence between informant reports and the organisational concepts they intend to represent (Philips, 1981). For instance the Integrated Project/Industry Team Leaders are likely to have the best vantage-point for viewing the whole organisation and making inferences about strategic business dimensions although a drawback is often a lack of consensus in firms about strategic issues (Bowman & Ambrosini, 1997). Moreover, multiple participants in projects and decisions mean information may be spread over different people and individuals' lack of crucial information about the events of interest may result in second-hand information and imagination being used to fill-in the gaps (Huber & Power, 1985). Other factors may also skew perceptions and hence the accuracy of reports (Boyd et al, 1993). The organisation may be operating in a rapidly changing context - this is certainly true in UK Defence Procurement - and it is therefore natural for staff to simplify their interpretation by retrospective accounts or hindsight as a result of uncertainty (ambiguity tolerance) or complexity (cognitive complexity). In some types of organisation demographic issues such as age, gender or race might affect cognitive values. The same is also

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true of internally or externally oriented organisations and those that are either low or high performing. Homogeneous organisations might have a tendency to 'group think' whereas more heterogeneous teams might exhibit more accurate perceptions. At the more personal level the need for achievement, security and social acceptance might reduce the possibility of divulging information that might affect career or commitment to the organisation (Sapsford, 1999). There may also be a tendency through self-esteem or impression management to project an image of adherence to socially or organisationally desirable practices or norms or to contrive or invent stories or facts in order to appear knowledgeable or important (Kumar et al, 1993).

In conclusion, organisational influences will result in random reporting errors due to selective commentary and over/under reporting and these will affect the weight that should be given to the information captured. Sensitivity to those influences within the Defence Procurement environment will thus need to be taken into consideration in a most aspects of the research design and execution as indicated in Figure 3.12, at the end of this Chapter.

### **2.9 *Perceptual Errors***

As information processors, people have perceptual and cognitive limitations (Kumar et al, 1993, Schwenk, 1985) and those in the Defence Procurement environment are no different in these respects from those in any other large, mature commercial environment. They have limited or imperfect recall, they are influenced by implicit or espoused theories, they have predictable biases such as a dependence on few sources of evidence or over-response to vivid information (Sapsford, 1999). They tend to exhibit hindsight bias where they see events as having been inevitable. They are subject to attributional bias where outcomes resulting from appealing but inappropriate causes are favoured. They often consider activities were more systematic and logical than they were and attribute favourable outcomes to



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themselves and associates and unfavourable ones to uncontrollable forces. And lastly, respondents' perceptions change over time (Boyd et al. 1993). It is thus most important to conduct the research over as short a time frame as possible, to carefully design the data capture instruments in order to limit the opportunity to provide incomplete or unclear answers and to cross-check responses between different methods in the analysis - see Figure 3.12, at the end of this Chapter.

### **2.10 Personality Bias – Response Sets**

Lee Cronbach (1950) was instrumental in providing theoretical foundations for the design and analysis of questionnaire data capture. He defined the concept of Response Sets, which are the biases that individuals exhibit as a result of their personalities. These include: *Acquiescence* i.e. the tendency to answer 'yes/no/agree/true/false'; *Evasiveness* i.e. the tendency to answer '?/indifferent/uncertain' when fixed alternatives are offered; *Rushed Response* i.e. the tendency to respond with speed rather than accuracy; *Any Response* i.e. the tendency to guess when uncertain; *Bulk Response* i.e. the tendency to tick many items in a list. Beyond these factors individuals may be unwilling or incapable of expressing their true feelings or may be subject to transient personal factors such as mood or fatigue (Churchill, 1979). Research has confirmed that bias is more pronounced as items become more difficult or ambiguous and that Response Sets inevitably dilute the accuracy of measurement and reduce logical and empirical validity. Nevertheless, external variables such as attitudes, interests and personality are a reflection of real and stable traits and research has confirmed that individual Response Sets are consistent throughout any particular test Cronbach (1950). These features are considered in the design and implementation of this research within the questionnaire and interview design and the administration of the instruments – see Figure 3.12, at the end of this Chapter.

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### **2.11 Method Error (Systematic Variance)**

A number of errors can be attributed to problems with the methods employed and can include difficulty of observation due to nature of organisation, its size, complexity, and volatility (Bagozzi et al, 1991). Situational factors such as inappropriate locations of interviews and variations in interview techniques or changing questionnaire items between tests may also apply (Foddy, 1993). Lack of clarity of the measuring instrument due to vague or ambiguous questions, loose or inconsistent terms or labels and mechanical factors such as ticking the wrong box or incorrect coding (Churchill, 1979) come into the same class of errors. More serious is the use of inappropriate data elicitation procedures such as question-framing which will effect recollection or reflect researcher's views i.e. prompting appropriate answers (Wragg, 1984, Schwenk, 1985). In the same vein generalisability can be situation-specific and limited by the key variables used (Foddy, 1993). This illustrates the importance of understanding that measurement or operationalisation involves rules for assigning numbers to objects to represent quantities of attributes. The rigour with which the rules are specified and the skill with which they are applied determines whether the construct has been captured by the measure (Churchill, 1979, Sapsford, 1999). Furthermore, the researcher must not forget that 'no survey is ever neutral'; the subject matter and characteristics of researcher may alter responses provided and the choice of variables and their operationalisation entail subjective judgements (Hirschman, 1986). It is thus essential to ensure that measures '*fully tap into the respondent's understanding or enactment of his environment*' (Boyd et al. 1993). It can be seen from Figure 3.12 that method error must be considered in virtually all the elements of the research design and implementation.

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### **2.12 Conclusions**

From the above sub-Sections it can be seen that Random and Systematic error factors are complex and numerous and obtaining valid data from survey methods is complex and full of potential difficulties. However, as identified in Figure 3.12, a number of precautions can be taken to improve reliability, validity and generalisability.

Firstly, developing an instrumental theory to pinpoint sources of bias and error in measurement by considering the object of study, the traits of the informants and the observation situation and then designing the study and selecting the informants in accordance with the instrumental theory (Seidler, 1974). It was especially important to avoid alienating or siding with a particular strong culture in either the Defence Industries or the DLO. Thus care was taken to ensure that the data capture instruments and procedures were culturally neutral.

Next, the teams to be surveyed were generally homogenous and potentially deemed to be at strong risk of collusion and 'group-think'. Careful use of sampling procedures to reduce the random errors attributable to organisational factors and highlight any perceptual anomalies (Churchill, 1979) were used. These include assuring anonymity of responses, selecting only knowledgeable respondents, discouraging collusion between informants, providing a wide selection of respondents from across the organisation in order to secure a variety of balanced perspectives and including multiple sets of measurements in the survey instrument (Huber & Power, 1985). Asking direct questions at the outset to determine the informant's competence e.g. length of tenure, depth of knowledge and involvement aimed to ascertain the validity of the data to be collected (Kumar et al, 1993). Finally, asking questions that required less demanding social judgement and

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concentrating on objective, observable phenomena together with minimising the elapsed time between events and data collection were also expected to reduce distorting influences (Schwenk, 1985)

All organisations, including the DLO and Defence Industries, are subject to numerous questionnaires and other data collection activities. As a result staff become lackadaisical over participation. This research intended to minimise the impact of Personality effects by careful design. Multiple-choice/forced choice tests were used because since they limit the options for random errors and are reinforced by the use of judgement scales with limited choices they are nearly free of Response Sets (Cronbach, 1950). Special directions were used because they could reduce Response Sets by providing both clear directions on how to complete the data collection and the rationale for the exercise (Foddy, 1993, Kumar et al, 1993). Attention to the design and layout of the questionnaire ensured that it was completed accurately and consistently (Youngman, 1984). Finally, using multiple respondents from the same organisation together with multiple measures (constructs) and methods (surveys/interviews/informants) allowed the inter-rating reliability (comparison of observations from two or more judges (Sapsford, 1999)) and validity of the questionnaire to be checked and refined (Seidler, 1974, Bagozzi et al, 1991).

In the final analysis, considerable care and attention to detail was exercised to ensure that the data collected was 'a known quantity' i.e. that it answered the question set and that its drawbacks were fully known (Foddy, 1993). '*Social scientists are enamoured of numbers and counting – rarely do they stop to ask what lies behind the numbers*' - statistical significance is meaningless if the data collection instrument generates invalid data (Churchill, 1979). Furthermore, it was fully acknowledged that one cannot take bad data and turn it into good using

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sophisticated analysis techniques and, without good data the quality of the resultant theory-testing and development would be seriously undermined (Williams, 1995). Figure 3.12 at the end of this Chapter shows how the design considerations described in this Section were incorporated into the selected research methods for the project.

The next Section describes the data sources for this research project.

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## **3 Data Sources**

### **3.1 Introduction**

The last Section made a case for survey research supported by semi-structured interviews and identified important design criteria. A detailed description of how these methods were designed and used is provided in Section 4. This Section describes the focus of the study and the sources of data. It specifically covers the reasoning for selecting the population, the sampling frame, the sample and the sample size.

### **3.2 UK MoD Procurement**

Chapter 1 introduced the structure and roles of the UK Defence Procurement organisation. The focus of this study is the relationship between the UK MoD and Industry that exists through contracts for goods and services that is managed by Integrated Project Teams (IPTs). All the statistics quoted in this sub-section are from the Defence Analytic Services Agency (2001) year 2001/02 estimates. The UK MoD's procurement organisation (the research population) is very large and, as described in Chapter 1, is divided into 2 main departments:

- The UK Defence Procurement Agency manages new equipment projects from conception through development and production to hand over to the Front Line military customers. Its business is necessarily very long-term and complicated by relationships with industry which change according to the project phases. It employs some 4,300 people, is organised into 70 IPTs and spends approximately £6,246m per year.
- The Defence Logistics Organisation (DLO) manages the support of equipment and weapon systems that are in-use with the Front Line military customers. Although it is split into 3 constituent parts (Sea, Land and Air), its procurement activity is less complex because it is confined to the purchase of goods (spare

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parts) and services (repair and overhaul). It employs some 24,800 people organised into 55 Integrated Project Teams and spends approximately £4,066m per year.

The DLO business was chosen as the sampling frame for this study because firstly it presented a simpler, more unified business, which was more likely to allow clear research results to be derived in a shorter timescale. Secondly, since the author works within the organisation and is sponsored by it, access was also facilitated. (See Section 6 – Limitations, where the issue of researcher independence is discussed).

Of the DLO's annual spend, approximately 70% is spent under monopoly conditions i.e. where competition is severely restricted by minimal or complete lack of choice (see Chapter 1, Section 8 for definition). The research thus aimed to take a wide cross-section census of the 55 IPTs within the DLO, which led to the selection of the Industries concerned. These relationships were managed by small teams on each side involved in placing and processing orders, monitoring production and performance, dealing with problems and authorising payment.

### **3.3 *Criteria for Selecting Questionnaire Respondents***

Because of the need to select knowledgeable respondents from the UK MoD and Industry teams working on either side of each relationship, the leader of each team was asked to determine who would take part in the survey and, mindful that previous research has concentrated on senior sales/purchasing staff (Tuten & Urban, 2001), it was emphasised that the most useful results would be obtained if a cross-section of team members were selected to take part. This was therefore, a census rather than a sample (Sapsford, 1999). A post-census (Easterby Smith, 1991) 10% check of UK MoD telephone directories indicated that Integrated Project Team leaders had

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indeed chosen a wide cross-section team members to take part. It was not possible to carry out a similar check of Industry teams because of the lack of access to internal phone directories however; scrutiny of the post titles of questionnaire respondents indicates that a broad variety of functions and levels was selected.

### ***3.4 Criteria for Selecting Semi-Structured Interview Respondents***

Semi-structured interviews were designed to capture richer data about the quality of each relationship. The number of Interviewees was dependent on the need to capture sufficient, qualitative information from knowledgeable respondents but limited by the time available to complete the project. As a result, the respective Industry and UK MoD team leaders for each relationship researched were chosen. Moreover, by dint of their positions, they were considered to 'knowledgeable' about the issues under examination.

### ***3.5 Data Sources – Conclusion***

In conclusion, this research concentrated on collecting census data from team members within a representative sample of monopoly relationships within UK Defence Procurement between the Defence Logistics Organisation and its industrial partners. As a result, the strategy provided a stronger test of the stability of the hypothesised relationships than the more standard approach to sampling from only one group or the other (Heide & Miner, 1992).

The next Section describes the design of the instruments and procedures for the data capture.



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## 4 Instruments and Procedures for Data Capture

Having described the sample selection criteria in Section 3, this Section describes the criteria used to design the questionnaire and the semi-structure interview plan. The overriding objective of this survey research was to obtain '*consistent answers from consistent questions through the application of a systematic, standardised data capture method*' (Sapsford, 1999). This Section also describes how these arrangements were validated during a Pilot Project.

### 4.1 Dimensions and Underlying Concepts - Rationale

The constructs in the project were primarily measured using multi-item scales (questions under a heading). The aim was to design an instrument that could be applied relatively easily to a large number of individuals and organisations to enable research with greater generalisability. As mentioned earlier and introduced in Chapter 2, Section 5, Figure 2.23, the elements within Williamson's (1975) Organisation Failure Framework representing an influence rather than a causal model, provide the underlying theoretical concepts for the project. Against these (in yellow) are juxtaposed generic relationship success factors (in green) as the main dimensions for study and are illustrated in Figure 3.4.

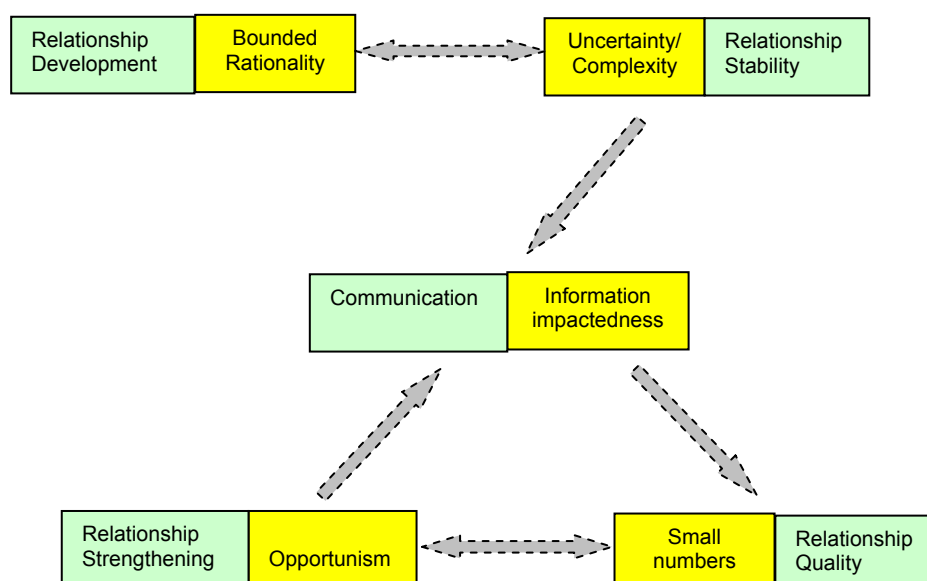


Figure 3.4. Williamson's (1975) Economic Organisation Failure Framework Underlying Concepts with Supply Chain Success Factors Dimensions

#### 4.2 Question Validation Process

This sub-Section describes the process by which the 5 dimensions of the theoretical framework shown in Figure 3.4 were operationalised using a series of questions that were incorporated within a questionnaire. The individual measures were selected from a pool of items taken from the empirical research mentioned in the last paragraph of sub-Section 2.3. They reflected the distinctive characteristics of each dimension, which incorporated the different nuances (Churchill, 1979) and were considered suitable for use in a self-completion questionnaire (Bailey et al, 2000). In most instances the measures have been used in previous research, modified to fit the context where necessary, and are thus considered being reliable indicators. In some instances however, suitable measures were not found in the literature and were designed specifically for this project following preliminary research (Heide & Miner, 1992). The measures and their derivations are described later in sub-Sections 4.3, 4.4, 4.5, 4.6 and 4.7. In order to ensure that both theoretical and practical aspects were considered, as detailed in the following sub-Sections, at

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various stages of the development process academics a representative sample of practicing managers and staff evaluated the questions to ensure that it had methodological consistency, made sense established its face validity – that it looked as if it ought to measure the planned dimensions (Sapsford, 1999).

#### ***4.2.1 Selection by Dimension Step***

The detail of this process to select appropriate questions for each dimension comprised 3 steps.

#### ***4.2.2 Literature Search***

Within the body of knowledge reviewed as a foundation to this research (Chapter 2), 15 papers that described the findings of empirical research were examined and a pool of 60 questions was selected as being appropriate to the aims of this project.

#### ***4.2.3 Selection by Dimension & Refinement***

The 60 questions were listed in random order and emailed to 3 fellow part-time PhD students who because one was a career logistic manager, another was a senior ex-Royal Air Force Officer and the other was a marketing manager, were able to make expert contributions. The 5 numbered Dimensions and their definitions were also provided on a separate sheet. The instructions were to allocate, using a common sense understanding of the meaning of the questions, a Dimension number to each question and to email the annotated list back. A high degree of commonality of views was achieved with 48 questions allocated identically to the 5 Dimensions, a further 7 where 2 out of 3 selectors differed and the remaining 5 questions where 1 selector differed. These 12 questions were therefore removed from the list because of their inherent ambiguity. A further 13 questions were removed because it was felt

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that they each duplicated the sense of another questions and of each pair, was considered to be the weaker. 35 questions remained.

#### **4.2.4 Academic Validation**

The final, segmented list of 35 questions together with Dimension definitions was presented to 3 members of the Cranfield faculty for their scrutiny. One was from Marketing and 2 were Logisticians. They agreed that the groupings fairly represented the Dimension definitions and, that there was no ambiguity, overlap or deficiency.

#### **4.2.5 Business Community Input & Validation Step**

In order to validate the questionnaire questions within the target business environment, a 3 phase approach was adopted.

#### **4.2.6 Initial Workshop**

A group of 6 people from the Pilot Project teams (the team leaders, 2 commercial officers and 2 supply chain purchasers) were consulted in a 90 minute workshop. The objectives of the research were first presented and the Dimensions were defined. A number of questions of clarification were answered and when it was felt that those present had a clear understanding of the situation, the segmented list of 35 questions was introduced on 5 Powerpoint slides, one Dimension at a time for consideration and discussion. As a result of the identification of specific business issues, 3 new questions were added with the text typed onto the screen at the time. Considerable effort was put into 'getting the meaning right'. The wording of a further 7 questions was altered slightly to improve their meaning to the targeted business community.

### 4.2.7 Questionnaire Tests

The refined questions were inserted into the questionnaire format and offered sequentially to 3 groups of 5 people from the business but deliberately outside of the proposed pilot project area in order to obtain a wider view. The result was a further 6 minor wording changes that improved understanding and clarity. In the 50 questionnaires (25 to the IPT and 25 to Industry) an additional space was provided for comments that might improve the instrument. As a result, 4 further word changes were proposed and accepted.

### 4.2.8 Academic Validation

The results of this process including the final version of the questionnaire were presented to the academic review team at a formal Stage Review for approval prior to commencing the main research project. An overview is shown below in Figure 3.5.

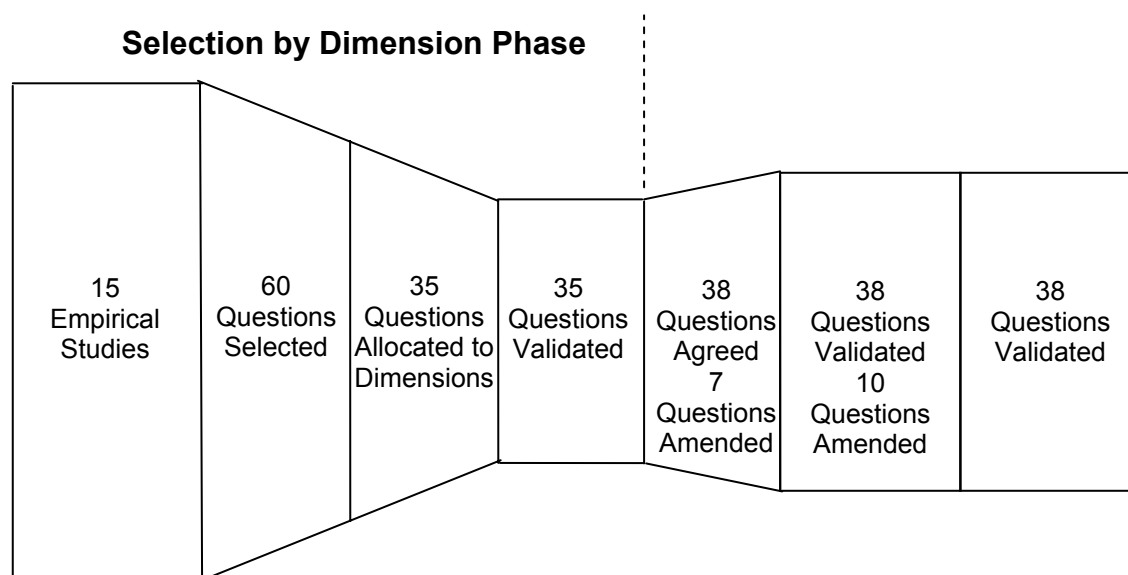


Figure 3.5 Questionnaire Questions Selection Process.

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The theoretical constructs together with their dimensions and associated measures are described in more detail in the following sub-Sections.

### **4.3 Bounded Rationality**

Herbert Simon's (1957) concept suggests that people have only so much capacity to rationalise what is going on around them and they therefore naturally limit their performance to the adequate rather than the optimum.

**Construct: Relationship Development – enabling joint creativity.** Measures:

- The relationship encourages us to be innovative in the way we do business (Nooteboom, 1999, Moorman et al, 1992).
- The relationship encourages the achievement of high performance (eg. reliable equipment, on-time delivery) (Mohr & Spekman, 1994).
- Performance measurement is used to raise standards (Harland, 1995, 1996, Noordewier et al, 1990, Phillips, 1981).
- Disputes are resolved:
  - quickly (Mohr & Spekman, 1994).
  - fairly. The perception of fairness is a particular problem in UK Defence Procurement because there is often a perception that the market is not fairly constructed i.e. not a level playing-field.
- The other party:
  - is reliable and consistent in dealing with us (Parkhe, 1993).
  - is committed to making our business a success (Doney & Cannon, 1997, Spekman et al, 1998).
- When some unexpected problem arises, both parties would rather work out a new deal than hold each other to the original contract terms (Doney & Cannon, 1997, Heide & Miner, 1992, Nooteboom, 1999, Metcalf et al, 1990, Mohr & Spekman, 1994, Zheng et al, 2000).

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#### **4.4 *Uncertainty/complexity***

Describes the difficulty people have of making sense of complex current and future events (Williamson, 1975).

**Construct: Relationship Stability – creating a framework for successful business.** Measures:

- The other party displays a sound, strategic understanding of our business (Cox & Lamming, 1997, Moorman et al, 1992, Spekman et al, 1998).
- The objectives of both parties are clearly stated (Nooteboom, 1999).
- The objectives of both parties are fully compatible (Lambert et al, 1996).
- Both parties co-operate wholeheartedly (Lamming, 1993, Mohr & Spekman, 1994).
- The relationship provides a dynamic business environment within which both parties can seek increasing rewards (Noordewier et al, 1990).
- I have complete confidence in the intentions of the other party (Doney & Cannon, 1997, Mohr & Spekman, 1994, Morgan & Hunt, 1994).

#### **4.5 *Information Impactedness***

Resulting from both Uncertainty/Complexity and Opportunism, which refers to the imbalance caused by selective information disclosures, and distortions which are difficult or expensive to verify at the time and which undermine the durability of contract arrangements (Williamson, 1975).

**Construct: Communication – creating an environment for success.** Measures:

- Where the other party has proprietary information that could improve the performance of the joint business, it is freely available (Doney & Cannon, 1997, Heide & Miner, 1992, Metcalf et al, 1990, Mohr & Spekman, 1994).

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- We welcome a shared data environment where planning, technical and pricing information is made freely available (Lambert et al, 1996, Lamming et al, 2001, Nootboom, 1999).
  - We understand the information requirements of all participants in the support chain from sub-contractors to end-user (Nootboom, 1999).
  - Objective performance measurement is an important part of this relationship (Harland, 1996, Morgan & Hunt, 1994, Noordewier et al, 1990, Parkhe, 1993).
  - We are aware of the performance requirements for all participants in the support chain from sub-contractors to end-user (Lamming, 1993). This measure was added after discussion with managers and staff who perceived a lack of adequate awareness of all chain participants as a particular issue in Defence support contracts.
  - Exchange of information in this relationship takes place frequently and informally – not just according to specified agreement (Lamming et al, 2001, Heide & Miner, 1992, Mohr & Spekman, 1994, Parkhe, 1993).
  - We provide the other party with regular information including long-range forecasts to enable him to do his business better (Lambert et al, 1996, Mohr & Spekman, 1994, Noordewier et al, 1990).

#### **4.6 Opportunism**

Constitutes a lack of candour or honesty and includes self-interest seeking with guile. This factor can be especially debilitating if the exchange involves transaction-specific human and physical capital investments such as management time, skilled labour and IS links, which can either give one party excessive power over the other or because of the fear of loss, can lock a partner into the deal when he would rather leave (Hill, 1990, Williamson, 1979).



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**Construct: Relationship Strengthening – creating a reliable business arrangement.** Measures:

- The quality of the contract outputs (spares/repairs/services) is entirely satisfactory (Harland, 1996, Mohr & Spekman, 1994, Moorman et al, 1992).
- The quality of service delivery (delivery times, billing, payment) is entirely satisfactory (Harland, 1995, Mohr & Spekman, 1994, Sako et al, 1994).
- The relationship is characterised by a continually improving quality ethos (Lambert et al, 1996, Lamming, 1993, Nootboom, 1999).
- Problems are solved in a joint, open, constructive manner (Heide & Miner, 1992, Mohr & Spekman, 1994).
- Such is the goodwill in the relationship, the other party would willingly put himself out to adapt to our changing requirements (Mohr & Spekman, 1994, Parkhe, 1993).
- We trust the other party to act in our best interests (Doney & Cannon, 1997, Lambert et al, 1996, Mohr & Spekman, 1994, Moorman et al, 1992, Morgan & Hunt, 1994).
- The responsibility for making sure the relationship works is shared jointly (Heide & Miner, 1992, Nootboom, 1999).
- The other party provides us with useful cost reduction and quality improvement ideas (Noordewier et al, 1990, Metcalf et al, 1990).
- The other party is always totally open and honest with us (Lamming et al, 2001, Morgan & Hunt, 1994, Parkhe, 1993).
- The other party always does what he says he will do (Morgan & Hunt, 1994, Parkhe, 1993, Metcalf et al, 1990).

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#### **4.7 Small Numbers /Monopoly Market**

The combination of problem behaviours requires sophisticated controls that are only found in or close to the firm and may result in failure of market conditions (Williamson, 1979).

**Relationship Quality: creating the incentive to work together.** Measures:

- The gains from this relationship are equally shared between both parties (Nooteboom, 1999).
- We do not feel imprisoned within the current relationship (Nooteboom, 1999)
- We are willing to invest more (eg. money, time, information, effort) in the current relationship (Lambert et al, 1996).
- We are happy that our future is bound to the success of our relationship partner (Lambert et al, 1996, Nooteboom, 1999, Sako et al, 1994).
- We feel totally committed to this relationship (Morgan & Hunt, 1994) (Moorman et al, 1992, Parkhe, 1993, Lambert et al, 1996).
- The other party is genuinely concerned that our business succeeds (Doney & Cannon, 1997, Mohr & Spekman, 1994).
- Both sides are working to improve this relationship. A measure adopted following suggestions by practicing managers who believed that the measurement of the current relationship needed more than static measures and that an indication of progress (or otherwise) was also important.

#### **4.8 Questionnaire Design**

The overall questionnaire design requirements were to collect the data required as effectively and efficiently as possible and to this end it should be simple and easy to use in order to secure the maximum response rate and accuracy of data provision (Youngman, 1984). It was also important to consider how the data would be used and therefore at the same time as the questionnaire was being designed all the

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facilities deemed necessary for successful analysis – coding, non-response routine and data manipulation, needed to be considered (Hibberd, 1994). The questionnaire was designed using the principles outlined in 2.6-2.12 but in addition achieved parsimony of words, a clear, consistent layout, an explicit theme, contained clear, logical instructions and included features that aided coding (Sapsford, 1999). A copy is included at Appendix 1 to this report. Specific design issues are covered below.

Various types of anchored, attitudinal scale such as Thurstone, semantic differential and Likert were considered for the main data capture medium. But, because previous Supply Chain relationships research (Doney & Cannon, 1997, Mohr & Spekman, 1994, Noordewier et al, 1990, Parkhe, 1993, Spekman et al, 1998) has used Likert scales because of their appropriateness, their simplicity and the general familiarity of business people with them (Schertzer & Kernan, 1985), the method was selected for this project. The use of scales require familiarity with a number of considerations including whether or not the descriptors (the words used to describe the question choices) have similar psychological meanings to people and thus can be arranged to form equal-interval response scales (Schertzer & Kernan, 1985). Other questions that need to be addressed include whether or not the scales are ordinal in their metric – i.e. do the scale points meaningfully reflect the order of meaning to respondents in the same way that their constructors assume, should scales be balanced – i.e. contain an equal number of positive and negative response categories and moreover, what is the optimum number of categories in a scale and should it contain a neutral point.

Because Likert scales have been found to communicate interval properties to the respondents and therefore can produce intervally scaled data (Kohli, 1989,

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Madsden, 1989, Perry, 1999, Schertzer & Kernan, 1985), the method is considered to be particularly suited to this project. The need for positive data (the avoidance of 'don't know', 'no opinion' or 'neither agree or disagree') led to the selection of a scale size that offered only limited choices of 'agree', 'strongly agree', 'disagree' and 'strongly disagree' (Youngman, 1984). Given that the sample respondents operated in a tensioned, monopoly environment, it was reasonably assumed that their views would be either pro or con; an approach that was justified following exposure to staff during development of the instrument and the pilot study. However, an 'insufficient knowledge' category was also included to offer a firm alternative and provide an intermediate (neutral) response (Youngman, 1984). The choice of these descriptors for cognitive (degree of belief) scales with associated ordinal qualities and the limitation of the size of scale to 5 in a balanced configuration is underlined by previous research as a particularly robust methodology (Schertzer & Kernan, 1985).

The standard range of supplementary information was sought on the front page. In particular, specific details about the relationship (equipment, firm, IPT identifier) were highlighted in bold and mentioned twice to ensure that those staff who dealt with multiple relationships were in no doubt as which relationship was covered by the questionnaire. Also, from face-to-face interviews with managers and staff in the design phase, the level of the respondent was considered to be important because it was anticipated that senior personnel were likely to be more optimistic about the relationship, given the importance of partnering as a headquarters policy, than the desk staff at the working interface of the organisations. In practice, tests to identify these response patterns in the Pilot Study and in a 15% sample of Main Project questionnaires revealed no tendency of this nature. It is assumed that the assurance given to respondents that their responses would be treated in total confidence, that their questionnaires were to be submitted directly to the researcher

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to avoid power influences and, that uninhibited expression would offer most benefit to the research outcomes, encouraged the submission of frank responses. Additionally, because in providing responses, informants sometimes inadvertently distort their reports because of certain response tendencies, a response tendency variable was included so as to allow more accurate parameter estimation during data analysis (Kohli, 1989). As a result each respondent was asked to estimate his level of knowledge of the particular relationship. Thus 'no knowledge' replies could be discounted from the survey. A further filter, the length of time in role, was also used to remove unreliable responses. In this case a cut-off of 3 months was decided after consultation with managers and staff. The questionnaire validation process has been described in detail in sub-Section 4.2.

#### **4.9 Questionnaire Reliability**

As already mentioned in Section 2, having chosen dimensions and associated measures it was important to determine their reliability. Given a homogeneous sample of respondents and groups of measures that test the same major constructs, one should obtain consistent, repeatable results, apart from those due to random factors (Cortina, 1993). The most widely used, general form of internal consistency test is the Cronbach Alpha Coefficient which measures internal consistency by accounting for variances due to subjects and the interaction between subjects and items (correlation) (Bowman & Ambrosini, 1997). Item-specific variance is the uniqueness of an item, which is assessed by Coefficient Alpha. If there is a large Alpha then it can be concluded that a large portion of the variance is attributable to general and group factors i.e. very little item-specific variance (Churchill, 1979). A satisfactory level of Alpha is however, open to some conjecture. Bowman & Ambrosini, (1997) consider that the following context-specific minima: psychology – 0.9; basic research – 0.8; applied setting – 0.9; management literature – 0.7 are

acceptable. Churchill (1979) recommends that Coefficient Alpha be used for the first assessment of the quality of an instrument and that high (0.5 – 0.95) is good. Where low scores are found the delinquent measures should be eliminated or re-drafted. In this research the Pilot Project questionnaire results generated the following

Coefficient Alphas:

<b>Development:</b>	0.8039
<b>Stability:</b>	0.7744
<b>Communication:</b>	0.7639
<b>Strengthening:</b>	0.7653
<b>Quality:</b>	0.8812
<b>Overall:</b>	0.7977

Sensitivity analysis (excluding individual measure in turn) made an insignificant difference to the overall result. It was therefore concluded on the basis of a score greater than 0.7 (management literature) that the Questionnaire as designed had sufficient internal consistency for the proposed research project.

#### ***4.10 Semi-Structure Interview Design***

A copy of the semi-structured interview schedule is at Appendix 2. It was carefully designed to focus clearly on capturing 'why' information from senior relationship managers (Wragg, 1984). The questions were selected to match the dominant results recorded for each dimension of the relationship in question i.e. what were the key factors that resulted in success or failure? Because this approach was considered to be extremely simple and explicit, the schedule was tested by seeking the opinions of a selection of senior personnel from the UK MoD and Industry and refined as a result of experience gained during the Pilot Project.

#### ***4.11 Pilot Project***

A Pilot Project was carried out between Oct and Dec 00 to validate all aspects of the research design and the administration of its instruments. The relationship selected was that between the Air-to-Air Refuelling (AAR) Integrated Project Team within the

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Air Business Unit and its industrial partner British Aerospace Systems (BAe) PLC. This was a true monopoly worth £40m per year for both the purchase of spare parts and the provision of repair services. It was chosen because it was representative of the type of relationship to be targeted by the Main Project, the AAR organisation was located close to the researcher's work-place and because the Integrated Project Team Leader was a proponent of the research and keen to co-operate.

Twenty five questionnaires were sent to the AAR Integrated Project Team Leader and 25 were sent to BAe Systems PLC point of contact manager. An additional question was added to the questionnaire seeking respondents' views on the design of the questionnaire. A number of useful comments about clarity of layout and wording were received which resulted in the incorporation of some further improvements for the main research phase (see 4.2.7). All 50 completed questionnaires were received following one reminder to the team leader on each side, a response rate of 100%. In handling the reminder, the team leaders were asked to make their request known to their staff in a clear, neutral manner in order to avoid any suggestion of power or duress. Once all the questionnaires had been received, two phoned, random checks to staff in each organisation elicited that this request had been complied with. Follow-up semi-structured interviews then took place with both team leaders. The data was used to further develop the recording, analysis systems and graphical outputs and the results, as provided to the 2 team leaders in report form are shown in Appendix 3.

The next Section describes the operation of the research and in particular the administration of the instruments and the classification of the collected data.

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## **5 Administration of Instruments & Data Classification**

### **5.1 Preliminary Notification**

Three important lessons learned were learned from the Pilot Project. The first was the considerable amount of administration involved in dealing with paper correspondence and questionnaires. As a result, email was used exclusively during the Main Project. Secondly, contact by telephone before making contact with written material was essential to ensure that co-operation was immediately forthcoming. Thirdly, in order to maintain control and focus in a long, complex process, the research needed to be carried out within logical, sub-sets. As a result, it was decided to tackle the 3 areas of the DLO (Land, Sea & Air) in sequential order of increasing size and complexity. The appropriate Business Unit Director General was contacted and support to the research programme and the nomination of a senior sponsor were sought. Each UK MoD Integrated Project Team Leader was contacted and asked to complete a return providing details of the relationships they believed fell into the monopoly category and would like investigated.

### **5.2 Questionnaires**

Each UK MoD Integrated Project Team Leader was also asked to distribute copies of the questionnaire to staff to be returned by a deadline. Using the contacts provided, the Industry Team Leader were contacted and asked to distribute and return completed questionnaires by the same deadline. Although 75% of questionnaires were returned by the deadline, a phone call or email reminder usually brought in the remainder fairly quickly. An analysis of early versus late responses (Armstrong & Overton, 1977) revealed no significant differences in the Integrated Project Team/Firm and situational characteristics, which suggests that non-response bias was not a significant issue (Kohli, 1989). Following the analysis of the questionnaire data for each relationship a business report was prepared and emailed to each team



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leader in the format shown at Appendix 3. A number of the questionnaires contained additional manuscript comments, which were recorded for further analysis.

### **5.3 *Semi-Structured Interviews***

The part played by semi-structured interviews within the research project was explained verbally and in the initial letter to each Integrated Project and Industry Team Leader and normally took place within 3 weeks following publication of the report. The graphical results were discussed and the reasons for any manifest relationship performance characteristics were sought. Initially the intention was to hold the interviews in person but time constraints and geographical spread (UK, Europe and USA) meant that only 50% could be held in this way. The remainder was carried out by telephone and it was found that often the latter format garnered a similar richness and quantity of data in a shorter time than the face-to-face interviews. Interview duration varied between 20 and 90 minutes and were conducted in a reflexive manner that took full advantage of the favourable data collection opportunities of a relaxed social situation but mindful of the need to maintain neutrality and a reasonably standardised presentation (Foddy, 1993, Sapsford, 1999). No attempt was made to record the face-to-face interview because the number carried out exceeded the time and resources available to transcribe, and analyse them. In the event, due to the researcher's experience and background, it was found that the points that explained the reasoning for the quality of the relationships (a fair representation of the surface content (Sapsford, 1999)) could be easily identified and noted by hand on the schedule. At the end of the research project the key points (things to do and to avoid when doing business with the UK MoD) were placed in a CD-ROM database under the title: 'UK Defence Procurement Best Practice'. Complimentary copies were sent to all team leader participants and thus satisfying the requirement to feed-back their contributions.

#### 5.4 Quantitative Data Classification

In order to seek richer patterns within the quantitative data, a number of independent variables were selected that could be utilised for cross-tabulation in order to categorise the relationship types. The categories listed in Figure 3.6 were sourced from an internal, classified, report entitled Project ASPIRE, Improving Supplier Management in the DLO dated Aug 1999 and were made available to the researcher as a consequence of his position within the DLO.

#	Variable	Values
1	Value of Contract in Year	£
2	Relationship Duration	Long: >20 yrs, Medium: 10-19 yrs, Short: 1-9 yrs
3	Team Size	Number of questionnaire Respondents
4	Technology Age	Old: >2 Upgrades, Medium: 1-2 Upgrades, New: 0 Upgrades
5	Technological Complexity	System or Component
6	MoD Contractors League - Annual MoD Spend per Firm (DASA, 2001)	1: >£250m, 2: £100m-£250m, 3: £50m-£100m, 4: £25m-£50m, 5: £10m-£25m, 6: £5m-£10m

Figure 3.6. Relationship Independent Variables

#### 5.5 Qualitative Data Classification

The key points collected from questionnaire 'additional information' and from the semi-structured interviews needed to be classified and ordered in a way that facilitated their analysis and use in support of the analysis of the statistical data. Unlike the somewhat subjective task of coding key text from transcripts which inherently involves analysis (Miles & Huberman, 1994), in this project the activity was an objective process. Each key point was classified according to the appropriate dimension construct from the theoretical framework in Figure 3.4 and was also labelled according to whether it was a positive or a negative comment and also

whether it was from a successful or an unsuccessful relationship. However, when in Chapter 4 it came to examining the qualitative responses within each dimension by means of the theoretical fields of interest (TCE, SCM and RM) appropriate groupings emerged and were compared with those suggested by the literature.

### 5.6 Research Project Programme

A table that shows the overall data collection programme is at Figure 3.7 below.

Organisation	Start Date	End Date	No of Relationships	No of Respondents	Value of Relationships
Pilot Project	Oct 00	Dec 00	1	50	£40.0m
Land Business Unit	Jan 01	Apr 01	6	64	£53.3m
Sea Business Unit	May 01	Jul 01	10	92	£28.9m
Air Business Unit	Jul 01	Dec 01	37	423	£453.6m
Totals	Oct 00	Dec 01	54	629	£575.80m

Figure 3.7. Overall Data Collection Programme

A summary of the qualitative data records collected by theoretical framework dimension is in Figure 3.8. The numbers vary by dimension because although the same questions were asked of each interviewee, some team leaders were more forthcoming than others. Also, a number of points were recorded from the 'any other comments' field in the questionnaire.

Bus Unit	MoD/Industry	1. Creativity	2. Stability	3. Communication	4. Reliability	5. Quality	Total
Land	MoD	11	8	9	21	14	63
	Industry	18	14	10	13	11	66
Sea	MoD	15	19	8	21	11	74
	Industry	16	20	14	22	9	81
Air	MoD	39	52	39	59	46	235
	Industry	35	43	41	40	22	181
<b>Totals</b>		135	158	124	180	118	700

Figure 3.8. Qualitative Data Statistics

### 5.7 Business Reports

At the end of each research phase, a report was provided to the Director General responsible for that group of relationships. An example of the Sea Business Report which summarises the findings from the relationships in that area is at Appendix 4.

Note that the qualitative data has been sorted in descending order of confidence (rated according to the parent relationship dimension score) so that positive comments have stronger feelings the higher the percentage value whereas for negative points, the reverse is the case. A copy of the final report to the DLO HQ which summarises the findings from all three Business Units is at Appendix 5. Subsequent feedback on the utility of the research to the businesses has been extremely positive.

The next Section identifies the limitations of the adopted methodology so that the value of the results can be properly judged.

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## 6 Limitations of the Methodology

The philosophical approach to the research described in Section 2 sets the scene for the research project design. As such the combination of quantitative and qualitative is inevitably a compromise between the extremes of imposing rationality on the data collection and interpretation and, allowing the data to emerge and speak for itself. Care has been taken through the adopted design and methodology to ensure that the data collected is as consistent and a 'known quantity' as possible – see Section 9 at the end of this Chapter. Nevertheless, as stated in sub-Section 2.12, this is not always possible to fully achieve. The 2 main limitations of the methodology used for this project are highlighted below and although considerable efforts were made to minimise their impact on the overall validity of the research, it is of course impossible to do this completely. However, as long as the methodological shortfalls are borne in mind when assessing the results, then the true value of the research project will not be diluted (Perry, 1999).

Perhaps the most serious limitation was the researcher himself. A 32 year career in military logistics provides an inevitable cultural imprint comprising a very direct, objective-driven, logical approach to a fairly specialised type of supply chain business. This could not help but create a certain mindset that needed to be both accepted and understood. As far as it was possible to overcome this limitation, it was achieved by taking a very deliberate, open-minded stance combined with greater criticality. Furthermore, at every reflection point it was important to examine ones observations and conclusions carefully to identify those that may have been coloured by the researcher's background. Moreover, a deeper reading of the literature was necessary to ensure that private sector concepts were thoroughly understood together with their implications for the research. A further allied problem

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was the proximity of the researcher to the UK Defence Procurement business due to his senior position (Director) within the organisation. As a result his independence from the phenomenon of interest and objectivity must be questioned. However, taking a predominantly positivist approach i.e. understanding that it is possible to stand back from the research situation (Hirschman, 1986), and being constantly aware of the need to maintain this stance, allowed the limitation to be overcome to some extent. The position of the researcher within Defence Procurement could possibly be seen as 'on-side' by the UK MoD organisations studied and as 'a customer who must not be upset' by Industry people. To counter this problem the importance of objectivity to ensure that the research findings provided each side of a business relationship with value was stressed, as was the assurance of complete confidentiality. Furthermore, it was emphasised throughout that the research was the personal work of the researcher backed by the reputation of Cranfield University. In practice during the semi-structured interviews it was found that both sides appeared to be relieved to have someone they could confide their problems to or were proud to be able to explain their success to an independent party. As a result, at no time was it sensed that the position of the researcher was felt to be associated with the 'establishment' and this was borne out by the fact that both sides appeared to be equally honest and forthcoming. It is very difficult however, to make the same assertion about the questionnaire inputs. Considerable effort was made to design neutrality into the questionnaires, both in the questions themselves and in the instructions for their completion. Apart from in the Pilot Project, the respondents had no contact whatsoever with the researcher so this might allow the assumption that he did not directly influence the responses. Nevertheless, it must be a possibility that customers will naturally be more reticent about criticising their customers (power bias) than vis-a-versa and overall, Firm respondents were 8% more optimistic than

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the MoD. Although this does not correlate with the semi-structured interviews experience, it is impossible to rule out this as a source of bias in this research.

A second limitation was that the data capture, for reasons of time and resource constraints, took place over a 14 months period and thus the organisation sample was not fixed within a consistent historical frame of reference. Such a situation may concern all management researchers, especially since the pace of change today is rapid and unrelenting in all fields of business and their environments. It is like looking out into the universe and attempting to fix a point when everything is in motion including yourself. This problem has been rationalised in this project in 2 ways. Firstly, UK Defence Procurement monopoly contracts are, due to the technical nature of the equipment, complex, long-term and therefore relatively stable. Thus the impact of political, structural and organisational change on basic contract relationships takes time to have a noticeable effect – it is essentially a medium-term, permeation phenomenon. Secondly, turbulence within the UK Defence Procurement business environment is now the norm and individual business units have become adept at managing within it so, as a background influence it can be largely discounted. Both assumptions were validated by a question posed at the end of each interview conducted – see Appendix 2. Nevertheless, it was important to remain vigilant to the possibility of any event, such as a firm becoming insolvent or subject to take-over, which might be the exception to these rules.

To counterbalance the inevitable drawbacks associated with the researcher's own position within the field of view, his personal experience and senior position allowed completely un-fettered access both to the very large MoD organisation and to its many industrial partners which allowed unprecedented insights to be gained. It also allowed a very efficient and effective research programme to be run that completed

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the data collection in less than 18 months. In conclusion, no methodology is perfect and the researcher needs to maintain clarity of purpose and flexibility whilst navigating through the reefs and rapids of his project. Fundamental to this achievement is constant awareness of one's own interests and those of the respondents affected by the research (Easterby-Smith et al, 1991).

The next Section describes the analysis design.



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## **7 Analysis Design**

### ***7.1 Overview of Requirements***

The overall requirement of the data analysis in this thesis is to allow the Research Question and supporting questions to be addressed. The analysis therefore considers the questionnaire data and the qualitative points from semi-structured interviews in order to draw conclusions about the theoretical framework's ability to explain, in Supply Chain Management, Relationship Marketing and Transaction Cost Economics theoretical terms, the business-to-business relationships within UK Defence Procurement. It also intends to provide an objective description of the quality of those relationships across the UK Defence Logistics Organisation and to amplify this picture with a distillation of best and worst practice. The latter information will be of particular interest to managers who wish to gain practical insights on how to improve their business relationships within UK Defence Procurement. Since the data is populate rather than a sample, the analysis does not require inferential statistics.

### ***7.2 Introduction to Analysis Approaches***

The data analysis design therefore takes a two-fold approach. Firstly it concentrates on building a 'picture' of business relationship performance from each individual Integrated Project/Industry pairing through the Sea, Land & Air Business Units to the overall Defence Logistics Organisation situation by aggregating quality measurements for each of the theoretical dimensions. In effect this is a multiple questionnaire/interview design using replication logic (Sapsford, 1999). The findings are displayed using simple comparative graphics. The qualitative data is then sorted by dimension and examples are extracted and used to highlight the reasoning for the numerical findings. The second approach considers the range of relationships that are revealed by the quantitative data with the objective of creating and describing a

relationship typology. In this case a Cluster Analysis technique and cross-tabulation to external variables are used in an exploratory mode, and the qualitative data is sorted by grouping to allow the findings to be highlighted.

### 7.3 Analysis Tools – Dimensional Quantitative Data

Linked Microsoft Excel spreadsheets were used to record the base data and to provide the aggregation facility. The structure is shown in Figure 3.9.

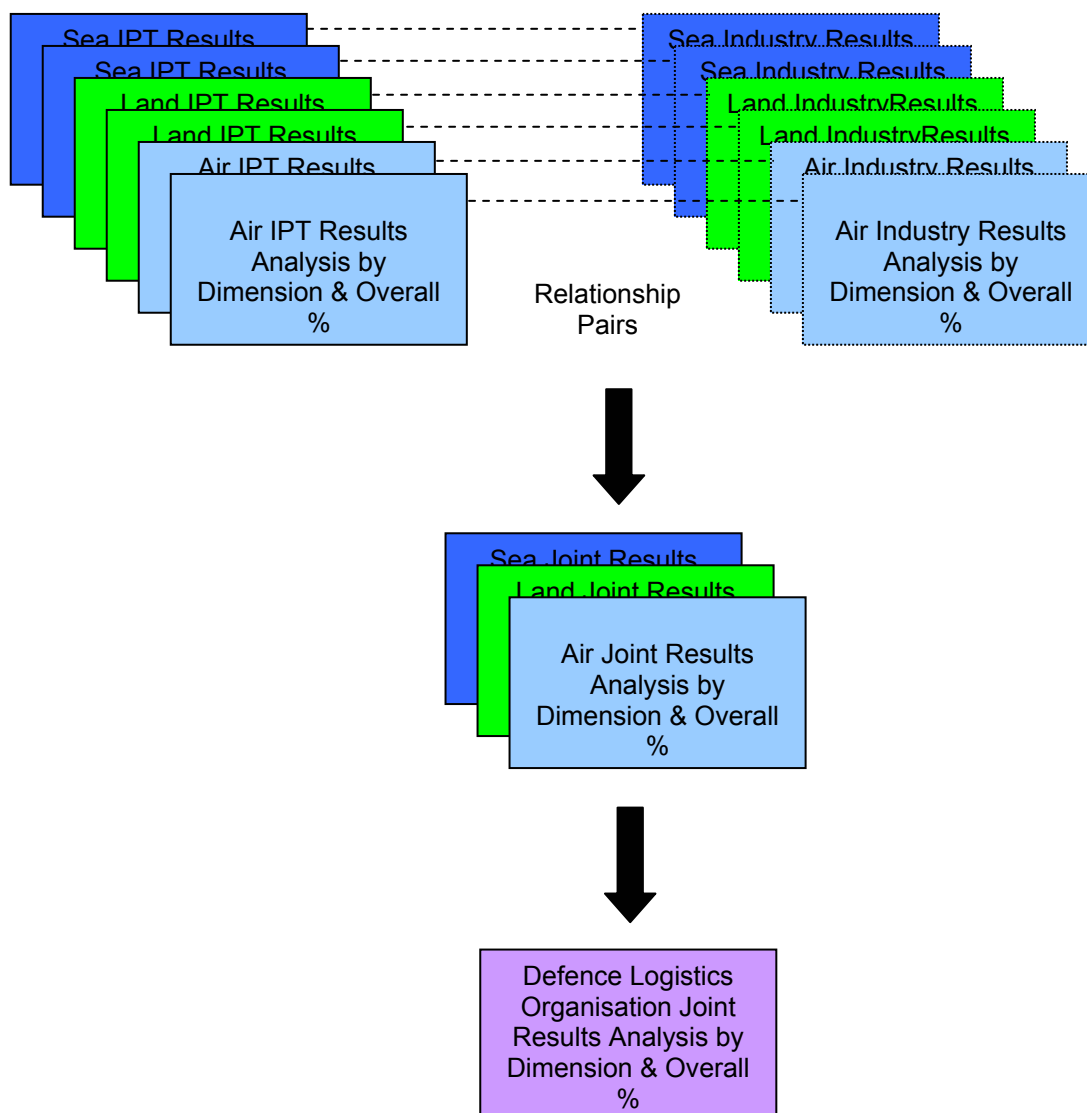


Figure 3.9. Dimensional Quantitative Data Analysis Spreadsheet Hierarchy

Standard format graphics were designed to accompany the spreadsheets at each level and examples of the design are shown in Appendix 3. The Likert Scale

responses for each scale item from each informant were counted and processed to generate percentages for each major construct. As per the design of the questionnaire scales, clear positive or negative responses were sought (see sub-Section 4.8) and a relationship was deemed to be successful if each of the 5 constructs generated a mean score of 50% or better in favour. The percentages were not tied to specific degrees of perception but, provided a scale of relativity (Sapsford, 1999). These percentages were carried forward and aggregated (covering both 1<sup>st</sup> and 2<sup>nd</sup> order constructs – the dimensions and the questions grouped under them) for each successive organisational level of analysis. An example is shown in Appendix 4. The overall theoretical framework was populated with the aggregated mean percentage success/failure scores as shown in exemplar form at Figure 3.10 and with actual results in Chapter 4, Figure 4.5.

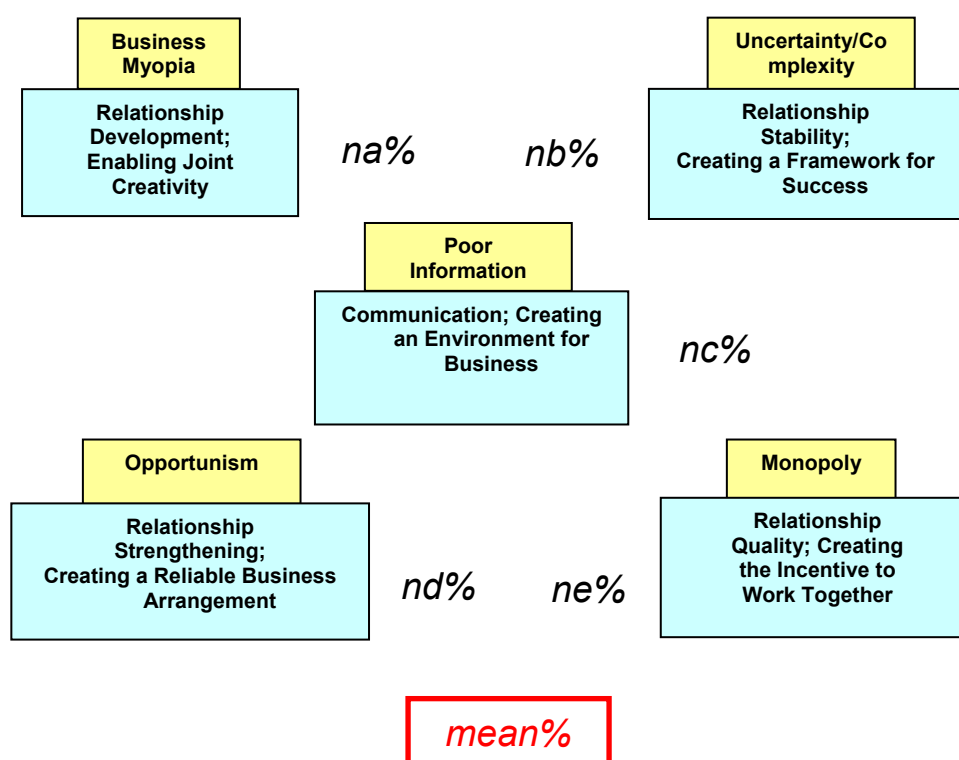


Figure 3.10. Specimen Relationship Success Summary

Finally, the full range of results from the 54 relationships surveyed was subjected to a Standard Deviation test using SPSS v 11.0 in order to measure their dispersion

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around the mean and to determine whether they fitted the Normal distribution pattern in which around 68% of cases would fall within 1 SD and around 95% within 2 SD (Sapsford, 1999). The actual results are plotted in Chapter 4, Figure 4.7.

#### **7.4 Analysis Tools – Relational Quantitative Data**

In addition to mapping the quantitative data onto the dimensions of the theoretical framework (described in sub-Section 7.3), the research also sought patterns within it to determine if business relationships could be characterised within a typology. To facilitate this approach Cluster Analysis (described below) was used to determine if logical groupings existed and then cross-tabulation with a number of external categories (variables) were attempted (see sub-Section 5.4) to further define them.

##### **7.4.1 Cluster Analysis**

Cluster Analysis is a family of techniques used to partition a set of objects into two or more groups based on the similarity of the objects for a set of specified characteristics (Everitt et al, 201, Hair et al, 1984, Kaufman & Rousseeuw,1990). More specifically, Cluster Analysis can be used in the following ways:

- **Classification.** The most traditional use of cluster analysis has been for exploratory purposes and the formation of a taxonomy; an empirically based classification of objects. But cluster analysis can also generate hypotheses related to the structure of the objects. Although viewed principally as an exploratory technique, cluster analysis can be used for confirmatory purposes. If a proposed structure can be defined for a set of objects, cluster analysis can be applied, and a proposed typology (theoretically based classification) can be compared to that derived from the cluster analysis.

- **Data simplification.** In the course of deriving a taxonomy, cluster analysis also achieves a simplified perspective on the observations. Whereas factor analysis attempts to provide 'dimensions' or structure to variables, cluster analysis performs the same task for observations.
- **Relationship identification.** With the clusters defined and the underlying structure of the data represented in the clusters, the researcher has a means of revealing relationships among the observations.

#### ***7.4.2 The Cluster Analysis Process***

Most approaches to cluster analysis first create a table of relative similarities or differences between all objects (for this research relationship dimension scores) and then use this information to combine the objects into groups (Hair et al, 1984). The table of relative similarities is called a similarity matrix. The method of combining objects into groups is called a clustering algorithm. The idea is to combine objects that are similar to one another into separate groups and the numbers in the table are measures of similarity or differences between the observations. The distances between objects are found by using the Squared Euclidean Distance where the matrix Distance  $(x,y) = \sum_i (x_i - y_i)^2$ . The next step is to divide the objects into groups based on the distances. A hierarchical approach is taken using an agglomerative method where each object or observation starts out as its own cluster and in each subsequent step, the two closest clusters (or individuals) are combined into a new aggregate cluster, thus reducing the number of clusters by one in each step. In some cases, a third individual joins the first two in a cluster. In others, two groups of individuals formed at an earlier stage may join together in a new cluster. Eventually, all individuals are grouped into one large cluster but, any member of a cluster can trace its membership in an unbroken path to its beginning as a single

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observation. Hierarchical clustering methods do not require preset knowledge of the number of groups. Within agglomerative hierarchical procedures there are different calculation methods available for computing the distance between subgroups at each step in the clustering algorithm. These include Single Linkage, Complete Linkage, Average Linkage the Centroid Method and Ward's Method (Hair et al, 1984). The latter has been selected for this research because it appears to be the most preferred for management research and because it has the fewest inherent biases. In Ward's Method, the distance between two clusters is the sum of squares between the two clusters summed over all variables. At each stage in the clustering procedure, the within-cluster sum of squares is minimized over all partitions (the complete set of disjoint or separate clusters) obtainable by combining two clusters from the previous stage.

### ***7.4.3 Cluster Characterisation***

The agglomeration table was first plotted as a graph using Microsoft Excel V XP (2002) to allow the 'break point' at which the least number of consistent clusters was identified. The statistical PC package SPSS For Windows V11.0 (Sep 2001) was then used to analyse the data based upon this number of clusters and the output was the significance ( $p$ ) of the linkage between the cluster and each external variable. All probabilities reported were based upon two-tailed tests as each comparison had 2 possible directions: Significant =  $0.05 > p < 0.001$  (Sapsford, 1999). The clusters were first subjected to cross-tabulation tests against external variables and then described graphically using 'spider diagrams' and figuratively using the qualitative data. The results of this analysis are described in Chapter 4, Section 8 and associated Appendices.

## 7.5 Analysis Tools – Qualitative Data

A Microsoft Access V XP (2002) database was created to allow the qualitative data to be recorded and analysed. A view of an input screen is shown at Figure 3.11.

The screenshot shows a Microsoft Access window titled "Microsoft Access - [Creativity]". The main area is a form titled "Category 1: Creativity" with an "Essential Record:" checkbox. The form contains several input fields: "Organisation:" (dropdown menu with "IPT" selected), "Environment:" (dropdown menu with "Land" selected), "Name:" (text box with "Q4"), "Equipment:" (text box with "Rapier"), "Date:" (text box with "23/01/01"), "Confidence:" (text box with "86 %"), "Failure or Success:" (dropdown menu with "S" selected), and "Flags:" (checkboxes for "P", "V", and three empty checkboxes). Below these are four text areas: "Positive Comment:", "Positive Impact:", "Negative Comment:" (containing "The firm does not appear to be able to forecast expenditure with the accuracy needed by our FOO."), and "Negative Impact:" (containing "Poor planning"). At the bottom of the form are three buttons: "Back to Main Menu:", "Delete Current Record:", and "Goto Reports Menu:". The status bar at the bottom shows "Record: 1 of 81" and "Form View".

Figure 3.11. Best Practice Database Input Screen

As the project progressed additional flags and labels were added such as a Confidence Level linked to the dimension score for that relationship and, categories keyed to relational factors such as trust to allow increasingly sophisticated analysis as the possibilities of the data occurred to the researcher. Selecting records by dimension and IPT or Firm enabled typical records to be chosen to support the dimensional quantitative data analysis and, sorting the database by identified clusters supported the relational quantitative data analysis phase. The next Section identifies a number of important ethical issues associated with the research project.

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## 8 Ethical Issues

In its Code of Conduct regarding Research Activities, the Cranfield School of Management specifies the rule of always aspiring to subject ideas to the most stringent and appropriate tests and to draw conclusions only from within the context of the data and well-founded theory (Cranfield SOM, 2002). This must include the need for researchers to make their own biases known (AMJ, 1992). Furthermore, all research activity must consider its consequences on the communities served by it and especially to *'preserve and protect the privacy, dignity, well-being and freedom of research participants'* (Cranfield SOM, 2002, Sapsford, 1999). Ethics in the research context especially involves the responsibilities of more powerful people over those who are less powerful and can manifest itself in a number of different ways (AMJ, 1992). Certainly one is a clash between personal and professional interests where the researcher might betray the confidence of a junior respondent to his organisation in the desire to obtain information (Easterby-Smith et al, 1991).

The ethical responsibility for not publicising or revealing information that might harm the interests of less powerful individuals or organisations was a central plank in this project (Sapsford, 1999). This was because of the personal beliefs of the researcher and because a lapse would spoil the professional reputation of the project and limit further co-operation from the organisations being examined. For these reasons informed consent was obtained from all respondents (Sapsford, 1999), raw data was carefully safeguarded and individual business relationships were only revealed at the aggregate level to the senior managers concerned (Cranfield SOM, 2002).

The decision about what data was collected and how it was recorded and interpreted provided a further ethical issue because it was quite possible that the researcher could skew the outcome to suit his own ends (Easterby-Smith et al, 1991). In this



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research, the provision of accurate reports to the team leaders of the groups of respondents, both from the results of the questionnaire and semi-structured interviews, ensured that data summaries were placed in the open to allow feedback to be provided and informed agreement to participate in the research to be given (Cranfield SOM, 2002). Finally, the unfolding research was subjected to *third-party review* (AMJ, 1992) by the researcher's supervisor and review committee and by a senior, jointly chaired forum comprising 30 senior MoD policy makers (The Partnering Steering Support Group) and the same number of Defence Industry directors that was established to support the development of DLO partnering techniques. The latter met every 6 months, the researcher was invited on 4 occasions to present the evolution, conduct and results of his research and, as well as receiving valuable feedback was able to influence policy development.

## 9 Conclusion

This Chapter has laid an audit trail that allows the reader to follow the justification for the type of research selected and to confirm that the correct procedures were followed. A cross-check between the crucial research design factors that affect, validity and generalisability is provided at Figure 3.12.

Chapter 3 Sections	Triangulation	Sampling Frame	Operationalisation	Questionnaire Design	Interview Plan Design	Instruments Administration	Analysis Design	Limitations	Ethics
<b>Sources of Error</b>									
<b>Organisational Effects (2.8)</b>									
Vantage point of senior staff (Bowman & Ambrosini, 1997)		3.4 3.5				5	7.1		
Multiple participants & methods (Huber & Power, 1985)	2.4	3					7.1		
Environmental change context (Boyd et al, 1993)		3.2	4.6	4.7			7.1	6	
Organisational orientation – ext/int, performance, teams/indvs (Boyd et al, 1993, Sapsford, 1999)	2.4	3.2 3.3			4.8		7.1	6	
Impression management (Boyd et al, 1993, Foddy, 1993)				4.7	4.8		7.1	6	
<b>Perceptual Errors (2.9)</b>									
Individual perceptual & cognitive limitations (Kumar et al, 1993, Schwenk, 1985)	2.4		4	4.7			7.1		
Time impact on memory (Boyd et al, 1993)				4.7			7.1	6	7.1
<b>Personality Bias (2.10)</b>									
Response Sets (Cronbach, 1950, Churchill, 1979)				4.7	4.8	5			
<b>Method Error (2.11)</b>									
Methods matched to organisation characteristics (Bagozzi et al, 1991)	2.4	3		4.7	4.8	5	7.1	6	7.1

Figure 3.12. Reliability, Validity, Generalisability Cross Reference Matrix

The next Chapter describes the research results.

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## Chapter 4

### Analysis of Data

#### 1 Introduction

##### 1.1 Overview

This thesis has introduced the business background to the research in Chapter 1. Chapter 2 described a review of appropriate literatures, highlighted specific gaps that supported the formulation of a Research Question (RQ) and supporting Questions (Q1, Q2, Q3, Q4) and finally presented a theoretical framework for research. Chapter 3 justified and described the chosen methodology and provided assurance that appropriate procedures were followed and in particular, Section 7 detailed the approach to the data analysis. This Chapter presents the pattern of results and analyses them for their relevance to the research questions. The full data analysis that links quantitative and qualitative data to the theoretical dimensions is provided in summary form with associated appendices to take the reader through the detail. The data analysis deliberately does not draw general conclusions because of the need to separate the results from the discussion of their significance in order to preserve objectivity (Perry, 1998). Chapter 5 will therefore discuss the findings within the context of the literature. An overview of the structure of Chapter 4 is at Figure 4.1.

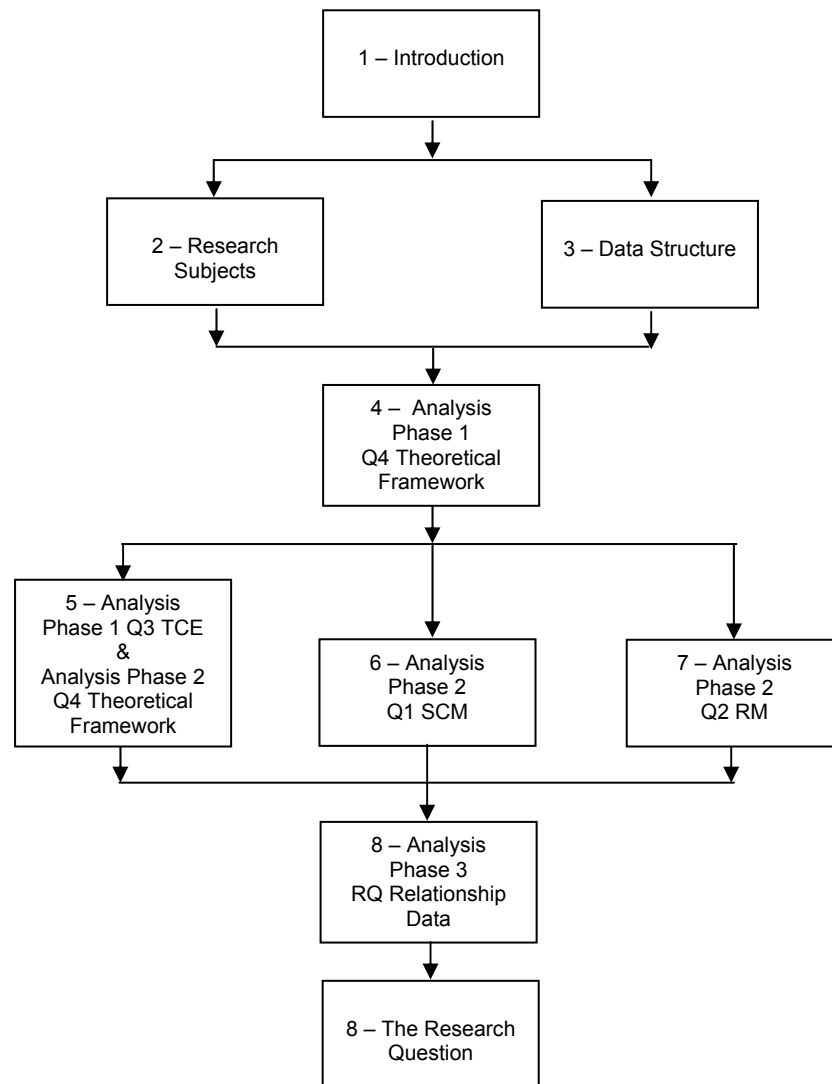


Figure 4.1. Chapter 4 Structure

This chapter begins by reminding the reader of the research context by providing some background information about the research subjects, the United Kingdom Ministry of Defence (UK MoD) Integrated Project Teams (IPTs) and their industrial partners. It then introduces the data by describing its dimensional and relational structures. The data analysis consists of 3 main parts.

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### **1.2 Phase 1: Theoretical Framework – High Level View**

The theoretical framework (Q4) is the foundation of the research methodology because its suitability as a 'lens' with which to examine the selected problem is a key test within the thesis. Section 4 therefore considers the high level, aggregated, quantitative data when overlaid onto the framework and its suitability to answer Q4. Subsequent analysis phases examine the data in greater detail.

### **1.3 Phase 2: Dimensional Data Analysis**

The Dimensional phase examines the data in detail when viewed through each of the theoretical framework's 5 dimensions. Because of the close affinity between the Theoretical Framework (Q4) and Transaction Cost Economics (TCE) (Q3), both are considered simultaneously in Section 5 and in Appendix 7. Next, and in turn, the results are examined to show how they reveal relational perspectives on Supply Chain Management (SCM) (Q1) in Section 6 and in Appendix 8 and, Relationship Marketing (RM) (Q2) in Section 7 and in Appendix 9. Although it is acknowledged that extremes of response exist at the individual respondent or relationship level, in this exploratory research an aggregated level of evidence is described using overall, mean satisfaction scores. In each Section at the detailed level appropriate qualitative data is used to illustrate the 5 dimensions. In the cases of SCM and RM emergent categories are used to group the managers' key comments and are compared with those from the literature. Aggregated mean scores from individual questionnaire questions are also used to explore these perceptions.

### **1.4 Phase 3: Relational Data Analysis**

The Relational phase in Section 8 seeks further patterns within the data using cluster analysis in order to seek a typology from the body of relationships examined. This element of the analysis contributes directly to satisfaction of the Research Question

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(RQ) in terms of being able to describe more fully the character of relationships in UK Defence Procurement.

### **1.5 Chapter Conclusion**

Finally in Section 9, the threads are drawn together and the overall results are presented in terms of the RQ.

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## 2 The Research Subjects

In order to set the scene for a presentation of the data collected in this thesis, it is first useful to recapitulate the research approach (described in detail in Chapter 3) and highlight the research subjects (described in detail in Chapters 1 and 3). The focus of the study in this study is the relationship between the UK MoD and Industry within the predominantly monopolistic UK Defence Procurement market conditions. In order to allow a significant piece of research to be completed the study has concentrated on a self-selected census of monopolistic relationships within the Defence Logistics Organisation of the UK MoD. The basic level of data capture is individual relationships between equipment support Integrated Project Teams (IPTs) procuring spares, repairs and services for in-use weapon systems within the UK MoD Land, Sea and Air business units and their industrial suppliers. It is based on a self-selected census of monopolistic business relationships. The data is thus populate rather than a sample and the analysis does not require inferential statistics. The research instruments were designed around the 5 dimensions of the conceptual framework described in detail in Section 4 of Chapter 3. Questionnaires (see design at Appendix 1) were returned from a cross section of knowledgeable staff including, logisticians, engineers, commercial, finance, project managers and business developers on each side. The data were then aggregated up to business unit level and thence to a single, Defence Logistics Organisation perspective as described in Chapter 3, Section 7. The statistical data was supplemented by semi-structured interview, key point data collected from the team leaders in each relationship pair. The design details for the qualitative data capture are described in Chapter 3, Section 4 and Appendix 2, the implementation in Chapter 3, Section 5 and the analysis in Chapter 3, Section 7.

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The data collection phase of the study, fully described in Chapter 3, Section 5, took place with the full support of all organisations involved and was especially timely because it coincided with the beginning of a change in strategic direction towards increasing co-operation and partnership. However, the UK MoD Commercial Policy staffs had initially to be persuaded to give special dispensation because they normally did not support perception surveys with industry on the grounds that these might prejudice the UK MoD's contractual position. Moreover, a number of companies were initially wary of participating, not wishing to contravene UK MoD's commercial rules on surveys. Finally, feedback of the survey results via short reports to each relationship pair, business unit grouping and to the Director of Defence Logistics Organisation together with a CD-ROM distribution of the qualitative data in a Best Practice database, were extremely well received.



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### 3 Presentation of Results – The Data Structure

This Section introduces the quantitative and qualitative data in order to describe their structure and components and, to show how they will be analysed in the rest of the Chapter.

#### 3.1 *Quantitative Data*

The table at Figure 4.2 provides a high level overview of the quantitative data. It shows the mean percentage relationship approval scores derived from the questionnaire respondents for each of the 54 relationships examined by the research. The table has been sorted in ascending order on the positive overall percentage scores for each relationship tested (right hand column) and colour highlighted to show there is a spectrum of relationship quality from very poor (32%) to very good (98%). Within each relationship shown in Figure 4.2 a breakdown of data for each theoretical framework dimension is also provided. The ‘-’ and ‘+’ columns indicate negative (dissatisfaction) and positive (satisfaction) responses. The mean values for each dimension are calculated and located in the bottom row of the table. This high level, aggregated data will be portrayed in comparative graphics and used primarily in:

- Section 4: Analysis Phase 1: Q4 The Theoretical Framework (High Level Perspective).

Serials	1. Creativity		2. Stability		3. Communication		4. Reliability		5. Quality		Overall	
	-	+	-	+	-	+	-	+	-	+	-	+
1	72	28	100	0	43	57	72	28	54	46	68	32
2	77	23	26	24	52	48	74	26	47	53	65	35
3	44	56	56	44	67	33	83	17	60	40	62	38
4	60	40	62	38	60	40	79	21	43	57	61	39
5	71	29	63	37	49	51	72	28	40	60	59	41
6	64	36	68	32	55	45	66	34	41	59	59	41
7	58	42	71	29	30	70	76	24	44	56	56	44
8	58	42	63	37	28	62	75	25	43	57	56	44
9	65	35	48	52	43	57	69	31	50	50	55	45
10	78	22	67	33	18	82	45	55	50	50	52	48
11	51	49	33	67	59	41	50	50	39	61	46	54
12	44	56	54	46	33	67	56	44	44	56	46	54
13	48	52	57	43	48	52	52	48	24	76	46	54
14	46	54	50	50	31	69	58	42	42	58	45	55
15	39	61	65	35	32	68	58	42	33	67	45	55
16	12	88	65	35	61	39	45	55	37	63	44	56
17	50	50	58	42	36	64	60	40	14	86	44	56
18	38	62	47	53	37	63	56	44	41	59	44	56
19	42	58	44	56	43	57	57	43	29	71	43	57
20	45	55	47	53	42	58	51	49	28	72	43	57
21	50	50	50	50	14	86	47	53	43	57	41	59
22	26	74	47	53	42	58	51	49	35	65	40	60
23	36	64	62	38	45	55	34	66	23	77	40	60
24	37	63	48	52	34	66	53	47	27	73	40	60
25	44	56	51	49	33	67	50	50	20	80	40	60
26	37	63	51	49	21	79	55	45	28	72	38	62
27	31	69	33	67	36	64	45	55	43	57	38	62
28	40	60	42	58	32	68	37	63	45	65	37	63
29	29	71	34	66	36	64	50	50	45	65	37	63
30	20	80	52	48	37	63	46	54	20	80	35	65
31	33	67	32	68	54	46	31	69	16	84	33	67
32	23	77	40	60	40	60	48	52	23	87	33	67
33	31	69	25	75	32	68	27	73	43	57	32	68
34	27	73	48	52	22	78	36	64	22	78	31	69
35	19	81	17	83	57	43	35	65	21	79	30	70
36	29	71	31	69	39	61	24	76	26	74	30	70
37	20	80	36	64	27	73	37	63	19	81	28	72
38	36	64	37	63	6	94	34	66	25	75	28	72
39	19	81	42	58	36	64	30	70	7	93	27	73
40	31	69	25	75	29	71	40	60	7	93	26	74
41	18	82	14	86	44	56	32	68	17	83	25	75
42	19	81	33	67	18	82	35	65	14	86	24	76
43	24	76	31	69	28	72	27	73	8	92	23	77
44	12	88	33	67	27	73	28	72	5	95	21	79
45	16	84	19	81	29	71	17	83	21	79	20	80
46	6	94	17	83	26	74	14	86	12	88	15	85
47	23	77	13	87	11	89	14	86	10	90	14	86
48	13	87	10	90	30	70	7	93	6	94	13	87
49	12	88	21	79	21	79	7	93	4	96	13	87
50	0	100	17	83	36	64	10	90	0	100	12	88
51	6	94	15	85	6	94	17	83	5	95	10	90
52	6	94	7	93	5	95	2	98	3	97	5	95
53	0	100	0	100	0	100	10	90	7	93	3	97
54	2	98	0	100	2	98	0	100	7	93	2	98
overall>	36	64	44	56	32	68	46	54	27	73	36	64

Figure 4.2. Joint Mean Scores by Relationship and Dimension with Range Limits Highlighted

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### **3.2 Quantitative Dimensional Data**

Detailed data was also captured for each questionnaire construct and this will be analysed in detail using comparative graphics as follows:

- Section 5: Analysis Phase 1: Q4 – The Theoretical Framework (Detailed Perspective) & Analysis Phase 2: Dimensional Q3 Transaction Cost Economics. These 2 elements are linked because of the Transaction Cost Economics common denominator.
- Section 6: Analysis Phase 2: Dimensional Q1 Supply Chain Management.
- Section 7: Analysis Phase 2: Dimensional Q2 Relationship Marketing.

### **3.3 Quantitative Relational Data**

The bar graphs at Figures 4.3 and 4.4 show the overall percentage scores plotted for the relationships in the data table at Figure 4.2 and show more graphically the relationship spectrum uncovered by the research. The following Sections explore the significance of these data in the context of the research question as follows:

- Section 4: Analysis Phase 1: Q4 The Theoretical Framework (High Level Perspective).
- Section 8: Analysis Phase 3: Relational RQ The Research Question.

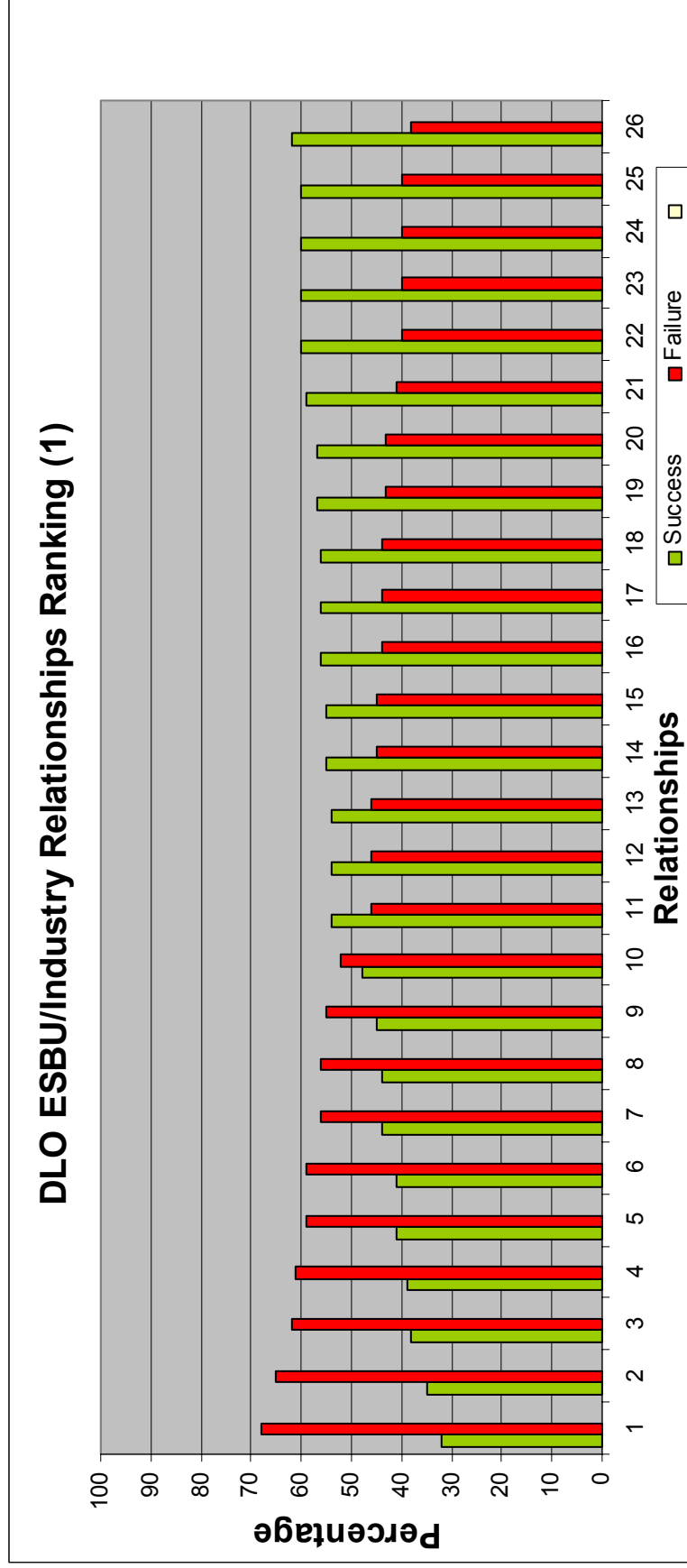


Figure 4.3. Relationships Ranking Graph Serials 1-26

*Bar chart shows 1<sup>st</sup> 26 relationships joint (mean quantitative success and failure scores) sorted in failure order*

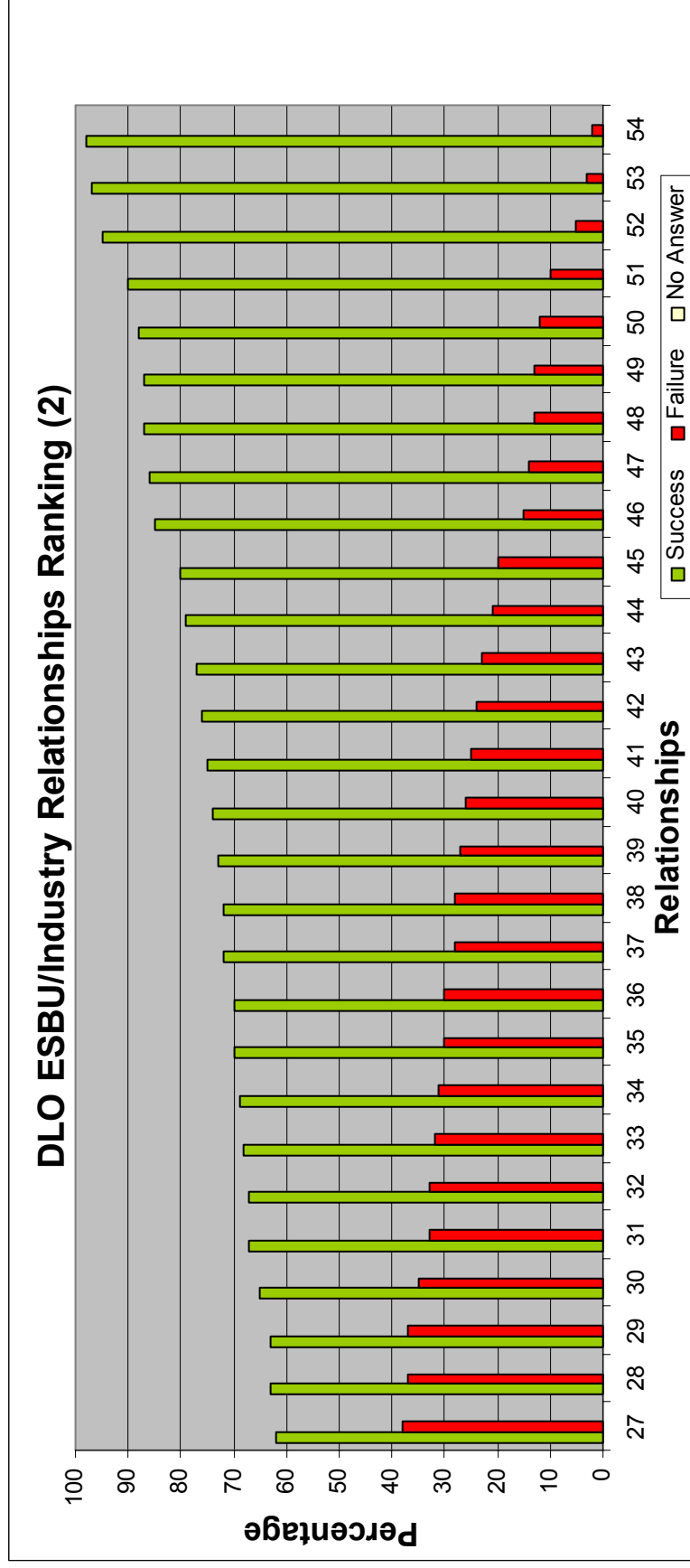


Figure 4.4. Relationships Ranking Graph Serials 27 -54

Bar chart shows 2<sup>nd</sup> 26 relationships joint (mean quantitative success and failure scores) sorted in failure order

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### **3.4 Qualitative Data**

In Sections 5, 6 and 7 the detailed data analysis is segmented using the relationship categories that emerge from the qualitative data under each of the 5 theoretical framework dimensions and TCE/SCM/RM applicability as listed in Appendix 6. At the beginning of each of these Sections the emergent groupings of managers key comments are compared with those found in the literature. In Section 8 the segmentation is by relationship cluster as shown in Appendix 11. The quantitative data that pertains to each category is then displayed and illustrated by representative semi-structured interview key point quotations selected from the qualitative data.

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## **4 Analysis Phase 1: Q4 The Theoretical Framework (High Level Perspective)**

### **4.1 Approach**

This Section examines in the light of the research data the question:

- **Q4 – Can the TCE Organisations Failure Framework be used as a theoretical lens with which to view monopolistic relationships within UK Defence Procurement?**

It first considers the high level summary statistics superimposed on the theoretical framework and notes that patterns emerge. It then concludes with a summary of the key findings.

### **4.2 Q4 - High Level Perspective**

Using the methodology described in Chapter 3 sub-Section 7.3 and especially Figure 3.10, the mean success scores for both UK MoD and industry for each of the 5 dimensions of the framework (drawn from the overall figures at the bottom of Figure 4.2) are illustrated at Figure 4.5. The research approach merely exposes the situation found within the Defence Procurement relationships examined. Because Williamson's (1975) Organisations Failure Framework has not been tested in this way before, no comparison can be made with a non-monopolistic situation and these results must stand alone until further research has been carried out.

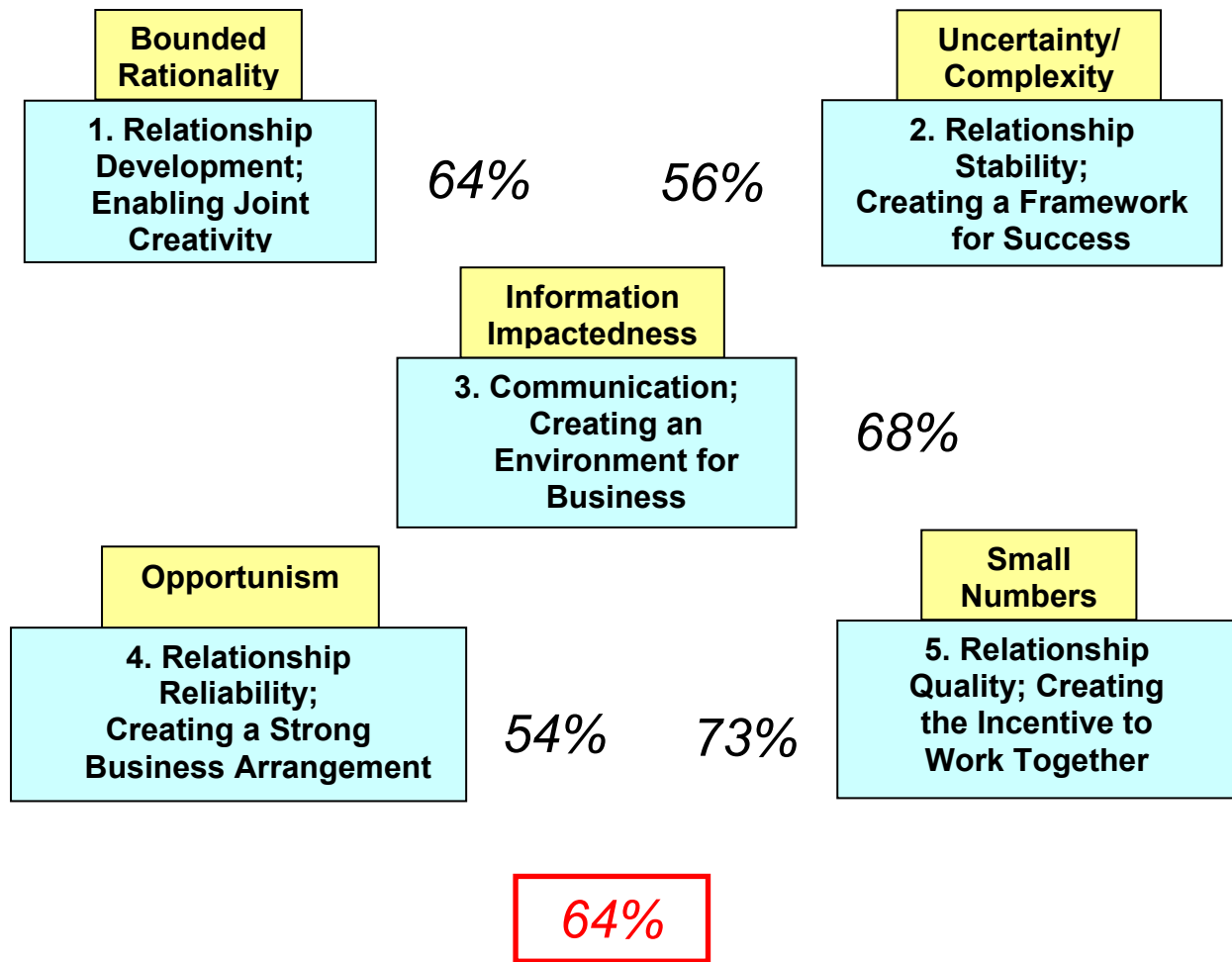


Figure 4.5. Overall Conceptual Framework Results by Dimension

As can be seen, the overall outcome is positive (64%). This is contrary to the potential expectations of a model derived from Williamson's (1975) Economic Organisations Failure Framework which appears to expect a negative situation due to the essential untrustworthiness and self-seeking of 'economic actors'. A more detailed breakdown of the results is shown in the comparative graphics at Figure 4.6. This allows the pattern of results (mean success and failure scores by dimension) to be compared at the level of the focus of the study, which is the relationship between the UK MoD and its industrial partners both individually and jointly. These data will be examined in greater detail in the rest of this Chapter.



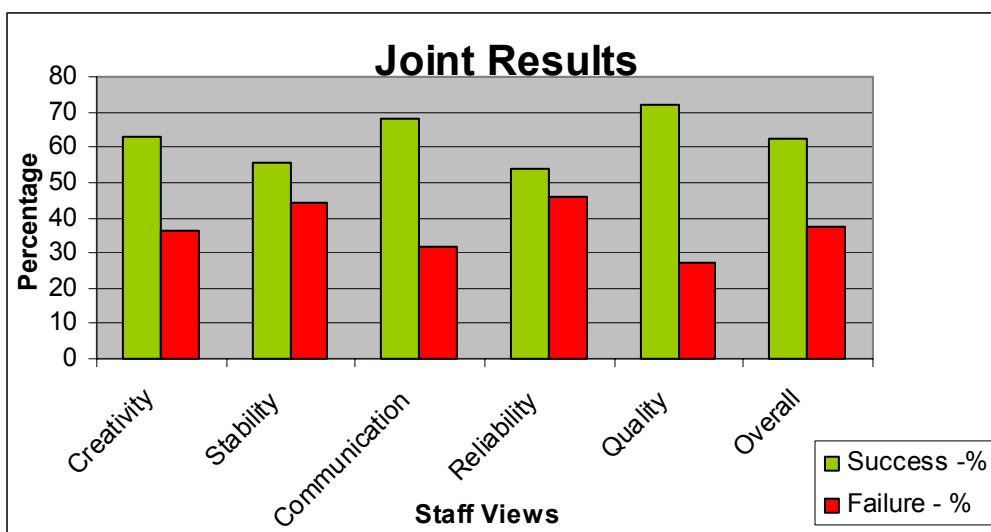
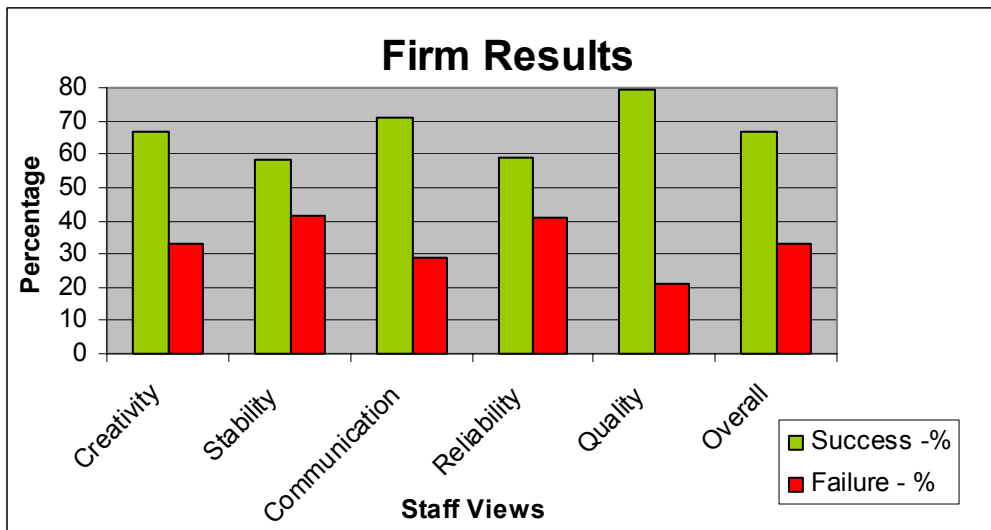
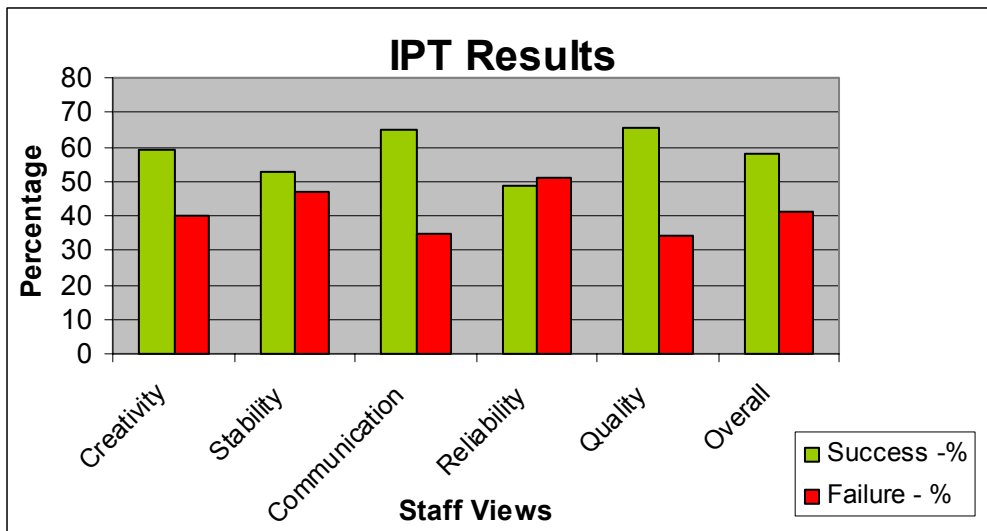


Figure 4.6. Comparative Views of Relationship Statistics

When all the relationship success statistics from the right hand column of Figure 4.2 are plotted in a histogram, as shown in Figure 4.7, the results generally follow the shape of the Curve.

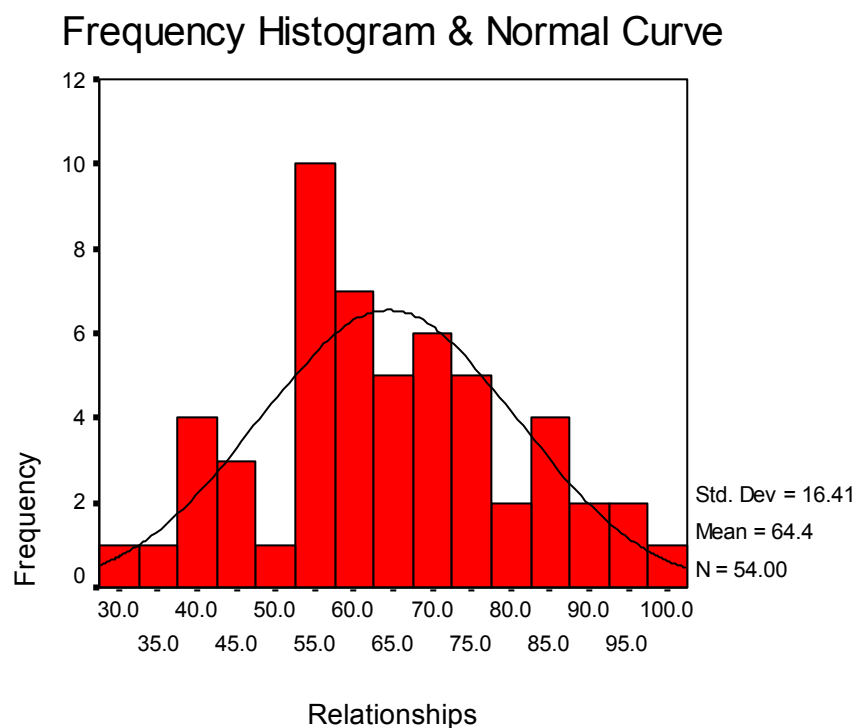


Figure 4.7. Standard Deviation Plot (SPSS 11.0)

- The unweighted pattern (each area contained a different number of relationships surveyed: Land – 6, Sea – 10, Air – 38) of joint results from the Land, Sea and Air business units is shown in Figure 4.8. A marked similarity in the shape of each graph can be seen. At the relationship level the pattern was replicated in 42 out of 54 (77.7% - SPSS 11.0). Given that the relationship results follow a normal distribution as shown in Figure 4.5, it is deduced that the pattern shown in Figure 4.8 is a natural occurrence rather than a product of the design of the data collection instrument. This indicates that the self-selected census used as a research population is a Normal Distribution where, in this case 64.4% of cases, fall within one standard deviation of the mean and this suggests a

commonality of respondents' views across the 5 dimensions regardless of business grouping.

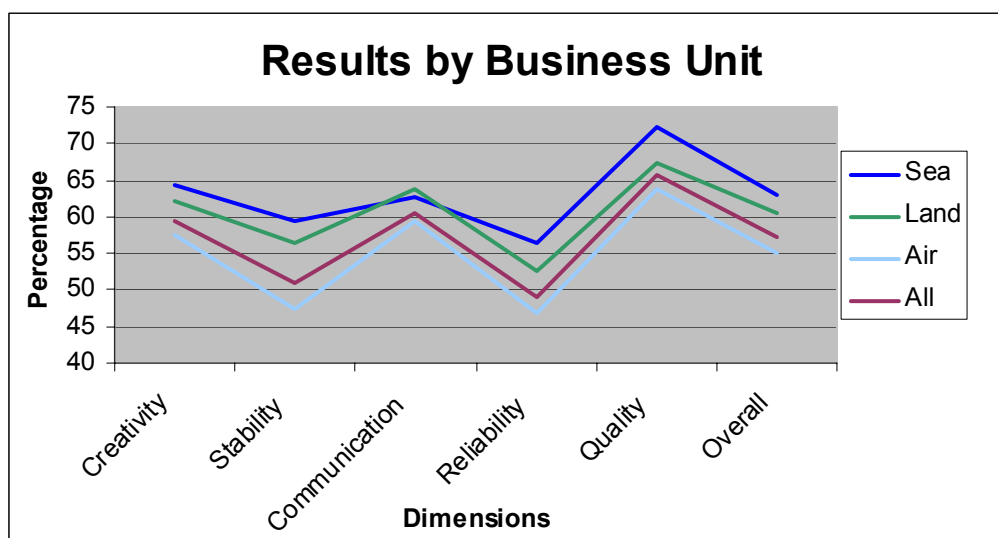


Figure 4.8. Comparison of Overall Business Unit Result Patterns

*Demonstrates that regardless of Business Unit or number of relationships similar dimensional score patterns occurred*

### 4.3 Key Findings

Phase 1 has overlaid the research data, at a high level, onto the theoretical framework in order to answer supporting research Question 4

#### **Q4 – Can the TCE Organisations Failure Framework be used as a theoretical lens with which to view monopolistic relationships within UK Defence Procurement?**

The following general observations can be made from a visual inspection of the high level results in the charts at Figure 4.6 and 4.8:

- IPTs were less optimistic (59%) than Firms (67%). Analysis of this situation shown in Figure 4.9. indicates that this difference is not statistically significant with a high correlation factor of 0.928 (Sapsford, 1999).

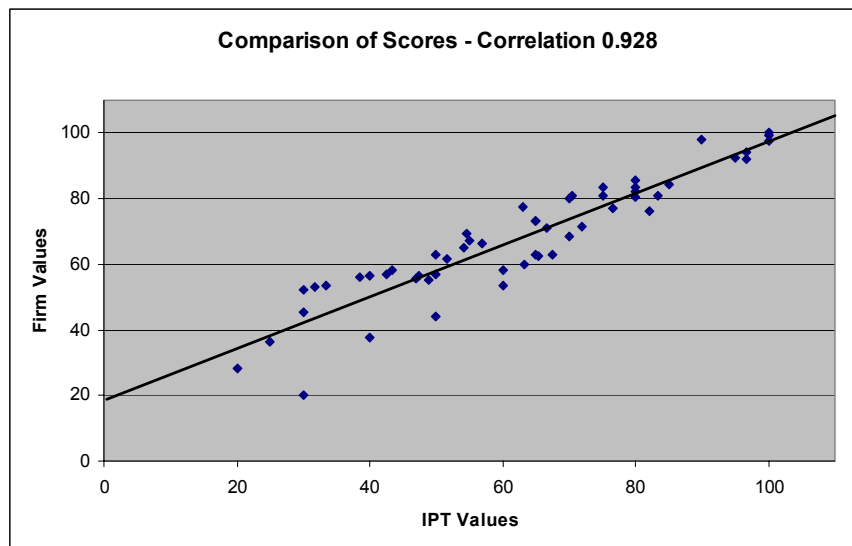


Figure 4.9. Correlation of IPT & Firm Responses (MS Excel)

However, as mentioned in Chapter 3 Section 6, no explanation could be found for the difference in perception although, power bias could not be ruled out, it is thus likely that further research into the phenomenon would prove interesting.

- With the exception of Reliability where there was a divergence of views and, although the proportions were different, the pattern of results for each side was the same, which indicates a measure of agreement.
- The wave shaped pattern of the research results indicates a commonality of respondents' views across the 5 dimensions regardless of business grouping.

It is concluded that when a high level view is taken of the findings derived from the adopted research methodology, the research administration and the various data collected, the TCE Organisations Failure Framework offers a robust perspective of the field of interest.

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## **5 Analysis Phase 1: Q4 The Theoretical Framework (Detailed Perspective) & Analysis Phase 2: Dimensional Q3 Transaction Cost Economics**

### **5.1 Introduction**

This Section remains with Q4:

- **Q4 – Can the TCE Organisations Failure Framework be used as a theoretical lens with which to view monopolistic relationships within UK Defence Procurement?**

to consider it at the detailed level but, because of their clear theoretical linkage, it also broadens out the perspective to include the question:

- **Q3 – Can factors within Transaction Cost Economics (TCE) such as Asset Specificity and Opportunism explain the dynamics within monopolistic UK Defence Procurement relationships?**

### **5.2 Data Analysis**

The thesis now examines these questions in the light of the research results for each of the 5 theoretical framework dimensions as shown below together with the definition from Williamson's (1975) Organisations Failure Framework (note that in order to retain a flow of the salient arguments, the detailed data analysis is located in Appendix 7):

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**5.2.1 Bounded Rationality (Relationship Creativity); People have only so much capacity to rationalise what is going on around them and they therefore naturally limit their performance to the adequate rather than the optimum (Simon, 1957) (see also Chapter 3, 4.2). Full analysis found in Appendix 7, Section 2.**

Under this dimension aspects of bounded rationality and a lack of investment in specific assets are clearly featured in the relationships surveyed. However, it appeared that more creative features such as equity and customer-focused flexibility were more dominant and bore out the overall dimension mean success score of 64%.

**5.2.2 Uncertainty/Complexity (Relationship Stability); People have difficulty in making sense of complex current and future events (Williamson, 1975) (see also Chapter 3, 4.3). Full analysis found in Appendix 7, Section 3.**

Although respondents views for this dimension were evenly balanced (56%) between the negative, monopolistic relationship features and the more successful aspects, the generally more pessimistic IPT views over the lack of relationship-stabilising behaviour of their partners was evident. In the face of Uncertainty/Complexity acting on the monopolistic relationships a lack of interdependence-promoting actions and short-termism appeared to be prevalent amongst Firms. Nevertheless, both sides acknowledged the need for clear, joint objectives and co-operation as means of achieving interdependence and reducing costly governance measures.

**5.2.3 Information Impactedness (Communication); The imbalance caused by selective information disclosures, and distortions which are difficult or expensive to verify at the time and which undermine the durability of**

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***contract arrangements (Williamson, 1975) (see also Chapter 3, 4.4). Full analysis found in Appendix 7, Section 4.***

Some aspects of information impactedness such as deliberate withholding important business data, the use of proprietary rights as a weapon and confusion over performance measures were clearly discernible in the survey. Nevertheless, there are also more positive features in evidence such as routine all-level communications, special communication events and staff exchanges. On balance adverse monopolistic features appeared to be outweighed by the more positive aspects found in normal markets and this was borne out by the dimension's overall 68% mean success score.

***5.2.4 Opportunism (Relationship Reliability); Constitutes a lack of candour or honesty and includes self-interest seeking with guile. (Williamson, 1979) (see also Chapter 3, 4.5). Full analysis found in Appendix 7, Section 5.***

Dimension 4 gained the lowest overall mean success score (54%) in the survey. Although IPTs mentioned some satisfactory aspects of interdependence achieved through joint investment in relationship-building, the low rating was primarily because IPTs believed that Firms behaved opportunistically in providing poor service by taking advantage of their monopolistic market position.

***5.2.5 Small Numbers (Relationship Quality); The combination of problem behaviours requires sophisticated controls that are only found in or close to the firm and may result in failure of market conditions (Williamson, 1979) (see also Chapter 3, 4.6). Full analysis found in Appendix 7, Section 6.***

Despite asking overt questions about the quality of monopolistic relationships, dimension 5 gained the highest joint mean score (73%) in the survey. There were

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comments about the hopelessness of the monopoly impasse situation, especially from the IPTs side but these were generally outweighed by more optimistic views about striving to turn round poor situations and an acceptance that making the best of the situation was preferable to the negative alternative. The following IPT remark is salient:

‘They have a monopoly but they also depend upon us for 95% of their business. We have developed a symbiotic relationship’ (149).

The large gap in the scale of optimism appeared to be in the areas of sharing gains, feelings of imprisonment and lack of long-term outlook.

The Key Findings that emerged from the detailed data analysis described in Appendix 7 are summarised in the next sub-Section.

### **5.3 Q3 Key Findings**

This Section has analysed the research data to discover evidence of satisfaction of the following question:

- **Q3 – Can factors within Transaction Cost Economics (TCE) such as Asset Specificity and Opportunism explain the dynamics within monopolistic UK Defence Procurement relationships?**

The following Key Findings drawn from Appendix 7 appear to support an affirmative answer:

- Under each dimension both positive and negative TCE features were found. Although the negative aspect in each dimension predicted by the theoretical framework tended to predominate, others were also in evidence.
- Firms complained that there was insufficient investment in specific assets such as a stable work force and product/process development and, that performance



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measures were inadequate and provided insufficient motivation to achieve equitable outcomes.

- IPTs were concerned that their monopoly situation lacked interdependence and locked them into unsatisfactory relationships. They accused Firms of opportunistically taking advantage by providing poor goods and services and, using proprietary information as a weapon. In these cases there appeared to be little incidence of trust other than at the cynical or calculative level.
- On the other hand as the overall quantitative theoretical model success score suggests, there were counterbalancing examples of relationship-building, specific investments, co-operative behaviour, open communications and a desire to reduce the burden of governance through more equitable, long-term arrangements.
- A variety of governance types were encountered and commented upon in the qualitative data. Older relationships were based upon regulation and although some were successful, the majority was not and team leaders were loath to adopt long-term contracts until they could trust the other party to deliver an efficient service. Respondents were generally very enthusiastic about newer relational, long-term contracts but in one case where the arrangement had been in place for 5 years, considerable problems were being encountered in trying to adjust to unforeseen environmental turbulence.

#### **5.4 Q4 (Detailed Perspective) Key Findings**

This Section has analysed the research data to discover evidence at the detailed level of satisfaction of the following question:

- **Q4 – Can the TCE Organisations Failure Framework be used as a theoretical lens with which to view monopolistic relationships within UK Defence Procurement?**

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The following Key Findings drawn from Appendix 7 appear to support an affirmative answer:

- Utilisation of a monopoly theoretical framework allows detailed data patterns and specific negative and positive relational features to be identified and explained using an appropriate, associated terminology.
- The level of granularity, down to individual questionnaire questions and by IPTs and Firms, allows a very clear view of perceptions, especially when linked to typical examples of the qualitative data.
- The richness of meaning within the theoretical framework's dimensions allows a very detailed 'lens' to be used to examine the research data.

The next Section presents the findings from a Supply Chain Management perspective.

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## **6 Analysis Phase 2: Dimensional Q1 – Supply Chain Management**

### **6.1 Introduction**

SCM concentrates on practical management systems including procurement that provide a framework for the business. This Section addresses the following research question:

- **Q1 – Can SCM partnering activities, processes and requirements from the commercial environment, such as those encapsulated in Figure 2.8, provide an understanding of the monopolistic relationships found within UK Defence Procurement?**

It seeks examples of partnership-enhancing or other SCM activities from the qualitative and quantitative data within each theoretical framework dimension (note that in order to retain a flow of the salient arguments, the detailed data analysis is located in Appendix 8).

### **6.2 Data Analysis**

Data was not found exactly on the features listed in Chapter 2, Figure 2.8 but the emergent classification of qualitative comments recorded in Appendix 8 indicates a remarkable similarity and this comparison is shown in Figure 4.10 below.

Figure 2.8 Features	Matching Qualitative Data Categories
Framework contracting	Framework Contracting (App8,2.2) Commercial Understanding (App8,3.3)
Corp culture matching	Equality & Understanding (App8,6.3)
Long term cost/investment sharing	Relationship Development (App8,6.2)
Information sharing	Working Level Communication (App8,4.5)
All level management	Business Practices (App8,5.4)
Frequent, interactive communications	Management Communication (App8,4.2)
Joint planning	Planning & Control (App8,2.3)
Cross firm controls & co-ordination – teams	Joint Activity & Organisation (App8,2.5)
Joint service level systems	Customer Focus (App8,3.2) Service Delivery (App8,2.4)
Technology sharing & product development	Service/Product Focus (App8,5.3)
Joint problem solving	Co-operative Activities (App8,3.4)
Joint quality systems	Quality & Continuous Improvement (App8,5.2)
Linked IS – e-commerce	
Joint performance measurement	Supply Chain Performance (App8,4.4)
Joint logistics & purchasing roles	Supply Chain Planning (App8,4.3)
Joint marketing	

Figure 4.10. Comparison of Supply Chain Partnership-Enhancing Activities (Chapter 2, Figure 2.8) with Qualitative Data Categories (App=Appendix)

The findings that emerged from the detailed data analysis described in Appendix 8 are as follows.

**6.2.1 Dimension 1 – Bounded Rationality (Relationship Creativity). Full analysis found in Appendix 8, Section 2.**

The qualitative data suggests that within monopolistic UK Defence Procurement successful relationships occur when innovative contracts exist, which reduce costs and promote customer focus. Furthermore, organisational arrangements that promote consistency and performance are also valued. However, it appears that both deliberate and unconscious expediency often come into play that reduce relationship effectiveness. The balance of data bears out the overall dimension mean success score of 64%.

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**6.2.2 Dimension 2 – Uncertainty/Complexity (Relationship Stability). Full analysis found in Appendix 8, Section 3.**

Forward-looking, holistic partnering arrangements supported by customer-focussed, supply chain-bolstering activities were detected. However, there were a similar number of instances of negative approaches such as insular practices, disruptive organisational changes and short-term strategies that promoted rather than countered the adverse effects of uncertainty and complexity. These views matched the overall positive dimension mean score of only 56%.

**6.2.3 Dimension 3 – Information Impactedness (Communication). Full analysis found in Appendix 8, Section 4.**

Overall the research revealed that the importance of Supply Chain communication was understood and efforts were being made to improve. This is born out by the overall dimension success mean score of 68%. But, there were very few examples where integrated measures were in place and good results were being achieved. Some instances of information impactedness and lack of transparency due to the monopolistic situation were detected but, the practical difficulties of providing regular, management focus on order book performance through the use of joint performance measurement and service level systems appeared to be the key problems.

**6.2.4 Dimension 4 - Opportunism (Relationship Reliability). Full analysis found in Appendix 8, Section 5.**

A number of positive SCM aspects such as quality ethos, service delivery and process improvement can be observed in the data. However, this dimension scored the lowest success mean rate in the research project (54%) and it is possible to see that environmental limitations on time, budget and investment and, product technical complexity and age had a strong bearing on the monopolistic business environment

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under scrutiny. It is also evident that instances of opportunistic behaviour were prompted as reactions to these features.

**6.2.5 Dimension 5 – Small Numbers (Relationship Quality). Full analysis found in Appendix 8, Section 6.**

This dimension provided the best overall mean success score (73%) in the theoretical framework but although there is some evidence of working together in the best interests of relationships, the majority of semi-structured interview comments were negative. As already mentioned in sub-Section 4.3, although the gap in quantitative response perceptions between the IPTs and the Firms was not statistically significant with a high correlation factor of 0.928, the gap between the quantitative scores and the overall tone of the qualitative data was inexplicable and it is suggested that further research would be useful. Finally, adverse points where the sides felt trapped and at the mercy of the other sides' budgetary and commercial vagaries especially epitomise concerns about monopolist business and support the low quantitative results in 2<sup>nd</sup> level dimension Q5a.

**6.2.6 The SCM/Small Numbers Correlation**

An emergent finding is that difficulties of implementing SCM appear to be a standard feature of the business relationships examined just as is the monopolistic environment. Figure 4.11 below shows the correlation of the mean joint scores for the Reliability (SCM efficiency) and Quality (Small Numbers) dimensions from Chapter 4, Figure 4.2. The correlation factor of 0.804 is not statistically strong (Sapsford, 1999) however, visual inspection of the scatter chart seems to indicate some relationship between the dimensions which suggests that further research to understand the reasons for any linkage would be useful.

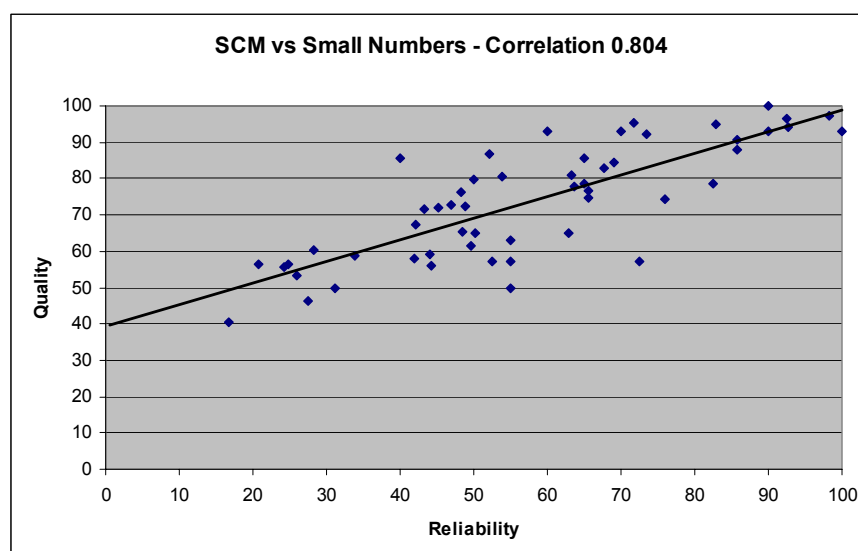


Figure 4.11. Correlation Showing Relationship Between SCM & Small Numbers (MS Excel)

The Key Findings that emerged from the detailed data analysis described in Appendix 8 are summarised in the next sub-Section.

### 6.3 Q1 Key Findings

This Section has analysed the research data to discover evidence of satisfaction of the following question:

- **Q1 – Can SCM partnering activities, processes and requirements from the commercial environment, such as those encapsulated in Figure 2.8, provide an understanding of the monopolistic relationships found within UK Defence Procurement?**

The following Key Findings drawn from Appendix 8 appear to support an affirmative answer:

- The use of the theoretical framework dimensions provided focussed comparators against which to gauge the range of SCM relational features.

- 
- The categories of Supply Chain Partnership-Enhancing Activities found in the research generally accorded with those found in the literature for 'normal' markets.
  - The underlying struggle to implement SCM principles such as seamless service delivery systems backed by joint planning, clear performance objectives and measurement and, freely available data was detected. Also similar to open market situations, evidence of sincere intentions outweighed successfully implemented examples.
  - Adversarial behaviour, as one might expect to find when viewed through Williamson's (1975) Organisations Failure Framework, such as deliberately withholding information, unrealistic performance expectations, short-termist commercial policies and unco-operative product strategies were identified.
  - Environmental problems such as old products, obsolescence, staff and organisational upheavals, poor end-customer visibility and lack of investment in modern procedures and systems seemed to accentuate managers' frustrations due to lack of freedom of action and promoted the relationship negativity implied by the theoretical framework.
  - Although the correlation between SCM efficiency and Small Numbers appears to be statistically uncertain (0.804), visually there appears to be a link. This would be a potentially interesting area for further research.

In order to reinforce the findings in Section 5, this Section has also analysed the research data to discover evidence at the detailed level of satisfaction of the following question:



- 
- **Q4 – Can the TCE Organisations Failure Framework be used as a theoretical lens with which to view monopolistic relationships within UK Defence Procurement?**

The following Key Findings drawn from Appendix 8 appear to support an affirmative answer:

- Utilisation of a monopoly theoretical framework allows detailed data patterns and specific negative and positive relational features to be identified and explained using an appropriate, associated terminology.
- The level of granularity, down to individual questionnaire questions and by IPTs and Firms, allows a very clear view of perceptions, especially when linked to typical examples of the qualitative data.
- The richness of meaning within the theoretical framework's dimensions allows a very detailed 'lens' to be used to examine the research data.

The next Section presents the findings from a Relationship Marketing perspective.

## 7 Analysis Phase 2: Dimensional Q2 – Relationship Marketing

### 7.1 Introduction

Relationship Marketing concentrates on the relationship variables that help to build and sustain successful business-to-business relationships. This Section addresses the following research question:

- **Q2 – Can RM behavioural variables, especially those shown in Figure 2.16, provide an understanding of the monopolistic relationships found within UK Defence Procurement?**

In order to retain a flow of the salient arguments, the detailed data analysis is located in Appendix 9.

### 7.2 Data Analysis

In broad outline, a good correlation between the RM behavioural variables portrayed in Chapter 2, Figure 2.16 and the categories of qualitative data found in the research was found although the importance of Personal Relationships was not highlighted in the literature. This is shown below in Figure 4.12.

Figure 2.16 Variables	Emergent Qualitative Data Categories
Culture Change	<ul style="list-style-type: none"> <li>• C<sup>3</sup> Behaviour (App9,2.2, 3.2, 4.2, 5.2)</li> <li>• Commitment (App9,2.3, 5.5, 6.3)</li> <li>• Adaption (App9,3.3, 4.3, 5.3, 6.2)</li> <li>• <b>Personal Relationships (App9,3.4, 4.4, 7.5.6)</b></li> <li>• Customer Focus (App9,3.2)</li> <li>• Corporate Culture Matching (App9,3.5)</li> <li>• Long Term Orientation (App9,3.6, 4.5)</li> <li>• Trust (App9,5.4, 6.5)</li> <li>• Power Balance (App9,6.4)</li> <li>• Interdependence (App9,6.6)</li> </ul>
Adaption & Communication	
Interdependence, Power & Conflict	
Long Term Orientation	
C3 Behaviour	
Commitment	
Trust	

Figure 4.12. Comparison of RM Behavioural Variables (Chapter 2, Figure 2.16) with Qualitative Data Categories (App=Appendix)

The findings that emerged from the detailed data analysis described in Appendix 9 are as follows.

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**7.2.1 Dimension 1 – Bounded Rationality (Relationship Creativity). Full analysis found in Appendix 9, Section 2.**

The qualitative data suggests that within monopolistic UK Defence Procurement relationships Commercial attitudes and practices are both a source of frustration and the key to good partnerships – overall satisfaction mean score 64%. Moreover, although there is evidence of long running relationships, lack of commitment to ‘walk the talk’ also contributes to short-termism and bounded rationality.

**7.2.2 Dimension 2 – Uncertainty/Complexity (Relationship Stability). Full analysis found in Appendix 9, Section 3.**

The data highlights the problems of staff turnover, short-term commercial practices, the importance of culture change and the difficulty of establishing a long-term approach to business partnerships. The importance of C<sup>3</sup> Behaviour and Adaption are particularly emphasised but it is noticeable that respondents were especially sceptical about the sincerity of the other’s intentions. Lastly, the significance of softer facets such as personal relationships and culture matching were emphasised. The positive and negative responses within this dimension were evenly balanced and bear out the overall 56% mean success score.

**7.2.3 Dimension 3 – Information Impactedness (Communication). Full analysis found in Appendix 9, Section 4.**

A RM view of this dimension highlights the personal, co-operative attitude to frequent and interactive communication – overall satisfaction mean score 68%. It also reveals the bitterness engendered by adversarial approaches, which ignore the important requirements of information exchange for risk reduction and effective planning.

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**7.2.4 Dimension 4 - Opportunism (Relationship Reliability). Full analysis**

***found in Appendix 9, Section 5.***

The RM perspective of the Relationship Stability dimension indicates that although enthusiasm exists, practical obstructions within C<sup>3</sup> Behaviour and Adaption on commercial and operations activities prevent the achievement of satisfactory business outputs. Opportunistic behaviour such as adversarial bidding and hidden agendas appears to suppress the Trust and Commitment success scores. Overall, the generally negative qualitative data support the quantitative findings that present this dimension with the lowest success mean score of 54%.

**7.2.5 Dimension 5 – Small Numbers (Relationship Quality). Full analysis**

***found in Appendix 9, Section 6.***

The balance of comments made by respondents on the aspects of this dimension were predominantly negative, which is in contrast to the more favourable view portrayed through the quantitative data (73%). There are clear examples of constructive conflict, maintaining a healthy balance of power and investment in relationship development and support measures. However, IPTs generally felt threatened by the monopoly situation where they perceived unbalanced power, lack of interdependence and poor commitment from the other side. Lack of long-term funding for projects and investment in systems appeared to exacerbate the 'small numbers' impoverishment of business relationships.

The Key Findings that emerged from the detailed data analysis described in Appendix 9 are summarised in the next sub-Section.

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### 7.3 Q2 Key Findings

This Section has analysed the research data to discover evidence of satisfaction of the following question:

- **Q2 – Can RM behavioural variables, especially those shown in Figure 2.16, provide an understanding of the monopolistic relationships found within UK Defence Procurement?**

The following Key Findings drawn from Appendix 8 appear to support an affirmative answer:

- The use of the theoretical framework dimensions provided focussed comparators against which to gauge the range of RM relational variables.
- The RM behavioural variables observed in the research were closely similar to those identified in the literature.
- Strong positive and negative views were expressed on C<sup>3</sup> Behaviour and Adaption where the parties struggled with the practical aspects of relationship operations.
- The negative influences of the monopolistic business environment, including power balance and interdependence, appeared to significantly reduce scores for the key Trust and Commitment variables.
- The importance of Personal Relationships, Corporate Culture Matching and Long Term Orientation to the creation of a successful business environment were clearly emphasised.

In order to reinforce the findings in Section 5, this Section has also analysed the research data to discover evidence at the detailed level of satisfaction of the following question:

- 
- **Q4 – Can the TCE Organisations Failure Framework be used as a theoretical lens with which to view monopolistic relationships within UK Defence Procurement?**

The following Key Findings drawn from Appendix 8 appear to support an affirmative answer:

- Utilisation of a monopoly theoretical framework allows detailed data patterns and specific negative and positive relational features to be identified and explained using an appropriate, associated terminology.
- The level of granularity, down to individual questionnaire questions and by IPTs and Firms, allows a very clear view of perceptions, especially when linked to typical examples of the qualitative data.
- The richness of meaning within the theoretical framework's dimensions allows a very detailed 'lens' to be used to examine the research data.

The next Section presents the research findings from the more focused perspective of relationships characteristics and shows how they contribute to answering the RQ.

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## 8 Analysis Phase 3: Relational

### 8.1 Introduction

Whereas the last few Sections explored the data in the widest context of the theoretical model dimensions, this Section presents the research findings from the more focused perspective of relationships characteristics. It thus addresses the first part of the RQ:

- **RQ – To determine if it is possible to obtain an understanding of the monopolistic relationships within UK Defence Procurement using Williamson’s Organisations Failure Framework and to identify how SCM, RM and TCE relational and behavioural factors influence these relationships.**

As described in Chapter 3, sub-Section 7.4, cluster analysis was used in this research to determine whether similarities within the relationships measured (patterns within the data) might allow statistically coherent groupings to be revealed and if possible, characterised and amplified by using the qualitative data. The identification of groupings, or cluster, of similar relationships would also allow exploratory cross-tabulations with independent variables and further add to the richness of characterisation.

This Section first describes the statistical outputs from the cluster analysis and describes the conclusions that can be drawn from it. It then discusses the findings from the external variable cross-tabulations. Having proposed that clusters are present in the data and that conclusions can be drawn from the cross-tabulation of independent variables, the Section then considers each cluster in-turn and describes it using inferences from the statistical analysis as well as general themes that emerge from the qualitative data. Finally, overall conclusions are drawn.

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## **8.2 Cluster Analysis Results Overview**

The statistical outputs from the cluster analysis are in Appendix 10. The Agglomeration Table in Figure A10.1 and Coefficients/Cluster Mapping in Figure A10.2 show that 4 generic clusters of relationships were identified to a 95% confidence level. The Descriptive Source Statistics Table at Figure A10.3 is also provided for information. A visual examination of the relationship clusters suggests they equate quite closely to good, moderate and poor success groupings. This finding indicates that the original instrument design was satisfactory in that it enabled a consistent data set to be collected. The clusters have been labelled as follows: Good - Cluster 1, Moderate Clusters 2a & 2b (although they are broadly similar, the 2<sup>nd</sup> contains an especially low reading in one particular dimension and the subgroupings are thus worth differentiating), Poor – Cluster 3. They have also been given descriptive titles based upon the generalistic attitude that typified them from the respondents key points.

## **8.3 External Variables**

A number of external variables were selected and described in Chapter 3, sub-Section 5.4. The Cross Tabulation Table at Figure A10.4 provides a 95% or better confidence level that there are, or are not positive links between the relationship clusters and the external variables. Both states (link or no link) are interesting in terms of this research and the results are described as follows:

### **8.3.1 Spend Value**

Result: *The lower the spend value the more likely the relationship would be successful.* This finding has face validity in that the variable, potentially, is indicative of less complex relationships which may be easier to manage. This also correlates with findings in the exploration of the generic data such as in sub-Section 5.3 where



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factors including lack of investment in specific assets and old, problematic products tended to generate adversarial behaviours as a consequence of managers' frustrations from the lack of options available in their small numbers situation

### **8.3.2 Relationship Duration**

*Result: The medium and short length relationship durations tended to be more successful.* No link was established between relationship success and the longer duration relationships. These findings are difficult to explain. It might be expected that longer relationships would reach a maturity of trust and C<sup>3</sup> behaviour and thus a better level of satisfaction. Conversely, as products get older they become more difficult to sustain technically and less profitable to the Firm. It is thus possible that there are a number of complex drivers that impact on these relationships as a result of duration and that more research is needed to better understand the situation.

### **8.3.3 Team Size**

*Result: No significant impact was measured on relationship success.* This is unexpected because one might surmise that smaller teams find it easier to establish and maintain better supply chain relationships because of the need to maintain fewer personal relationships. However, other independent variables could also apply such as duration, complexity and spend. This research deliberately took an wide, exploratory approach and it was felt that a multi-variate analysis was too detailed. The interrelationship of team size with other variables thus requires further research.

### **8.3.4 Technology Age**

*Result: No link between the age of the technology and the quality of relationships was found.* This is surprising given that longer duration relationships were less successful. It might have been expected that older technology would be more

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difficult and expensive to support and therefore apply strain to the relationship. However, statements in the qualitative data also suggested that good relationships could exist because they had been established over many years. In conjunction with Relationship Duration and Spend Value, it is concluded that further research is needed to determine how these factors affect relationship quality.

### **8.3.5 System or Component**

Result: *No link was found between the complexity/size of the product and the relationship Clusters.* It might have been expected that the larger, more complex product relationships such as aircraft and tanks might, due to the size and difficulty of the management task, be less successful than relationships dealing with components such as hydraulic motors. This issue requires further research to understand.

### **8.3.6 Contractors' League**

Result: *The more successful relationships were found to contain firms occupying the MoD's top spend banding.* This does not contradict the findings on Spend Value because a variety of spend relationships were found with firms occupying a variety of MoD spend bandings. This is understandable because the higher banded firms are the largest and thus have more resources to devote to the delivery of their services and their relationship management arrangements. The lack of linkage to firms within the other 5 bands is inexplicable and requires further research to understand.

## **8.4 Independent Variable Cross Tabulation Conclusions**

This analysis has offered a number of useful insights that assist with characterizing the relationship clusters however; it also indicates that the impact of the independent variables is far more complex than originally envisaged and specialized research is needed to understand the interactions.

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### **8.5 Cluster Characterisations**

The data for each cluster has been represented by means of a Spider Diagram (Excel V. XP 2002) with the 5 theoretical dimensions located at the radials. In order to put each cluster into context, a second plot in each diagram was drawn to show the mean of the other clusters. In addition to the graphical representation and the results of the independent variable cross tabulation analyses, summarised views of the managers from the qualitative data are next used to describe each of the relationship clusters in turn. To facilitate this process, during analysis the qualitative data was sorted by cluster grouping with the appropriate theoretical dimensions annotated to each comment. The data table is provided in Appendix 11. The quotations used below to typify the views of managers and illustrate each cluster are a selection from each identified cluster in Appendix 11. It is observed that the relationship clusters generally align with the sorted views of respondents in the quantitative data which is a further indication of confidence in the research design and implementation.

### **8.6 Cluster 1: 'No can dos' (Poor Relationships)**

Cluster 1 contains 10 relationships that represent the lowest quality group as shown in Figure 4.13 below.

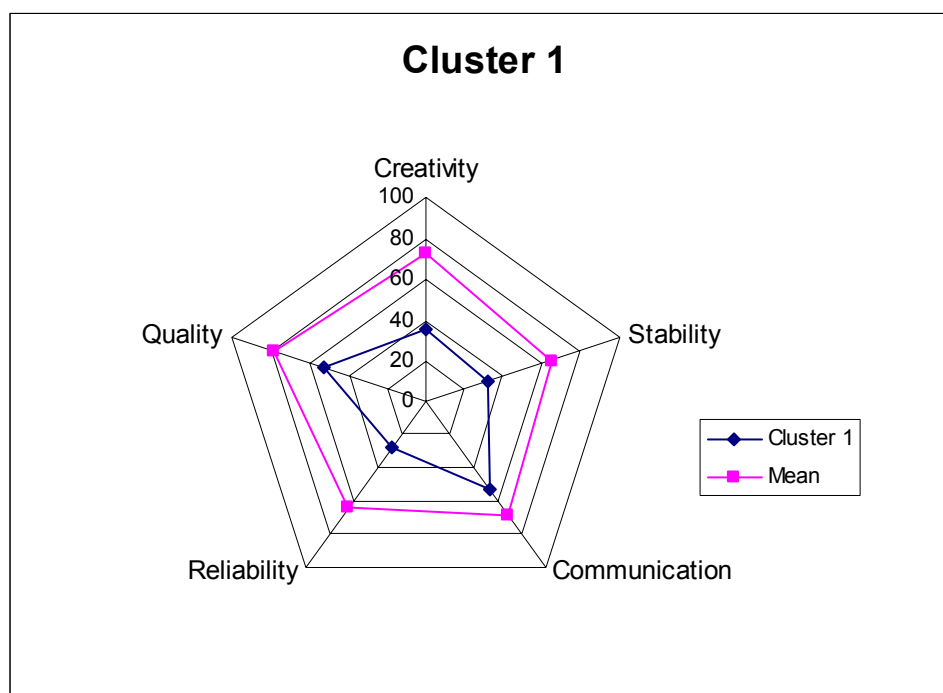


Figure 4.13. Poor Quality Relationships Grouping

The trace indicates a level of satisfaction well below the mean of the other clusters with only the Quality (52%) and Communication (54%) dimensions approaching the level of the mean. From the independent variable cross-tabulations these relationships were likely to be higher spending and longer duration (>20 years) and, less likely to contain firms from the top banding of MoD Suppliers. Potentially one would thus expect adversarial conditions to apply with perceptions that efforts to improve or gain better equity were unrequited. It is also likely that in this cluster a high number of negative features as typified by the theoretical framework might be found. Using the qualitative data these relationships are typified by the following types of statements:

*What the IPTs say:*

'We are under great pressure to reduce our costs but the firm takes advantage of its sole supplier position by over-charging for proprietary items'.

'Take it or leave it' is their attitude.

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'We both realise that the only way forward is to partner but the firm has had its own way for so long that it is very reluctant to change'.

'Its ethos is rooted in the past'.

'They drag their feet over product improvements because they know greater reliability will reduce their earnings on repairs'.

We have regular order progress meetings but they never fulfil their promises or reply to our requests for information'.

'We feel we are making all the moves to improve the relationship but they are not reciprocated'.

*What the Firms say:*

'The IPT doesn't know what it wants so how can we react properly to their requirements'.

'They don't have a focus in their organisation to deal with us either. We offered them a terminal from our system so they could check progress but their security people turned it down'.

'They provide no information so we can plan ahead'.

'The uncertainty makes it hard to concentrate on customer service'.

'I haven't even met the end-customer'.

'At the lower levels their staff aren't well trained'.

'It's galling to know my people know more about their jobs than they do'.

'When we first got our teams together we put all the issues on the wall and agreed to change the relationship; they now seem to have forgotten all their good intentions'.

Although there are some comments about poor supply chain practices and processes there is also evidence of adversarial behaviour as a result of the small numbers situation. Feelings of 'imprisonment' and 'impotence' exacerbated by long

term lack of co-operation seem to have resulted in an ongoing situation of entrenched opposition to any form of innovation. As predicted, the qualitative data does indicate efforts being made to seek improvements (unless these were just 'cries for help' for the benefit of the researcher) but, lack of reciprocation is clear and this is often attributed to a 'take it or leave it', 'no can do' attitude. In conclusion, Cluster 1 appears to provide a fairly close fit to the negative behavioural predictions of the theoretical framework.

### 8.7 Cluster 2a: 'Stable pragmatists' (Moderate Relationships)

Cluster 2a contains 22 relationships and represents the first and larger of 2 Moderate quality groups. The spider diagram is shown in Figure 4.14 below.

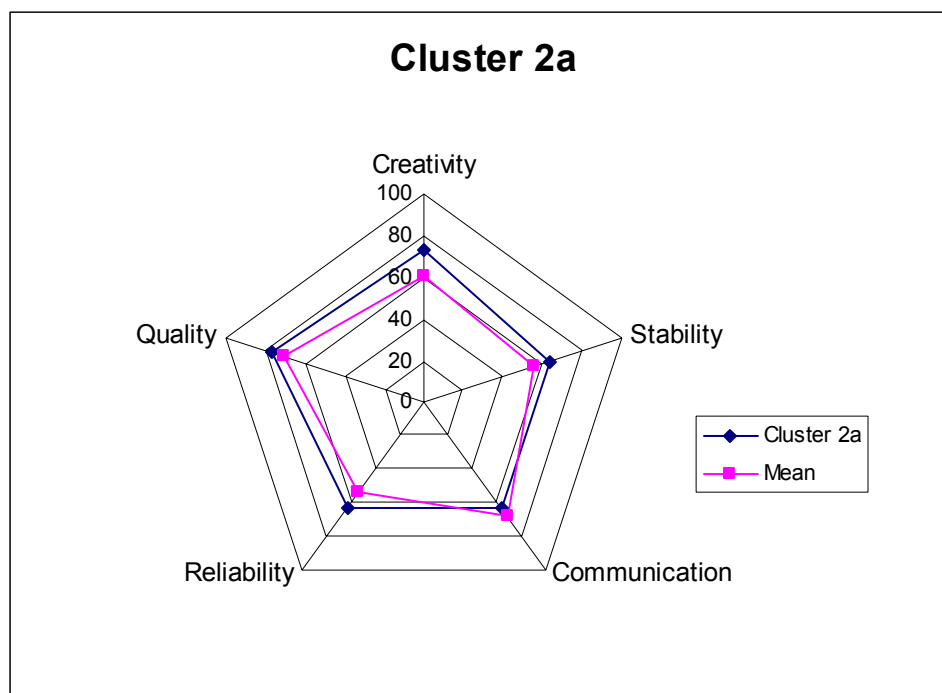


Figure 4.14. Moderate Quality Relationships Grouping

The trace indicates a level of satisfaction just above the mean of the other clusters with only the Communication dimension just below this level. From the independent variable cross-tabulations these relationships were likely to be in the middle of the spending bracket, less likely to be in the top banding of MoD Suppliers and of more

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medium and short (1-19 yrs) durations. Potentially one would expect greater incidence of C<sup>3</sup> and reciprocity in these relationships with a more even balance of small numbers and normal supply chain operating difficulties. Using the qualitative data these relationships are typified by the following types of statement:

*What the IPTs say:*

‘Their attitude is ‘we are world leaders, if you want our products you pay our prices’.

‘Although they know full well we can’t source their products elsewhere, the relationship is still amicable’.

‘They recently attempted to modernise their business but they are very traditional and there was much in-built resistance to change’.

‘Because our organisations are quite small it’s important to be realistic with our relationship improvement expectations’.

‘They are a bit like us; evolutionary, quality-oriented, resource-capped and not full of management-speak. They are almost fun to deal with!’

*What the Firms say:*

‘We are a ‘static organisation’ that hopes the world will change round us’.

‘We pride ourselves on the quality of our people who maintain the good relationship with the IPT but because of our small size we can only do so much’.

‘We constantly have to build new relationships with the IPT because of their high staff turnover; this is very wasteful in resources’.

‘Although we have done much to jointly set up objective performance measures they are poor at setting priorities and often cancel tasks without notice’.

As expected there is a range of views but the expressions of positive pragmatism appear to predominate. The small numbers situation is openly acknowledged as a limitation on management freedom but, does not seem to deadlock the relationship as occurred in some cases in Cluster 1. Culture-matching appears to have taken place which has engendered a sense of 'being in the same boat' and 'stable pragmatism'. Moreover, many of the problems mentioned appeared to be those normally associated with the effective implementation of SCM.

### **8.8 Cluster 2b: 'Evolving pessimists' (Moderate Low Performance Relationships)**

Cluster 2b is shown in Figure 4.15. It represents a second, smaller, Moderate

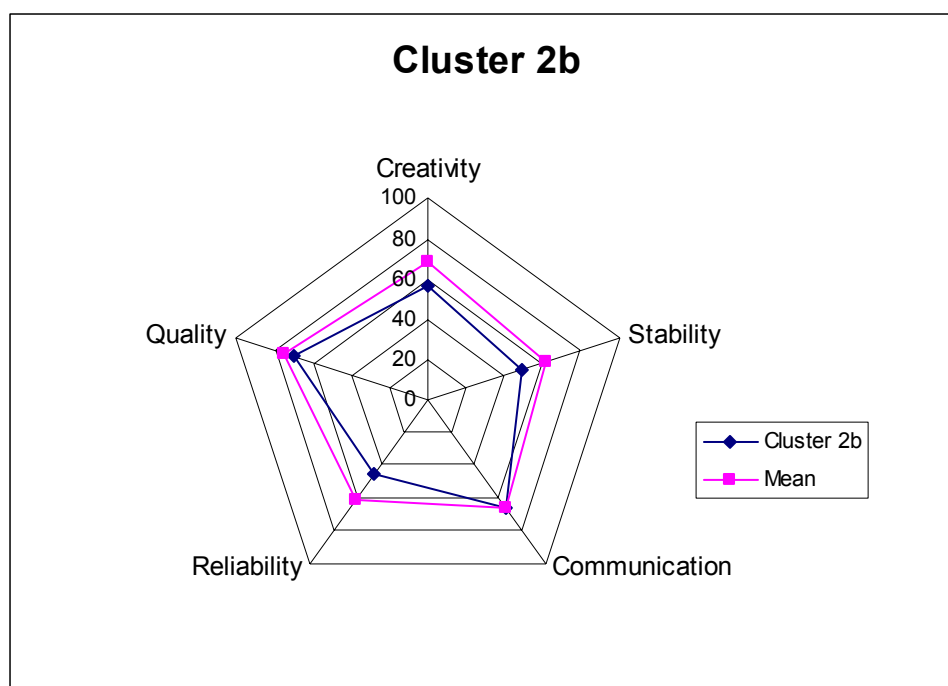


Figure 4.15. Moderate Quality Relationships Grouping

quality group of 12 relationships. However, although the satisfaction level proportions and levels are generally very similar to Cluster 2a, overall this group is slightly less satisfied than Cluster 2a and the trace specifically indicates an especially low level in the Reliability dimension (45%). The overall independent



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variable cross-tabulation features of this cluster are the same as those of Cluster 2a. However, it is likely that operating problems such as Supply Chain complexity, inherent difficulties in predicting customer requirements and either cultural or financial obstacles to process/facility improvements are apparent and generally reducing the overall relationship satisfaction level. Using the qualitative data these relationships are typified by the following types of statements:

*What the IPTs say:*

'They never plan ahead, they are always reactive, and they promise much at the meetings but deliver very little in practice'.

'They often sit on work for 2-3 years and refuse to deliver the goods'.

'Their spares ordering point just seems to add more delay'.

'They don't seem to have the resources to chase their sub-contractors who let them down'.

'We have given them numerous formal warnings but they seem to have no effect'.

'They have a long term ethos of failure and still behave like a nationalised company'.

*What the Firms say:*

'We seem to constantly fight fires; there seems to be no planning'.

'They don't seem to realize we have production schedules and cannot stop everything to satisfy their instant requirement'.

'They quibble over pennies and then take months to agree to the price'.

'There is a gulf in perception between the sides over performance, which also extends to the front line'.

'Without a common understanding of how we are doing and what we must achieve we cannot move forward'.

The comments from both sides do not appear to wholly support the hypothesis based upon operating difficulties. Although there are indeed statements on poor Supply Chain practices there also appears to be statements that link back to the adversarial attitudes found in Cluster 1 such as perception and cultural differences and, a lack of will to be co-operative. It is thus possible to hypothesise that Cluster 2b is a development phase between Poor and Moderate quality relationships where although the will to co-operate is growing – ‘evolving pessimists’, the ability to translate this into reliable, Supply Chain services has yet to develop. It would be interesting to carry out further specific research to explore this idea.

### 8.9 Cluster 4: ‘Successful integrators’ (Good Relationships)

Cluster 4 represents the Good quality group of 10 relationships as shown in Figure 4.16 below. The trace indicates a level of satisfaction well above the mean.

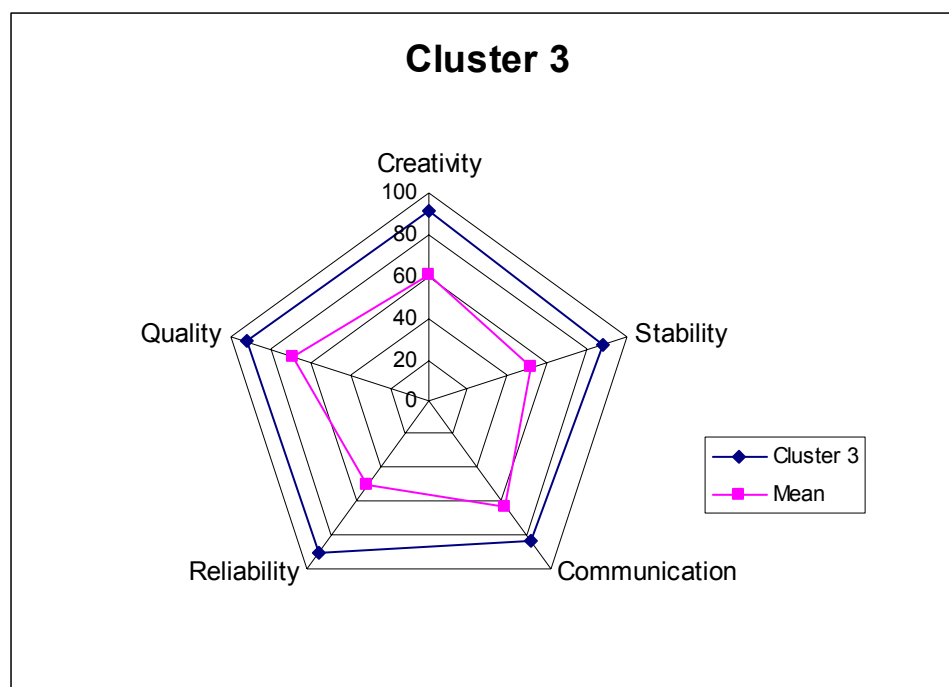


Figure 4.16. Good Quality Relationships Grouping

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of the other clusters. From the independent variable cross-tabulations these relationships were likely to be lower spending, in the top banding of MoD Suppliers and of more medium and short (1-19 yrs) durations. These relationships are likely to contain high levels of interdependence, C<sup>3</sup> behaviour, information sharing and innovation resulting in efficient, effective supply chains focused on customer requirements. Using the qualitative data these relationships are typified by the following types of statements:

*What the IPTs say:*

'We have a win-win, 5 year, indexed, firm price contract'.

'This takes the drama out of re-negotiations and incentivises quality because rejects come out of profits'.

'The contract contains simple, obvious, open performance measures that were agreed by all including the end-customer'.

'We thus don't have a contract monitoring team because it creates distrust and adds cost and we can all concentrate on customer-service'.

'The same team that did the negotiations now runs the business so there was an added incentive to get them right'.

'Every month we have a free exchange of data, which includes forecasts of future activity'.

'Interpersonal relationships are excellent; we all know and trust each other; this is a key success factor'.

'Although we have no choice in this relationship, by building trust and working hard to secure joint benefits, it is a pleasure to operate'.

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*What the Firms say:*

'We provide a full service at the customer's operating base where we integrate with the military personnel'.

'Transparency between all parties and a simple, framework contract which simplifies our joint operation free us to encourage one another to achieve higher levels of successes.

'Our partnering arrangement works really well because of the excellent mix of individuals who really work well together'.

'Another important feature is our frequent information exchange but this would be more efficient if it was by electronic means'.

'We all believe we can make improvements in our performance and are working together to achieve them'.

There is evidence of open acknowledgement of the small numbers situation within the Good cluster but any opportunistic behaviours are negated by joint concentration on the supply chain processes – 'successful integrators' - that ensure optimal service deliver and mutual benefits.

### **8.10 Key Findings**

The cluster analysis technique has proved to be a tool that has clearly identified richer patterns within the relationships data. It has allowed specific groupings to be identified as shown in Figure 4.17 and described using the sorted qualitative data in Appendix 11. They were further characterised by cross-tabulation to a number of external variables. Some of the cross-tabulations such as Relationship Duration, Team Size, Technology Age, System/Component and Contractors' League generated inexplicable results which indicated more complex issues were present. Further research would be worthwhile to examine these in greater detail. The cluster

groupings were recognisable sub-divisions of Good, Moderate and Poor relationships which enabled description using examples of the qualitative data. A sub-group shown in Figure 4.17 appeared to be a transition stage between the Poor and the Moderate clusters where although managers had realised the need to 'break away' from adversarial behaviours, they had not yet translated their intentions into improved business processes and customer benefits. It is suggested that further in-depth research would help to understand this potentially interesting linkage situation.

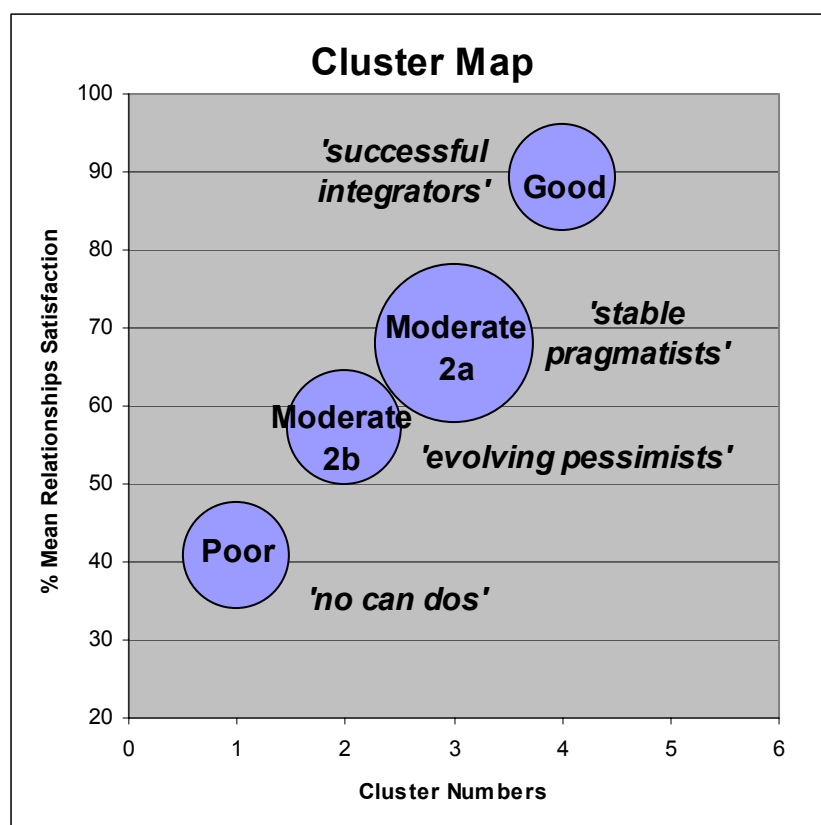


Figure 4.17. Clusters by Mean Satisfaction % and Size

(‘Bubble’ size equates to the number of relationships contained in the cluster – Good: 10, Moderate 2a: 22, Moderate 2b: 12, Poor: 10)

The results predominately indicate that normal supply chain relationship issues were in play within all the clusters as the IPTs and Firms struggled to improve process efficiency. It was also apparent that managers in each cluster were aware of their monopoly environment however, it was especially where adverse conditions applied

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such as poor relationship management and lack of investment in process that small numbers dynamics (frustration at limited management options and, adversarial behaviours) generated adversarial conditions. On the other hand, where the relationships were able to concentrate on service delivery and long-term, equitable benefits sharing, the potential limitations of small numbers were minimised. These findings reinforce those of sub-Section 6.2.6 where visually there appears to be a link between SCM efficiency and Small Numbers and further research would be useful to explore the phenomenon.

The next Section summarises the findings described in this Chapter and presents the overall results in terms of the RQ.

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## **9 RQ - The Research Question**

### **9.1 Introduction**

This Chapter has presented some background information about the research subjects and introduced the research data. It then reflected each of the supporting questions in the light of that data. This concluding Section summarises those findings and presents the overall results in terms of the RQ.

### **9.2 Q3 Transaction Cost Economics (TCE) & Q4 The Theoretical Framework - Conclusions**

The presentation of data with respect to the following questions:

**Q4 – Can the TCE Organisations Failure Framework be used as a theoretical lens with which to view monopolistic relationships within UK Defence Procurement?**

**Q3 – Can factors within Transaction Cost Economics (TCE) such as Asset Specificity and Opportunism explain the dynamics within monopolistic UK Defence Procurement relationships?**

was accomplished in 2 parts. Firstly a high level view of the Theoretical Framework was taken then, because Transaction Cost Economics is the basis of the Framework, both Q3 and Q4 were addressed together at the detailed level. The key findings are as follows:

#### **9.2.1 Q4 Theoretical Framework (High Level Perspective)**

The following conclusions are evident from the research (sub-Section 4.3):

- The empirical research found strong evidence within the business environment examined that the essentially negative perspective of the theoretical framework was not found generally in practice. The overall perceptual mean success rating by both sides was 64%.

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- A strong pattern of relationship features ran consistently through the statistics which indicates a commonality of respondents' views across the 5 dimensions regardless of business grouping.
  - The research revealed an overall gap in perceptions where IPTs were 8% less optimistic than Firms. Statistically this difference was found to be not significant however lack of explanation, either a potential indication of power bias or otherwise, suggested that further research might be worthwhile.
  - Although the proportions were different, the pattern of results for each side was the same, which indicated a measure of agreement across all dimensions.

### **9.2.2 Q3 Transaction Cost Economics (TCE) & Q4 Theoretical Framework (Detailed Perspective)**

The following conclusions are evident from the research (sub-Sections 5.3 & 5.4):

- Under each dimension both positive and negative TCE features were found. Although the negative aspect in each dimension predicted by the theoretical framework tended to predominate, others were also in evidence.
- Firms complained that there was insufficient investment in specific assets such as a stable work force and product/process development and, that performance measures were inadequate and provided insufficient motivation to achieve equitable outcomes.
- IPTs were concerned that their monopoly situation lacked interdependence and locked them into unsatisfactory relationships. They accused Firms of opportunistically taking advantage by providing poor goods and services and, using proprietary information as a weapon. There appeared to be little incidence of trust other than at the cynical or calculative level.



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- On the other hand as the overall quantitative theoretical model success score suggests, there were counterbalancing examples of relationship-building, specific investments, co-operative behaviour, open communications and a desire to reduce the burden of governance through more equitable, long-term arrangements.
  - Although the optimism gap across all dimensions revealed by the quantitative results was not statistically significant, it could have resulted from a natural reluctance of suppliers to make adverse comments about their customers but this was not apparent from the qualitative data collected where Firms' semi-structured interview comments were equally hard-hitting. It is possible that this imbalance is a feature of the relationships in the study and would benefit from further research to discover the reason why.

### **9.2.3 Questions 3 & 4 – Key Findings**

The following conclusion is evident from the research (sub-Sections 5.3 & 5.4):

- Although negative behaviours indicative of adversarial, monopolistic, relationships were detected, they did not predominate and a spectrum of behaviours was observed.
- Utilisation of a monopoly theoretical framework allows high level data patterns and specific negative and positive relational features to be identified and explained using an appropriate, associated terminology.

### **9.3 Q1 Supply Chain Management (SCM) Conclusions**

The presentation of data in this sub-Section addressed the following question:

**Q1 – Can SCM partnering activities, processes and requirements from the commercial environment, such as those encapsulated in Figure 2.8, provide an**

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## **understanding of the monopolistic relationships found within UK Defence Procurement?**

The following conclusions can be drawn from the data (sub-Section 6.3):

- The use of the theoretical framework dimensions provided focussed comparators against which to gauge the range of SCM relational features.
- The categories of Supply Chain relationship-enhancing activity found in the research generally correlated with those identified in the literature.
- The underlying struggle to implement SCM principles such as seamless service delivery systems backed by joint planning, clear performance objectives and measurement and, freely available data was detected. Also similar to open market situations, evidence of sincere intentions outweighed successfully implemented examples.
- Adversarial behaviour, as one might expect to find when viewed through Williamson's (1975) Organisations Failure Framework, such as deliberately withholding information, lack of transparency, unrealistic performance expectations, short-termist commercial policies and unco-operative product strategies were identified.
- Environmental problems such as old products, obsolescence, staff and organisational upheavals, poor end-customer visibility and lack of investment in modern procedures and systems seemed to accentuate managers' frustrations due to lack of freedom of action and promoted the relationship negativity implied by the theoretical framework.
- As already mentioned in sub-Section 4.3 the gap in quantitative response perceptions between the IPTs and the Firms was statistically not significant. However, the gap between the quantitative scores and the overall tone of the

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qualitative data was inexplicable and would benefit from further research to discover the reason.

- Although the correlation between SCM efficiency and Small Numbers appears to be statistically weak (0.804), visually there appears to be a link. This would be a potentially interesting area for further research.

#### **9.4 Q2 Relationship Marketing (RM) Conclusions**

The presentation of data in this sub-Section addressed the following question:

**Q2 – Can RM behavioural variables, especially those shown in Figure 2.16, provide an understanding of the monopolistic relationships found within UK Defence Procurement?**

The following conclusions can be drawn from the data (sub-Section 7.3):

- The use of the theoretical framework dimensions provided focussed comparators against which to gauge the range of RM relational variables.
- The RM behavioural variables observed in the research were very similar to those identified in the literature.
- Strong positive and negative views were expressed on C<sup>3</sup> Behaviour and Adaption where the parties struggled with the practical aspects of relationship operations.
- The negative influences of the monopolistic business environment, including power balance and interdependence, appeared to significantly reduce scores for the key Trust and Commitment variables.
- The importance of Personal Relationships, Corporate Culture Matching and Long Term Orientation to the creation of a successful business environment were clearly emphasised.

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### **9.5 RQ Relationships**

The research findings presented so far have answered the supporting questions using data analysis that considered the theoretical framework and its 5 dimensions. The analysis results in Section 8 considered the 54 relationships surveyed and revealed that it was possible to find richer patterns within the data that allowed them to be categorised within a typology and, described by means of external variables and the qualitative data. The following conclusions can be drawn:

- The cluster analysis technique proved to be a useful tool for identifying richer patterns within the relationships data.
- It has allowed specific groupings to be described and further characterised by cross-tabulation to a number of external variables. Some of the cross-tabulations such as Relationship Duration, Team Size, Technology Age, System/Component and Contractors' League generated inexplicable results which indicated more complex issues were present. Further research would be worthwhile to examine these in greater detail.
- The cluster groupings were recognisable sub-divisions of Good, Moderate and Poor relationships which enabled description using examples of the qualitative data.
- A sub-group shown in Figure 4.17 appeared to be a transition stage between the Poor and the Moderate clusters where although managers had realised the need to 'break away' from adversarial behaviours, they had not yet translated their intentions into improved business processes and customer service. It is suggested that further in-depth research would help to understand this potentially interesting linkage situation.

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- The results predominately indicate that normal supply chain relationship issues were in play within all the clusters as the IPTs and Firms struggled to improve process efficiency.
  - Managers in each cluster were aware of their monopoly environment however, it was especially where adverse conditions applied such as poor relationship management and lack of investment in process that small numbers dynamics (frustration at limited management options and, adversarial behaviours) generated adversarial conditions.
  - Where the relationships were able to concentrate on service delivery and long-term, equitable benefits sharing, the potential limitations of small numbers influences were minimised.
  - Although the correlation between SCM efficiency and Small Numbers appears to be statistically tenuous (0.804), visually there appears to be a link. This would be a potentially interesting area for further research.

### **9.6 RQ Research Question Conclusions**

The methodological approach and captured research data in answer to the supporting questions were designed to answer the Research Question:

**RQ – To determine if it is possible to obtain an understanding of the monopolistic relationships within UK Defence Procurement using Williamson’s Organisations Failure Framework and to identify how SCM, RM and TCE relational and behavioural factors influence these relationships.**

and revealed the following key findings:

- A pattern of results was discernible in the business environment studied.
- When populated with research data, it was possible to reveal a different character of the intrinsically negative theoretical model.

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- The 1st and 2<sup>nd</sup> level dimension statistical results provided clear insights into behavioural dynamics of the organisations studied when viewed through the selected disciplinary, relationship lenses.
  - A relationship view of the data allowed a typology to be identified and the groups of relationships to be described.
  - When the statistical results were illustrated with qualitative data, it was possible to identify not only what was revealed but also why.

From an examination of the supporting questions conclusions summarised in this Section and the key findings listed above, this thesis concludes that, subject to the limitations identified in Chapter 3, the selected suite of theoretical components (monopolistic Theoretical Framework, TCE, SCM and RM) provide a comprehensive, coherent and insightful approach to the examination of UK Defence Procurement monopolistic business-to-business relationships.

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## 10 Chapter 4 Conclusion

This chapter began by offering some background information about the research subjects, the IPTs and their industrial partners. It then introduced the research data and presented the results as they exposed the Theoretical Framework (Q4), first at the high level and then for each of its 5 dimensions. Because of the close affinity between the Theoretical Framework and Transaction Cost Economics (Q3), Q3 was considered simultaneously with Q4 at the detailed stage. Next, and in turn, the results were examined to show how they revealed perspectives on Supply Chain Management (Q1) and Relationship Marketing (Q2). Cluster Analysis results in Section 8 considered the 54 relationships surveyed and revealed that it was possible to find richer patterns within the data that allowed them to be categorised within a typology and, described by means of external variables and the qualitative data. Having drawn the threads together of the research findings by satisfactorily answering the supporting questions and the RQ, this thesis now moves to its ending in the next chapter where general conclusions are drawn and their significance is discussed within the context of the literature.

## Chapter 5

### Conclusions and Implications

#### 1 Introduction

This Chapter begins by summarising the research project as a whole from the articulation of the business problem, through the identification of gaps in the literature reviewed, the postulation of a Research Question (RQ) and supporting questions, the design and operationalisation of a data capture programme to the presentation of results. The Chapter next presents the conclusions for each of the research questions and the overall problem. It then examines the findings within the context of this and previous research by addressing the contribution to theory as it applies to the research problem and the implications for theory within the wider body of knowledge. The Chapter concludes with implications for policy and practice, a review of emergent limitations, a summary of conclusions and finally it details the implications for further research. An overview of the structure of Chapter 5 is at

Figure 5.1.

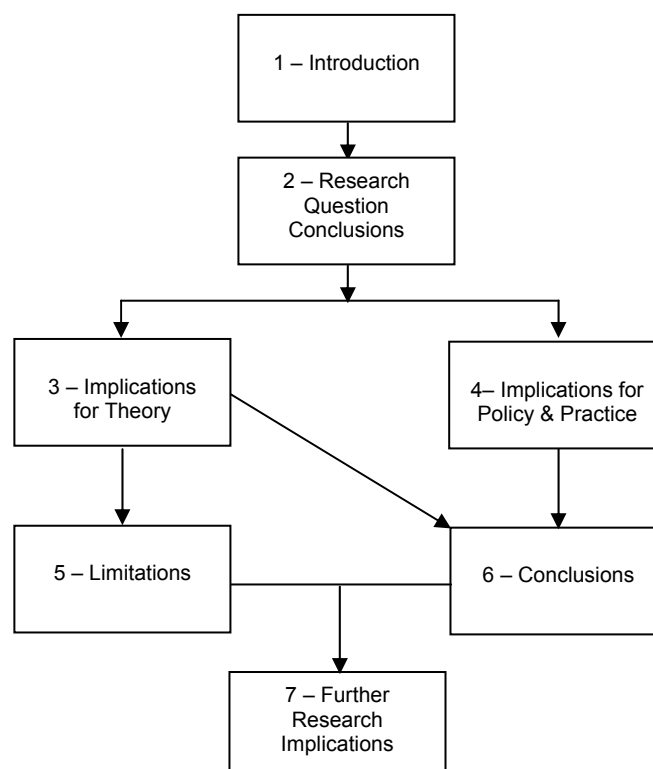


Figure 5.1. Chapter 5 Structure



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### **1.1 *The Business Problem***

Chapter 1 identified the difficulty experienced by UK Defence Procurement in following Government policy by seeking to overcome traditional adversarial attitudes and establish long-term partnerships with industrial suppliers within an increasingly monopolistic situation.

### **1.2 *The Literature Review***

Chapter 2 described a review of appropriate literatures seeking to trace the development of business-to-business relationships over the last 30 years or so. The influential factors appeared to be a transition from transactional roots to today's relational practices in the face of increasing globalisation and customer sophistication. Furthermore, the development of closer relationships with fewer partners suggests parallels with the research environment.

#### **1.2.1 *Supply Chain Management (SCM)***

In Chapter 2, Section 2 the literature review first considered the relational features of SCM because this was the business of the researched environment. The evolution of SCM covers Partnership Sourcing, Lean Supply, Supply Chain Networks, SCM and, Public Sector Supply Chains. This body of literature described how the need to move away from the adversarial relationships resulting from market dominance strategies typified by the Car Industry in 1970s and 80s has led to more co-operative strategies to be adopted. It showed, for those high value, complex supply chains, the development of increasingly sophisticated linkages between customers and suppliers dependent on a free-flow of information and close, operational co-ordination could bring improved profitability. In order to achieve this synergy, firms reduced the size of their supplier base and entered into closer relationships where less tangible aspects such as commitment and trust played a strong part alongside

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the contractual arrangements. The literature was however, less specific about the problems of effective SCM implementation and the implications of reduced flexibility associated with working with fewer partners. The purchasing role became recognised as a strategic relationship management function. A review of Public Sector SCM indicated very similar developments although it needed to be recognised that stakeholder arrangements were fundamentally different. Only limited research was available on small numbers situations in the private sector. Nevertheless, this provided useful insights into short-term, power interactions between major retailers and the governance choices for public utilities. Overall, the literature provided a considerable body of empirical research to support theory which could be used to seek comparable results within the UK Defence Procurement relationships and, best-practice advice to managers. However, a gap was identified in the area of SCM business-to-business relationships within the very specific monopoly situation found within UK Defence Procurement and the following question was therefore posed:

- **Q1 – Can SCM partnering activities, processes and requirements from the commercial environment, such as those encapsulated in Figure 2.8, provide an understanding of the monopolistic relationships found within UK Defence Procurement?**

Although SCM offered a pragmatic approach to supply chain business success factors, the thesis turned to Relationship Marketing for an in-depth review of key relationship variables.

### **1.2.2 Relationship Marketing (RM)**

In Chapter 2, Section 3 the thesis next considered RM because this field specifically concentrated on the relational dynamics of business-to-business interactions. Again the development of theory from managerial marketing via networked structures

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through to Marriage analogies, Key Account Management and virtual organisations was traced. Relational variables including trust, commitment, C<sup>3</sup> behaviour, long-termism and power effects were examined. Although RM was considered by some to be an imprecise field, the body of research reviewed provided a number of useful empirical findings (albeit generally from only one side of the relationships surveyed) that would be useful to the design and implementation of the research and, a clear gap emerged in the region of prolonged monopoly relationships. The following question was therefore posed:

- **Q2 – Can RM behavioural variables, especially those shown in Figure 2.16, provide an understanding of the monopolistic relationships found within UK Defence Procurement?**

Having examined the ‘what’ in SCM and the ‘how’ in RM, the thesis next considered the ‘why’ of business relationships in Transaction Cost Economics.

### ***1.2.3 Transaction Cost Economics (TCE)***

In Chapter 2, Section 4 TCE literature was reviewed because it provided a more technical level of analysis of the underlying relational economic factors in contractual relationships. The field showed a trend begun by earlier economists to explain contractual relationships in other than market forces terms. Although TCE introduced the human element, this was largely negative and used variables such as opportunism, bounded rationality and calculative trust. Post TCE researchers such as Craswell, Granovetter and Kramer, developed more relational concepts that tended to converge with those in RM but the links with TCE theory were not always clear. The monopoly phenomenon was considered in some detail but was deemed to be either a short-term, market aberration or a choice between governance options. Although TCE was supported by a significant body of empirical evidence and provided many interesting and useful explanations, which could be targeted in the

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research, it lacked empirical research that integrated the salient factors within the theory and thus provided inadequate answers on sustained monopolistic business relationships. However, Williamson's (1975) Economic Organisations Failure Framework proposed a unified view of the human dynamics within a failing market and this allowed the following question to be raised:

- **Q3 – Can factors within Transaction Cost Economics (TCE) such as Asset Specificity and Opportunism explain the dynamics within monopolistic UK Defence Procurement relationships?**

#### ***1.2.4 Theoretical Model & Research Question (RQ)***

In Chapter 2, Section 5 the thesis highlighted the lack of integrated research on monopolies within the reviewed literatures and underlined the difficulty of finding an appropriate model through which to view UK Defence Procurement relationships. Both Porter's (1980) Five Forces and Cox et al's (2000) Relation Power Analysis considered competition-limiting strategies but appeared to be optimised for use in 'normal'/competitive markets. However, Williamson's (1975) Economic Organisations Failure Framework (Chapter 2, Figure 2.29) provided both face validity in the research environment and an explanation of the business relationship circumstances that could lead to monopoly. The following question was therefore posed:

- **Q4 – Can the TCE Organisations Failure Framework be used as a theoretical lens with which to view monopolistic relationships within UK Defence Procurement?**

The adoption of a theoretical framework to be used in combination with 3 bodies of knowledge led to the definition of the following Research Question:

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- **RQ - To determine if it is possible to obtain an understanding of the monopolistic relationships within UK Defence Procurement using Williamson's Organisations Failure Framework and to identify how SCM, RM and TCE relational and behavioural factors influence these relationships.**

The approach to operationalising a testable theoretical framework and the design and implementation of the research programme are covered next.

### ***1.3 Methodology***

Because the RQ appeared to be an area that has received scant, co-ordinated attention from management researchers, in Chapter 3 it was decided that the project would essentially be exploratory in nature. The need to constrain the research to as short a period as possible in order to minimise environmental change impacts limited the data capture programme to a self-selected census of 54 monopolistic relationships representing £575.8m annual spend within the In-Service Support portion of the UK Defence Logistic Organisation. A triangulated data capture approach was employed using both quantitative and qualitative methods from the Industry and UK Ministry of Defence (MoD) sides of each relationship via staff questionnaires and team leader, semi-structured interviews. The research instruments concentrated on the 5 dimensions of the theoretical model with questions grounded in the literature fields of interest although; relationship-specific data was also captured. The research programme took place between Oct 2000 and Dec 2001 with the full support of the participating UK MoD and Industry organisations. A comprehensive set of data was collected and organised for analysis and special attention was devoted to providing feedback to the research participants.

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## **1.4 Findings**

The quantitative data revealed that the essentially negative Organisations Failure Framework was not so in practice with an overall mean success rating of 64%. None of the dimensions proved to be negative (<50% mean satisfaction); bounded rationality (66%), uncertainty/complexity (59%), information impactedness (66%) opportunism (58%) and small numbers (74%). This pattern of results was also noted in each of the Land, Sea and Air survey areas and indicates a common set of characteristics across the business in question. A typology of the 54 relationships revealed good, moderate and poor groupings but also a transitional cluster between poor and moderate. Although both Firms and UK MoD Integrated Project teams (IPTs) reported characteristic adverse monopolistic relationship features, these were generally outweighed by more positive perceptions. An apparent correlation between SCM efficiency and Small Numbers was examined but found to be statistically tenuous nevertheless, this could be a potentially interesting area for further research. The qualitative data (semi-structured interview key points) was sorted according to the theoretical framework dimensions and when overlaid on the quantitative data, it was possible to determine not only the broad statistical trends but also some of the underlying reasoning.

## **1.5 Conclusion**

This Chapter has begun by summarising the research project as a whole from the articulation of the business problem, through the identification of gaps in the literature reviewed, the postulation of a RQ and supporting questions, the design and operationalisation of a data capture programme and finally, the presentation of findings. The next Section considers each question in turn in the light of the findings.

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## **2 Conclusions about the Research Questions and Problem**

### **2.1 Introduction**

This Section summarises the research findings in terms of the Research Question (RQ) and the overall business problem. It does this in the same logical order in which the data was presented and analysed in Chapter 4: the Theoretical Framework (Q4), TCE (Q3), SCM (Q1), RM (Q2), Relational Analysis, the Research Question (RQ).

### **2.2 Qs 3 & 4 Conclusions – Transaction Cost Economics (TCE) & The Theoretical Framework**

Because these 2 questions are related by a common theory and provide the overall research model, they are treated together.

- **Q4 – Can the TCE Organisations Failure Framework be used as a theoretical lens with which to view monopolistic relationships within UK Defence Procurement?**

and

- **Q3 – Can factors within Transaction Cost Economics (TCE) such as Asset Specificity and Opportunism explain the dynamics within monopolistic UK Defence Procurement relationships?**

#### **2.2.1 High Level Q4 – Theoretical Framework (High Level Perspective)**

The following conclusions are evident from the research (Chapter 4, sub-Section 4.3):

- The empirical research found strong evidence within the business environment examined that the essentially negative perspective of the theoretical framework was not found generally in practice. The overall perceptual mean success rating by both sides was 64%.

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- A strong pattern of relationship features ran consistently through the statistics which indicates a commonality of respondents' views across the 5 dimensions regardless of business grouping and sample size.
  - The research revealed an overall gap in perceptions where IPTs were 8% less optimistic than Firms. Statistically this difference was found to be insignificant however lack of explanation, either a potential indication of power bias or otherwise, suggested that further research might be worthwhile.
  - Although the proportions were different, the pattern of results for each side was the same, which indicated a measure of agreement across all dimensions.

### **2.2.2 Q3 Transaction Cost Economics (TCE) & Q4 Theoretical Framework (Detailed Perspective)**

The following conclusions are evident from the research (Chapter 4, sub-Sections 5.3 & 5.4):

- Under each dimension both positive and negative TCE features were found. Although the negative aspect in each dimension predicted by the theoretical framework tended to predominate, others were also in evidence.
- Firms complained that there was insufficient investment in specific assets such as a stable work force and product/process development and, that performance measures were inadequate and provided insufficient motivation to achieve equitable outcomes.
- IPTs were concerned that their monopoly situation lacked interdependence and locked them into unsatisfactory relationships. They accused Firms of opportunistically taking advantage by providing poor goods and services and, using proprietary information as a weapon. There appeared to be little incidence of trust other than at the cynical or calculative level.



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- On the other hand as the overall quantitative theoretical model success score suggests, there were counterbalancing examples of relationship-building, specific investments, co-operative behaviour, open communications and a desire to reduce the burden of governance through more equitable, long-term arrangements.
  - Although the optimism gap across all dimensions revealed by the quantitative results was not statistically significant, it could have resulted from a natural reluctance of suppliers to make adverse comments about their customers but this was not apparent from the qualitative data collected where Firms' semi-structured interview comments were equally hard-hitting. It is possible that this imbalance is a feature of the relationships in the study and would benefit from further research to discover the reason why.
  - A variety of governance types were encountered and commented upon in the qualitative data. Older relationships were based upon regulation and although some were successful, the majority was not and team leaders were loath to adopt long-term contracts until they could trust the other party to deliver an efficient service. Respondents were generally very enthusiastic about newer relational, long-term contracts but in one case where the arrangement had been in place for 5 years, considerable problems were being encountered in trying to adjust to unforeseen environmental turbulence.

### **2.2.3 Research Questions 3 & 4**

The following conclusions are evident from the research (Chapter 4, sub-Sections 5.3 & 5.4):

- 
- Utilisation of a monopoly theoretical framework allows high level data patterns and specific negative and positive relational features to be identified and explained using an appropriate, associated terminology.
  - Contrary to expectations, both positive and negative relational behaviours, of the types cited by TCE theory, were observed.

### **2.3 Q1 - SCM Conclusions**

- **Q1 – Can SCM partnering activities, processes and requirements from the commercial environment, such as those encapsulated in Figure 2.8, provide an understanding of the monopolistic relationships found within UK Defence Procurement?**

The following conclusions can be drawn from the data (Chapter 4, sub-Section 6.3):

- The use of the theoretical framework dimensions provided focussed comparators against which to gauge the range of SCM relational features.
- The Supply Chain Partnership-Enhancing Activities identified in the literature (Chapter 2, Figure 2.8) correlated fairly well with the categories of qualitative data found in the research – see Chapter 4, Figure 4.10).
- The underlying struggle to implement SCM principles such as seamless service delivery systems backed by joint planning, clear performance objectives and measurement and, freely available data was detected. Also similar to open market situations, evidence of sincere intentions outweighed successfully implemented examples.
- Adversarial behaviour as one might expect to find when viewed through Williamson's (1975) Organisations Failure Framework, such as deliberately withholding information, unrealistic performance expectations, short-termist commercial policies and unco-operative product strategies were identified.

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- Environmental problems such as old products, obsolescence, staff and organisational upheavals, poor end-customer visibility and lack of investment in modern procedures and systems seemed to accentuate managers' frustrations due to lack of freedom of action and promoted the relationship negativity implied by the theoretical framework.
  - As already mentioned in sub-Section 4.3 the gap in quantitative response perceptions between the IPTs and the Firms was statistically insignificant. However, the gap between the quantitative scores and the overall tone of the qualitative data was inexplicable and would benefit from further research to discover the reason.
  - Contrary to expectations, both positive and negative relational, SCM business behaviours of the types suggested in Chapter 2, Figure 2.8 were observed.
  - Although the correlation between SCM efficiency and Small Numbers appears to be statistically insubstantial (0.804), visually there appears to be a link. This would be a potentially interesting area for further research.

#### **2.4 Q2 – RM Conclusions**

- **Q2 – Can RM behavioural variables, especially those shown in Figure 2.16, provide an understanding of the monopolistic relationships found within UK Defence Procurement?**

The following conclusions can be drawn from the data (Chapter 4, sub-Section 7.3):

- The use of the theoretical framework dimensions provided focussed comparators against which to gauge the range of RM relational variables.
- The RM behavioural variables identified in the literature (Chapter 2, Figure 2.16) correlated quite closely with the categories of qualitative data found in the research – see Chapter 4, Figure 4.11).

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- Strong positive and negative views were expressed on C<sup>3</sup> Behaviour and Adaption where the parties struggled with the practical aspects of relationship operations.
  - The negative influences of the monopolistic business environment, including power balance and interdependence, appeared to significantly reduce scores for the key Trust and Commitment variables.
  - The importance of Personal Relationships, Corporate Culture Matching and Long Term Orientation to the creation of a successful business environment were clearly emphasised.
  - Contrary to expectations, both positive and negative variations on the behavioural variables identified in as predicted in Chapter 2, Figure 2.16.

### **2.5 RQ Relationships**

The research findings presented so far have answered the supporting questions using data analysis that considered the theoretical framework and its 5 dimensions. The analysis results in Chapter 4, Section 8 considered the 54 relationships surveyed and revealed that it was possible to find richer patterns within the data that allowed them to be categorised within a typology and, described by means of external variables and the qualitative data. The following conclusions can be drawn:

- The cluster analysis technique proved to be a useful tool for identifying richer patterns within the relationships data.
- It has allowed specific groupings to be described and further characterised by cross-tabulation to a number of external variables. Some of the cross-tabulations such as Relationship Duration, Team Size, Technology Age, System/Component and Contractors' League generated inexplicable results which indicated more complex issues were present. Further research would be worthwhile to examine these in greater detail.

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- The cluster groupings were recognisable sub-divisions of Good, Moderate and Poor relationships which enabled description using examples of the qualitative data.
  - A sub-group shown in Figure 4.17 appeared to be a transition stage between the Poor and the Moderate clusters where although managers had realised the need to 'break away' from adversarial behaviours, they had not yet translated their intentions into improved business processes and customer service. It is suggested that further in-depth research would help to understand this potentially interesting linkage situation.
  - The results predominately indicate that normal supply chain relationship issues were in play within all the clusters as the IPTs and Firms struggled to improve process efficiency.
  - Managers in each cluster were aware of their monopoly environment however, it was especially where adverse conditions applied such as poor relationship management and lack of investment in process that small numbers dynamics (frustration at limited management options and, adversarial behaviours) generated adversarial conditions.
  - Where the relationships were able to concentrate on service delivery and long-term, equitable benefits sharing, the potential limitations of small numbers influences were minimised.
  - Although the correlation between SCM efficiency and Small Numbers appears to be statistically insubstantial (0.804), visually there appears to be a link. This would be a potentially interesting area for further research.

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## 2.6 RQ - Conclusions

- **RQ – To determine if it is possible to obtain an understanding of the monopolistic relationships within UK Defence Procurement using Williamson’s Organisations Failure Framework and to identify how SCM, RM and TCE relational and behavioural factors influence these relationships.**

The methodological approach and captured research data revealed the following key findings (Chapter 4, sub-Section 9.6):

- A pattern of results was discernible in the business environment studied.
- When populated with research data, it was possible to reveal a different character of the intrinsically negative theoretical model where relationship characteristics described in the literature from ‘normal’ markets were also found in the monopolistic UK Defence procurement relationships examined.
- The 1st and 2<sup>nd</sup> level dimension statistical results provided clear insights into behavioural dynamics of the organisations studied when viewed through the selected disciplinary, relationship lenses.
- A relationship view of the data allowed a typology to be identified and the groups of relationships to be described.
- When the statistical results were illustrated with qualitative data, it was possible to identify not only what was revealed but also why.

From an examination of the supporting questions conclusions summarised in this Section and the key findings listed above, this thesis concludes that, subject to the limitations identified in Chapters 1 and 3, the selected suite of theoretical components (monopolistic theoretical framework, TCE, SCM and RM) provide a comprehensive, coherent and insightful approach to the examination of UK Defence

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Procurement monopolistic business-to-business relationships (Humphries & Wilding, 2004).

The next Section presents and discusses the implications for theory.

### 3 Implications for Theory

#### 3.1 *Implications for TCE Theory (Qs 3 & 4)*

In the majority of UK Defence Procurement major contracts there is only one buyer (the UK MoD) and one seller (one of the few, large defence contractors) (Humphries & Wilding, 2001b) – a technical monopoly (Fishwick, 1993). Both sides need to rely on maintaining close relationships over the supply of highly specialised goods (Grant, 1995, Hill, 1990, Macneil, 1980) but inevitably are open to opportunistic behaviour (Faulkner & De Rond, 2000, Nooteboom, 1999, Madhok, 2000, Palmer, 2001). This still appears to be the case following the UK MoD's ending of its 'cosy relationship' with industry in 1985 (Hartley, 1998) and the imposition of tighter regulatory controls. Recent policy changes towards more relational forms of governance (Crocker & Masten, 1996) are still in their infancy. As a result if Williamson's (1975) Organisations Failure Framework is taken at face value, an essentially negative relationship situation is likely to be the outcome. As an example the UK MoD will attempt to drive down the profit level to a 'reasonable' level and the contractor will inflate its costs to ensure the best possible rate of return – a prime example of Information Impactedness (Humphries & Wilding, 2000, Liston-Heyes, 1995, Palmer, 2001). The consequences are that industry loses its incentive to perform better and the UK MoD reduces the resources available in industry that might have been used to fund important R&D. This in effect creates an adversarial relationship without the freedom to look to the market for alternatives (Hirschman, 1970, Parker & Hartley, 1997). Parker & Hartley, (1997) suggested in Chapter 2, Figure 2.26 that in normal markets there is a natural pressure to move away from the unsatisfactory, 'zero-sum' game within a monopoly. However, within UK Defence Procurement it is possible to envisage the situation in Figure 5.2 below where both parties become locked in a



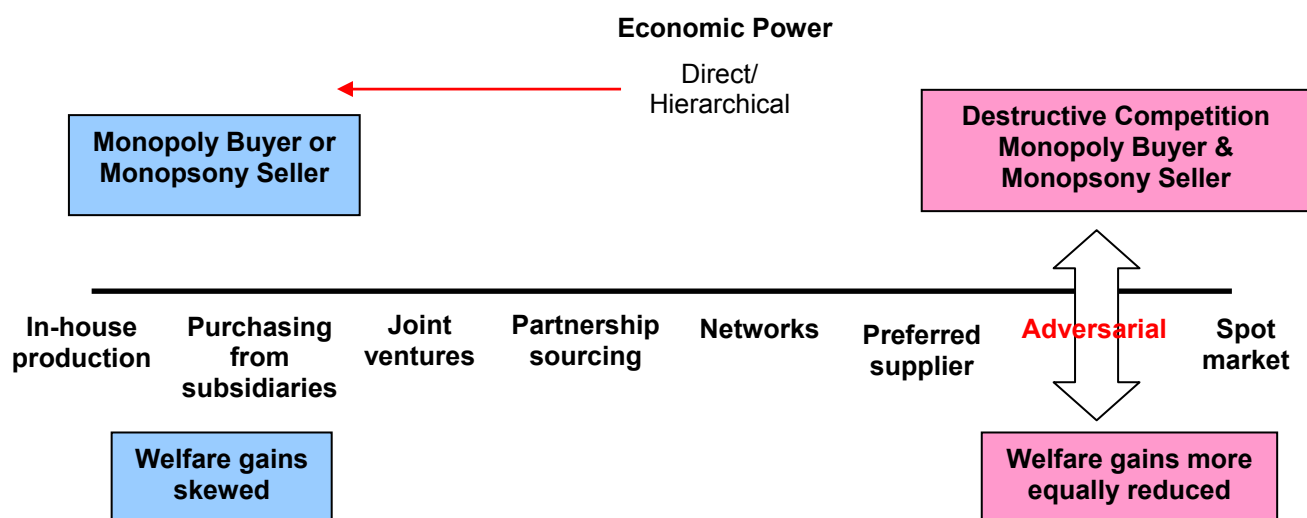


Figure 5.2. The Procurement Continuum – Monopoly Buyer & Monopsony Seller (adapted from Parker & Hartley, 1997)

'deadly embrace' from which there is no escape. One would thus expect that research on monopolistic relationships, which measured satisfaction rates, would generate negative (<50% success) empirical results. However, from Chapter 4, Figures 4.2, 4.3 and 4.4 it can be seen that this is not the case and that the mean scores from only 10 out of 54 (21.6%) relationships were in fact wholly negative. From Chapter 4, Figures 4.5 and 4.6 it is also evident that the individual framework dimensions were all positive (>50%). Moreover, the pattern of results across the dimensions (Chapter 4, Figure 4.8) is characteristic of the majority (77.7%) of the relationships examined. An 8% gap in perceptions between the buyers and the sellers was detected (Chapter 4, Figure 4.7). Analysis of this situation shown in Chapter 4, Figure 4.9. indicates that this difference is not statistically significant with views highly correlation at 0.928. Furthermore, the quantitative data did not support a more optimistic quantitative response from firms. No single reason stood out in the research to explain this phenomenon but the finding does appear to agree with Spekman et al's, 1998 empirical research on normal market, supply chains where

buyers were sensitive to dependence on a smaller number of suppliers and were thus more pessimistic. However, the opposite was discovered within the monopolistic UK Defence Procurement situation where the suppliers also had increasingly limited buyers for their wares. It is thus likely that further research into the phenomenon would prove interesting.

Each dimension is considered in turn below and it is evident from the research findings that although negative aspects of Williamson's (1975) Organisations Failure Framework were observed, almost equally converse factors were present.

- **Bounded Rationality (66%).** A number of examples of bounded rationality (Simon, 1957) over a lack of determination to set and observe mutually agreed performance standards and unwillingness to invest in specific relationship-building assets such as joint objective-setting and teamworking were observed (Appendix 7, sub-Section 2.2 & Chapter 4 sub-Section 8.7) (Ganesan, 1994). Nevertheless, creative approaches such as open contracts, joint innovation, ensuring disputes were resolved quickly and fairly and taking a long-term view of the relationship were also detected in this research (Appendix 7, sub-Section 2.3) (Beamish & Banks, 1987, Cooper & Ellram, 1993, Van de Ven, 1984).
- **Uncertainty/Complexity (59%).** Opportunistic, short-termist behaviour such as confusing cheapest for value for money (Liston-Heyes, 1985) and lack of relationship-developing actions such as joint objective setting were observed (Appendix 7, sub-Section 3.2 & Chapter 4 sub-Section 8.8). These reduced relationship stability and the creation of a framework for successful business (Peck et al, 2000). The highly idiosyncratic nature of the business, an imbalance in power positions and reduced interdependence because of few credible commitments were also observed (Appendix 7, sub-Section 3.4) (Cooper et al, 1997, Madhok, 2000). On the other hand, the need for clear, joint objectives and

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co-operation as a means of achieving interdependence and a reduction of costly governance measures were recognised by both sides (Appendix 7, sub-Section 3.3) (Beamish & Banks, 1987, Faulkner & De Rond, 2000, Moss Kanter, 1994, Spekman et al, 1998).

- **Information Impactedness (66%).** Problems of disclosure and implied power balance over proprietary information were detected (Sheth & Sharma, 1997). Additionally, reticence over joint performance measurement and a lack of contract fulfilment arrangements were marked by a calculative approach to trust (Appendix 7, sub-Section 4.2 & Chapter 4 sub-Section 8.6) (Hill, 1980, Matthyssens, 1994). Nevertheless, free, frequent information sharing and the investment in specific resources such as shared data environments were evident (Appendix 7, sub-Section 4.3) (Faulkner & De Rond, 2000, Harrison, 1990, Mohr & Spekman, 1994, Morgan & Hunt, 1994).
- **Opportunism (58%).** Information impactedness resulting from selective and deliberate withholding of highly specific, proprietary and supply chain data as well as opportunism resulting in poor service delivery (Christopher, 1997, Harrison, 1990) and unsatisfactory commercial practices were found under this dimension (Hill, 1990, Noordewier et al, 1990). Buyers especially accused sellers of abusing their monopoly position and behaving opportunistically by failing to display goodwill, trust and commitment (Beamish & Banks, 1987, Faulkner & De Rond, 2000, Palmer, 2001, Williamson, 1979) to provide an adequate service (Appendix 7, sub-Section 5.2 & Chapter 4 sub-Section 8.6). Conversely, interdependence achieved through the credible commitment of specific, relationship-building assets such as stable work force and product/process development and, joint problem-solving arrangements appeared to strengthen relationships by creating a more reliable business infrastructure

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(Appendix 7, sub-Section 5.3 & Chapter 4 sub-Section 8.9) (Argyres & Porter Liebskind, 1999, Doz & Oguz, 2000, Goleman, 1998, Hatch, 1997, Hulme, 1997).

- **Small Numbers (74%).** The failure of contractual governance to maintain equity (Watson, 1999, Zajac & Olsen, 1993) and relationships free of fear of 'imprisonment' (Eisenhardt et al, 1997, Kramer, 1999) indicated that archetypal negative relationship features from Williamson's (1975) framework and reported in research on public utilities (Crocker & Masten, 1996) are eminently possible in real life (Appendix 7, sub-Section 6.2 & Chapter 4 sub-Section 8.6). This phenomenon tends to counteract Cox et al's (2000) perspective where inequality was a prerequisite of adversarial relationships (Appendix 7, sub-Section 6.6) and reinforce the view expressed in Figure 5.2. However, many instances of long-termism and interdependence marked by co-operation and investments in relationship-promoting resources were also in evidence (Cooper & Gardner, 1993 & Chapter 4 sub-Section 8.9). Moreover, respondents realised the difficulties inherent in the business and the monopoly situation – positive pragmatism (Chapter 4 sub-Section 8.7) - and were actively striving to turn round the unsatisfactory position because they felt that 'some win' was better than 'all lose' (Appendix 7, sub-Section 6.3) (Axelrod, 1984, Granovetter, 1985, Ouchi, 1980). This was contrary to the view that within the failed market there is little incentive to co-operate, control costs or improve output quality (Hirschman, 1970, Williamson, 1996).

Finally, a variety of governance types were encountered in the relationships surveyed and commented upon in the qualitative data. Older relationships were generally based upon regulation and although some were successful, the majority was not and team leaders were loath to adopt long-term contracts until they could

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trust the other party to deliver an efficient service. Respondents were generally very enthusiastic about newer, relational, long-term contracts (Franchise Bidding) but in one case where the arrangement had been in place for 5 years, considerable problems were being encountered (including a loss of trust) in trying to adjust to unforeseen environmental turbulence. This difficulty or positively correlating relationship age to success was born out by the results of the cluster analysis cross-tabulation described in Chapter 4, Section 8.3.2. Moreover, these findings support those of established TCE empirical research (Crocker & Masten, 1996, Parker & Hartley, 1997, Rindfleisch & Heide, 1997, Williamson, 1996) who have emphasised the difficulties of choosing appropriate governance modes for bilateral monopolies.

### **3.1.1 Contributions to TCE Knowledge**

There is scant empirical research within TCE that integrates all the factors within Williamson's (1975) Organisations Failure Framework (Rindfleisch & Heide, 1997). Furthermore, TCE research on monopolies considers them as either unnatural phenomena (Palmer, 2001, Williamson, 1996) or a problem of selecting appropriate governance options (Crocker & Masten, 1996).

- This research project, which appears to be the only empirical study on a significant sample of stable monopoly relationships, has shown, contrary to expectations, a surprising diversity of adverse monopolistic dynamics as well as more positive, business-driven behaviours were present within the monopolistic UK Defence Procurement environment.
- The use of Williamson's (1975) Organisations Failure Framework as a theoretical model enabled new insights to be revealed into the monopolistic UK Defence Procurement business (see Section 3.1).

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- The pattern of data was not overall negative and, within the environment studied, appeared to follow a pattern. This included a gap in perceptions between buyers and suppliers.
  - Under each dimension both positive and negative TCE features were found.
  - As predicted by the model, lack of investment in specific assets such as work force stability and product/process development, the use of inadequate performance measures, opportunistically providing poor goods and services and, using proprietary information as a weapon, reduced the chances of achieving interdependence and equitable outcomes. There appeared to be little incidence of trust other than at the cynical or calculative level.
  - Adversarial behaviours were not caused by power imbalance, rather by the frustration resulting from mutual disempowerment.
  - On the other hand despite the adverse monopolistic influences, strong counterbalancing, positive business drivers were able to produce examples of relationship-building, specific investments, co-operative behaviour, open communications and a desire to reduce the burden of governance through more equitable, long-term arrangements.
  - The importance of political acceptance of the bilateral monopoly situation (Parker & Hartley, 1997, Strutton et al, 2001) and, selecting appropriate governance modes and being prepared to change them over time as circumstances evolved, was underlined.

### **3.2 Implications for SCM Theory (Q1)**

The research approach used a TCE-based model as a means of examining supply chain relationships within a monopolistic business environment and this allowed unique insights to be made and a clear contribution to the body of knowledge to be made. Despite the negative behavioural predictions of the theoretical framework, a

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spectrum from good to poor relationships was observed in the sample – see Chapter 4, Figures 4.3, 4.4 and 8.5. Moreover, many of the features of managing supply chain relationships described in the literature review (Chapter 2, Section 2) were observed as follows:

### **3.2.1 *Traditional Behaviour***

Examples of power dominance (Cox & Lamming, 1997, Lamming 1993) such as Chapter 4, Appendix 8, sub-Section 3.4 and strong customer/supplier development influence (Lamming, 1993) in Chapter 4, Appendix 8, sub-Sections 2.5, 3.2, 3.3, 4.3, 5.2, 6.2 were noted.

### **3.2.2 *Lean Supply***

Efforts to achieve process efficiencies and enhance value production by replacing traditional, wasteful, inefficient and adversarial practices were clearly evident in Chapter 4, Appendix 8, sub-Sections 2.2, 2.5, 3.3, 4.3, 5.2, 5.3, 5.4.

### **3.2.3 *Supply Chain Networks***

There was also evidence that managers had realised the problems of dealing with networks of relationships (Bectel & Jayaram, 1997, Christopher, 1992, Cooper et al, 1997, Harland, 1996b, Hines, 1996) including end-customers, up-stream suppliers, other IPTs, firms and prime contractors Chapter 4, Appendix 8, sub-Sections 2.3, 3.4, 4.4, 5.3.

### **3.2.4 *SCM***

Despite the forced partnership, monopolistic situation, many of the aims of SCM as an integrative, proactive approach to manage the total flow of a distribution channel to the ultimate customer (Matthyssens & Van den Bulte, 1994) were revealed within the examined relationships. Also, efforts to build co-operative relationships in order

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to achieve benefits for all supply chain participants (Stevens, 1989) involving trust, commitment, and collaboration (Hines & Jones, 1996, Macbeth & Ferguson, 1994, Naude & Buttle, 2000, Peck et al, 2000) were observed. See examples in Chapter 4, Appendix 8, sub-Sections 2.4, 2.5, 4.3, 4.5, 5.3, 6.2.

### **3.2.5 Public Sector Supply Chains**

Although research on Public Sector supply chain management has discovered many similarities of approach with the Public Sector, the impact of specific factors such as remote end-customers, the political influence of central government, the cultural issues surrounding MoD stakeholders and, the very long term aspects of public funding and investment cycles were evident (Brooks & Pawar, 2000, Harland et al, 1998, Hartley 1998, Zheng, 1998). See examples in Chapter 4, Appendix 8, sub-Sections 2.4, 2.5, 3.3, 5.3, 6.2, 6.3.

### **3.2.6 Partnering**

Partnering is where customers and suppliers commit to continuous improvement and shared benefits by exchanging information openly and resolving problems together (Lambert et al, 1996, Sako et al, 1994). Their relationship is for the 'long term' and is based upon trust, complex, problem solving and shared risks and rewards (Boddy et al, 2000, Cooper and Gardner, 1993, Lambert et al, 1996, Olsen & Ellram, 1997, Spekman et al, 1998). Lastly, partnering requires attitudinal changes to be successful (Anscombe & Kearney, 1994, Ellram & Edis, 1996, Hines & Jones, 1996). A full range of these aspects were found within the relationships surveyed. See examples in Chapter 4, Appendix 8, sub-Sections 2.2, 2.3, 2.5, 3.3, 4.3, 4.4, 5.3, 5.4, 6.3.



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### **3.2.7 *Interface Management***

The management of interfaces between customers and suppliers is of crucial importance when firms are inextricably linked (Cooper & Ellram, 1993). Moreover, this must be conducted in a completely transparent way which emphasises the equality of the partners, the need to share risk and recognises the strategic role of purchasing (Christopher, 1998, Cooper et al, 1997, Cox & Lamming, 1997, Lamming et al, 2001, Wilding 1999). Many instances of these principles were found within UK Defence Procurement relationships as shown in Chapter 4, Appendix 8, sub-Sections 2.2, 2.3, 2.5, 3.3, 4.3, 4.4, 5.3, 5.4, 6.3.

### **3.2.8 *Expectations Management***

The greater the interdependence of supply chain partners the greater the need to match expectations and to use time-based metrics for measuring and monitoring performance (Christopher, 1998, Ellram & Edis, 1996, Harland, 1995, 1996a, 1996c, Lamming, 1993). These requirements featured strongly in the views of the respondents in this research in both positive and negative terms as shown in Chapter 4, Appendix 8, sub-Sections 3.4, 4.4, 5.1, 5.2.

### **3.2.9 *Small Numbers***

Where a reduction in choice exists because of a monopoly of supply and demand, tensions between the parties can result in reduced efficiency and lower economic gains (Basury et al, 1993, Christopher, 1998, Fishwick, 1993, Humphries & Wilding 2004). However, this was not always the case as evinced by the cluster analysis results in Chapter 4, Section 8 and the dimensional analysis in Chapter 4, Appendix 8, sub-Sections 3.2, 5.3, 5.4, 6.2, 6.3. It appeared that both IPT and Firm leaders were always aware of their small numbers situation but its impact on the quality of their business relationship depended on their particular situation. In the 'good'

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relationships Chapter 4, sub-Section 8.9 opportunistic behaviours were negated by joint concentration on the supply chain processes that ensure optimal service delivery and mutual benefits. In the 'moderate' relationships Chapter 4, sub-Section 8.7 negative behaviours did not seem to deadlock the relationship and culture-matching appeared to have taken engendered a sense of 'being in the same boat'.

However, negative behaviours symptomatic of the theoretical monopoly environment (Chapter 2, Section 5.6) were clearly discernible in the 'poor' and to a slightly lesser extent in the 'low performance, moderate' relationships Chapter 4, sub-Sections 8.6 & 8.8. These included deliberate withholding of supply chain information, insular, non-integrative practices, commercial opportunism and unco-operative product strategies. It was strongly evident that environmental factors such as old, unreliable products, obsolescence, staff and organisational upheavals poor end-customer visibility and lack of investment in modern procedures and systems accentuated managers' frustrations due to the lack of freedom of action available within the monopoly. These frustrations resulted in feelings of 'imprisonment' and 'impotence' which were exacerbated by long term lack of co-operation and promoted an ongoing situation of entrenched opposition to any form of innovation and a 'take it or leave it' attitude. This situation can be illustrated in Figure 5.3 when Lambert et al's (1996) Partnering process model Chapter 2, Figure 2.6) is viewed from a negative, monopolistic perspective. This model was designed to demonstrate the important features that impact upon partners when establishing and maintaining a partnership. It describes a continuous improvement approach with the reinforcement of success.

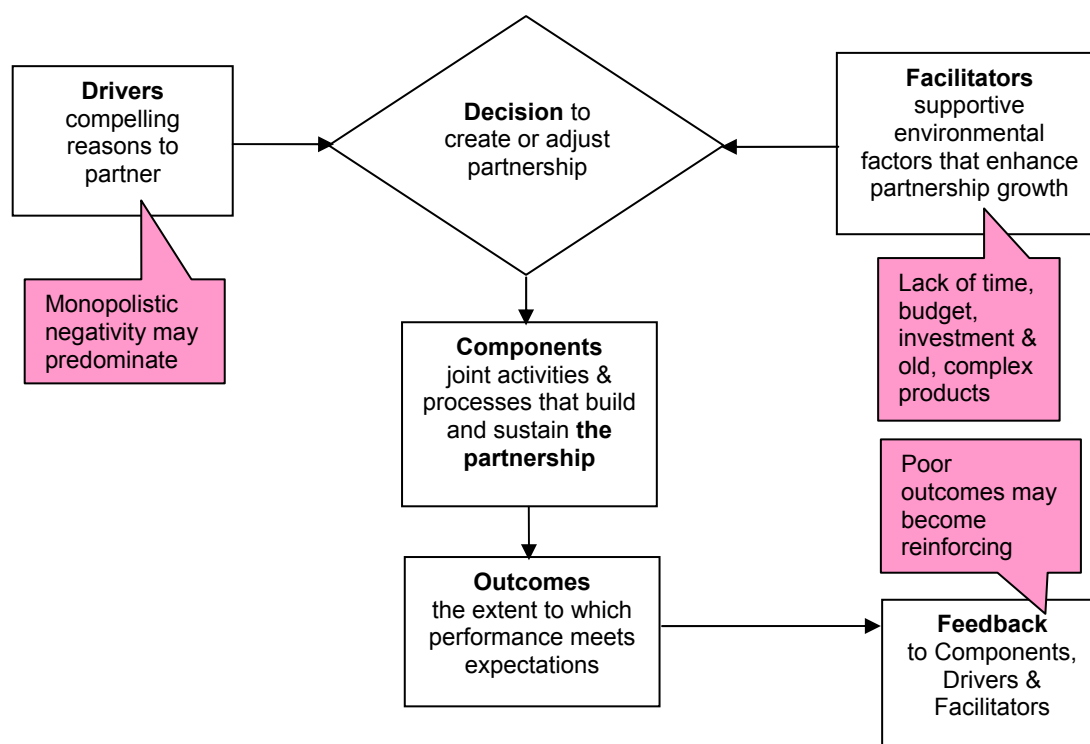


Figure 5.3. The Negative Monopolistic Partnering Process (adapted from Lambert et al, 1996)

Under a poor monopolistic situation the partners are trapped in the arrangement. Depending on the degree of negativity affecting the Drivers and Facilitators, a potentially a self-reinforcing, low quality relationship will be generated through the Feedback loop. This situation was perhaps foreseen by Macbeth & Ferguson (1994) when they suggested trust could be destroyed by *'one stupid action'* (Chapter 2, sub-Section 2.4.7). The 'low performance, moderate' relationships mentioned in Chapter 4, sub-Section 8.8 possibly represent a transition group that was attempting to break out the negative spiral shown in Figure 5.3 where although the will to co-operate was growing, the ability to translate this into reliable, Supply Chain services had yet to develop. Overall this research provides a pragmatic focus that builds upon Spekman et al's (1998) work in addressing the reasons why SCM is difficult to implement and sustain and would offer extremely interesting opportunities for further research.

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### **3.2.10 Summary**

The research results indicated in Chapter 4, sub-Sections 6.3 and 8.10 found that a spectrum of supply chain relationship quality existed and that these were affected by both SCM process efficiency and small numbers factors. These relationship drivers were described within the literature reviewed in Chapter 2. However, the combination of the innovative methodology and the selection of an appropriate literature field allowed the dynamics within the long-term, monopolistic, UK Defence Procurement business-to-business relationships to be revealed. These contributions to SCM knowledge are presented next.

### **3.2.11 Contributions to SCM Knowledge**

Within the UK Defence Procurement monopoly businesses the use of Williamson's (1975) Organisations Failure Framework as a theoretical model when matched to SCM and especially Procurement relational concepts, enabled new insights to be revealed. These were

- The underlying struggle to implement difficult SCM concepts in the UK Defence procurement monopolies paralleled that found in a wide range of private and public sector settings as described in the literature review.
- A wide variety of adversarial behaviours as a result of the monopolistic situation were revealed that reduced the effectiveness of SCM implementation. These included deliberately withholding information, unrealistic performance expectations, short-termist commercial policies and unco-operative product strategies.
- Environmental problems such as old products, obsolescence, staff and organisational upheavals, poor end-customer visibility and lack of investment in modern procedures and systems seemed to accentuate managers' frustrations

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due to lack of freedom of action in the monopoly environment and promoted the relationship negativity implied by the theoretical framework.

- The findings provide a pragmatic focus that builds upon Spekman et al's (1998) work in addressing the reasons why SCM is difficult to implement and sustain.
- Although the correlation between SCM efficiency and Small Numbers appears to be statistically insubstantial, visually there appears to be a link. This would be a potentially interesting area for further research.
- Cluster analysis revealed 3 main groupings of relationships equating to good, moderate and poor quality enterprises. However, it also exposed a transition group that was attempting to move from a poor, adversarial mode to a more co-operative one. Although the will to co-operate was growing, the ability to translate this into reliable, Supply Chain services had yet to develop. This would be a potentially interesting area for further research.

### ***3.3 Implications for Relationship Marketing Theory (Q2)***

The research approach used a TCE-based model as a means of examining RM within monopolistic business environment relationships. The research results (Chapter 4, Section 6) found that as mentioned in Chapter 2, Section 3.4, a spectrum of different relationship qualities existed within those surveyed in UK Defence Procurement. It was also evident that discrete market transactions had generally been displaced by closer, long-term, strategic relationships through purposeful co-operation, shared compatible goals and seeking mutual benefit (Dyer & Chu, 2000, McDonald et al, 1997, Mohr & Spekman, 1994). Furthermore, as noted in Chapter 2, Section 3.6, efforts had been made to forge improved relationships of a dyadic nature (Anderson et al, 1994, Dwyer et al, 1987, Metcalf et al, 1992, Tuten & Urben, 2001). But, it was found that the lack of network dynamics due to the monopoly

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environment had often reduced the effectiveness of attempts to discover 'common ground' on which to establish 'embeddedness' and provided a lack of incentive to dispel adversarial practices (Humphries & Wilding, 2001). The Marriage Analogy on the other hand, involving managerial dependence and exchange efficiency (Gudlach & Murphy, 1993, Gummesson, 1999), has been dismissed as imprecise and misleading but, in the case of UK Defence Procurement's forced dyadic relationships, a much stronger case seems possible for its relevance although a key limitation is the impossibility of 'divorce'. The use of key account managers (McDonald et al, 1997) was almost universal although their success was dependent on personal and cultural factors.

The overwhelming majority of respondents placed strong emphasis on personal relationships ('hitting it off') (Appendix 9, sub-Sections 3.3, 4.3, 5.5) and culture-matching ('relating to the way the other side do things') (Appendix 9, sub-Section 3.4) on the growth of trust (Chapter 2, Section 3.20 – Gulati, 1995, Moorman et al, 1992, Moss Kanter, 1994, Palmer, 2001). This counters the enlightened, self-interest approach (Faulkner, 2000, Goleman, 1998, Kumar, 1996, Wilson, 1995). The central importance of commitment (Appendix 9, sub-Sections 2.2, 5.4, 6.2) and trust (Appendix 9, sub-Sections 3.5, 6.4) to the stability and productiveness of UK Defence Procurement business-to-business relationships (Chapter 2, Section 3.10 – Faulkner & de Rond, 2000, Frow, 2001, Morgan and Hunt, 1994, Sheth & Sharma, 1997) was also underlined. Excellent, long-term commercial arrangements (Appendix 9, sub-Sections 3.5, 4.4), frequent, interactive, productive communications (Appendix 9, Section 4), and constructive conflict (Appendix 9, sub-Section 6.3) that supported repeated cycles of exchange, risk-taking and successful fulfilment of expectations were observed. These appeared to strengthen the willingness of parties to rely upon each other (Eisenhardt et al, 1997, Goleman,

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1998, Lewin & Johnston, 1997, Oliver, 1990, Palmer, 2001). However, opportunistic behaviour (Appendix 9, Section 5) such as adversarial bidding, inflexible and unduly bureaucratic commercial practices, unwillingness to share proprietary data (Appendix 9, Section 4) and uncaring use of power (Appendix 9, Section 6) which clearly undermined both trust and commitment were also detected. C<sup>3</sup> Behaviour (Appendix 9, sub-Sections 2.1, 3.1, 4.1, 5.1) (Humphries & Wilding, 2004), adaption (Appendix 9, sub-Sections 3.2, 4.2, 5.2, 6.1) and interdependence (Appendix 9, sub-Section 6.5) were particularly important components in relationship-building investment (Chapter 2, Section 3.19 – Doney & Cannon, 1997, Madhok, 2000, Moorman et al, 1992, Rugman & D’Cruz, 2000, Sheth & Sharma, Stern & Reve, 1980, 1997, Wilson, 1995) but their effectiveness reduced when the sincerity of the other party’s intentions was doubted. Finally, environmental factors such as lack of long-term, stable funding for projects and investment in efficient business systems seemed to induce reduced trust (Kumar, 1996) and exacerbate manager’s negative reactions to a lack of freedom to manoeuvre within their monopolistic situation (Appendix 9, Section 6).

An illustration that summarises the potential impact of monopoly on trust and commitment is posed in a modified Morgan and Hunts (1994) Commitment-Trust Theory (Chapter 2, Section 3.10) shown in Figure 5.4.

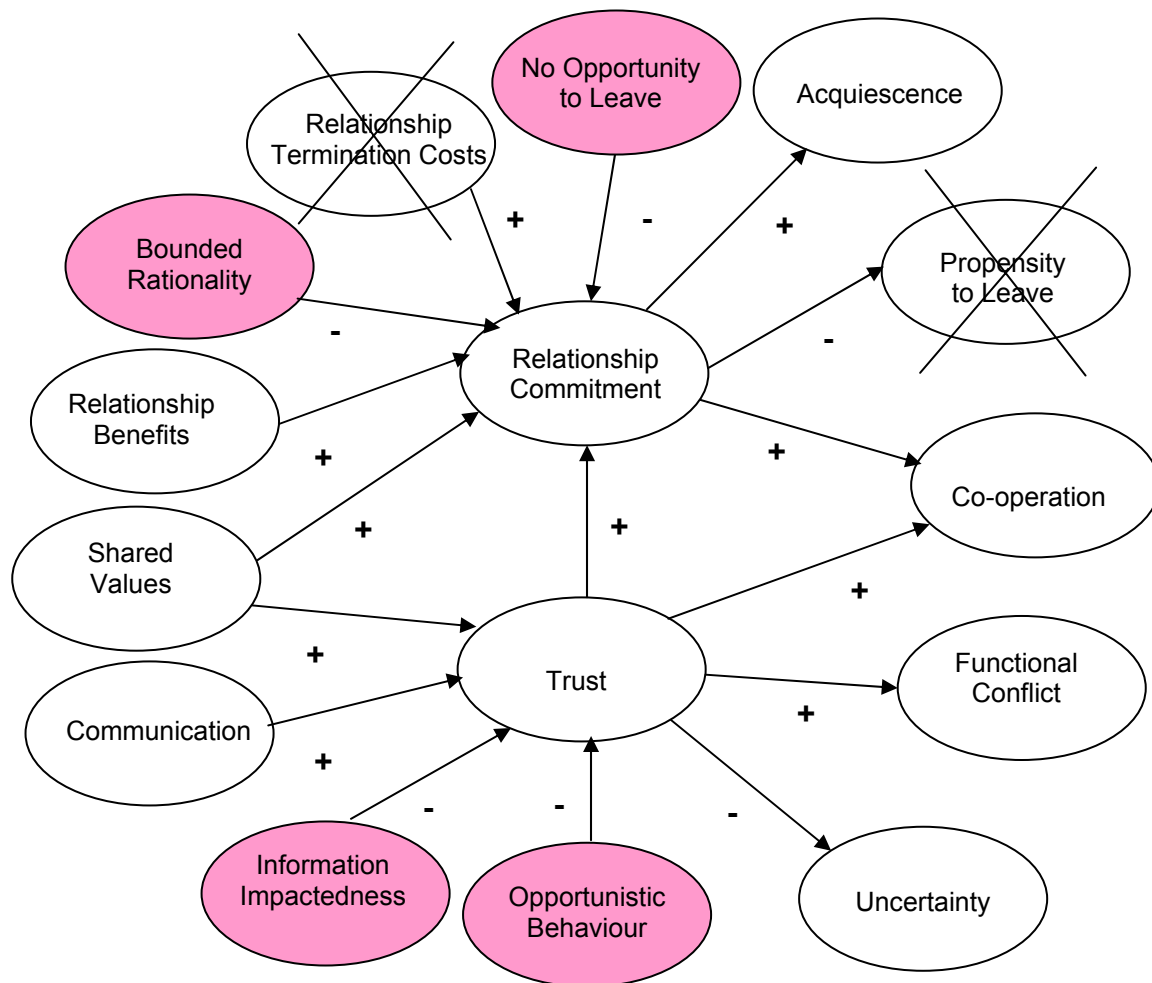


Figure 5.4. The Commitment-Trust Theory with Possible Monopoly Components  
(Adapted from Morgan & Hunt, 1994)

Information Impactedness, Opportunistic Behaviour and Bounded Rationality are added as negative influences. The model normally defines Reduced Propensity to Leave as a significant outcome whereas in a UK Defence Procurement monopoly the complete lack of opportunity to leave the relationship would instead provide a further negative input to Relationship Commitment and exclude Relationship Termination Costs. The addition of these factors might make the attainment of the model's positive outcomes rather more difficult to achieve and they illustrate the greater range of positive and negative inputs that potentially affect monopolistic business relationships.



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### **3.3.1 Contributions to RM Knowledge**

- The use of a TCE theoretical framework whose dimensions provided focussed comparators against which to gauge the range of RM relational variables allowed a unique perspective of monopolistic UK Defence Procurement relationships to be taken.
- A mix of strong positive and negative relationship variable outcomes indicated that the relational landscape within the business environment studied was far from uniform.
- The practical aspects of relationship development including C<sup>3</sup> Behaviour and Adaption occurred regardless of the monopolistic influences.
- The negative influences of the monopolistic business environment, including power balance and interdependence, appeared to significantly reduce scores for the key trust and commitment variables.
- The importance of Personal Relationships, Corporate Culture Matching and Long Term Orientation to the creation of a successful business environment was clearly emphasised.

### **3.4 Summary of Overall Contribution to Knowledge**

In the previous Sections of this Chapter the research project and findings were summarised, the Research Questions and the overall business problem were answered and, the implications for theory and the contributions to knowledge for each of the 3 theoretical fields were presented. It was demonstrated that the SCM, RM and TCE fields provide a useful basis for understanding business-to-business relationships. They describe a trend away from transactional to relational business dealings in both the private and public sectors. Moreover, some useful insights with regard to small numbers relationships are provided. However, their explanations fall short where sustained monopolies of the specific kind found within UK Defence

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Procurement are concerned. This exploratory research, which appears to be the only empirical study on a large sample of stable, Defence Procurement monopoly relationships, has thus extended knowledge in SCM (sub-Section 3.2.11), RM (sub-Section 3.3.1) and TCE (sub-Section 3.1.1) fields. The main finding is that contrary to expectations, a surprising diversity of 'normal' market positive and negative, business-driven behaviours was present within the monopolistic UK Defence Procurement environment as well as more adverse monopolistic dynamics. As predicted by Williamson's (1975) Organisations Failure framework, lack of investment in specific assets such as work force stability and product/process development, the use of inadequate performance measures, opportunistically providing poor goods and services and, using proprietary information as a weapon, reduced the chances of achieving interdependence and equitable outcomes. On the other hand despite the adverse monopolistic influences, strong counterbalancing, positive business drivers were able to produce examples of relationship-building, specific investments, co-operative behaviour, open communications and a desire to reduce the burden of governance through more equitable, long-term arrangements. The problems of selecting appropriate governance forms that provided durability over time as well as public safeguards were underlined. A potential correlation between the degree of difficulty of implementing SCM and the extent to which adversarial behaviour was generated within small numbers situations was observed. Additionally, a group of relationships found between the poor and moderate ones seemed to indicate a degree of dynamics within the population. Both findings indicate interesting opportunities for further research.

The research findings suggest a different view of the adopted theoretical framework in Chapter 2, Figure 2.30. Figure 5.5 summarises this position. Rather than specific dimensions acting sequentially upon each other in a cyclical fashion (as represented

in Chapter 2, Figures 2.28 and 29), at either end of the transactional/relational spectrum there are positive and negative, attracting influences that have emerged from this research, which drive behavioural results that influence the relationships.

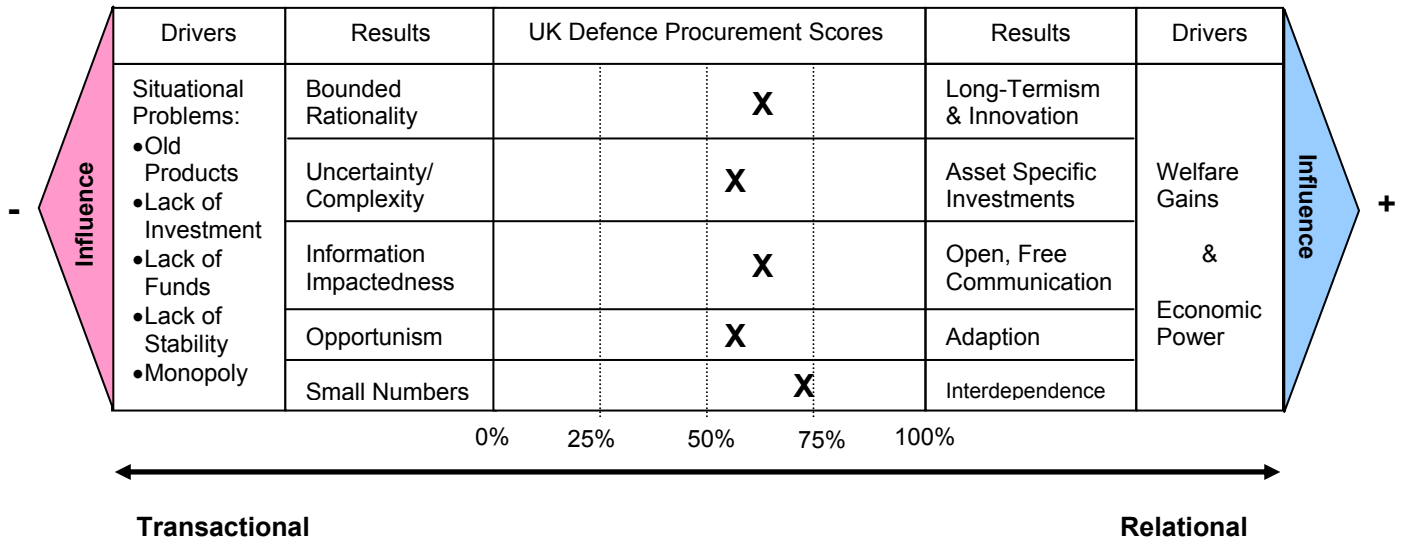


Figure 5.5. UK Defence Procurement Monopolistic Relationship Influences

On the left, the negative results suggested by Williamson’s (1975) Organisation Failures Framework are driven by situational influences which make SCM hard to implement and engender an adversarial, transactional business lacking in trust and C<sup>3</sup> Behaviour. At the other end, the converse, positive results are driven by desires for joint achievement and equity which engender a relational business style. The research quantitative findings have been superimposed on this model to illustrate its use and demonstrate the knowledge contribution of this research. In effect it reveals a very complex set of business relational dynamics and opens up the possibility of many interesting opportunities for further research. Finally, the interdisciplinarity approach to this research using 3 fields has produced transcendent insights that would not be perceived by the individual fields working alone (Starkey & Madan, 2001). The next Section discusses the implications for policy and practice.

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## **4 Implications for Policy and Practice**

### **4.1 General**

In his discussion on a link between a theory of business success and best practice, Hines (1997) recommended that when undertaking research, which aimed to provide practitioners with added value, the following questions should be addressed:

- Do the results offer a route to effective implementation?
- Do the results offer a checklist for success?
- Is continuous improvement a part of the approach?

The next 3 sub-Sections indicate that the thesis has answered these questions satisfactorily.

### **4.2 An Effective Route to Implementation**

The following paragraphs represent the salient features of good and bad relationships and therefore highlight those factors that are important to effective implementation.

#### **4.2.1 Generic Relationship Success Factors**

The following factors exposed by the research appeared to be important to successful business-to-business relationships within UK Defence Procurement:

- Political acceptance of bilateral monopoly and the use of flexible governance arrangements based on innovative commercial practices such as framework contracting, tough but achievable incentives, and meaningful gainshare.
- End-to-end, clearly visible performance objectives agreed by all supply chain players including the end-customers.
- Frequent, interactive, open communications across all levels of the customer/supplier interface especially on performance reviews and continuous improvement of products/services and business processes.

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- Open, no blame culture aimed at customer and relationship satisfaction which depend upon personal, trusting relationships.
  - Joint planning and business systems supported by free-flow of information.

#### **4.2.2 Generic Relationship Failures Factors**

The following factors exposed by the research appeared to be responsible for poor business-to-business relationships within UK Defence Procurement:

- Lack of stable customer funding arrangements, which prevent supplier investment planning.
- Insufficient project investment, which generates long term, costs and prevents performance incentivisation.
- Lack of investment in good staff, which causes unnaturally high turnover and prevents personal relationship development and efficient business processes.
- Adversarial, bureaucratic commercial practices and attitudes, which increase project costs, cause delays and reduce trust.
- Lack of culture-matching results in 'them and us' attitudes, which result in a downward spiral of poor behaviour, reduced benefits and low performance.

#### **4.3 A Checklist for Success**

The following lessons for managers operating within the UK Defence Procurement sustained monopolies constitute a checklist for success:

- There is a need to reduce the impact of environmental influences that, due to the limited availability of options for action, cause frustration and generate negative behaviours. This means building an inventory of environmental problems that are normally considered to be 'unavoidable features of the business' and seeking joint, innovative ways of dealing with them.

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- There is a need to take a strategic approach to measuring the quality of their business-to-business relationships so that the best and worst can be identified and why and, targeted action can be taken.
  - Within UK Defence Procurement the pattern of results indicates that managers should pay particular attention to synchronising objectives and confidence-building as well as service and product delivery, lowering joint costs and risks and measures to support the growth of trust.
  - There is a need to accept that the monopoly environment will inevitably reduce relationship quality and that examining relationships from both sides, using this information in an open, constructive manner, will facilitate understanding and therefore improvement.
  - Relationship reviews should be repeated, perhaps annually, so that progress may be tracked and corrective action taken as necessary.

#### **4.3.1 *Continuous Improvement***

This research has taken an essentially negative theoretical framework to examine Defence Procurement monopolistic business relationships and this could be viewed as a Failure Cycle shown in Chapter 2, Figure 2.29. The research methodology adopted an approach that took the converse of the model's negative dimensions as the basis of the questionnaire design. This could be viewed as a Success Cycle as shown in Chapter 2, Figure 2.28. The theoretical framework in Chapter 2, Figure 2.30 thus combined both ends of the success and failure cycles. Practitioners in this business should aim use the success checklist and the route to implementation to move from the Failure to the Success Cycle and to establish a virtuous circle of continuous improvement.

The next Section discusses the emergent limitations of this research.

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## 5 Limitations

In Chapter 3, Section 6 a number of known methodological limitations was described. At the conclusion of the thesis it is important to review the practical implementation of the research and to identify any further limitations. It is now clear that the research has used a narrow view through a specific theoretical model lens to achieve a specified understanding of monopolistic business relationships within one of the two UK Defence Procurement organisations. It is thus essential to view the value of the research only through this restricted gap and to accept that similar research in other military procurement organisations, as well as commercial applications, together with the use of different models and research designs, will be needed to triangulate its findings and assess its wider generalisability. This research has nevertheless, been 'grounded' in the concepts from its theoretical foundations and thus clear linkages may be more easily made to the findings of follow-on projects. A further consideration is that the subject of the research, sustained monopolistic business relationships, is not an unknown area but this research has taken a new, integrated approach to its exploration. The methodology has thus sought results at a high level and across a broad front. It is therefore, important to limit expectations of the depth of analysis that is possible to apply to the data and to accept that further research using more deeply focussed methods is needed to under-pin the high level findings of this thesis.

The next Section summarises the main conclusions of this thesis.

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## 6 Summary of Conclusions

This Section provides a list of the key points from this thesis.

- A methodology has been developed to document and quantify the quality of monopolistic relationships within selected UK Defence Procurement businesses.
- The Supply Chain Management, Relationship Marketing and Transaction Cost Economics fields provide a useful basis for understanding business-to-business relationships in their trend from transactional to relational business dealings in both the public and private sectors. Some useful although more limited insights were also gained on small numbers situations.
- There is scant management research on sustained monopolistic business relationships utilising the entirety of Williamson's (1975) Organisations Failure Framework.
- Contrary to expectations, a surprising diversity of 'normal' market, positive and negative, business-driven behaviours was present within the monopolistic UK Defence Procurement environment as well as more adverse monopolistic dynamics.
- A pattern of results was discernible.
- As predicted by Williamson's Organisations Failure Framework (1975), a lack of investment in specific assets such as work force stability and product/process development, the use of inadequate performance measures, opportunistically providing poor goods and services and, using proprietary information as a weapon, reduced the chances of achieving interdependence and equitable outcomes.
- Adversarial behaviours were not caused by power imbalance, rather by the frustration resulting from mutual disempowerment.



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- Environmental problems such as old products, obsolescence, staff and organisational upheavals, poor end-customer visibility and lack of investment in modern procedures and systems seemed to accentuate managers' frustrations due to lack of freedom of action in the monopoly environment and promoted the relationship negativity implied by the theoretical framework.
  - Despite adverse monopolistic influences, strong counterbalancing, positive business drivers were able to produce examples of relationship-building, specific investments, co-operative behaviour, open communications and a desire to reduce the burden of governance through more equitable, long-term arrangements.
  - The problems of selecting appropriate governance forms (long-term contracts vs regulation) that provided durability over time as well as public safeguards were underlined.
  - The underlying struggle to implement difficult SCM concepts paralleled that found in commercial, open market settings and a wide range of partnership-enhancing, relational activities, as found in the 'normal' market literature, were also found in the UK Defence procurement monopolies.
  - The Findings provide a pragmatic focus that builds upon Spekman et al's (1998) work in addressing the reasons why SCM is difficult to implement and sustain.
  - A potential correlation between the degree of difficulty of implementing SCM and the extent to which adversarial behaviour was generated within small numbers situations was observed.
  - Using Cluster Analysis, a group of relationships found between the poor and moderate ones seemed to indicate a degree of dynamics within the population.
  - The practical aspects of relationship development including C<sup>3</sup> Behaviour and Adaption occurred regardless of the monopolistic influences.

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- The importance of Personal Relationships, Corporate Culture Matching and Long Term Orientation to the creation of a successful business environment was clearly emphasised.
  - Rather than specific dimensions acting sequentially upon each other, the research suggests that at either end of the transactional/relational spectrum there are positive and negative attracting, influences, which drive behavioural results that influence the relationships.
  - The interdisciplinarity approach to this research using 3 bodies of knowledge has produced transcendent insights that would not be perceived by the individual fields working alone.

The next Section discusses the implications for further research.

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## 7 Implications for Further Research

This research has been limited in its scope and depth in order to carry out a new exploration of a segment of the UK Defence Procurement. It has nevertheless, for the first time achieved a cross-relationship (UK MoD/Industry) perspective of a sample of sustained monopoly businesses. This ‘cracking open the door’ suggests that further research would be interesting to academics and usefully benefit the increasingly globalised Defence Procurement business as well as other business areas with long-term, highly collaborative, closely coupled characteristics. Potentially rich opportunities for further research are:

- The research has viewed Williamson’s (1975) Organisations Failure Framework as an environment or system. It would now be interesting to attempt to map the interactions between its dimensions both to validate the original influences shown in the model at (Chapter 2, Figure 2.23) and to explore in more detail the Results and Drivers revealed in this research and shown at either end of the model at Figure 5.5. Potentially, causal models could be developed and explored.
- Cluster analysis revealed a 4<sup>th</sup> grouping of relationships that appeared to be in-transit between the poor and the moderate clusters. Further research into the dynamics of this situation including managers’ motivations and practical, business relationship improvement measures used would be interesting.
- In order to add definition to the groups of relationships revealed by cluster analysis, cross-tabulation to a number of external variables such as relationship duration, team size, technology age, product type and contractor importance was carried out. The results were generally inconclusive and suggested that a richer set of linkage relationships were present which would benefit from further investigation.

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- The research has touched upon governance, on the types encountered and the problems associated with moving from regulatory to long-term, franchise-style, contracts. It would be useful to focus further research on the relationship between Williamson's (1975) framework and specific governance types and to link this to relationship performance.
  - The research revealed patterns in the results. It would be interesting to see what patterns were found from similar research approaches but carried out in different, including commercial environments.
  - Differences were detected in the scale of the responses between the IPTs and the Firms in overall the perception of overall satisfaction such that the latter were 8% more optimistic. This was not born out by the qualitative data. It is possible that bias may be the cause but an equally plausible reason might be some form of perceptive anomaly. Further research could reveal more detail about customer/supplier dynamics within long-term, collaborative relationships.
  - A face value correlation between SCM implementation (the Reliability dimension) and small numbers effects (the Quality dimension) indicates that potentially negative behaviours might be triggered by difficult supply chain problems. If this were the case, concentration on SCM implementation could overcome managers' natural, adverse reactions to a lack of options situation. More focussed research is necessary to investigate this potentially important linkage.
  - To extend the research already carried out to the Defence Procurement Agency where £6.246bn (DASA, 2001) is spent annually on a reducing number of concentrating Defence companies.
  - To repeat the research on a regular basis to enable a longitudinal view to be taken of Defence Procurement relationships, especially against a background of reducing competition.

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- To involve the end-customers and 2<sup>nd</sup> tier suppliers in the research in order to determine their impact on the quality of the main participants' relationship.
  - To use the research findings to enable a closer view to be taken of specific relationships and possibly using the lessons learned to examine the outcomes of selectively influencing these relationships using more proactive approaches such as Action and Experimental Research methods.
  - To test other models of the type used as examples in Figures 5.2 & 5.3 in order to improve the details theoretical knowledge of monopolistic business-to-business relationship dynamics.
  - This research has concentrated on the UK Defence Procurement business but similar problems affect all major countries in a post-Cold War world. It would thus be interesting to repeat the research in other countries and to compare and contrast the results.
  - The research has used pragmatic disciplines with which to illuminate the business problem and the RQ. It would be most interesting to use an alternative approach such as Organisation theory and to see how the results complement each other.
  - Finally, in many countries there still remain numerous business-to-business relationships that have public ownership antecedents where monopolistic characteristics can be found eg. airlines, postal services, telephone services, power generation. It would thus be interesting to test Williamson's (1975) framework in non-Defence and international environments and to determine if lessons can be learned that might enable the quality of the business relationships to be improved.

It should be emphasised that none of these opportunities for research should be viewed in isolation. Many of them overlap and converge to offer the chance to carry

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out integrated research programmes and especially to include the international dimension.

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## **8 A Final Word**

The literature suggests that the relationship dynamics within sustained monopolies generally predicts negative outcomes. This research has shown that although negative behavioural characteristics can be recognised in the literature, a spectrum of positive and negative results were exposed and the main dynamics could be understood. The contribution to knowledge plus the inherent limitations of the study have suggested an agenda for future research which it is hoped will advance the SCM, RM and TCE fields and provide greater insights into the workings of monopolistic and long-term, closely coupled, business-to-business relationships.

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## Appendix 1

### Questionnaire Format

#### PARTNERING IN UK DEFENCE PROCUREMENT: RESEARCH PROJECT

The aim of this questionnaire is to provide an objective assessment of the quality of the relationship between the **MoD org** and **firm** as it is TODAY. The information provided will enable a view to be formed for the Defence Logistics Organisation and Industry of how best to improve UK Defence procurement relationships. Your individual contribution will thus not be divulged and will be treated in the strictest confidence. To this end please return the completed questionnaire directly to me using the email address at the end of the questionnaire.

It is YOUR view that is required so please do not confer with your colleagues before you or they have completed the questionnaire.

First, please provide the following details:

Name:.....

Post:.....

Location:.....

Role (eg. commercial, supply):.....

Level: (eg. Military rank, civil service grade, management level):.....

Time working in same area (yrs/mths):.....

How familiar are you with the MoD/Industry relationship in question?

circle one:

1. Have No knowledge
2. Have Some Knowledge
3. Knowledgeable
4. Very Knowledgeable

Please put an 'X' only in the scale against each statement in this questionnaire to signify your view. If you do not feel qualified to judge any particular statement, put an 'X' in the 'insufficient knowledge' box.

<b>1. Relationship Development – enabling joint creativity</b>	Strongly Agree	Tend to Agree	Tend to Disagree	Strongly Disagree	Insufficient Knowledge
• The relationship encourages the achievement of high performance by both parties ie. reliable equipment, on-time delivery, good forecasts.					
• The relationship encourages us to be innovative in the way we do business					
• Performance measurement is used to raise standards					
• Disputes & problems are resolved: 'quickly'					
• Disputes & problems are resolved: 'fairly'					
• The other party is reliable and consistent in dealing with us					
• The other party is dedicated to making our business a success					
• When an unexpected problem arises, both parties would rather work out a solution than hold each other to the original contract terms					

<b>2. Relationship Stability – creating a framework for successful business</b>	Strongly Agree	Tend to Agree	Tend to Disagree	Strongly Disagree	Insufficient Knowledge
• The other party displays a sound, strategic understanding of our business					
• The objectives of both parties are clearly stated					
• The objectives of both parties are fully compatible					
• Both parties co-operate wholeheartedly					
• The relationship provides a dynamic business environment within which both parties can seek increasing rewards					
• I have complete confidence in the intentions of the other party					

<b>3. Communication – creating an environment for business success</b>	Strongly Agree	Tend to Agree	Tend to Disagree	Strongly Disagree	Insufficient Knowledge
• Where the other party has proprietary information that could improve the performance of the joint business, it is freely available					
• We would welcome a shared data environment where planning, technical and pricing information are made freely available					
• We understand the information requirements of all participants in the support chain from sub-contractors to end-user					
• Exchange of information in this relationship takes place frequently and informally – not just according to specified agreement					
• Objective performance measurement is an important part of this relationship					
• We are aware of the performance requirements for all participants in the support chain from sub-contractors to end-user					
• We provide the other party with regular information including long-range forecasts to enable him to do his business better					

<b>4. Relationship Strengthening – creating a reliable business arrangement</b>	Strongly Agree	Tend to Agree	Tend to Disagree	Strongly Disagree	Insufficient Knowledge
• The quality of the contract outputs ie. spares/repairs/services, is entirely satisfactory					
• The quality of service delivery ie. delivery times, billing, payment, is entirely satisfactory					
• The relationship is characterised by a continually improving quality ethos					
• Problems are solved in a joint, open, constructive manner					
• Such is the goodwill in the relationship, the other party would willingly put himself out to adapt to our changing requirements					
• We trust the other party to act in our best interests					
• The responsibility for making sure the relationship works is shared jointly					
• The other party provides us with useful cost reduction and quality improvement ideas					
• The other party is always totally open and honest with us					
• The other party always does what he says he will do					

<b>5. Relationship Quality – creating the incentive to work together</b>	Strongly Agree	Tend to Agree	Tend to Disagree	Strongly Disagree	Insufficient Knowledge
• The gains from this relationship are equally shared between both parties					
• We do not feel imprisoned within the current relationship					
• We are willing to invest more ie. money, time, information, effort, in the current relationship					
• We are happy that our future is bound to the success of our relationship partner					
• We feel totally committed to this relationship					
• The other party is genuinely concerned that our business succeeds					
• Both sides are working to improve this relationship					

Any other comments:

Thank you for taking the time to answer this questionnaire. Please return it to:  
 Gp Capt A S Humphries, AD SC Ops, Equipment Support (Air)  
 Royal Air Force Wyton, Huntingdon, Cambridgeshire, PE17 2DL by email to  
**andrew\_humphries@bigfoot.com** by date.



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## Appendix 2

### Semi-Structured Interview Plan

#### Introductions

Thanks for allowing the research to take place in the interviewees organisation and for the opportunity to carry out the interview which should last no longer than [x] minutes.

#### Conduct

Seek permission to record and take notes. Explain that a summary of key points will be provided subsequently for agreement.

#### Purpose of Interview

To collect informed opinion on the results of the questionnaire survey in order that some explanation of the main findings can be captured.

#### Questionnaire Results Summary

Identify the salient aspects from the survey highlighting the overall picture, the successes and failures. Introduce the intention to address each major dimension to gain the interviewee's views on each.

#### Relationship Development

S: What factors specifically allow you to create a sound, working relationship with the other party?

or

F: What factors specifically prevent you from creating a sound, working relationship with the other party?

#### Relationship Stability

S: What factors specifically provide you with stability in this relationship?

or

F: What factors specifically prevent you from establishing a stable relationship with the other party?

#### Communication

S: What factors specifically allow you to establish good communications in this relationship?

or

F: What factors specifically prevent you from establishing good communications in this relationship?

### **Relationship Strengthening**

S: What factors specifically allow you to establish good communications in this relationship?

or

F: What factors specifically prevent you from establishing good communications in this relationship?

### **Relationship Quality**

S: What factors specifically characterise this as a good relationship?

or

F: What factors specifically characterise this as an unsatisfactory relationship?

### **Environmental Factors**

Has any recent organisational, political, economic or technical event had a significant influence on the quality of the relationship in question?

### **Concluding Remarks**

Thanks for providing most useful contribution to the research. Researcher will be in touch in due course and provide summary of the key points for agreement of completeness.

---

## Appendix 3

### Pilot Project Business Report

WYT/AARC/BAES

10 Jan 00

IPTL  
Firm TL

#### **RELATIONSHIPS IN DEFENCE PROCUREMENT RESEARCH REPORT ON AARC/BAES SURVEY**

##### **Background**

The survey was carried between Oct-Dec 00 out as part of a pilot project to develop the research methods and tools. Twenty-five respondents each from the IPT and the Firm provided completed questionnaires. Additional, very useful comments on the questionnaire itself were also provided and for which the author is most grateful.

##### **General Results**

Given the involvement of staff in both organisations in the development process, the results must be taken with 'a pinch of salt'. Nevertheless, the results do show some interesting features that will aid the relationship development activities of the team leaders. The overall statistics are at Annex A. The following points are evident:

- The Firm is generally more optimistic about the relationship than the IPT.
- The failure proportions in the IPT and Firm results are about the same under each question category and overall indicating a measure of agreement.
- A rather larger proportion of the IPT staff registered 'insufficient knowledge' on many questions – perhaps indicating a need for improved education.
- Analysis of the data did not identify any particular rank/grade or role grouping as being particularly optimistic or pessimistic.
- The overall relationship judgement indicates a bare 46% vote for success.

##### **Detailed Results**

Greatest benefit in terms of identifying potential actions will be derived from consideration of the detailed statistical results together with the individual questions asked. The question details are below. The individual grouping charts are at Annex B.

#### **1. Relationship Development – enabling joint creativity**

- a. The relationship encourages the achievement of high performance by both parties ie. reliable equipment, on-time delivery, good forecasts.
- b. The relationship encourages us to be innovative in the way we do

business.

- c. Performance measurement is used to raise standards.
- d. Disputes & problems are resolved: 'quickly'.
- e. Disputes & problems are resolved: 'fairly'.
- f. The other party is reliable and consistent in dealing with us.
- g. The other party is dedicated to making our business a success.
- h. When an unexpected problem arises, both parties would rather work out a solution than hold each other to the original contract terms.

**2. Relationship Stability – creating a framework for successful business**

- a. The other party displays a sound, strategic understanding of our business.
- b. The objectives of both parties are clearly stated.
- c. The objectives of both parties are fully compatible.
- d. Both parties co-operate wholeheartedly.
- e. The relationship provides a dynamic business environment within which both parties can seek increasing rewards.
- f. I have complete confidence in the intentions of the other party.

**3. Communication – creating an environment for business success**

- a. Where the other party has proprietary information that could improve the performance of the joint business, it is freely available.
- b. We would welcome a shared data environment where planning, technical and pricing information are made freely available.
- c. We understand the information requirements of all participants in the support chain from sub-contractors to end-user.
- d. Exchange of information in this relationship takes place frequently and informally – not just according to specified agreement.
- e. Objective performance measurement is an important part of this relationship.
- f. We are aware of the performance requirements for all participants in the support chain from sub-contractors to end-user.
- g. We provide the other party with regular information including long-range forecasts to enable him to do his business better.

**4. Relationship Strengthening – creating a reliable business arrangement**

- a. The quality of the contract outputs ie. spares/repairs/services, is entirely satisfactory.
- b. The quality of service delivery ie. delivery times, billing, payment, is entirely satisfactory.
- c. The relationship is characterised by a continually improving quality ethos.
- d. Problems are solved in a joint, open, constructive manner.
- e. Such is the goodwill in the relationship, the other party would willingly put himself out to adapt to our changing requirements.
- f. We trust the other party to act in our best interests.
- g. The responsibility for making sure the relationship works is shared jointly.
- h. The other party provides us with useful cost reduction and quality improvement ideas.

- 
- i. The other party is always totally open and honest with us.
  - j. The other party always does what he says he will do.

**5. Relationship Quality – creating the incentive to work together**

- a. The gains from this relationship are equally shared between both parties.
- b. We do not feel imprisoned within the current relationship.
- c. We are willing to invest more ie. money, time, information, effort, in the current relationship.
- d. We are happy that our future is bound to the success of our relationship partner.
- e. We feel totally committed to this relationship.
- f. The other party is genuinely concerned that our business succeeds.
- g. Both sides are working to improve this relationship.

**Conclusion**

I would like to thank you for your kind co-operation in this phase of the pilot project and to pass on both thanks and feedback to your staffs. I would suggest that the statistics could be used as a starting point to trigger discussion, both within and between the organisations at all levels, with a view to beginning a continuous improvement programme.

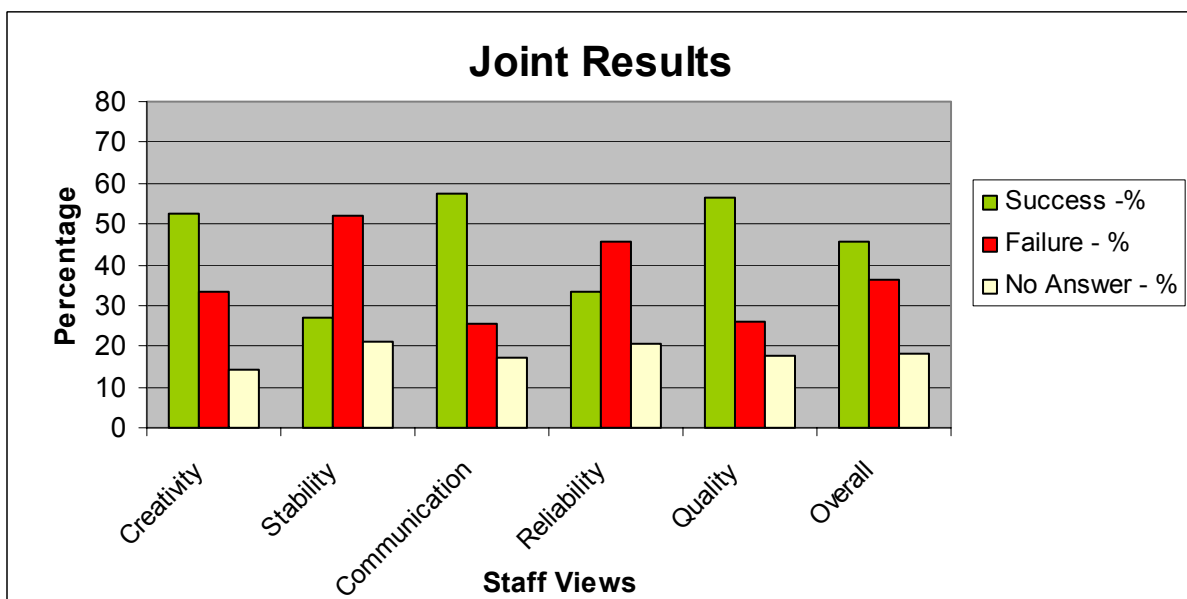
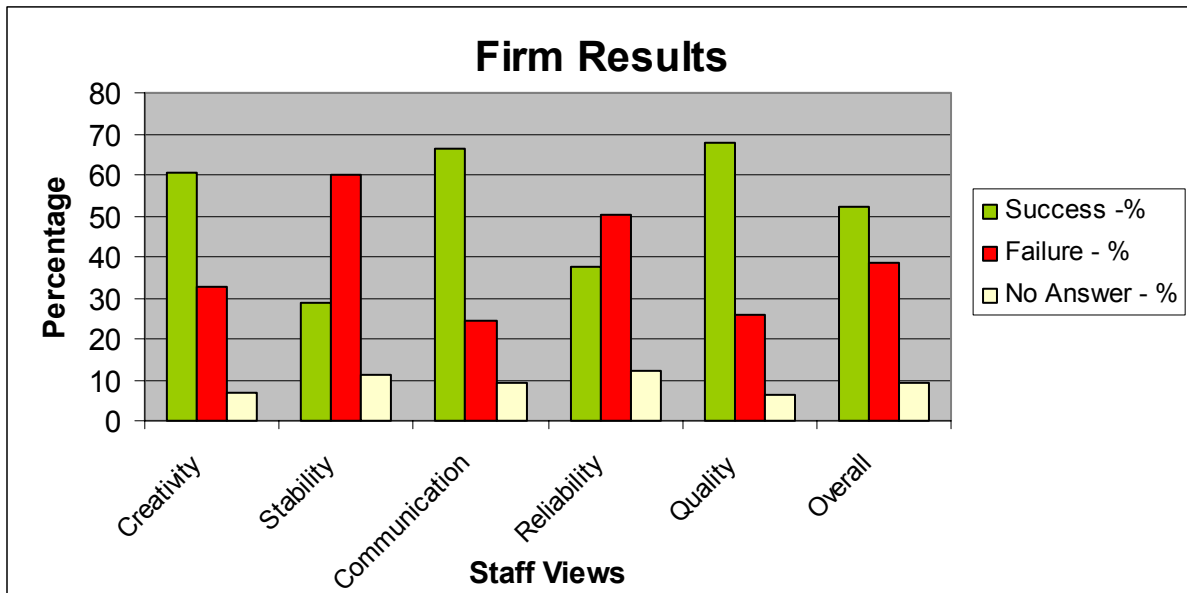
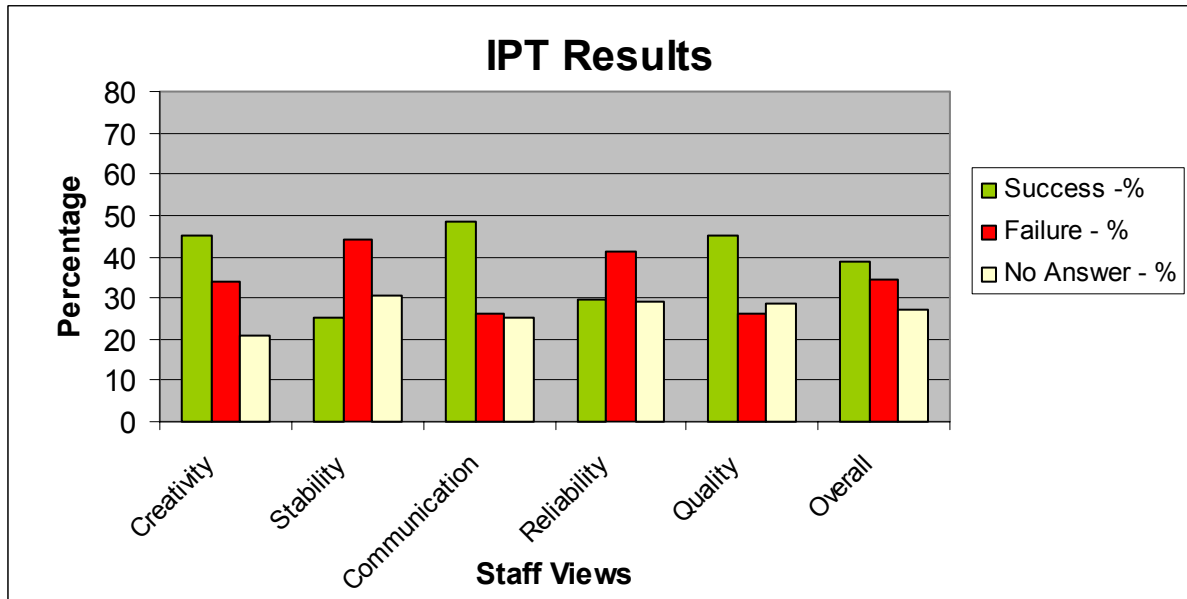
***Andrew Humphries***

A S HUMPHRIES  
Gp Capt  
AD SC Ops  
WYT 5648, X106

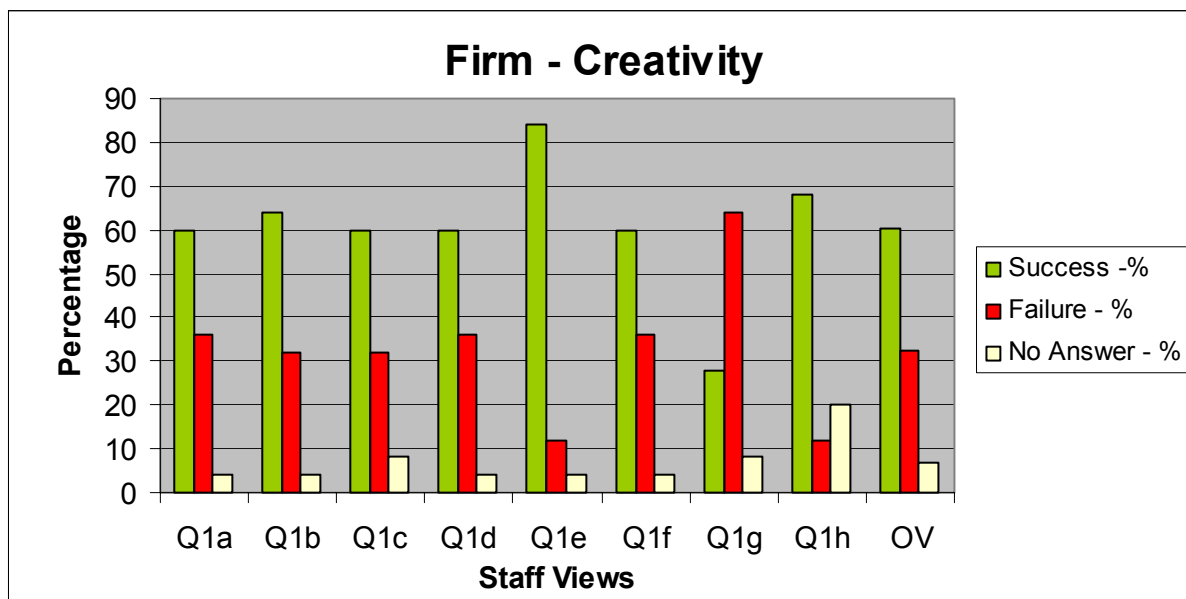
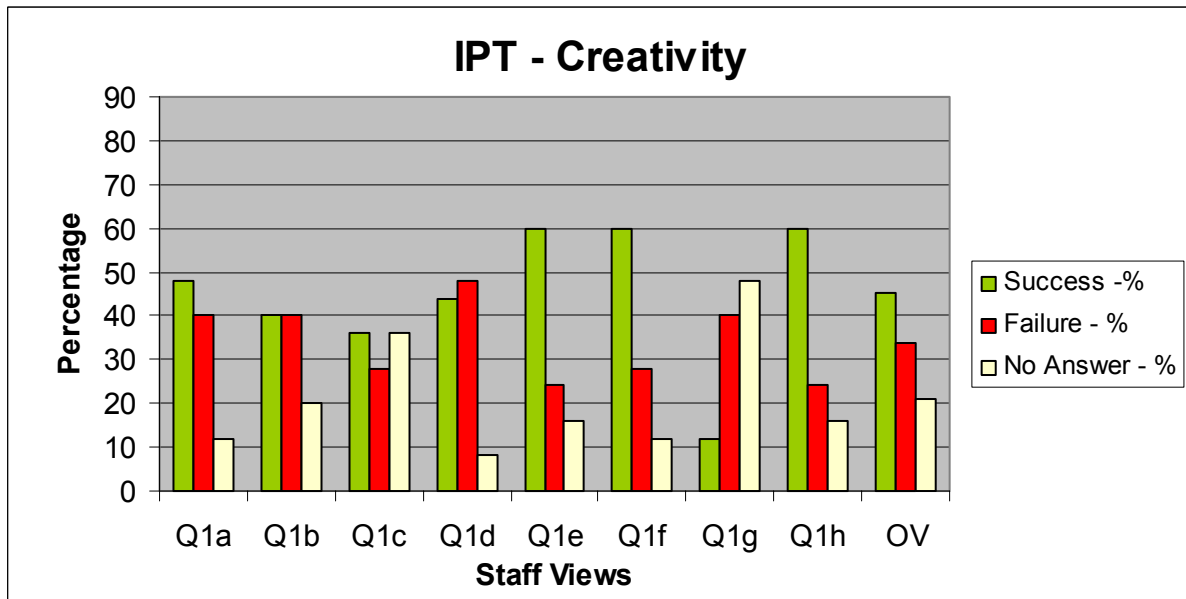
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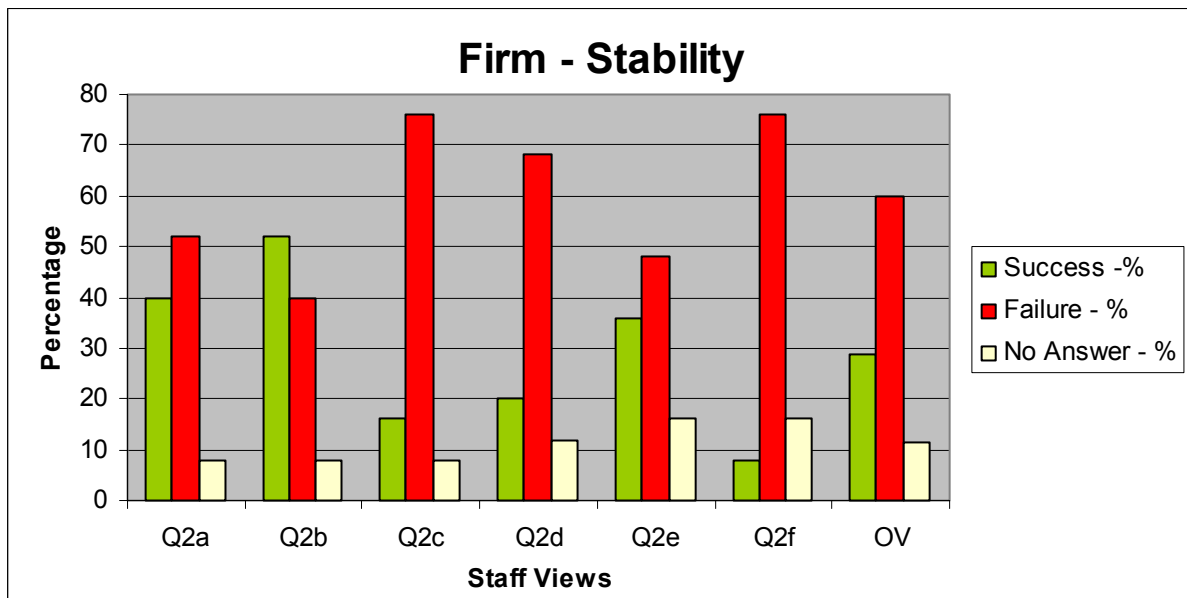
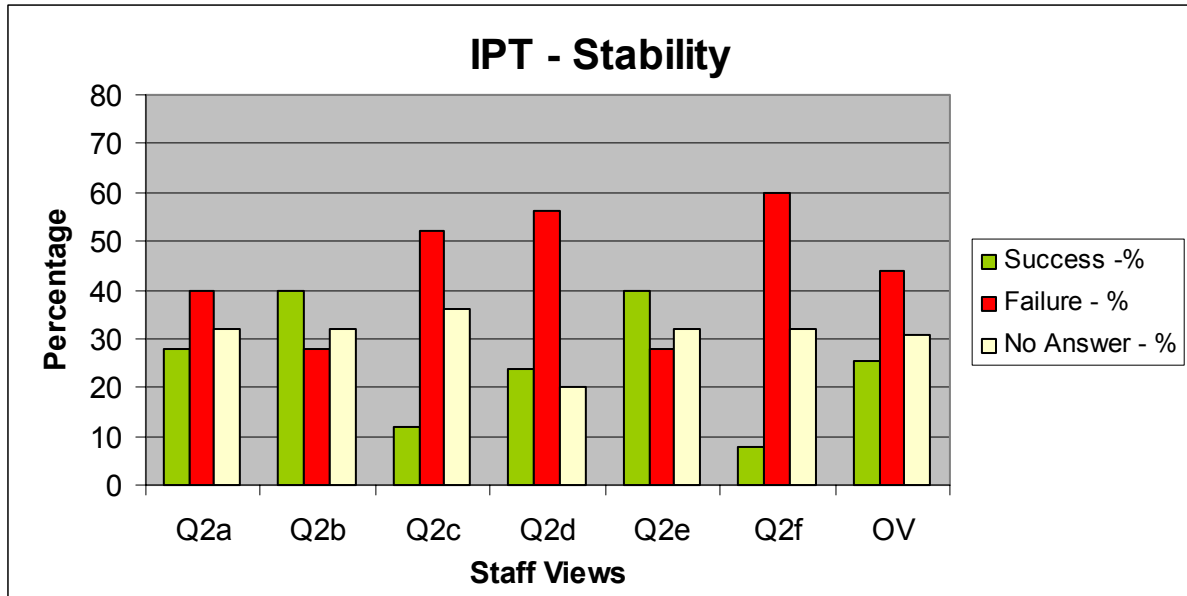
- A. Overall Results Charts.
- B. Detailed Results Charts.

**ANNEX A**

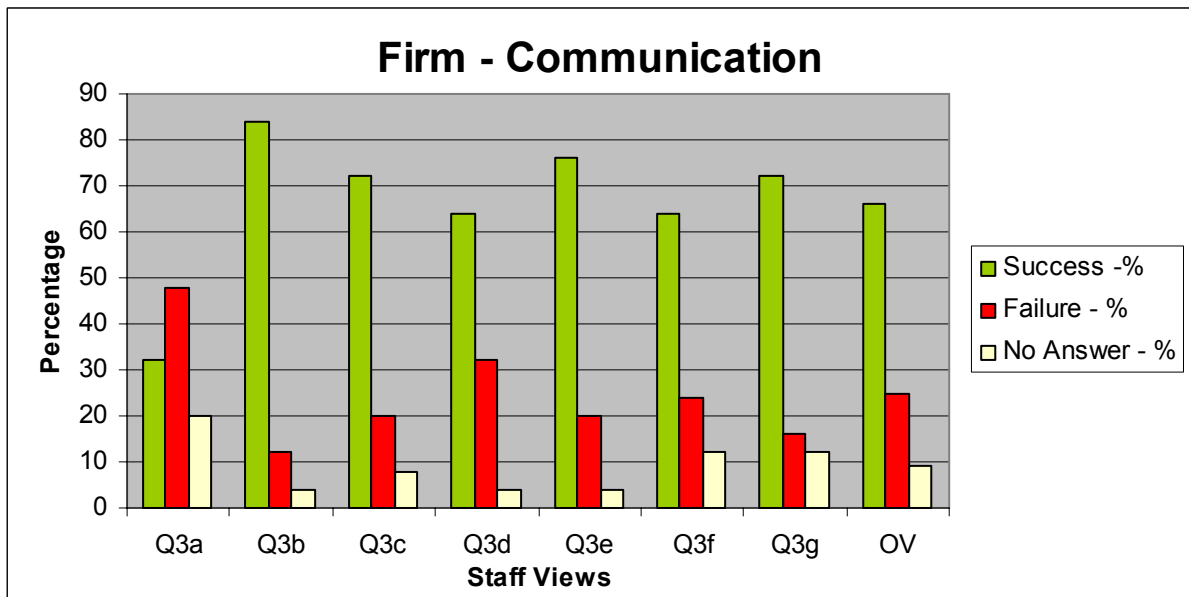
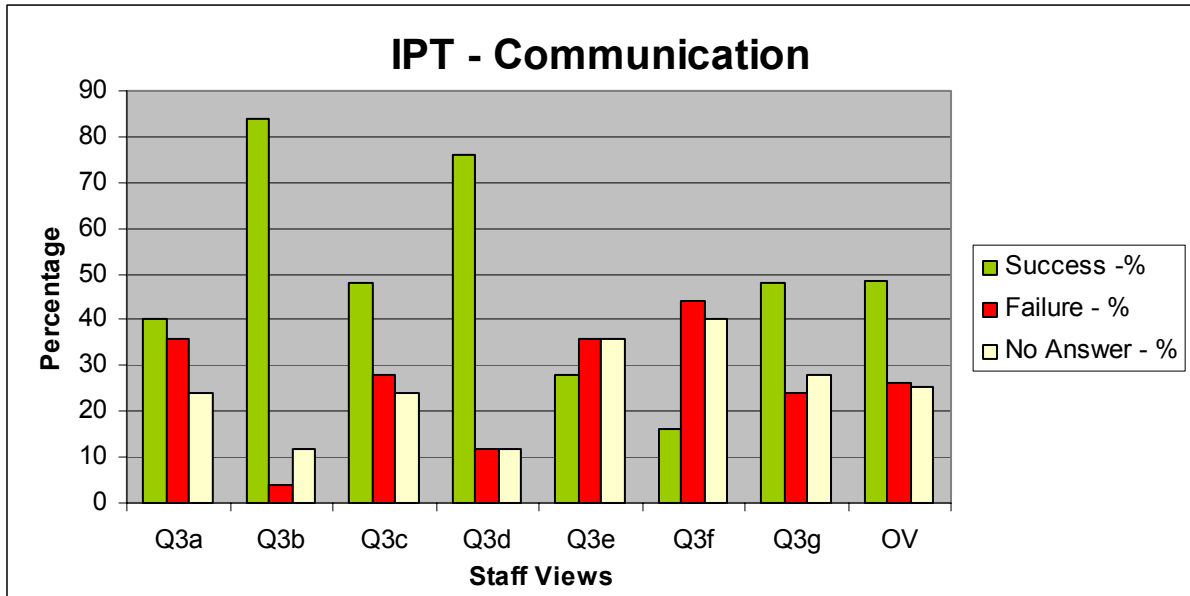


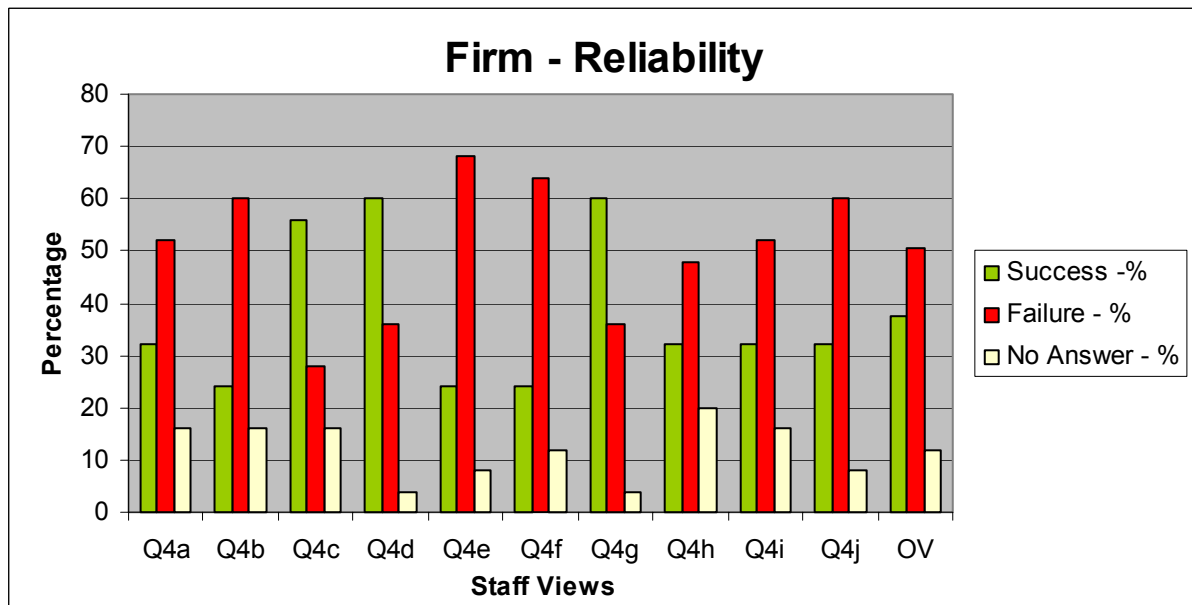
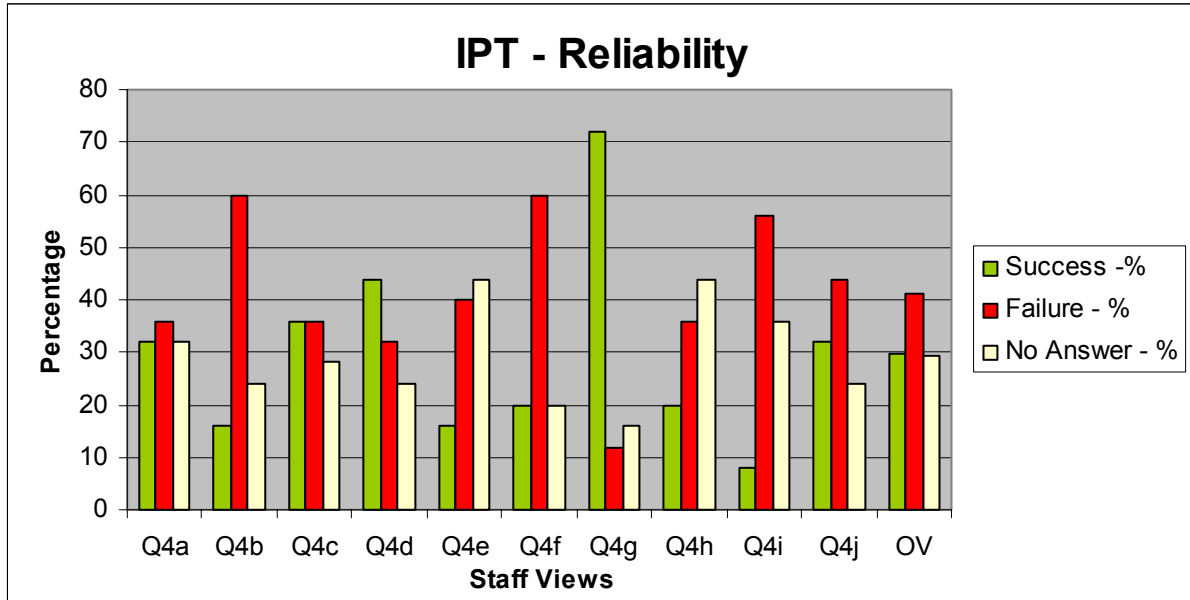
**ANNEX B**

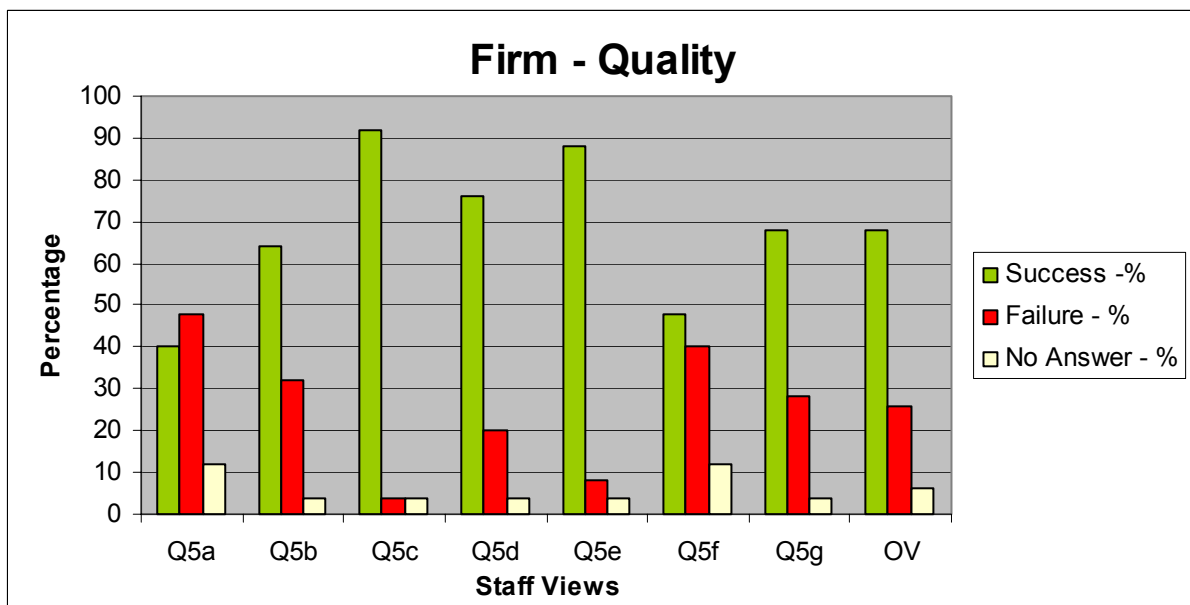
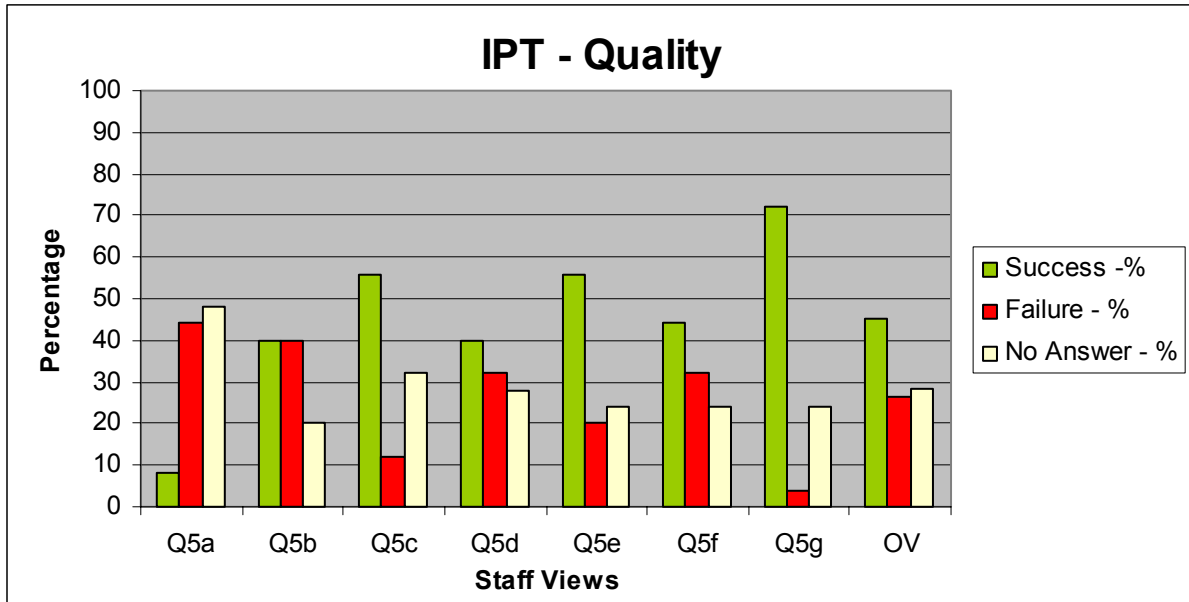












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## Appendix 4

### Example Business Unit Report

ES(SEA)/FINAL

1 Aug 01

D Spt Ops (E), WSA

#### **RELATIONSHIPS IN DEFENCE PROCUREMENT RESEARCH REPORT ON THE WARSHIP SUPPORT AGENCY SURVEYS**

##### **Introduction**

Ten surveys of contracts worth £29.010m pa in the WSA were carried out between 12 May - 30 Jul 01 as part of a PhD research project to examine the quality of relationships between MoD and its main industrial suppliers. There were 60 IPT respondents versus 32 from the firms. In addition to the completed questionnaire data, some very useful additional comments were provided for which I am most grateful. Following the issue of each report, I spoke to the POC on each side and recorded the key points made.

##### **General Results**

The WSA Survey Results from the 10 relationships are shown in the graph at Annex A. They range from exceptionally good (Phalanx) to rather poor (Periscopes) and potentially there are lessons that could be learned from examining these poles through the detailed survey results provided on each. At a general level however, it is worthy of note that there is a predominance of 'insufficient knowledge' scores towards the right hand end and an examination of the Overall Results (average of all relationships) in Annex B seems to indicate that these are due to responses from IPTs. It is possible that improving internal awareness is a factor for consideration.

The statistics at Annex B suggest the following points:

- The overall average WSA relationship judgement indicates a 63% vote for success.
- The IPTs are more pessimistic (55%) about the relationships than the Firms (71%).
- The pattern of results is similar for each side, which indicates a measure of agreement by proportion of those factors that are good and those that are not so successful. Any high-level action plan to improve matters might tackle the dimensions in order of negativity: Stability (-33%), Reliability (-32%), Creativity (-29%), Communication (-25%), Quality (-18%).
- At the detailed level Qs 2e and 2f (Stability - synchronisation of objectives and confidence building) suggest a marked lack of confidence by the IPTs in Industry's intentions. Although Communications - frequent, open dialogue and

information sharing, seems to be satisfactory, there are significant reservations by the IPTs over Industry's ability to deliver against the contracts (Reliability - concentrating on service and product delivery, lowering joint costs and risks, building up trust). In Q4h – joint efforts to seek cost reduction and quality improvement – both sides agree this aspect is failing.

## Detailed Results

Greatest benefit in terms of identifying potential relationship improvement actions will be derived from consideration of the detailed statistical results in conjunction with the individual questions asked. The questions are listed below. The individual grouping charts are at Annex C.

- 1. Relationship Development – enabling joint creativity**
  - a. The relationship encourages the achievement of high performance by both parties ie. reliable equipment, on-time delivery, good forecasts.
  - b. The relationship encourages us to be innovative in the way we do business.
  - c. Performance measurement is used to raise standards.
  - d. Disputes & problems are resolved: 'quickly'.
  - e. Disputes & problems are resolved: 'fairly'.
  - f. The other party is reliable and consistent in dealing with us.
  - g. The other party is dedicated to making our business a success.
  - h. When an unexpected problem arises, both parties would rather work out a solution than hold each other to the original contract terms.
  
- 2. Relationship Stability – creating a framework for successful business**
  - a. The other party displays a sound, strategic understanding of our business.
  - b. The objectives of both parties are clearly stated.
  - c. The objectives of both parties are fully compatible.
  - d. Both parties co-operate wholeheartedly.
  - e. The relationship provides a dynamic business environment within which both parties can seek increasing rewards.
  - f. I have complete confidence in the intentions of the other party.
  
- 3. Communication – creating an environment for business success**
  - a. Where the other party has proprietary information that could improve the performance of the joint business, it is freely available.
  - b. We would welcome a shared data environment where planning, technical and pricing information are made freely available.
  - c. We understand the information requirements of all participants in the support chain from sub-contractors to end-user.
  - d. Exchange of information in this relationship takes place frequently and informally – not just according to specified agreement.
  - e. Objective performance measurement is an important part of this relationship.
  - f. We are aware of the performance requirements for all participants in the support chain from sub-contractors to end-user.
  - g. We provide the other party with regular information including long-

range forecasts to enable him to do his business better.

**4. Relationship Strengthening – creating a reliable business arrangement**

- a. The quality of the contract outputs ie. spares/repairs/services, is entirely satisfactory.
- b. The quality of service delivery ie. delivery times, billing, payment, is entirely satisfactory.
- c. The relationship is characterised by a continually improving quality ethos.
- d. Problems are solved in a joint, open, constructive manner.
- e. Such is the goodwill in the relationship, the other party would willingly put himself out to adapt to our changing requirements.
- f. We trust the other party to act in our best interests.
- g. The responsibility for making sure the relationship works is shared jointly.
- h. The other party provides us with useful cost reduction and quality improvement ideas.
- i. The other party is always totally open and honest with us.
- j. The other party always does what he says he will do.

**5. Relationship Quality – creating the incentive to work together**

- a. The gains from this relationship are equally shared between both parties.
- b. We do not feel imprisoned within the current relationship.
- c. We are willing to invest more ie. money, time, information, effort, in the current relationship.
- d. We are happy that our future is bound to the success of our relationship partner.
- e. We feel totally committed to this relationship.
- f. The other party is genuinely concerned that our business succeeds.
- g. Both sides are working to improve this relationship.

**Supporting Comments**

Following the presentation of each report I had a phone conversation with the IPT and Industry Points of Contact and gleaned a number of useful comments, which I have recorded verbatim and without attribution. I attach them at Annex D. Also included are any additional comments offered on questionnaires. Altogether they make interesting reading and may offer ideas on specific issues that need addressing as well as an indication of success factors. The confidence levels relate to the overall success score for the IPT or Firm for that dimension hence positive comments are listed in descending order and negative ones are in ascending order.

**Conclusion**

I would like to thank you for your kind co-operation in this phase of my project and to pass on both thanks and feedback to your staffs who participated so readily.

I hope that this short survey will be of use to you both as an assessment exercise and as a means of promoting debate on how relationships with industry might be improved.

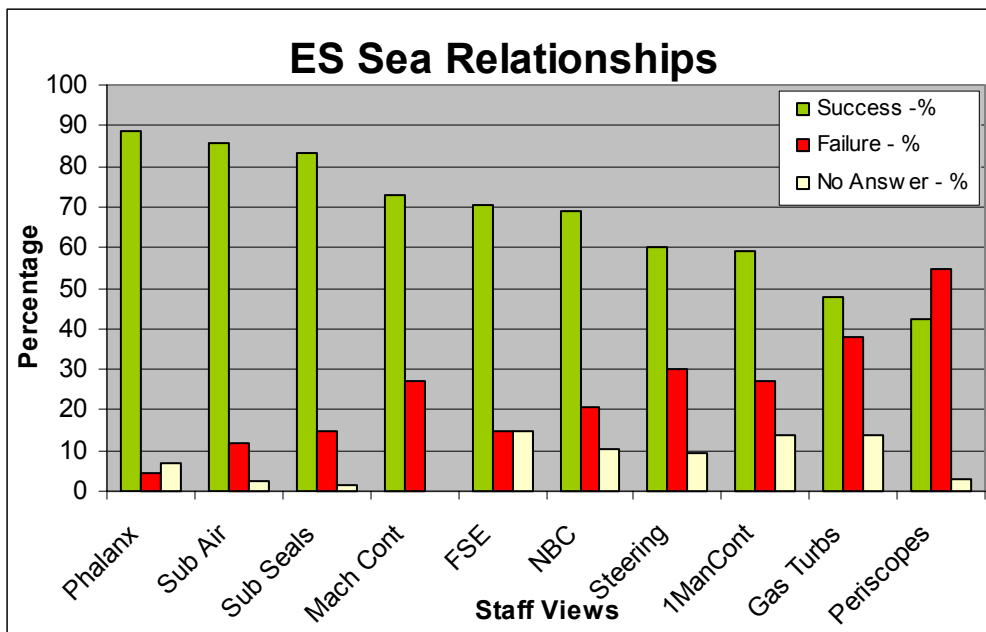
***Andrew Humphries***

A S HUMPHRIES  
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AD SC Ops  
WYT 5648, X106

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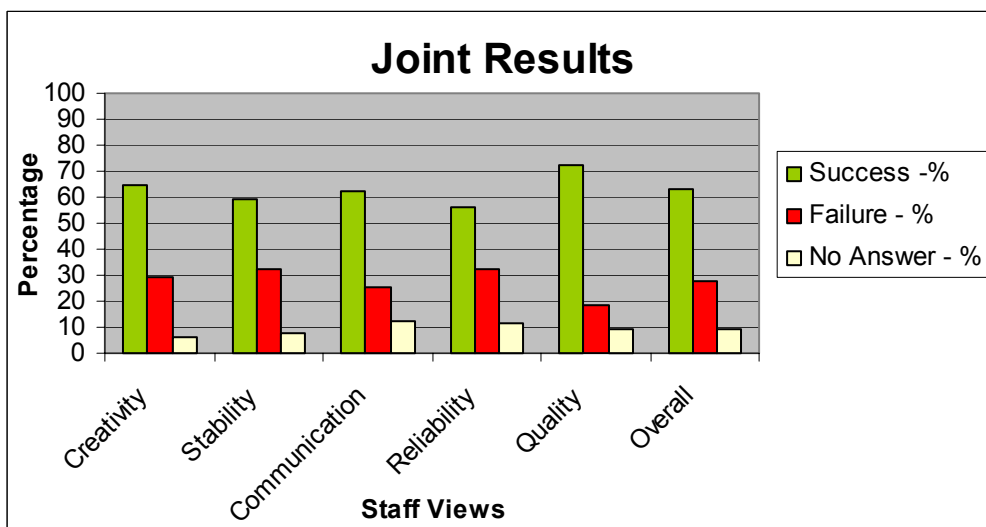
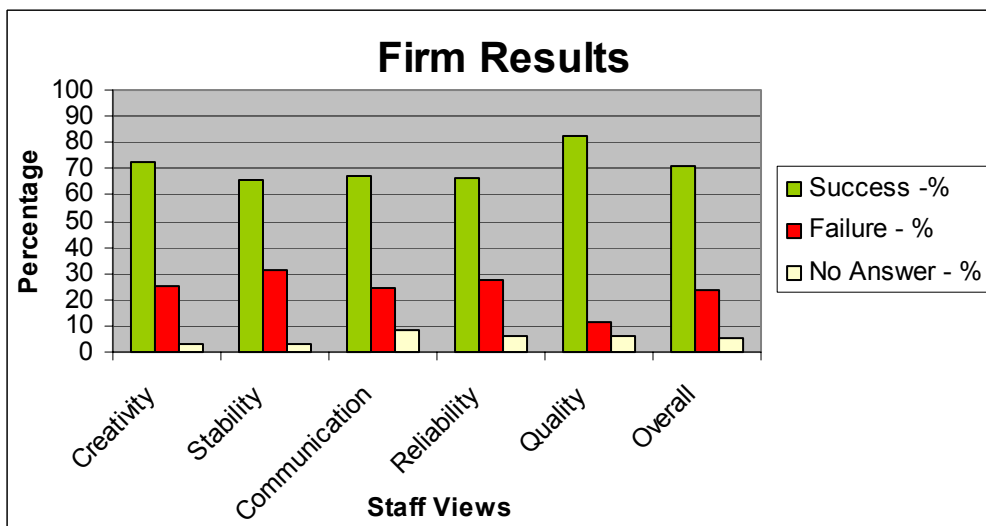
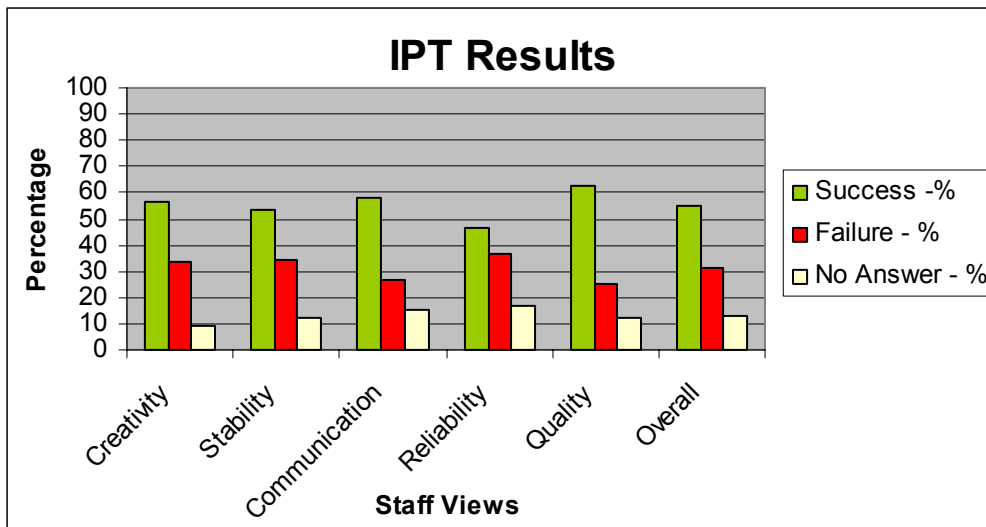
- A. WSA Relationship Survey Results.
- B. Overall Results Charts.
- C. Detailed Results Charts.
- D. IPT and Industry Verbatim Comments.

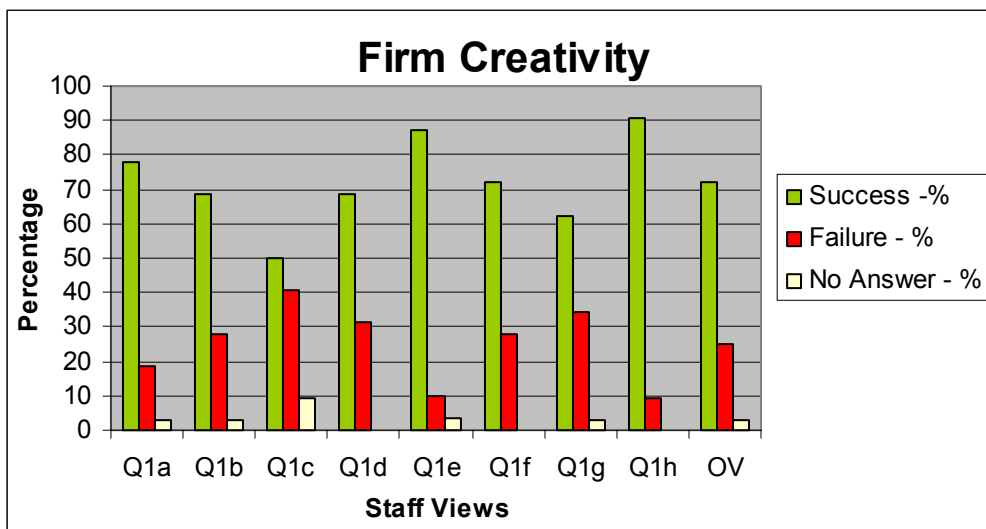
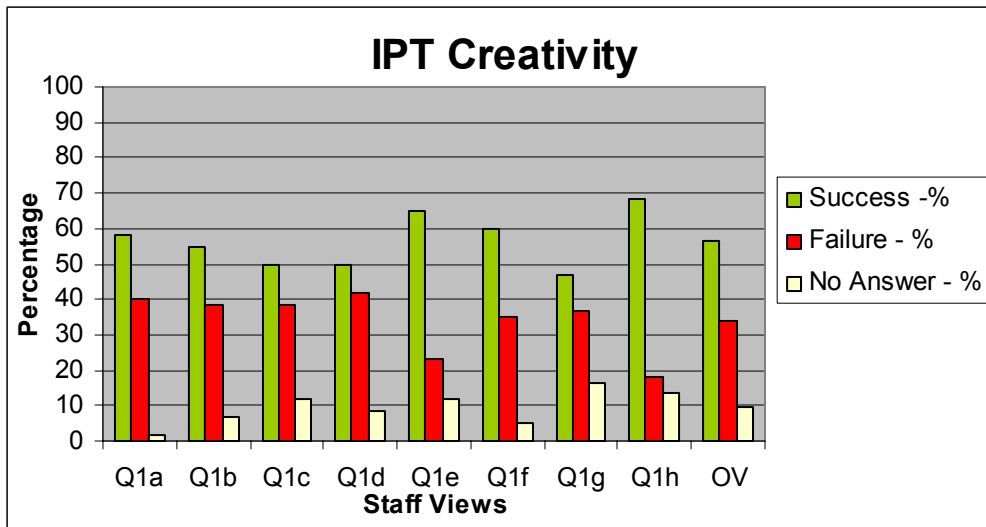
ANNEX A

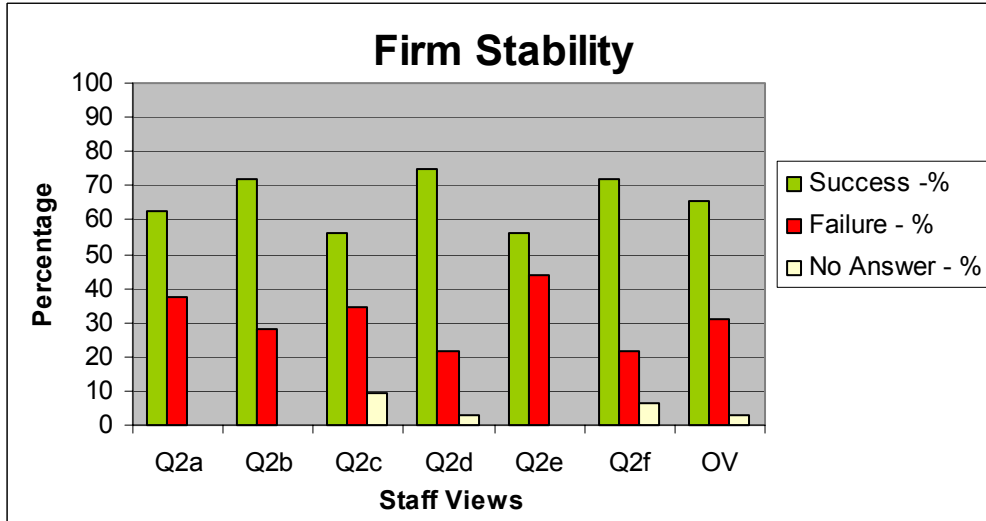
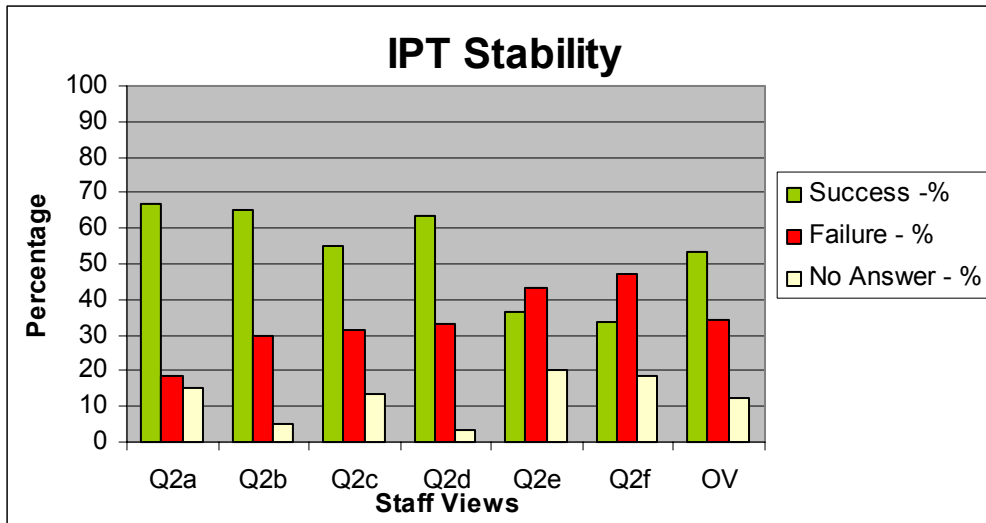


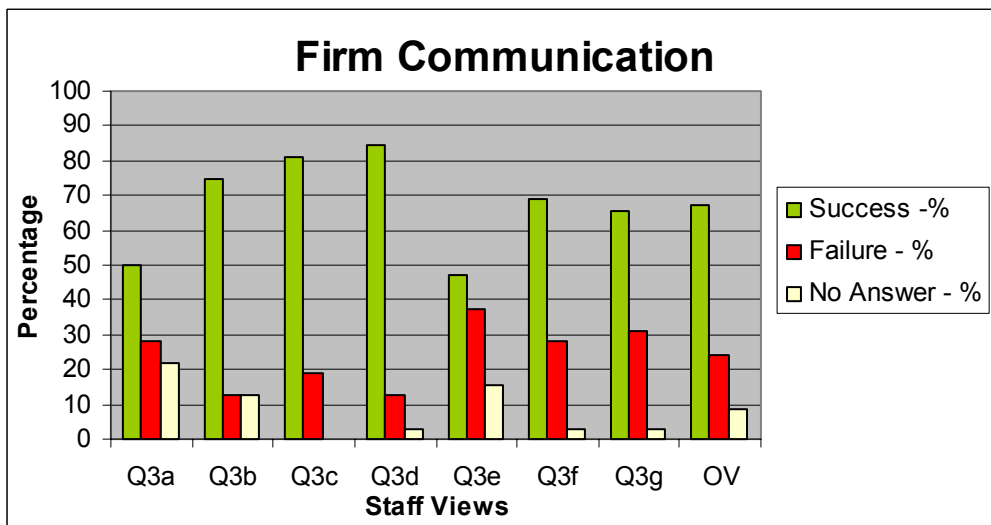
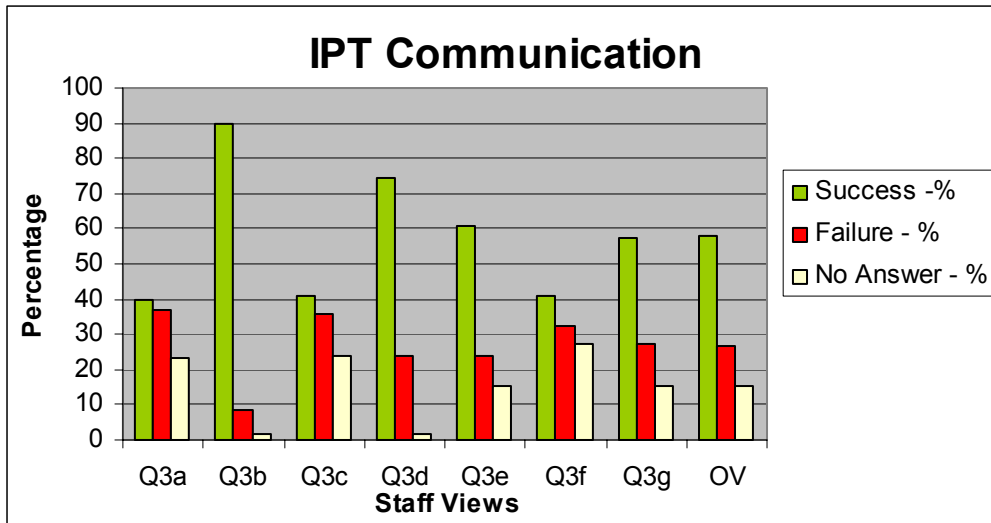


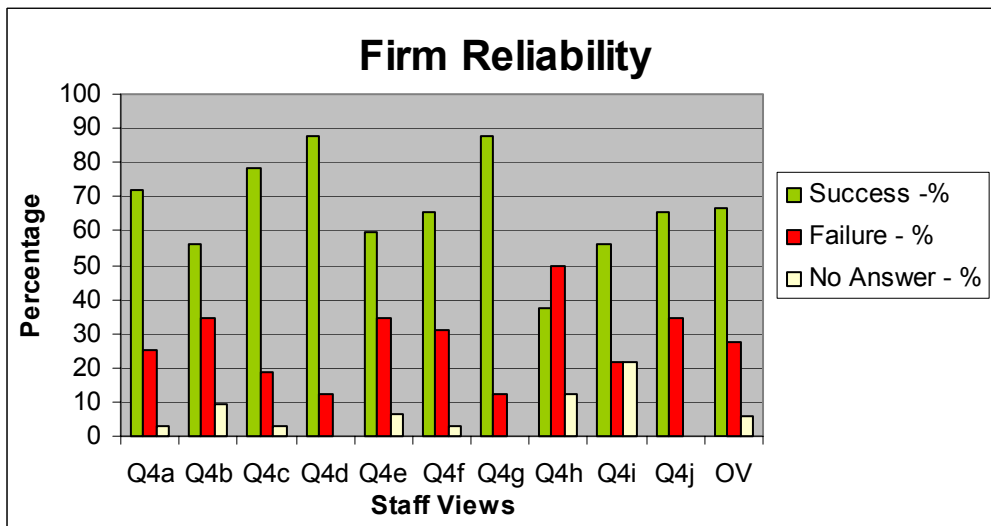
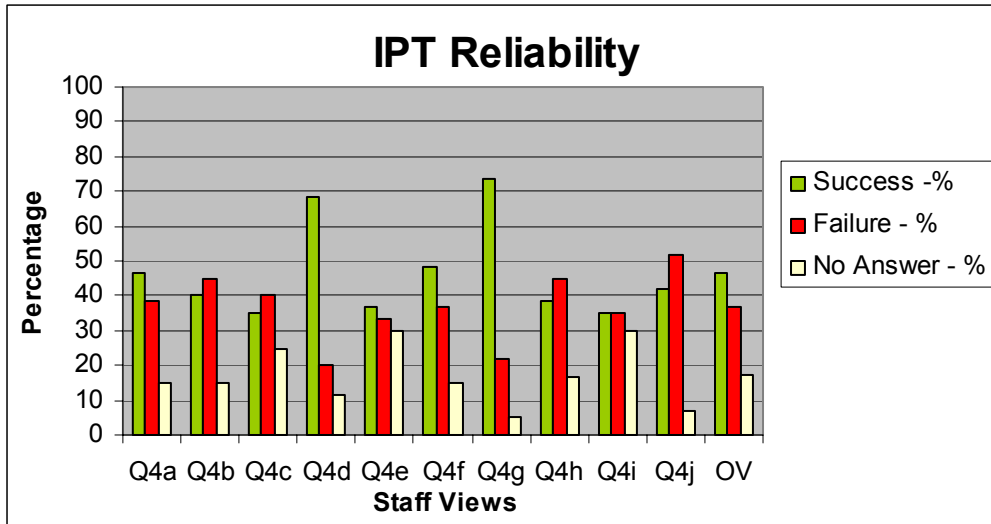
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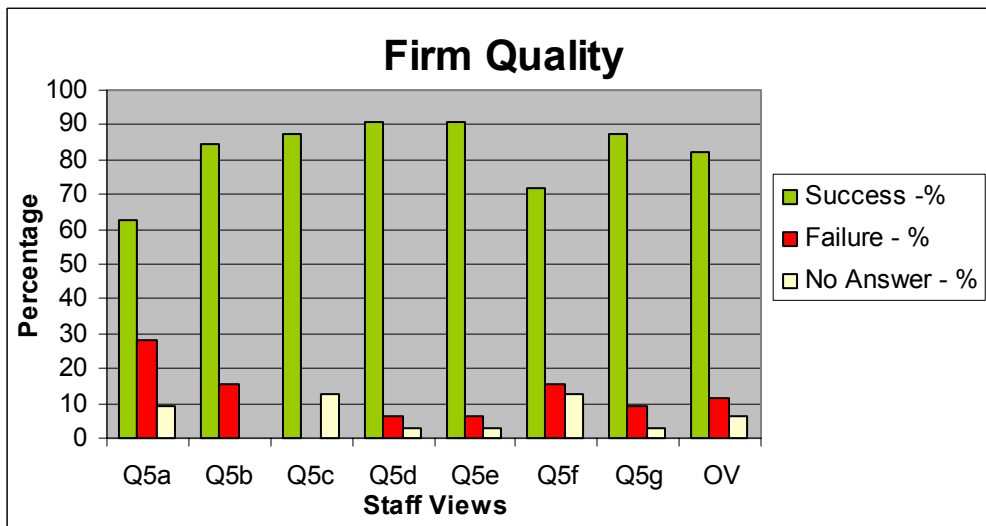
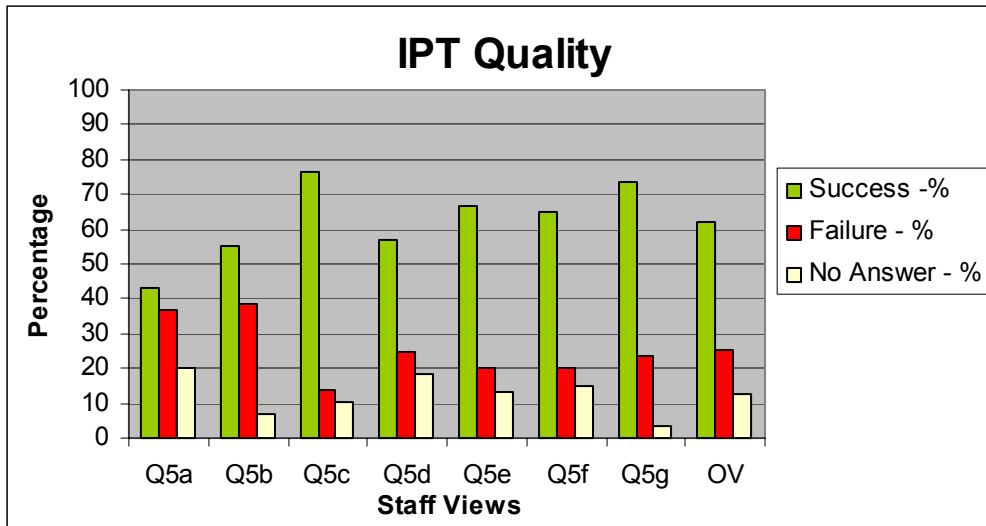












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## Appendix 5

### Defence Logistics Organisation Report

ES(AIR)/PHD/FINAL REPORT

Jan 02

DG Ops

#### **RELATIONSHIPS IN DEFENCE PROCUREMENT RESEARCH REPORT ON THE DLO BU SURVEYS**

##### **Introduction**

1. In Jun 99 I received HQ DLO business endorsement from Air Cdre Cooper and Brig Hewitt to undertake a Cranfield University PhD research project to examine the quality of relationships between the DLO and its main industrial suppliers. I have now completed the programme, which involved conducting surveys of 54 relationships that spent £575.8m in FY 00/01 spread across the 3 BUs. A total of 629 questionnaires were administered to IPT and Firm team members and the programme is shown at Annex A. The POC on each side of a relationship was also interviewed and overall 700 verbatim best practice points have been recorded. Some of these are used to illustrate the prevalent issues highlighted in this report.

##### **General Results**

2. The Survey Results from the 54 relationships listed in Annex A are shown in success order in the graph at Annex B. In order to obtain honest inputs I assured my Industry respondents that this ranking information would not be publicised. I would be grateful if DLO senior managers could honour this undertaking.

3. The relationship success scores range from exceptionally good (97%) to rather poor (32%) and potentially there are lessons that could be learned from examining these poles through the detailed survey results provided to the individual IPTs and their industry counterparts. It is also worth noting that a number of high expenditure relationships are towards the right-hand end (least successful) of the graph.

4. The overall, averaged score statistics derived from the questionnaire data are given at Annex C and suggest the following points:

- a. The overall joint IPT/Industry relationship success score was 58%.
- b. The IPTs were more pessimistic (52%) about the relationships than the Firms (63%).

c. The general pattern of results is similar for each side, which indicates a measure of agreement by proportion of those factors that are good and those that are not so successful.

d. The questionnaire was divided into 5 separate dimensions and a comparison between the IPT and Firm results indicates that in the areas of:

**Creativity** (promoting quality, innovation and long-term approach by encouraging high performance),

**Stability** (synchronisation of objectives and confidence-building),

**Communication** (frequent, open dialogue and information-sharing) and,

**Quality** (creating a win-win relationship in which each side is delighted to be a part)

the views of both sides were aligned. However, in the area of

**Reliability** (concentrating on service and product delivery, lowering joint costs and risks, building up trust)

views were divergent where IPTs were pessimistic compared to Firms overall optimism. The following quotation represents a common IPT perception:

***'We have put in a huge amount of effort into streamlining processes but the Firm still does not deliver'.***

e. There were significantly more 'insufficient knowledge' scores from IPTs (11%) than Industry (7%) suggesting that improving internal awareness within the DLO is a factor worthy of consideration.

## Detailed Results

5. Greater granularity of the results, grouped under each of the headings mentioned in para 4d, is available at the level of the individual survey questions and this is shown in Annex D. The following observations can be made:

a. Creativity. Fair dealings together with a willingness 'to go the extra mile' (Qs 1e & 1h) were positively highlighted. However problems over lack of objective performance measurement (Q1c) and a lack of confidence within Industry in the MoD's capability to enter into long-term partnering arrangements, primarily due to the lack of stability of funding (Q1g), stood out.

***'Our fear is the feast and famine situation of Defence spending. There are times when we must stop work, lay off experienced staff and then race to get back going again. I worry that we cannot respond fast enough and this adversely affects customer service'.***

Finally, many companies commented on the adverse impact of high staff



turnover within IPTs, for example:

***'The regular cycling of IPT staff is not conducive to building long-term relationships that develop sound working practices and innovation'.***

b. Stability. There were misgivings on both sides about compatibility of objectives (Q2c) and co-operative achievement (Q2e). Both sides particularly expressed their frustrations with the commercial attitudes and practices:

***The biggest obstacle to improving business performance is the Commercial department. There is a severe shortage of resources, risk aversion and lack of flexibility, which lead to significant effort and delay in agreeing contracts.***

But significantly in the very best performing relationships, innovative Commercial staff were singled out as the most important contribution to success. Lastly, IPTs voiced significant doubt over their confidence in Industry's intentions (Q2f).

***'Although we negotiate down the price, we know they will recoup the money somewhere else'.***

c. Communication. Both sides were reasonably happy with communication but, IPTs had worries about proprietary information (Q3a) especially where the Firm was the Design Authority and there was no competition available. Conversely, Firms generally felt that performance measures lacked end-customer focus and therefore provided inadequate joint motivation to perform.

***'There is a gulf in perception between the sides over performance, which also extends to the front line. Without a common understanding of how we are doing we cannot move forward'.***

d. Reliability. This was the lowest point in the relationship satisfaction survey. IPTs expressed strong reservations over Industry's ability to deliver a flexible service to time, quality and budget (Qs 4a & 4b).

***'We have made huge progress with Repair & Overhaul but despite their good words and assurances their performance on Spares is appalling'.***

Industry often saw the IPTs lacking understanding of their resource constraints in today's tight fiscal climate and the need to plan production (Qs 4e & 4f). Both sides believed that the other was not forthcoming when it came to ideas for service improvement and cost reduction (Q4h).

e. Quality. IPTs were generally concerned that the lack of competition open to them left them at the mercy of the contractor (Qs 5a, 5b & 5d).

***'They have an air of arrogance - take it or leave it, we are sole suppliers'.***

They also felt that they were vulnerable to Firm reorganisations and takeovers. Conversely, Firms felt that they also were at the mercy of MoD bureaucracy, budget instabilities and its apparent desire to make 20% savings at the expense of their profits (Qs 5a and 5f). Nevertheless, despite the numerous criticisms of each other throughout the survey, both IPTs and Firms registered higher overall scores in this category than any other. This is possibly because there was still evidence of constructive tension in many of these relationships and also both sides realised, like it or not, that they needed each other to survive hence the high scores in Q5c and g.

***'We have built a 'head' of good-will despite the problems'.***

### **Supporting Comments**

6. I am very grateful to the IPT and Firm POCs who during interviews enthusiastically contributed their views on the highs and lows of their business relationships. I shall shortly be publishing a CD ROM database containing the complete, unattributed set of comments which represents an accumulation of best and worse practice. I intend to issue it to all contributors and other interested parties in the DLO.

### **Conclusion & Recommendation**

7. I hope that this short survey will be of use to DLO senior managers both as an assessment exercise and as a means of promoting debate on how relationships with industry might be improved. Although further detailed information could be derived from the data collected, this research was, due to time and resource limitations, an exploratory exercise. The process of data collection and reporting back to both sides was itself a very useful and well-received exercise which has triggered many, local follow-up discussions to improve relationship understanding.

***'The report was very interesting and revealing. I am concerned about the aspects where our perceptions are at odds. We are about to begin a joint process review with the IPT and will use the report to get things started'.***

Nevertheless, in addition to the findings detailed above, I have concluded that although much work is continuing apace to develop individual relationships in the DLO, there is currently no overview, which allows strategic management to be applied effectively. The objective data that is provided by this research on the ranking of relationships as well as generic relationship factors is, as far as I can determine, a first and potentially the concept could also be of use to the DPA .

8. I therefore recommend that consideration should be given to carrying out a comprehensive survey of DLO IPT/Industry relationships annually so that:

- a. Changes could be tracked and management action targeted accordingly.
- b. Worst and best practices could be identified from more detailed analysis of the data and applied across the organisation where needed.

c. Specific improvements could be trialled and carefully monitored so those further lessons about IPT/Industry relationship dynamics could be learned and disseminated appropriately.

9. Finally, I am most grateful to the DG ESBUs who permitted me to carry out the research in their areas and to the IPTLs who participated so readily.

***Andrew Humphries***

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Annexes:

- A. Survey Programme.
- B. Performance Table.
- C. Overall Results Charts.
- D. Detailed Results Charts.

## ANNEX A

**DLO BU IPT/INDUSTRY RELATIONSHIP SURVEY PROGRAMME**

Ser	Equipment	<i>IPT</i>	<b>Firm</b>	£m
	Land			
1	Combat Vehicles	LASS	Alvis Vehicles Ltd	5.0
2	<b>Rapier</b>	GWSS	Matra BAe Dynamics	1.8
3	<b>AS90</b>	FASS	BAe Systems Royal Ordnance	8.0
4	<b>Tyres</b>	ESPPA	Michelin Tyres PLC	7.5
5	<b>Challenger 2</b>	TSS	Vickers Defence Systems	25.0
6	<b>ATE</b>	WSS	Thales Optronics/Instruments	6.0
			<b>Total:</b>	53.3

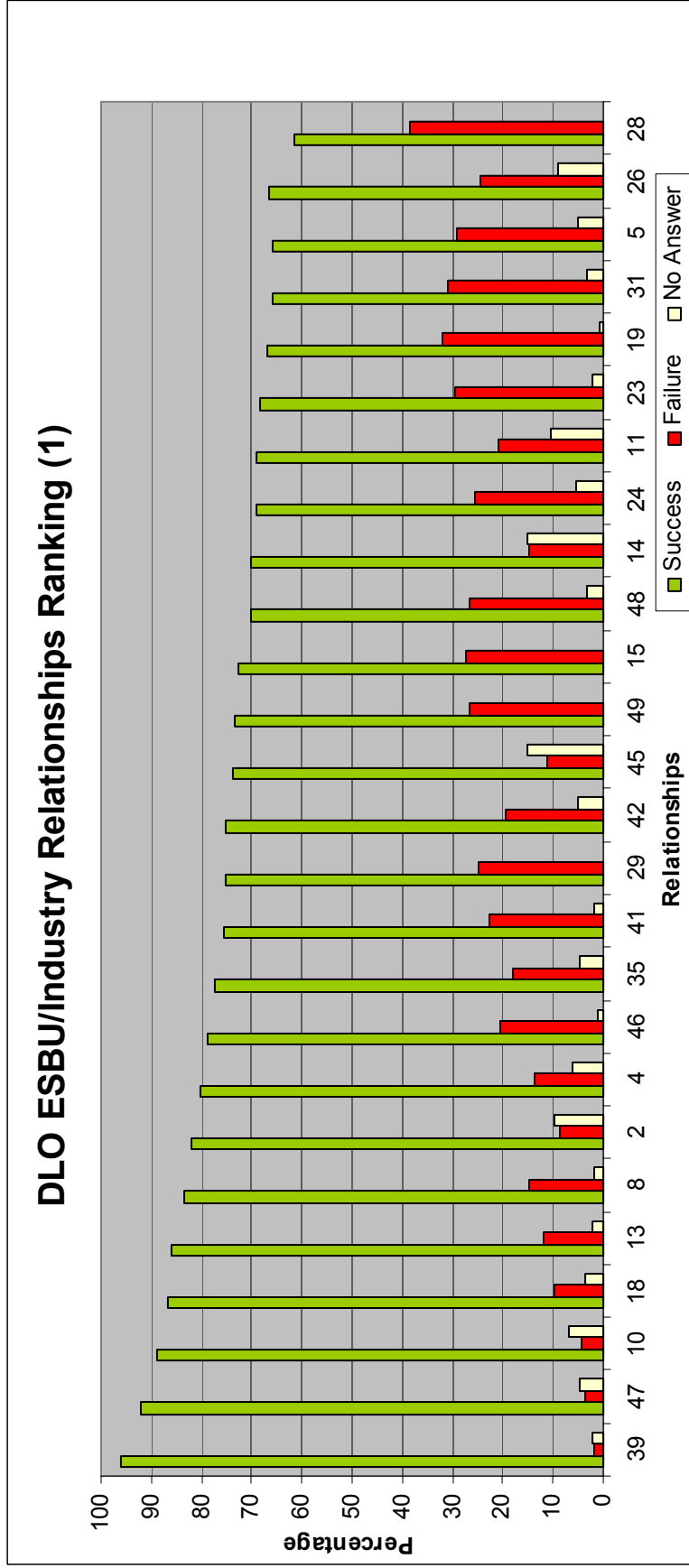
Ser	Equipment	<i>IPT</i>	<b>Firm</b>	£m
	Sea			
7	<b>Gas Turbines</b>	MPS	Rolls Royce PLC	10.0
8	<b>Submarine Seals</b>	MPS	Deep Sea Seals Ltd	.4
9	<b>One Man Controls</b>	MDMS	Alenia Marconi Systems	2.5
10	<b>Phalanx</b>	AWS	Devonport Royal Dockyard Ltd	1.8
11	<b>NBC Protection</b>	MDMS	Graseby Dynamics Ltd	1.5
12	<b>Periscopes</b>	UWS	Thales Optronics	7.4
13	<b>Submarine Air Purification</b>	MAES	Wellman Defence Ltd	4.0
14	<b>Freq Standard Equipment</b>	FWS	Steatite Insulations Ltd	.5
15	<b>Machinery Controls</b>	MLS	Vosper Thornycroft Conts Ltd	.8
16	<b>Steering Gear</b>	MDMS	Rolls Royce Power Eng	.2
			<b>Total:</b>	29.1

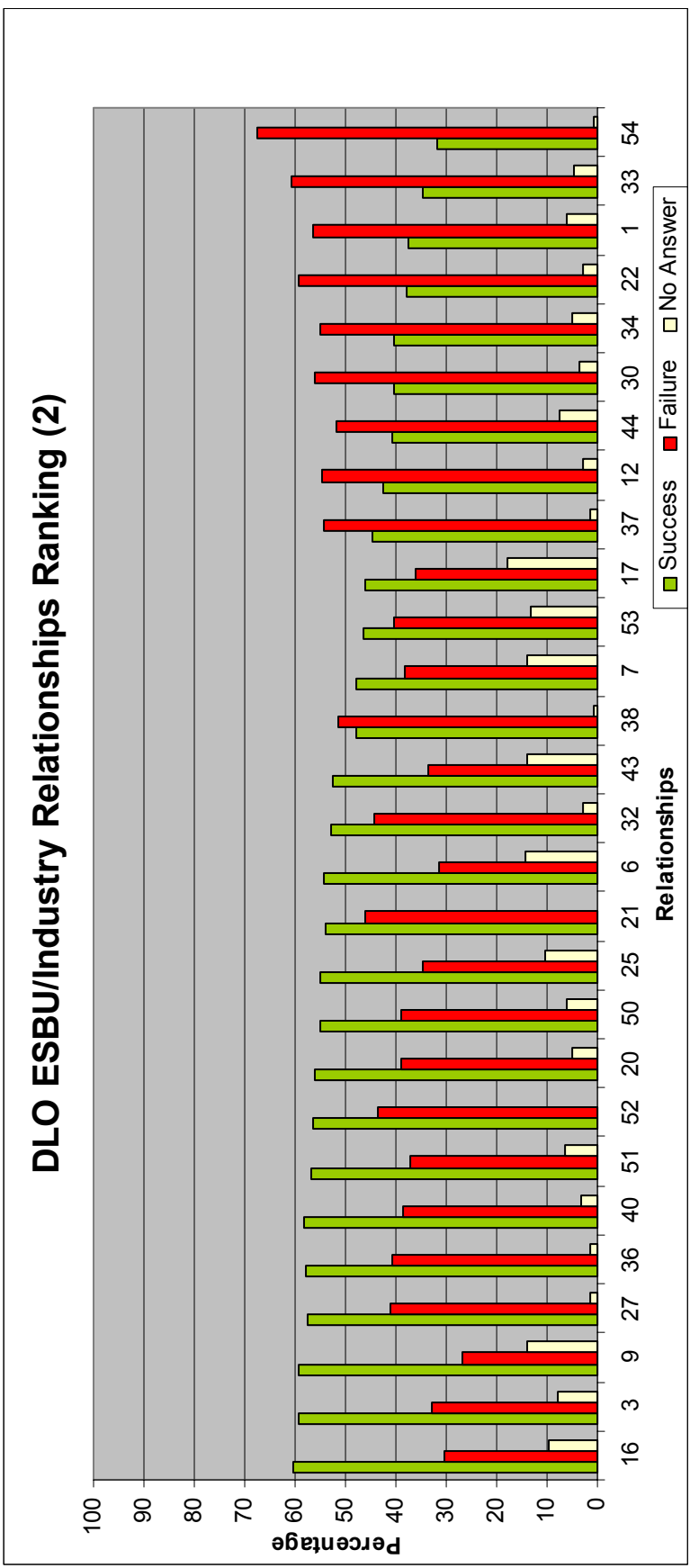
Ser	Equipment	<i>IPT</i>	<b>Firm</b>	£m
	Air			
17	<b>VC10</b>	AARC	BAe Systems	40.0
18	<b>Aerial Imagery</b>	AVEW	Kodak Ltd	.6
19	<b>Adour/Avon</b>	Can/Jag	Rolls Royce PLC	18.5
20	<b>Bombs (540/1000lb)</b>	ALM	BAe Systems Royal Ordnance	67.0
21	<b>Canberra</b>	Can/Jag	BAe Systems	1.3
22	<b>Chinook</b>	Chinook	Boeing Company Philadelphia	15.0
23	<b>DF Spinner</b>	Nimrod	BAe Systems	1.0
24	<b>Dominie</b>	Trg AC	Thales Defence Ltd	.7
25	<b>Ejection Seats</b>	S&AD	Martin Baker Aircraft Company Ltd	3.0
26	<b>Aero Engine Controls</b>	AVEW	Ultra Electronics Ltd	1.8
27	<b>Aircraft Generators</b>	AVEW	TRW -Lucas	3.0
28	<b>ESP, ARI 23450 etc EW</b>	AVEW	BAe Systems	2.0
29	<b>SLATE, MITRE etc EW</b>	AVEW	BAe Systems	1.3
30	<b>Harrier</b>	Harrier	BAe Systems	75.0
31	<b>Harrier EW</b>	AVEW	BAe Systems	8.4
32	<b>Hawk</b>	Trg AC	BAe Systems	38.0
33	<b>AC Instruments R&amp;S</b>	AVEW	Smiths	4.0
34	<b>AC Instruments PDS</b>	AVEW	Smiths	2.0

Ser	Equipment	IPT	Firm	£m
	Air (cont)			
35	Islander	HIC	Britten Norman Islander	.3
36	Jaguar	Jag/Can	BAe Systems	5.0
37	Launchers	ALM	Flight Refuelling Ltd	.4
38	Link 11 & HF Radio	Nimrod	Aerosystems International	1.0
39	Maverick	ALM	Raytheon Systems Ltd	.4
40	Missiles	ALM	Matra BAe Dynamics	17.0
41	Nimrod Tactical System	Nimrod	BAe Systems	.7
42	Cameras & Recce Systems	AVEW	Vintens Ltd	1.6
43	RB199	Tornado	Rolls Royce PLC	100.0
44	Sea King	Sea King	WHL	32.0
45	Sentry Radar	Sentry	Northrop Grumman Corp	6.0
46	Sentry	Sentry	Boeing	10.0
47	Spey	Nimrod	Rolls Royce PLC	10.0
48	Tornado Actuators	Tornado	FHL	5.0
49	Tornado EW	AVEW	BAe Systems	9.6
50	Tornado Radar	Tornado	BAe Systems	1.9
51	Tucano	Trg AC	Bombardier	3.0
52	Viper	Trg AC	Rolls Royce PLC	.1
53	Yellowgate	AVEW	Thales PLC	1.2
54	Yellowgate Mod 047	AVEW	Thales PLC	6.4
			<b>Total:</b>	494.2

			<b>Total Value FY 00/01:</b>	575.8
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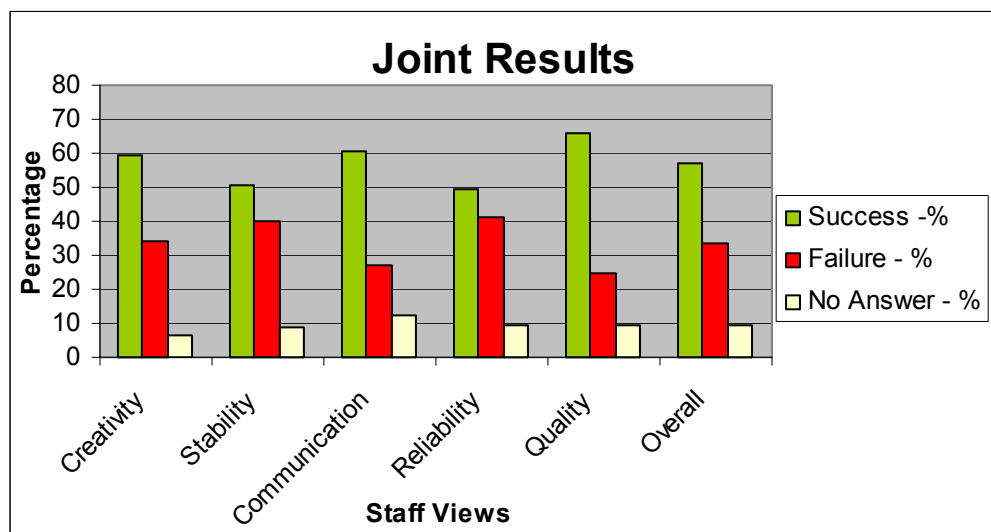
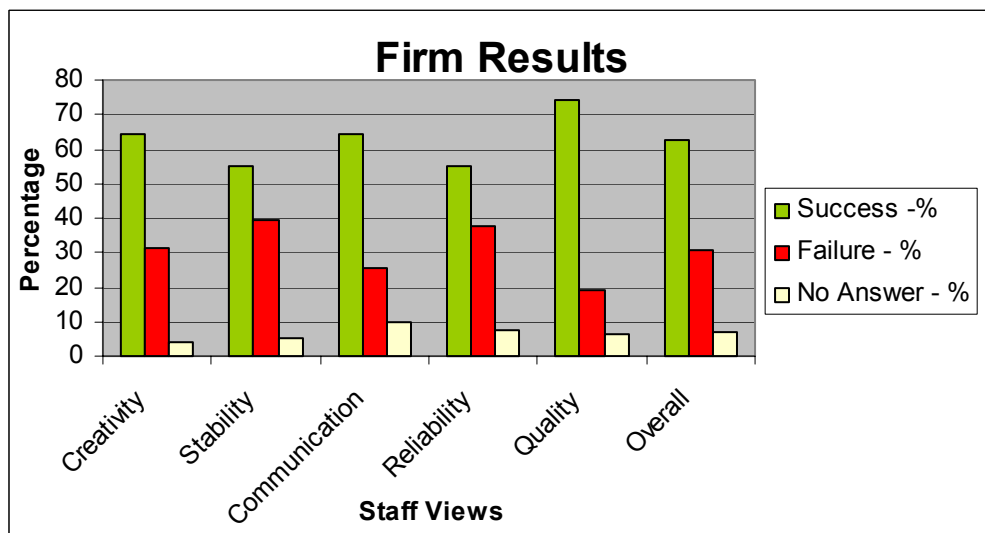
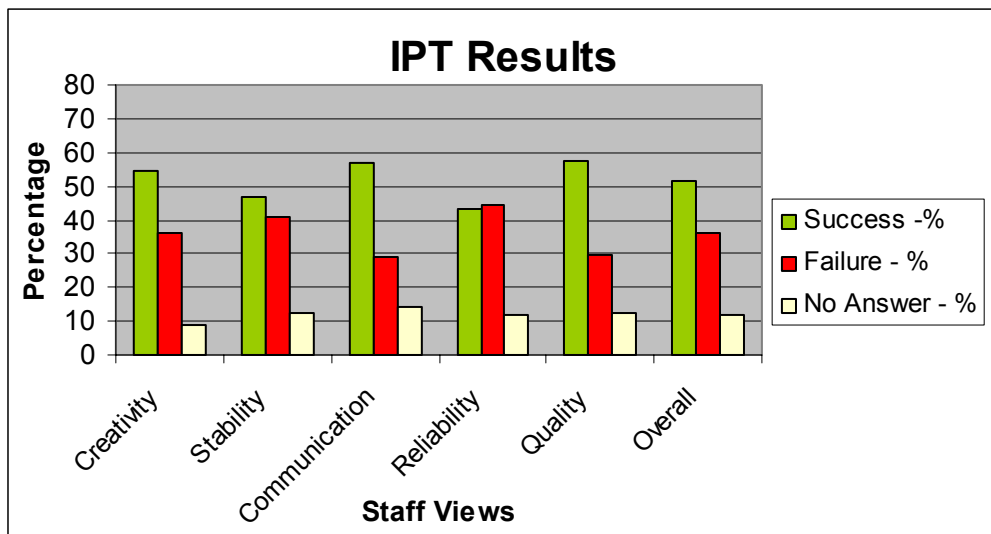
PERFORMANCE TABLES





ANNEX C

**OVERALL RESULTS**

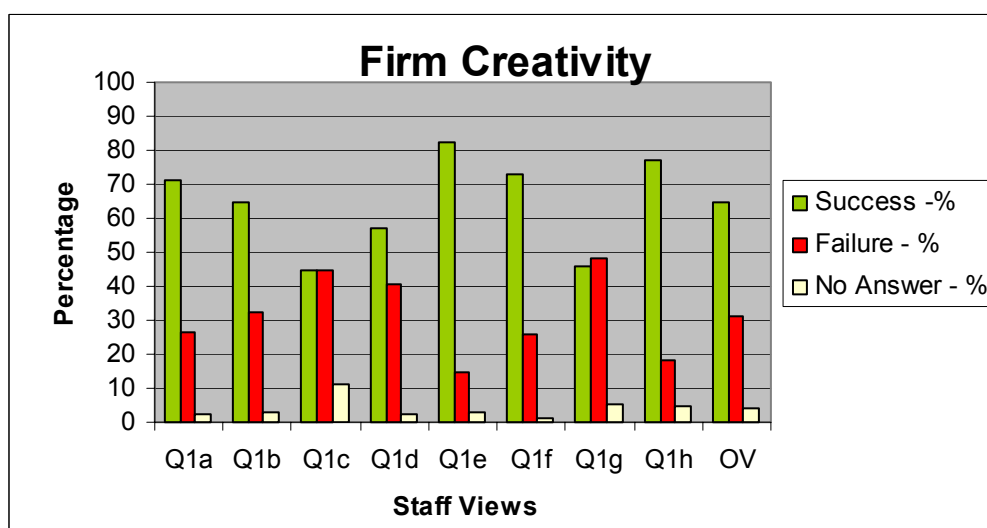
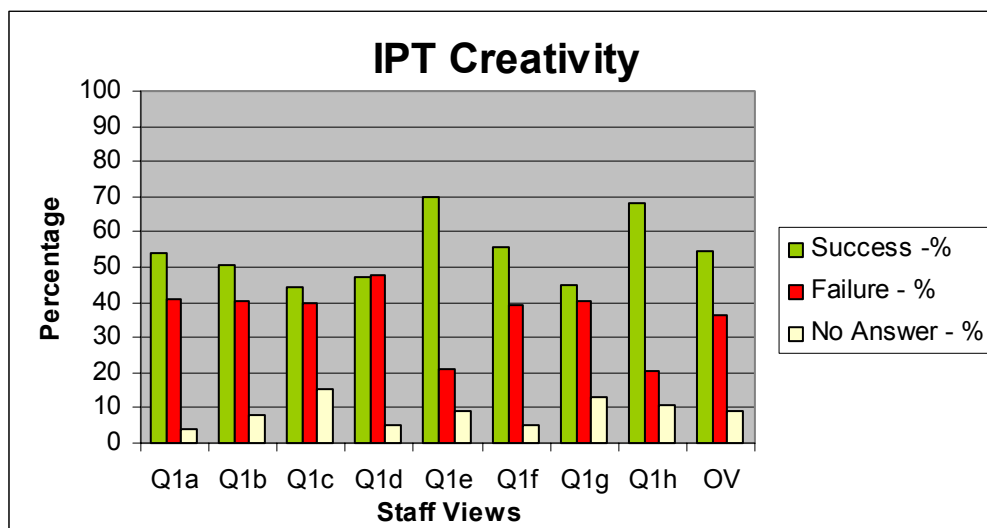




## DETAILED RESULTS

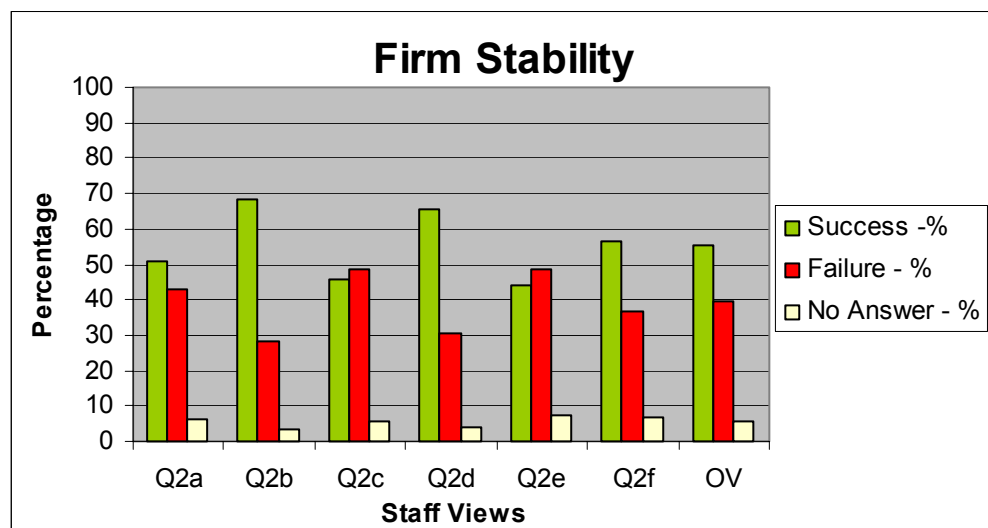
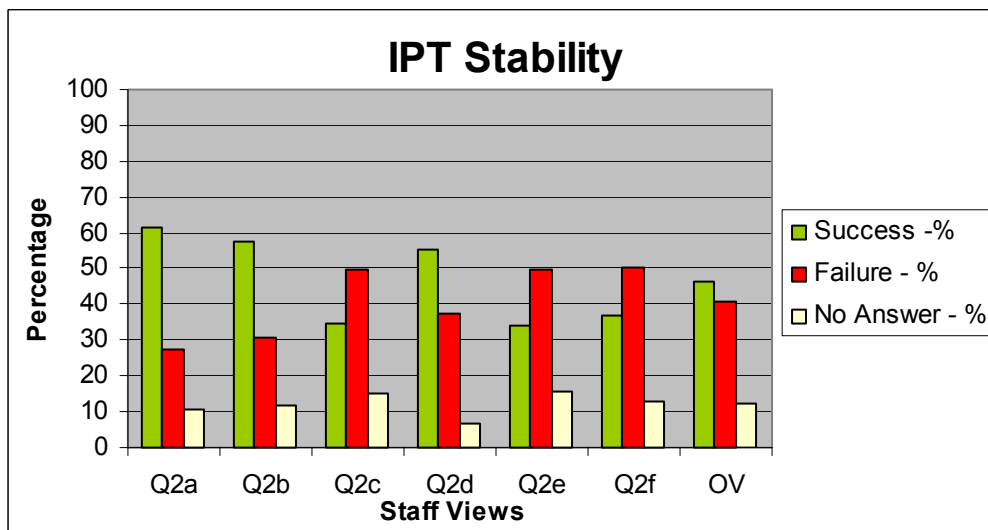
### 1. Relationship Development – enabling joint creativity

- a. The relationship encourages the achievement of high performance by both parties ie. reliable equipment, on-time delivery, good forecasts.
- b. The relationship encourages us to be innovative in the way we do business.
- c. Performance measurement is used to raise standards.
- d. Disputes & problems are resolved: 'quickly'.
- e. Disputes & problems are resolved: 'fairly'.
- f. The other party is reliable and consistent in dealing with us.
- g. The other party is dedicated to making our business a success.
- h. When an unexpected problem arises, both parties would rather work out a solution than hold each other to the original contract terms.



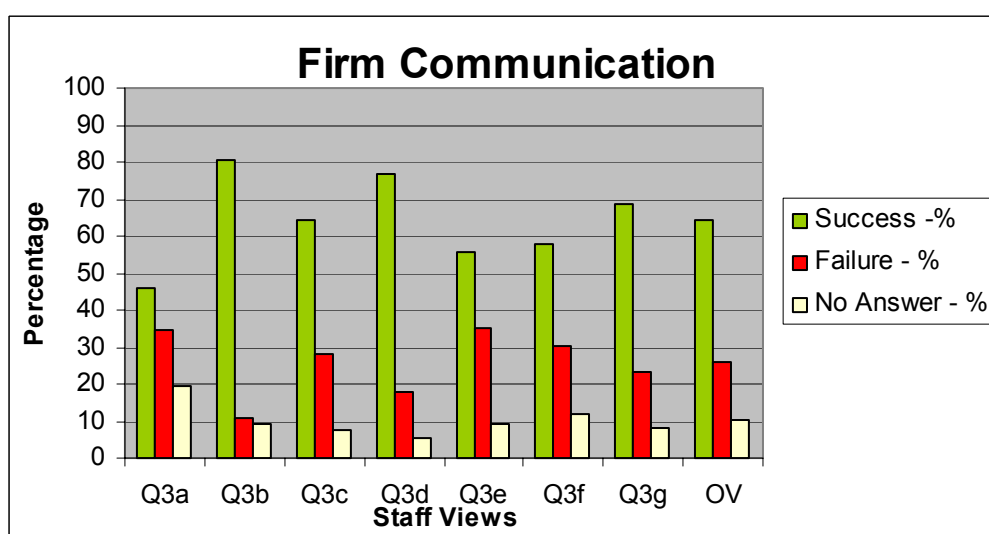
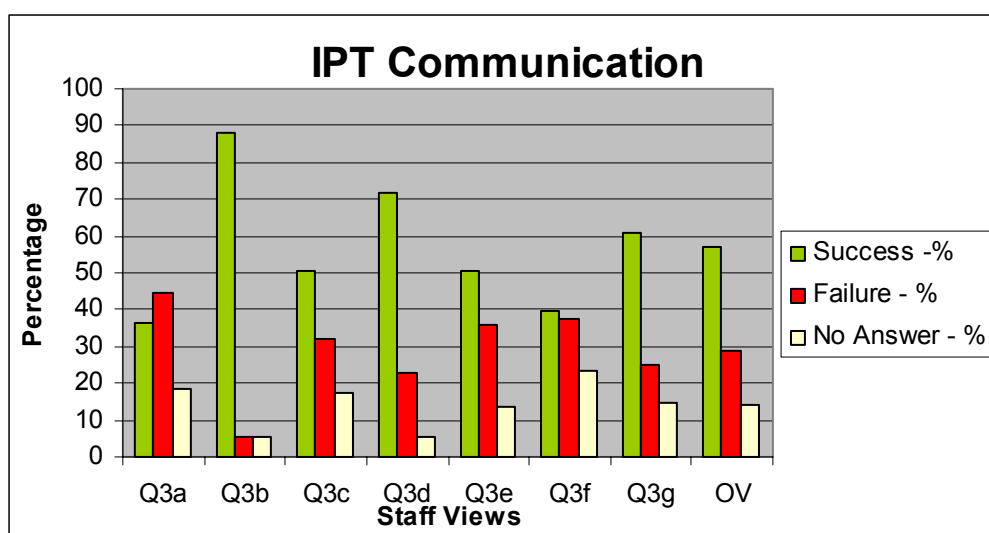
## 2. Relationship Stability – creating a framework for successful business

- a. The other party displays a sound, strategic understanding of our business.
- b. The objectives of both parties are clearly stated.
- c. The objectives of both parties are fully compatible.
- d. Both parties co-operate wholeheartedly.
- e. The relationship provides a dynamic business environment within which both parties can seek increasing rewards.
- f. I have complete confidence in the intentions of the other party.

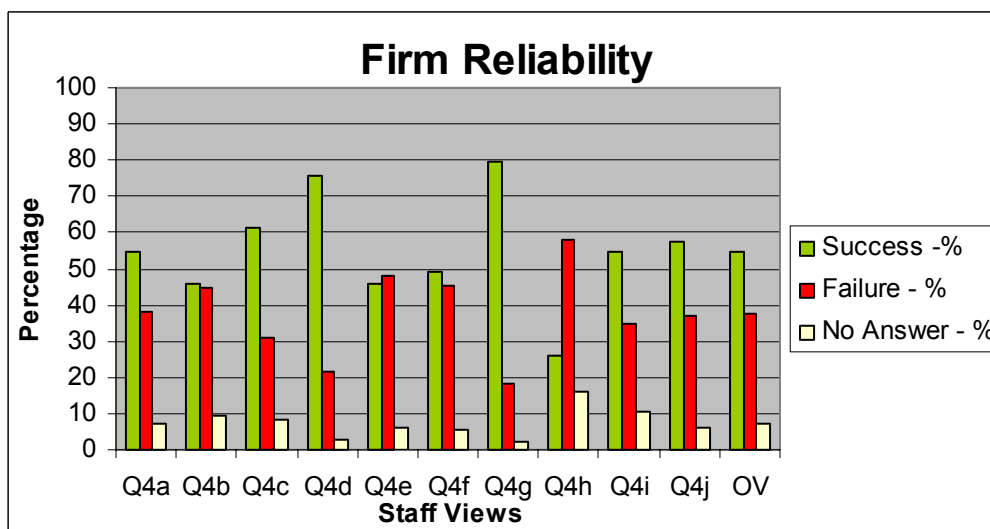
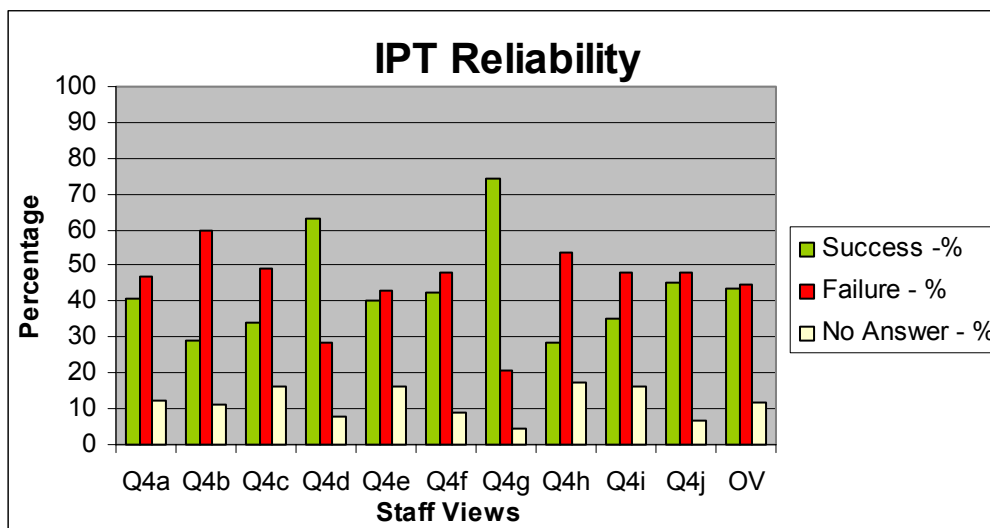


### 3. Communication – creating an environment for business success

- a. Where the other party has proprietary information that could improve the performance of the joint business, it is freely available.
- b. We would welcome a shared data environment where planning, technical and pricing information are made freely available.
- c. We understand the information requirements of all participants in the support chain from sub-contractors to end-user.
- d. Exchange of information in this relationship takes place frequently and informally – not just according to specified agreement.
- e. Objective performance measurement is an important part of this relationship.
- f. We are aware of the performance requirements for all participants in the support chain from sub-contractors to end-user.
- g. We provide the other party with regular information including long-range forecasts to enable him to do his business better.

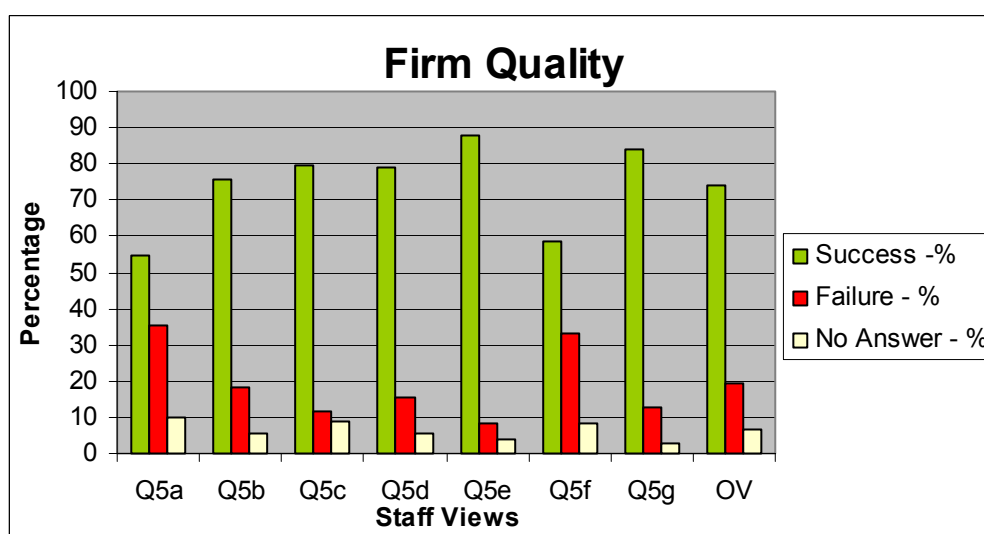
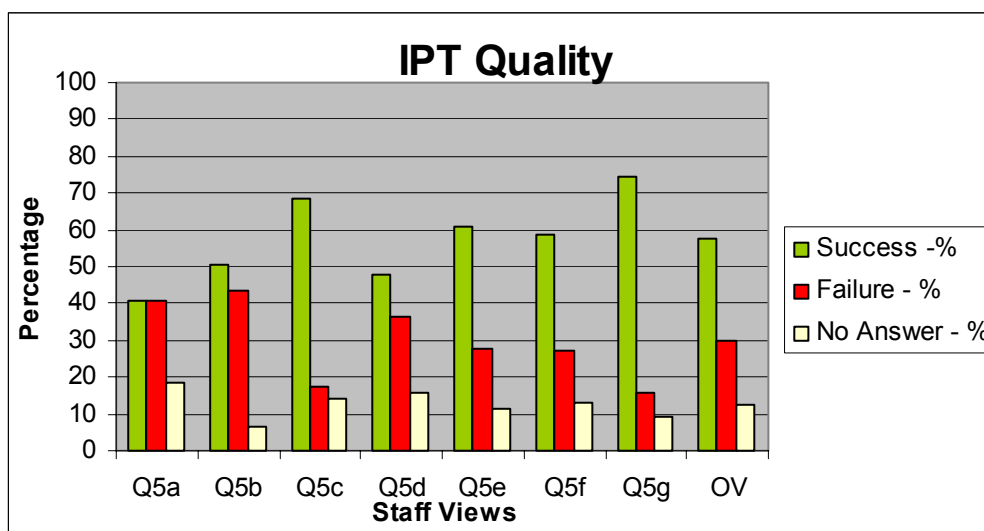


4. **Relationship Strengthening – creating a reliable business arrangement**
- The quality of the contract outputs ie. spares/repairs/services, is entirely satisfactory.
  - The quality of service delivery ie. delivery times, billing, payment, is entirely satisfactory.
  - The relationship is characterised by a continually improving quality ethos.
  - Problems are solved in a joint, open, constructive manner.
  - Such is the goodwill in the relationship, the other party would willingly put himself out to adapt to our changing requirements.
  - We trust the other party to act in our best interests.
  - The responsibility for making sure the relationship works is shared jointly.
  - The other party provides us with useful cost reduction and quality improvement ideas.
  - The other party is always totally open and honest with us.
  - The other party always does what he says he will do.



## 5. Relationship Quality – creating the incentive to work together

- a. The gains from this relationship are equally shared between both parties.
- b. We do not feel imprisoned within the current relationship.
- c. We are willing to invest more ie. money, time, information, effort, in the current relationship.
- d. We are happy that our future is bound to the success of our relationship partner.
- e. We feel totally committed to this relationship.
- f. The other party is genuinely concerned that our business succeeds.
- g. Both sides are working to improve this relationship.



## Appendix 6

### Semi-Structured Interview Key Points

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
1	Air	IPT	We have created a huge number of opportunities for dialogue including embedding staff in each other's organisations.		Communication
2	Air	IPT		The fact that we do not have an effective performance measurement system whilst the Firm believes we have is a real failure to communicate.	Communication
3	Air	IPT		We are not always sure that the prime contractor has clear communications with his sub-contractors.	Communication
4	Land	IPT	Quarterly, team leader-level review meetings have made a real difference.		Communication
5	Land	IPT	Quarterly review meetings where outstanding orders are discussed have led to improved availability.		Communication
6	Land	IPT		The firm does not appear to be able to forecast expenditure with the accuracy needed by our FOO.	Communication
7	Land	IPT	Regular meetings to discuss lead-times, deliveries and technical problems are essential enablers to building trust.		Communication
8	Land	Firm	Frequent contacts, even as often as daily, build confidence, reduce risks of misunderstandings and keep the team focussed.		Communication
9	Land	Firm	The IPT never holds back on providing data on advance requirements when known. This helps us to plan better.		Communication
10	Land	Firm		Our negativity is caused by the unpredictability of the customer's requirements.	Communication
11	Land	Firm		We don't get any feedback on the effectiveness of our communications.	Communication
12	Land	Firm	We are very proud of the way we communicate with the IPT; we speak at least daily.		Communication
13	Land	IPT	I must go and talk to a senior member of the firm to discuss the research report.		Communication
14	Land	IPT		Their commercial staff are	Communication

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
				extremely poor at responding to price requests.	
15	Land	Firm		They hide behind the excuse that their data is not good enough to give us as a means of keeping information from us. They are not open with us.	Communication
16	Land	Firm		We delivered over the stated requirement despite the IPT's total lack of communication.	Communication
17	Land	Firm		Very poor information on the MoD's consumption and usage rates makes planning extremely difficult	Communication
18	Land	Firm		The MoD won't answer our customer satisfaction surveys so how can we improve?	Communication
19	Land	IPT		We are not happy with the firm's marketing strategy; they have put the company up for sale without telling the MoD and all the good work on agreeing IPR could be lost.	Communication
20	Land	IPT		Because the operating system software IPR belongs to the firm we are locked into the relationship and they 'have us over a barrel'.	Communication
21	Land	Firm	The IPT has a high degree of disclosure over its long term objectives.		Communication
22	Land	IPT		We use technical data to compete; the firm uses it to make their products more proprietary.	Communication
23	Sea	Firm	Because we know our opposite numbers personally we don't want to let them down.		Communication
24	Sea	Firm	We feel we can let our hair down with the IPT, say what we think and be honest without recrimination.		Communication
25	Sea	Firm	Regular meetings at strategic and tactical levels that examine performance and future plans and tasks enable the Firm to plan its forward allocation of resources.		Communication
26	Sea	IPT	We are continuing to discuss Smart procurement and management of stock following our Industry Breakthrough Day.		Communication
27	Sea	IPT	There is enthusiasm on both sides and regular meetings are held where we review the detail. Twice per year we review		Communication

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
			strategy.		
28	Sea	IPT		We do not provide the Firm with long range forecasts because often we do not have the information.	Communication
29	Sea	Firm		We have worked hard to make a success of communications but maybe this has taken our eyes off the other aspects of the relationship that need attention.	Communication
30	Sea	Firm	We are starting to face up to performance issues at our regular meetings. In the past mutual defensiveness has got in the way of making improvements. This is a very hard area matter to tackle.		Communication
31	Sea	Firm	By having a member of staff in their team we are able to communicate much better, reduce misunderstandings, and gain a much clearer idea of the plans for the business.		Communication
32	Sea	IPT		It would be easier to pull teeth than get timely information from the firm.	Communication
33	Sea	Firm	The report has given us yet another good reason to sit down and talk with the IPT.		Communication
34	Sea	Firm	The interesting divergence of views exposed by the report suggests a number of issues that I will need to discuss with the IPTL.		Communication
35	Sea	Firm	People do talk more freely and there is a genuine desire to solve problems in an open way.		Communication
36	Sea	Firm		There seems to be a gap in communications between the IPT and the 2nd Customer. We could solve modification problems much more quickly if they also were present at review meetings.	Communication
37	Sea	IPT	We need to separate professional and personal relationships. The latter is important but 'win-win' is based on openness and concentrating on the job in hand.		Communication
38	Sea	Firm		We don't have routine meetings with the IPT; they have been to see me once in the last year.	Communication
39	Sea	Firm		We have spares order meetings in-house; the IPT does not attend.	Communication



ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
40	Sea	IPT	We have a pragmatic way of working with frank exchanges; we are always business-like.		Communication
41	Sea	IPT	We have introduced an industry forum where the companies we deal with come together and thrash through issues with us. They provide the chairman.		Communication
42	Sea	IPT	I have talked over the report with my opposite number in the firm. We have planned further meetings to go through it in detail.		Communication
43	Sea	Firm	We have good communications and as a result big service improvements have been made.		Communication
44	Sea	Firm		We often have great problems contacting the IPT's Project Managers.	Communication
45	Land	IPT		The firm does not appear to be able to forecast expenditure with the accuracy needed by our FOO.	Creativity
46	Land	IPT	Regular meetings to discuss lead-times, deliveries and technical problems are essential enablers to building trust.		Creativity
47	Land	Firm	Frequent contacts, even as often as daily, build confidence, reduce risks of misunderstandings and keep the team focussed.		Creativity
48	Air	IPT	The hard work of our contracts staff has ensured a creative environment		Creativity
49	Air	IPT		'Industry has trained us to expect we will be let down' quote from CDL and sums-up why we think the Firm is not dedicated to our success	Creativity
50	Land	Firm	Compared to other customers I find the MoD innovative and forward-thinking		Creativity
51	Land	IPT	By going 'head to head' on issues and working them through you bring responsiveness to the relationship		Creativity
52	Land	IPT	Innovative commercial staff with little guidance on the new ground they were breaking, made a real difference		Creativity
53	Land	Firm	A major success factor was the unusual combination of commercial staff on both sides who were lateral thinking and open to new ways of doing business		Creativity

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
54	Land	Firm	As a result of working through the problems together, customer satisfaction appears to be improving		Creativity
55	Land	IPT	The company are open and honest with us and thus we trust the suggestions for improvement that they make.		Creativity
56	Land	Firm	Joint team-building activities from the outset were a help to building confidence in ourselves and each other.		Creativity
57	Land	Firm	There's no point in exploiting our monopoly position because it prejudices our long-term business.		Creativity
58	Land	Firm		The MoD took unfair advantage by changing the delivery price arrangements in the small print of the contract without discussion. This soured the relationship for some time.	Reliability
59	Land	Firm	The MoD's Commercial staff are much more flexible than they were.		Creativity
60	Land	Firm	I intend to go and talk to the other side and using the research report to fine-tune the relationship.		Creativity
61	Land	IPT	When we were able to focus together on an emergency programme to replace defective, safety-critical items, the Company found it hard to begin with but after that has really worked well.		Creativity
62	Land	IPT		The company is dealing with an old product, the spares are in short supply, there are obsolescence problems and on top of that its organisation is poorly focused.	Creativity
63	Land	IPT	They are committed to improvement and are on-track, through a big effort, to clear the 40% level of overdue orders.		Creativity
64	Land	Firm		They are still into buying the cheapest.	Creativity
65	Land	Firm		The relationship is still immature and is not ready to face up to the hard issues to come.	Creativity
66	Land	Firm		They have no idea or system for judging our performance.	Creativity
67	Land	Firm		They show no sign of wanting to do better; their management is self-satisfied.	Creativity

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
68	Land	IPT	The Company representative is excellent.		Creativity
69	Land	IPT	Enabling arrangements with the Company reduces admin costs by not requiring us to compete as long as the company can demonstrate it has either competed the work elsewhere or given us best value for money.		Creativity
70	Land	IPT	This relationship is steadily improving.		Creativity
71	Land	Firm	We have a particularly good relationship with the IPT because they are well-organised.		Creativity
72	Land	Firm		We have high hopes that Resource Accounting and Budgeting and full cost accounting will bring commercial realism to the IPT.	Creativity
73	Land	Firm	We are trying to develop a modern, competitive support service capability to handle the new out-sourcing era.		Creativity
74	Land	Firm		Smart Procurement brought a breakthrough but where is the follow-up?	Creativity
75	Land	Firm	Softer issues are important to this relationship's development.		Creativity
76	Sea	Firm	Personal trust helps us to face each other over performance issues in a business-like, joint problem solving way		Creativity
77	Sea	IPT	We have already sat down in a positive manner with the Firm to discuss the research report		Creativity
78	Sea	IPT	We hope that the new discussions will lead to a paradigm shift in the way we do business but the Firm has already realised that the prospect is likely to be more difficult than they originally thought		Creativity
79	Sea	Firm	The secret of success is small, easily controllable work packages and teams, where greater onus is put on individual responsibility and where performance is clearly visible.		Creativity
80	Sea	IPT		It is almost policy that we let these relationships run without much management effort. We need to be more provocative.	Creativity
81	Sea	IPT		We just don't have time to take a strategic view, we are too busy looking after 30 other contracts.	Creativity
82	Sea	Firm		All fine words about partnering	Creativity

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
				but the MoD Commercial people hold both sides back through lack of flexibility.	
83	Sea	Firm	We intend to speak with the IPT about the report and use it to generate fine tuning.		Creativity
84	Sea	IPT		We have been trying to get an enabling arrangement with the firm for 2 1/2 years but changes in the company and compartmentalisation of MoD Commercial staff have conspired against us.	Creativity
85	Sea	IPT		The MoD Commercial approach does not encourage creativity, innovation and performance measurement.	Creativity
86	Sea	IPT	We have just entered into a 5 year contract which gives the Firm sole rights to provide the service. because this gives them full responsibility for the end product.		Creativity
87	Sea	Firm		I see a very hard line from the MoD's Contracts people for old-style traditional reasons. They are always defensive when challenged and do not understand the meaning of innovation. I suspect the IPT is equally frustrated.	Creativity
88	Sea	IPT	I intend to sit down with my opposite number in the firm (just the 2 of us at first) and study the report to see where we go from here.		Creativity
89	Sea	IPT		Our efforts to improve this relationship are frustrated by continuous change and management initiatives within our Environment.	Creativity
90	Sea	IPT		Performance measurement is used but standards are never raised. Why invest more time and money for no benefit?	Creativity
91	Sea	IPT		The company's performance has in most respects been unimpressive and frustrating.	Creativity
92	Sea	Firm		They just don't seem to be able to take a long term view. If we knew where we were we could start to plan.	Creativity
93	Sea	Firm		Of all the MoD departments we speak to the Contracts staff are the worst. They are set in their ways, won't take risks, have an adversarial mindset and they	Creativity

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
				slow things down.	
94	Sea	Firm	It was difficult to get the contract so we try extra hard not to mess it up.		Creativity
95	Sea	Firm	They are equally eager; they have their customer breathing down their neck - we are both in this together.		Creativity
96	Sea	Firm	Because the equipment has to be accepted by the end-customer it pays us to get the quality right - we cannot afford not to.		Creativity
97	Sea	IPT		They are an engineering-focussed firm who produce good products but they are 2nd rate on relationships, finance and contracts.	Creativity
98	Sea	Firm	We need inevitably to focus on the negative aspects of the relationship and seek improvement.		Creativity
99	Sea	Firm		The IPT doesn't seemed to have walked the talk; instead they have sunk back into their comfort zone.	Creativity
100	Sea	Firm	Both sides are committed to working together to improve the relationship.		Creativity
101	Sea	Firm		Although we have a partnering arrangement, the support aspects could have been better addressed by both sides and, would have resulted in major savings in whole life costs.	Creativity
102	Sea	IPT	We are fortunate that our commercial man is good at his job and understands what we are trying to do with partnering.		Creativity
103	Sea	IPT	We have some consultants in to improve our business. I shall give them the report to help their analysis.		Creativity
104	Sea	IPT		I hope the consultants will be able to implement some of the changes implied by your report. We don't have the time & resources; we are too busy fighting fires.	Creativity
105	Sea	Firm		It's an extremely complex support scenario that needs massive investment. There are never enough spares on the shelf.	Creativity
106	Sea	Firm		Industry is still in Cold War deterrence mode; it is not yet prepared for long-term service	Creativity

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
				provision.	
107	Land	Firm	We now sit down with the IPT to write PDS requirements. This saves many months of bureaucracy.		Creativity
108	Air	IPT	We have built a 'head' of goodwill despite the problems.		Quality
109	Air	IPT	The relationship contains a healthy measure of scepticism.		Quality
110	Land	IPT		An emphasis on customer satisfaction is sadly lacking.	Quality
111	Land	IPT		They give us the impression that because their products were part of the original equipment buy that they now have a right to the business.	Quality
112	Land	Firm	We are investing heavily in time and effort to improve the relationship.		Quality
113	Land	Firm	The need to dramatically improve the relationship is our number one priority.		Quality
114	Land	Firm	Personal working relationships where people really get on well together in a close-knit group are important to developing trust.		Quality
115	Land	IPT	Senior representatives from the company are dedicated to our business.		Quality
116	Land	IPT	Gainshare is built into the contract which also supports the companies exports aims.		Quality
117	Land	Firm	There was top-level commitment to the project from the outset and high quality leaders were selected.		Quality
118	Land	IPT		Individuals in the IPT are too familiar with the Firm's staff.	Quality
119	Land	IPT		Their view of partnering is for us to hand over the whole business to them.	Quality
120	Land	IPT		They are the Design Authority for modifications. We then go out to tender and smaller companies with lower overheads get the manufacturing business. It's no wonder the firm is sore at us. But, that's MoD competition rules for you.	Quality
121	Land	IPT		The company is frustrated with the IPT because Post design services are often carried out by cheaper, smaller competitors.	Quality
122	Land	Firm		The company is very frustrated. We have invested by placing a man in the IPT but the proposal	Quality

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
				was not welcomed. They said they could take or leave the idea. We would have to pay his costs.	
123	Land	Firm		The IPT's attitude is: 'we'll share whatever you have got'.	Quality
124	Land	Firm		We had to go out on a contractual limb, all the risk was ours because the IPT would not commit.	Quality
125	Land	Firm		The MoD thinks we should be doing everything for nothing - it's the people in the MoD who are the problem. Their current technical officer is the only ray of sunshine for a long time.	Quality
126	Land	Firm	Now that the MoD realises we are running a joint business things are improving.		Quality
127	Land	Firm	The company has invested in a Key Account Manager to give the contract the appropriate focus.		Quality
128	Land	IPT	There seems to be a genuine commitment to the customer.		Quality
129	Land	IPT		There is some reluctance for the Company to take risks in supporting our plans such as buying long lead-time items in advance.	Quality
130	Land	IPT		Despite assurances from the firm, we have grave concerns over their commitment to continue to invest in the 30% of their business which is Defence.	Quality
131	Land	IPT		No I don't know how much money I spend with the firm annually and I haven't time to talk about the relationship.	Quality
132	Land	IPT		The company is feeling beleaguered because there are doubts over the future of this weapons system and they are currently a one-product firm. We have the impression that we must support the company at all costs because of political reasons.	Quality
133	Land	Firm	Blame does not work it just perpetuates poor performance in the long term.		Quality
134	Sea	Firm		There is still a bit of the old 'cost-plus, bowler-hatted' attitude in both Industry and the MoD commercial staffs to overcome. Things are maturing but at different rates.	Quality

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
135	Sea	IPT	We hope to use the report as a catalyst to 'reboot' the relationship		Quality
136	Sea	IPT		I feel trapped within the MoD contract terms and conditions which prevent us from improving the quality of the relationship	Quality
137	Sea	Firm		The MoD Commercial staffs' view of sharing is they have the lion's share and we get what's left over.	Quality
138	Sea	IPT		They have an air of arrogance - take it or leave it, we are sole suppliers.	Quality
139	Sea	IPT		It is very frustrating to do business with the Company.	Quality
140	Sea	IPT		The company is only concerned that our business succeeds for their benefit.	Quality
141	Sea	IPT		Evidence of commitment is always promised but never delivered	Quality
142	Sea	IPT		Responsibility should be shared but because the relationship does not work this does not work	Quality
143	Sea	Firm		The MoD must trust us to make a reasonable profit in exchange for a better value for money service. The current partnering debate has yet to address this thorny issue	Quality
144	Sea	Firm		Our fear is the feast and famine situation of Defence spending. There are times when we must stop work, lay off experienced staff and then race to get back going again. I worry that we cannot respond fast enough and this adversely affects customer satisfaction.	Quality
145	Sea	Firm		Their worry is that because we are their single source and have changed hands a couple of times in the last 10 years we might go out of business and leave them high and dry.	Quality
146	Sea	Firm	The new partnering arrangement will run over 10 years and allow gainshare. At last we can start to improve the quality of this relationship for both sides.		Quality
147	Sea	Firm	The relationship is developing from a tight competition contract based customer/supplier role to a more open one based on trust and mutual gain.		Quality



ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
148	Sea	Firm	We are looking forward to CLS and the opportunity to provide total support and to benefit from gain-share.		Quality
149	Sea	IPT	They have a monopoly but they also depend for us for 95% of their business. We thus have a symbiotic relationship.		Quality
150	Sea	IPT	There have been improvements in the overall relationship and we seem to be moving forward together at last.		Quality
151	Sea	IPT	This has always been a good, close-knit relationship. We have worked together for about 7 years.		Quality
152	Sea	IPT	The majority of the relationship is single source. This does not cause a problem.		Quality
153	Sea	Firm		Of all our relationships, this is the worst and yet it is our most important because of its size.	Quality
154	Air	IPT	The fact that the Firm acknowledges that it is not delivering a quality service is a favourable sign.		Reliability
155	Air	IPT		I believe that the Firm has a long-term ethos of failure to deliver to overcome – they still act like a nationalised company.	Reliability
156	Air	IPT		The Firm lacks resources to change its culture and is a year behind us in progress.	Reliability
157	Air	IPT		They have often promised to deliver by a set date but have not only failed to do so but also to provide a revised date.	Reliability
158	Land	IPT	At last they are micro-managing our requests and improving performance.		Reliability
159	Land	IPT		They are slow to understand our essential procedures including the supersession of NATO Stock Numbers.	Reliability
160	Land	IPT		They often tender excessive price quotations, which are reduced after challenge. This does not engender a trusting relationship.	Reliability
162	Land	IPT		Responses to long-standing queries is either non-existent or un-helpful.	Reliability
163	Land	Firm	A sound, clearly understood working structure of contract and procedures has been an important success factor.		Stability

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
164	Land	IPT		Individuals in the IPT are too familiar with the contractor's staff.	Stability
165	Land	Firm		MoD is a bit slow to react; it is not dynamic like industry.	Stability
166	Land	Firm	Relationships between people is important in building trust and this is helped if people don't move around frequently. I've been on this contract for 6 years.		Stability
167	Land	Firm	We organised a training day on the MoD's site (without being asked) in order to educate their staff about our company and its products. Knowledge about each others' business is important to our professional relationship.		Stability
168	Land	IPT	Despite the firm's structural problems there is a good working relationship at the desk level.		Stability
169	Land	IPT		They think that we are constantly stifling their creative ideas.	Stability
170	Land	Firm		They just don't understand relationship management.	Stability
171	Land	Firm		Generally their commercial staff are extremely risk-averse.	Stability
172	Land	Firm		They seem to think the cheapest means Value For Money. They do not take a long-term view of the relationship.	Stability
173	Land	Firm	I agree with the views of both sides as portrayed in the research report.		Stability
174	Land	Firm	We are highly focussed on the customer's needs.		Stability
175	Land	Firm	We have a healthy, open relationship.		Stability
176	Land	Firm		They are a relatively undemanding customer and because there are no real competitors they rely on us to deliver.	Stability
177	Land	IPT		The firm would like to 'cherry-pick' the easy and profitable spare for a Contractor Logistics Support arrangement rather than take the whole package.	Stability
178	Sea	IPT	The Firm surprised us by 18 mths ago taking up my challenge to face up to its lack of performance before looking forward to partnering. As a result, an atmosphere has been created for constructive dialogue.		Stability
179	Sea	Firm	The research report was both		Stability

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
			interesting and useful and because it is from an unbiased source it allows us common ground for discussion.		
180	Sea	Firm		Budget constraints in the MoD reduce the relationship to fire-fighting. It's impossible to plan ahead.	Stability
181	Sea	Firm		Upheaval on the MoD side from staff and organisation change and vacant posts makes it impossible to generate a stable business environment.	Stability
182	Sea	Firm	We have a member of the IPT in our organisation and we employ a number of ex-naval personnel.		Stability
183	Sea	IPT	Because the company is the only one in the world capable of designing and manufacturing the equipment, we trust them with the business.		Stability
184	Air	Firm		We gave the MoD a pukka solution. They said it was too expensive. We cut back and now we are all suffering.	Stability
185	Sea	IPT		I am not unsurprised by the report's disparities; were the Firm being strictly honest?	Stability
186	Sea	IPT		Our Commercial department is not good - they have a staff turnover problem. This is hindering our efforts to make a partnering arrangement.	Stability
187	Sea	IPT		Their senior managers don't like being exposed to the detail of their poor performance.	Stability
188	Sea	IPT		If we hadn't been tied to the company by IPR we would have gone elsewhere.	Stability
189	Sea	IPT	I am not surprised by the results of the survey because I know we have a good relationship with the firm.		Stability
190	Sea	IPT		MoD commercial staff are always naturally cynical about the intentions of Industry and our standard terms do not include the concept of increasing joint rewards.	Stability
191	Sea	IPT	Although it has taken a long time, the Firm has just begun to understand what we want by offering us a service at a realistic price.		Stability
192	Sea	IPT	The report provides a true and useful assessment of the		Stability

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
			relationship.		
193	Sea	Firm	The report was very interesting and revealing. I am concerned about the aspects where our perceptions are at odds. We are about to begin a joint process review with the IPT and will use the report to get things started.		Stability
194	Sea	Firm		The MoD Commercial staffs' view of sharing is they have the lion's share and we get what's left over.	Stability
195	Sea	Firm		Even though their Commercial staff are embedded in their organisation I believe they still feel insecure and are constantly looking over their shoulders back up their traditional chains of command. It is going to take a long time to change this culture.	Stability
196	Sea	IPT		The company's recent performance has been a sad reflection of a leader of UK Industry.	Stability
197	Sea	IPT	The company has provided a member of staff to work in the IPT at their own expense. This shows their commitment to the development of the new partnering arrangement.		Stability
198	Sea	Firm		Our main problem lies with the SPO who continue to operate under the old adversarial way. This must change to allow a 100% committed and trusting partnership.	Stability
199	Sea	Firm		The IPT change their staff too often and because the relationship is very personality-dependent it is like a roller-coaster ride. Out go the old faces, in come the new and we are back to square one.	Stability
200	Sea	Firm	We get on very well with the current IPT Team Leader and have a frank and open relationship.		Stability
201	Sea	Firm	We have placed a staff member within the IPT at our expense.		Stability
202	Sea	IPT		To the firm, service is just a public display. In practice they have no delivery capability or understanding of the DLO's strategic goals and how they will be delivered.	Stability

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
203	Sea	Firm	I am delighted to see from the report that our perceptions are in alignment.		Stability
204	Sea	Firm	Our engineers talk daily and have a highly professional relationship with each other.		Stability
205	Sea	IPT		I am very surprised at the divergence of perceptions exposed by the report.	Stability
206	Sea	Firm		During the IPT's breakthru there was a 6 mth period when decisions were stalled and communications reduced. We worry this may happen again when the IPTL changes.	Stability
207	Sea	Firm		At the set-up of our 10 year programme we had bright ideas for an innovative framework contract. Disappointingly this was watered-down by the MoD Commercial people. We are hoping that a review will look at both performance and the relationship.	Stability
208	Sea	Firm		We can't see the IPT's desire to make this arrangement a success or to understand our drivers.	Stability
209	Sea	Firm		The commercial side is the weakest. The MoD still has traditional views. We put in a lot of effort to work with them but they can't change.	Stability
210	Sea	Firm		Changes in the IPT's logistics personnel have caused misunderstandings that have soured the atmosphere.	Stability
211	Sea	IPT	They are quite a small company so we know the people and we know we can trust them with our risk.		Stability
212	Sea	IPT	It's very important to shed the 'them and us' attitude as soon as possible.		Stability
213	Sea	IPT		The company want to be into new technology, volume manufacture to make fast gains. They don't like our old kit which is hard to maintain.	Stability
214	Sea	IPT	Their business has changed and we are now their main customer. This has changed their focus and our work is no longer on their 'back burner'.		Stability
215	Sea	IPT	A trusting commercial arrangement is the key.		Stability

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
216	Sea	Firm		They think we are far too expensive and slow and that we fail to deliver.	Stability
217	Sea	Firm		We speak different languages. To them it's a bit of kit to be pulled out and exchanged. To us it's a delicate instrument.	Stability
218	Land	Firm	Personalities are extremely important in our relationship. Leadership is also key. The IPTL really manages his business well. This makes life so much easier.		Stability
219	Land	IPT		The company moved a couple of years ago and often this is used to excuse poor response to queries on defective items – sometimes the sub-contractor is blamed. They do not seem to have a focal point for dealing with customer problems.	Reliability
220	Land	IPT		Adherence to delivery dates for spares is poor.	Reliability
221	Land	IPT	Team buy-in promotes openness and honesty on both sides.		Reliability
222	Land	IPT		There are still disconnects in the firm that upset efficiency which we do not understand.	Reliability
223	Land	IPT	The small structure of the firm's team ensures that it is dynamic and responsive to change.		Reliability
224	Land	Firm	The 'baggage' was removed at the start of the relationship and people believe they can speak without recrimination.		Reliability
225	Land	Firm	It was pure luck that a forward thinking, enlightened team happened to form. It would have been impossible to create this deliberately because there are so few staff to choose from in our slimmed-down organisations.		Reliability
226	Land	Firm	We have great faith in the quality of our products and our service.		Reliability
227	Land	Firm	Creative tension in the relationship keeps us sharp and dynamic.		Reliability
228	Land	IPT		They are very poor at delivering spares - until they can do the simple things right there is no point in trying to be innovative.	Reliability
229	Land	IPT		They are all talk and no performance. They have always been bad.	Reliability
230	Land	IPT		Quality issues are ignored.	Reliability
231	Land	IPT	They are making efforts to improve the quality of their		Reliability

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
			service.		
232	Land	IPT		Their product support manager is 'Mr Smooth'.	Reliability
233	Land	Firm		There seems to be a will to change at the IPTL level but I doubt if the organisation as a whole can do it.	Reliability
234	Land	Firm		There is a poor track record in the IPT to embrace change. We in the firm have had to bear the difficulties of the market and are changing faster.	Reliability
235	Land	Firm		Post Design services have been managed by a long term sick post in the MoD. This says little for their commitment.	Reliability
236	Land	IPT	Relationships are open and honest without hidden agendas.		Reliability
237	Land	IPT	They will offer alternative solutions that are beneficial to both sides.		Reliability
238	Land	IPT	They are quick to respond to high priorities.		Reliability
239	Land	IPT	We work in partnership rather than confrontation.		Reliability
240	Land	IPT	Technical awareness and expertise is important in the IPT to ensure that we negotiate on equal terms.		Reliability
241	Land	Firm		There is a prevalent view in the MoD that industry is not to be trusted otherwise it is not possible to obtain value for money.	Reliability
242	Land	Firm	A combination of good IPT staff and continuity in posts ensure the relationship is successful.		Reliability
243	Land	Firm	We normally deliver when we say we will.		Reliability
244	Land	IPT		We feel that we have to keep the pressure on price and delivery times to keep the firm 'on its toes'; we feel we are paying a high price for mediocre performance.	Reliability
245	Land	IPT	The single-sourcing arrangement is working well because it is jointly micro-managed by the commercial staff.		Reliability
246	Land	Firm		They seem to measure our performance on the product when we should be concentrating on the overall process.	Reliability
247	Sea	Firm		They want to do things right but their people return equipment to	Reliability

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
				us with little care or information. Often we find no fault and the diagnostic work costs the customer more.	
248	Sea	Firm	Personal relationships built up by frequent interaction build up rapport and trust.		Reliability
249	Sea	Firm	I acknowledge 'permafrost' exists on both sides in the commercial departments but it is reducing although it takes time to build confidence.		Reliability
250	Sea	Firm	Trust is quicker to build through personal contact than without.		Reliability
251	Sea	IPT	Good relationships are based upon good performance. This is our joint aim.		Reliability
252	Sea	Firm	Because 60% of our business is with the MoD we are very experienced in meeting their needs and working with them.		Reliability
253	Sea	Firm		We jointly want to put a member of staff in the IPT but the MoD Commercial staff are very difficult to deal with.	Reliability
254	Sea	IPT		Their deliveries are often late and the quality is poor. We continue to speak and only slowly are we chipping away at the problems.	Reliability
255	Sea	IPT		We have to concentrate on the numerous issues regarding poor products which prevents us from looking at strategy.	Reliability
256	Sea	IPT		We pay for the firm to locate an individual in the IPT and this was partially successful but it is hard to justify; they should be delivering anyway.	Reliability
257	Sea	IPT	My reading of the report indicates the firm has issues over bill paying and delivery. We intend to deal with these at the next progress meeting.		Reliability
258	Sea	IPT		As a Commercial Officer with responsibility for over 30 companies we rarely get the opportunity to review individual relationships.	Reliability
259	Sea	IPT	By giving the Firm full control over the service we can reduce the number of spares we have to buy.		Reliability
260	Sea	Firm		I can appreciate their view of us; we have a member of the firm who runs round like a headless	Reliability



ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
				chicken rather than telling the customer what the problem is.	
261	Sea	Firm	A trusting relationship depends heavily on the contracting environment and therefore on the quality of the Commercial staff on both sides.		Reliability
262	Sea	IPT		We have made huge progress with Repair & Overhaul but despite their good words and assurances their performance on Spares is appalling.	Reliability
263	Sea	IPT		Our Logistics function is provided as a matrix-managed service. The lack of integration with the IPT is a severe handicap.	Reliability
264	Sea	IPT	I hope that the Company's senior management will genuinely grasp the opportunity of the new partnering arrangement to turn round the situation and ensure that more than lip-service backs up promises of improved performance.		Reliability
265	Sea	IPT		Although some company staff are very willing to come up with the goods, others show willing but produce nothing.	Reliability
266	Sea	Firm		Lack of clear lines of responsibility for various aspects of the relationship within the IPT hamper the development of improved relationships.	Reliability
267	Sea	Firm		Their contracts staff have a real power to reduce the effectiveness of relationships as we have to respond to interminable price investigations.	Reliability
268	Sea	IPT		The firm lives under a 'halo' effect; when the chips are down they respond amazingly quickly & effectively but they are very poor at routine supply, commercial & business improvement.	Reliability
269	Sea	IPT	There has been a considerable improvement in obtaining delivery forecasts from the firm's customer service desk and as a result a very good working relationship has developed.		Reliability
270	Sea	IPT	General firm performance for delivery and feedback has improved lately.		Reliability
271	Sea	Firm	Our quality culture isn't just ISO, it also includes liP and these		Reliability

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
			things build-up with continuous improvement.		
272	Sea	Firm	We are keen to invest in peoples' abilities and obtain their buy-in to our objectives.		Reliability
273	Sea	Firm	We are very proud that visitors comment that the refurbished equipment looks brand new.		Reliability
274	Sea	Firm	I believe a healthy and positive relationship has built-up over a number of years and with a great deal of trust on both sides.		Reliability
275	Sea	Firm	The trust that has built-up over the years is a result of working together to achieve the desired end. I will go out of my way to help the MoD solve any problem.		Reliability
276	Sea	IPT		At a strategic meeting with the firm I gained the impression that the research questionnaire had been completed by staff who didn't know about the relationship.	Reliability
277	Sea	IPT		Their Project Officer is now also responsible for the Commercial side. This says little for their concern for our relationship.	Reliability
278	Sea	Firm	We jointly test the equipment before issue.		Reliability
279	Sea	Firm		We have yet to finalise the price of our product 2 years into the new business arrangement. This doesn't help our planning and puts end of year pressures on me from the parent company.	Reliability
280	Sea	IPT	Our business success is based on trust. Recently we had a serious problem. The firm reacted instantly, sent a man and the job was done.		Reliability
281	Sea	Firm		Normally we have no problems with the MoD business. I can't understand why they think so badly of us. Sometimes we don't get their paperwork right.	Reliability
282	Sea	IPT		People who go back years will tell you the same thing; the company has always been a problem. It is possibly the nature of the 'beast'; temperamental equipment.	Reliability
283	Sea	IPT		As individuals we get on with all of them - engineers, commercial, projects and supply but, as a whole the company doesn't come together.	Reliability

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
284	Sea	IPT		Delivery and product reliability are the main problems. They have outstanding repairs going back to 1992.	Reliability
285	Sea	IPT	It just comes down to people.		Reliability
286	Sea	Firm		The support chain is highly disjointed with a mix of in-house and industry participation. There is over-capacity and inefficiency. No one has an overview of the whole.	Reliability
287	Sea	Firm		It's a problem maintaining 30 year old kit. It's used and abused and we have difficulty finding people and sub-contractors with the necessary skills.	Reliability
288	Sea	Firm		The supplier base is very small; it is thus very easy to have critical support chain breakdowns.	Reliability
289	Sea	Firm		The IPT's Project Managers need constant chivvying to get things done and then we get the blame for being late.	Reliability
290	Land	Firm		The relationship has recently become more difficult because some of the long-standing IPT staff have turned over. The new members are not at all experienced.	Reliability
291	Air	Firm	Compared to other customers I find the MoD innovative and forward-thinking.		Stability
292	Air	IPT		Limited weapon system life reduces incentive for long term approach.	Stability
293	Air	IPT		Frequent reorganisations in the Firm Team increases uncertainty.	Stability
294	Air	IPT		The Firm won't give us product lead times, even for more money.	Stability
295	Land	IPT	Recognition of the team's achievements through awards and publicity breeds further success.		Stability
296	Land	IPT	Trust is personality and leader-driven and behind closed doors anything can be said.		Stability
297	Land	IPT	Joint presentations externally provide a reinforcing image of the partnership.		Stability
298	Land	Firm	Continuity of staff in both teams has been important in building and maintaining both expertise		Stability

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
			and a trusting working relationship. The fact that the teams are both fairly small is an additional strong point.		
299	Land	Firm	As the reputation of the team within the business has grown this has helped to boost the confidence of the members and spurred them on to further gains.		Stability
300	Air	Firm		They have cancelled priority tasks at the last minute and incurred costs. Better planning would have saved resources all round.	Communication
301	Air	Firm		The relationship between our people is excellent but frequent staff changes in the IPT disrupt our working arrangements and incur costs.	Creativity
302	Air	Firm		We are a very static organisation that hopes the world will bend round us.	Stability
303	Air	Firm	We will use the report as a point of discussion in our next meeting with the IPT.		Reliability
304	Air	Firm		This relationship is highly dependent on people. We are a small company and unfortunately a shortage of resources limits our ability to focus on developing the relationship.	Reliability
305	Air	IPT		Routine pricing enquiries are dealt with promptly but any work of substance is dealt with slowly and no excuse is given for the delay.	Reliability
306	Air	IPT	My opposite number is new in post and I intend to invite him to an 'agenda-free day' to relate what I am offering and seeking in our relationship.		Stability
307	Air	IPT		I don't believe I am getting the service I know the company as a whole is capable of providing.	Reliability
308	Air	IPT	My relationship with my opposite number is a good one. We both do our best to accommodate each other even though our systems are incompatible. I would trust her to do her best for me as I would for her.		Reliability
309	Air	IPT		We still have a great deal to do in the areas of objective performance measurement and dynamism to benefit both parties.	Communication

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
310	Air	IPT		Because the company is small there is a 'funnelling' effect when tasks reach a certain size because of lack of resources.	Reliability
311	Air	IPT	They have moved into a new line and we put them in-touch with other relevant platform IPTs. We both felt good from this bit of cooperation.		Reliability
312	Air	IPT		Lack of momentum seems to be a feature of 'top down' management in the company.	Creativity
313	Air	IPT		They are a family business led from the top and are very traditional. They are also world leaders in their field. Their attitude is 'if you want it you must pay for it'.	Quality
314	Air	IPT	Because the organisations are small the relationship is based upon key individuals at desk level.		Stability
315	Air	IPT	They are almost fun to deal with; they are not full of management-speak. They are a bit like us: evolutionary and resource-capped.		Stability
316	Air	IPT	They know full well we can't go anywhere else but still the relationship is a good one.		Quality
317	Air	IPT	We did have a problem and they rang me, the IPTL, direct. It is good to know that they feel they can do this.		Communication
318	Air	IPT	We have learned not to set too fast a pace. We are both busy and need to set realistic, long-term targets.		Communication
319	Air	IPT	The report will prove extremely valuable in our continued deliberations.		Communication
320	Air	IPT		We have tried hard to improve the relationship using in-house resources but now that we have run out we are getting no support from the corporate HQ.	Communication
321	Air	Firm	Within the bounds of US regulations on data sharing we do our best to have a free flow of information.		Communication
322	Air	IPT	We've spent a lot of time working together including very frank exchanges when I told them they were gold-plated, expensive and slow.		Quality
323	Air	IPT	We target individuals in the		Communication

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
			company to change their attitudes and see that they bring on their colleagues as a result.		
324	Air	IPT	I tell them that if we can excel then they will get good profits over the long term.		Quality
325	Air	IPT	I spend my time working the low level politics in the company to promote my aims.		Communication
326	Air	IPT	You can't build trust without personal relationships to build up a good reputation.		Reliability
327	Air	IPT	Your people must adopt a consistent approach when dealing with the other side.		Creativity
328	Air	IPT	I offered them a 25 year contract to show how committed we were. This surprised the firm.		Quality
329	Air	IPT	In the short time I have been working with them I have been impressed by their willingness to cooperate on all matters involving technical queries, spares procurement and repair of assets.		Reliability
330	Air	IPT	The senior managers are very committed to us. They have let us know of problems before we find out by other means and let us know what they are doing about them.		Reliability
331	Air	IPT	A good working relationship has been developed between myself and my contact in the firm (mutual trust comes to mind) and this eases both our tasks.		Reliability
332	Air	IPT	They were very arrogant with a take it or leave it attitude but we have worked hard to break this down.		Quality
333	Air	IPT	We have invested a huge amount of time on them socially to build bridges and influence their culture		Quality
334	Air	IPT	We have major issues meetings twice per year and they appreciate honesty from us over our quality requirements.		Reliability
335	Air	IPT	They want to know when the service is wrong because they are very keen to improve: people don't go to work to do a bad job.		Reliability
336	Air	IPT	We both concentrate on quality, not blame.		Reliability
337	Air	IPT	I tell the firm honestly my budget for the coming year.		Communication

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
338	Air	Firm		Engineering staff talk the same language and get things done. However, constraints are imposed by Commercial Contracts staff who spend an inordinate amount of time arguing about 'pence'.	Stability
339	Air	Firm		The MoD need to introduce a can-do culture as soon as possible.	Creativity
340	Air	Firm		The Treasury objective of reducing expenditure by 20% was supposed to have been achieved by Smart Procurement however, by slowing down the whole process it has probably successfully reduced the amount of business placed by 20%.	Creativity
341	Air	Firm		Airworthiness and giving the crews the best equipment to do the job should be our joint, prime aim in life. Instead we appear to be trying to catch each other out and score points.	Stability
342	Air	Firm		The IPT have introduced their Commercial department into the normal day running of the PDS contract which has slowed down the whole process considerably and introduced an element of conflict between us.	Reliability
343	Air	Firm		Although top management have a good relationship with the firm, their Contracts branch still have a 'cannot-do, jobs-worth' attitude. They should provide a service to the programme managers, not control. They are the main stumbling block to good, timely, efficient relationships.	Creativity
344	Air	Firm	All support chain parties, including the end customer, attend planning meetings to discuss requirements, pool knowledge and resolve problems.		Communication
345	Air	Firm		Knowledge of spare, provisioning and supply is limited in my technical area and sometimes we are caught out by this.	Communication
346	Air	Firm	We have a very good and open relationship with the IPT. Where airworthiness is concerned it is essential to have mutual respect and trust of the other party's position.		Reliability

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
347	Air	Firm		Despite the good words, countless initiatives and top management commitment to openness, honesty and transparency within the DLO there still seems to be a very long way to go.	Reliability
348	Air	Firm		The true meanings of Integrated and Team are still to be learnt by the MoD.	Reliability
349	Air	Firm		The biggest obstacle to improving business performance is MoD Contracts. There is a severe shortage of resources, risk aversion and lack of flexibility which lead to significant effort and delay in agreeing contracts.	Reliability
350	Air	Firm		The IPT has a high turnover of staff causing inconsistent approaches, duplication and increased workload.	Creativity
351	Air	Firm		Because all our dealings with the IPT seem to concentrate on problems the relationship is poor and we never get to consider the wider picture.	Stability
352	Air	IPT		Although we and some of the company are willing to create a better, fairer working environment, overall there is a lack of good will by the company and the feeling that they can charge what they like.	Quality
354	Air	IPT		When there is no other option then we have to make the best of a bad job.	Quality
355	Air	IPT	Hopefully our proposed strategic partnering arrangement will address all the problems of this relationship.		Stability
356	Air	IPT		In answering some of your questions I could have done with another column: 'very very strongly disagree' especially the one 'the other party is always totally open and honest with us'.	Reliability
357	Air	IPT	We are endeavouring to improve the forecasting of our requirements to assist the firm with providing a better service.		Communication
358	Air	Firm		I am concerned at our lack of touch with the end customers. We need seamless performance measurement throughout the logistics chain.	Communication



ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
359	Air	Firm		My experience of dealing with the MoD is one of frustration through time-consuming bureaucracy and regulatory requirements.	Creativity
360	Air	Firm		Whereas industry is always under strong commercial pressures the MoD requisition/contracts process seems to lack urgency.	Creativity
361	Air	Firm		We get more information about future policy plans from the MoD web site than from the IPT	Communication
362	Air	Firm		We desperately need better performance management systems to ensure that actions are logged and analysed against standards.	Communication
366	Air	IPT		On face value a good relationship exists but the underlying ethos is that we only get what we pay for and the firm is always looking for ways to spend more on 'gold plated' solutions.	Reliability
367	Air	Firm		The attitude changes needed by Smart Procurement will inevitably take a long time.	Stability
368	Air	Firm	I am very keen to assist you in this research; I have been trying for years to break into our Customer Services department and your report will certainly help.		Creativity
369	Air	Firm		Some contractual issues were missed at the beginning such as what happened when the operator subsequently halved the power by the hour usage rate and rogue arisings occurred.	Stability
370	Air	Firm		Communications could be better. We found the unit test rig had broken and u/s items were mounting up but no one told us. They also increased their operational reserves without telling us.	Communication
371	Air	Firm		At renegotiation time because their usage rate had dropped we needed to increase prices to cover our overheads. This was not understood and we were blamed for attempting to milk the contract.	Reliability
372	Air	Firm		We were to blame for slapping in a bill without warning when we heard they had loaned some of	Reliability

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
				our pool items to a foreign government.	
373	Air	Firm	It is very important to start small with innovative partnering arrangements in order to let the problems sort themselves out and to build up mutual trust.		Quality
374	Air	Firm	We now need to leave the contract behind us and concentrate together on the output to the customer.		Quality
375	Air	IPT		Although we have produced good results for the end customer, the cost in management time has been huge; far more than anticipated.	Quality
376	Air	IPT		Regrettably the relationship between the key personalities plays a major part in the lack of smooth running of the relationship.	Quality
377	Air	IPT	This is real support chain management; the mechanism is invisible to the end customer.		Creativity
378	Air	IPT	Managing out risk costs a great deal of top management time. This is where the hard decisions such as how much we are going to spend are made.		Quality
379	Air	IPT		There was a clash of wills with them wanting to make more money by adding extras and us digging-in for basic outputs.	Stability
380	Air	IPT	We don't agree all the time but at least we communicate clearly.		Communication
381	Air	IPT	I intend to sit down with the firm and discuss the report. I especially want to get to the bottom of the point where our views are clear opposites.		Communication
382	Air	Firm	We are doing a lot to educate the IPT into involving the end customer in the setting of performance targets.		Communication
383	Air	Firm		There is much goodwill but we are still not always achieving joined-up results.	Quality
384	Air	Firm		Unfortunately the unrewarding environment at the work face is causing the brightest and most innovative people on both sides to drift away into esoteric areas like training courses and studies.	Quality
385	Air	IPT	In the areas that I deal with there is nothing but enthusiasm. At that level they know they must		Creativity

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
			change.		
386	Air	IPT		We have our own problems of adopting new partnering approaches. A long history of 'pushing water up-hill' has left the staff sceptical and disillusioned.	Creativity
387	Air	IPT		At the middle-management level of the firm the message has not hit home and the same old culture and practices prevail.	Communication
388	Air	IPT	We aim for a 10, 12, 15 or even 30 year contract. This fosters a long term ethos, cuts the costs of frequent re-negotiations and allows the Firm to plan and resource.		Stability
389	Air	IPT	Information is useless unless it is shared. It allows us to pre-empt risks so the Firm doesn't have to build 'insurance' into its prices. The results are increased competitiveness for the Firm and increased Value For Money for us.		Communication
390	Air	Firm		The IPT have no intention of sharing any cost savings they make with us. For instance they have told us that if the partnering arrangement makes a staff member redundant he will be redeployed in the office and no savings will be made or shared.	Quality
391	Air	Firm		They are not sure what their costs are so it will be difficult to measure the savings for a partnering agreement.	Reliability
392	Air	Firm		Because it's a fixed price contract they expect us to do all the liaison and problem-solving with their front line customers - even if the problems are not of our making.	Reliability
393	Air	IPT		Information on pricing and delivery is difficult to obtain and is usually inaccurate when received.	Communication
394	Air	IPT		We feel we are being 'ripped-off' by the firm over prices and as a result we have real difficulty in reducing our costs.	Stability
395	Air	IPT	The new framework contract runs for 5 years at a fixed cost. This gives us guaranteed availability and a 20% reduction in costs. The firm is incentivised to increase reliability, it can plan, cut		Creativity

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
			overheads and home in on fault trends.		
396	Air	IPT		We have been thwarted at every turn to obtain fair and reasonable prices from the firm. Recently without warning, they marked-up prices by 2-300%.	Reliability
397	Air	IPT		For many years the firm has had it all their own way and they thus seem very reluctant to change.	Stability
398	Air	IPT		They drag their feet on modifications that improve reliability because the more they stop things going wrong the less they make on repairs.	Stability
399	Air	IPT	We used to keep a pool of items to feed in to repair. With our new partnering arrangement we track individual items and have significantly cut down on their number.		Creativity
400	Air	IPT		The firm shouldn't be shocked about the poor marks we have given them in the survey. I have told them face-to-face many times.	Communication
401	Air	IPT		We have waited for month for answers to questions raised at our review meetings.	Communication
402	Air	IPT		We sent them 10 items to repair. They got stuck on one and held up the batch. They didn't tell us for 9 months.	Communication
403	Air	IPT		Our Contract people agreed to the price change without reference to us.	Stability
404	Air	IPT		The firm's customer support and the design authority appear to be rivals and we notice a poorer service as a result.	Stability
405	Air	IPT		We have got as much out of doing things as well as we can; we now need to do things differently. However, our commercial staff won't change.	Stability
406	Air	IPT		We think we are being wholly reasonable with them but they do not reciprocate.	Quality
407	Air	IPT		They are the worst company of the lot unless it is within their interest to cooperate.	Quality
408	Air	IPT		Its not their people who are at fault; they are almost embarrassed at our comments but, they have to 'toe their company's line'.	Quality

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
409	Air	IPT		Our commercial staff have resisted integrating with us. As a result my ability to be innovative is restricted.	Creativity
410	Air	IPT		Even the IPTL can't sign anything without the ok of the commercial man. They still have their own chain of command.	Creativity
411	Air	Firm	The benefits of the partnering arrangement are: we are 'future-proofed', uncertainty is removed, we can plan and, we can really focus on the customer.		Creativity
412	Air	Firm		When we first got together with the IPT to establish our relationship we put it all up on the wall. 18 months later they have not changed.	Stability
413	Air	Firm		We are so frustrated by the IPT we are prepared to wade in and stir them into action. The research report will help us to expose the issues.	Stability
414	Air	Firm		The IPT doesn't know what it wants. How can we react properly.	Communication
415	Air	Firm		We would be grateful if you would tell the IPTL what is going on.	Communication
416	Air	Firm		I've never met the front line customer so I can't tell you what his view is.	Communication
417	Air	Firm		The MoD's lack of email is a real problem.	Communication
418	Air	Firm		At the working level they aren't trained very well. It galls me to know that my staff know more about doing the IPT staffs' jobs than they do.	Reliability
419	Air	Firm		We feel 'kicked in the crutch' by their view of us but we are still determined to improve the situation. The problem is, we always seem to do the giving.	Quality
420	Air	Firm		Three years ago we offered the IPT a terminal from our system to allow them to track the progress of their orders but their security people turned it down.	Communication
421	Air	Firm		The engineering relationship is very good on a day to day basis although this is limited by the commercial aspects.	Creativity
422	Air	Firm		The relationship with the MoD is restricted by outdated practices. If there is risk-sharing &	Reliability

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
				incentives why are SPS and Def Con 43 ad 48 still being used? As long as there is a 'we do not trust you' attitude, an open & honest relationship cannot be encouraged.	
423	Air	Firm	We must move towards cost-sharing type contracts to allow both parties to work-out problems effectively. When they both care about each others' costs, innovative solutions follow and relationships flourish.		Reliability
424	Air	Firm		The firm has done much to disappoint the MoD but rather than working towards a satisfactory resolution of issues they are still trying to punish us. It is not possible to have effective teaming if the contractor is losing money as a result.	Quality
425	Air	Firm		Legacy problems and perceptions are tough to overcome.	Creativity
426	Air	IPT		Getting service out of the firm is like getting poop out of a rocking horse.	Reliability
427	Air	IPT	They have been the design authority for almost 20 years. We have thus a very good working relationship.		Stability
428	Air	IPT		The fact that the company has pointed out in the report a number of reservations has come as a complete surprise to us. We are going to discuss the matter with them in a special meeting.	Creativity
429	Air	IPT		The company might be finding the new CLS a bit difficult to get used to; it puts all the onus squarely on them.	Reliability
430	Air	Firm	The contract has flexibility built-in to handle unforeseen events - especially of an operational nature.		
431	Air	Firm		Although we have been taken over some time ago we still have some of our old culture. I think this adversely affects the customer's view of us.	Stability
432	Air	Firm	I try and talk to my opposite number at least weekly. We share information that allows planning and minimises assumptions.		Communication

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
433	Air	Firm	Although our commercial people are no better or no worse than the other side, we recently achieved contract renewal a day before the old contract ran out. They must be doing something right at last.		Reliability
434	Air	Firm	Now we have a 4 year, fixed-price contract they let us get on with it without interference.		Quality
435	Air	Firm		The equipment was bought at minimum cost using COTS equipment and as a result has suffered from resistance from the weapon system Design Authority and the 1st Customer. We, the Firm, are caught in the middle.	Quality
436	Air	Firm	We have made great efforts to provide effective support despite the lack of MoD investment and as a result we have lost money.		Quality
437	Air	Firm	Both sides are going to put their hands in their pockets to bail out this project.		Quality
438	Air	Firm		We have worked hard to build up good relations with most parties in the MoD and at a working level these are still good but, there is an overall difference of objectives which does not encourage us to be faster/cheaper/better.	Stability
439	Air	Firm		We continue to be hounded by the MoD to provide a level of technical performance which was not part of the original contract.	Reliability
440	Air	Firm	Personal relationships with the opposite numbers are as well as can be expected given the overriding pressures of both parties but especially paucity of funds.		Creativity
441	Air	Firm	Focussing on what you want is most important, then you can aim at the practical issues.		Stability
442	Air	Firm	It would be a good idea to have an open forum debate at the end of your research so that issues could be aired freely.		Communication
443	Air	Firm	Time and money constraints and technical complexity will always have a bearing on the relationship success.		Reliability
444	Air	Firm	Profit is all very well but it is customer service that keeps you		Reliability

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
			in this business.		
445	Air	Firm		Smart Procurement's prime aim is to take money away from industry. I see no light at the end of the tunnel.	Quality
446	Air	IPT		We have been struggling to take over this DPA project but it should have been worth £11m but it was whittled down to £4m. We are now having to pay to iron out the problems.	Quality
447	Air	IPT	There seems to have been a change in attitude of the firm recently. I think it could be because of your research report.		Creativity
448	Air	IPT		We sit between the 1st Customer who wants the equipment with all the bells and whistles before it is even ready for operational use and the firm. We are the meat in the sandwich.	Stability
449	Air	IPT		Constant changeover of people in the IPT is preventing lessons being learned and experience building up.	Stability
450	Air	IPT		Once upon a time before the DLO we all shared our lessons. Now there are IPTs they are reluctant. There is a blame culture that is not career-enhancing.	Communication
451	Air	IPT		It's a traditional contract which promotes archaic ways of working and provided no incentive to them to perform.	Creativity
452	Air	IPT		The kit is old and unique; I am staggered at how much it costs to run.	Reliability
453	Air	IPT		It takes the firm a month to give us a response; they just don't seem to see us as important.	Reliability
454	Air	IPT		Their work is of good quality but they are very high charging.	Quality
455	Air	Firm		Your study has given us some cause for concern. Some of the other party's responses are rather surprising and alarming.	Stability
456	Air	Firm		A DERA study reported that the product could not be beaten. We have now found out that the IPT has advertised for someone to do another and told us not to bid. I think the money would be better spent on reducing current support costs.	Communication



ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
457	Air	Firm	It's an amazing difference to be speaking to people who are in contact with the customers now that PE are out of the loop.		Communication
458	Air	Firm	The platform is not really core business; I have to fight my corner with management so I am really keen to improve the relationship.		Quality
459		Firm	We have a good relationship but the report shows we must pick away at the detail to fine-tune it.		Creativity
460	Air	Firm		I am still concerned at the IPT's high turnover of staff and the lack of accumulated experience.	Creativity
461	Air	Firm		The regular cycling of military staff is not conducive to long term relationships that develop sound working practices and allow innovation.	Creativity
462	Air	Firm		Transformation of the RAF into a commercial organisation with commercial business attitudes to contracting has been well-publicised but in recent negotiations on a new contract many standard industry clauses such as Limited Liability were excluded.	Creativity
463	Air	Firm	The relationship with the MoD/RAF has improved significantly since the platform was handed over from the PE. Prior to this the atmosphere was very combatant and occasionally devious.		Stability
464	Air	Firm		The margins of MoD contracts are significantly lower than others. We thus don't do any work at risk even where our PDS contract is fully funded and has little or no limited liability issues.	Stability
465	Air	Firm		Reduced margins and intense competition in the sector are all very clear reasons for the reduced level of commitment and risk in the company. It has thus become increasingly difficult to secure finance from senior management to invest in this relationship.	Quality
466	Air	IPT		My opposite number has a vested interest in portraying a warm, comfortable position because otherwise it will be seen to be critical of him. His job could be on the line.	Quality

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
467	Air	IPT		PDS performance is not too hot: they don't recruit the people so we don't place the orders and pay them as much as we could.	Quality
468	Air	IPT		We sit in the company's commercial margins and have less leverage. This makes for hard and protracted negotiations.	Quality
469	Air	IPT		We couldn't easily go elsewhere; they have the drawings and the knowledge. Taking Design Authority elsewhere is not really a practical proposition.	Quality
470	Air	IPT		We fear the company 'pulling the plug' or worse, a long period of 'take-it or leave-it'.	Quality
471	Air	IPT		We need a strategic review with the company but we never see their boss - he barely seems engaged.	Stability
472	Air	IPT		The company seems unable to understand that one point of contact is inadequate to deal with the multi-level issues that occur.	Communication
473	Air	IPT		At the individual level everyone does his best but I sense the company's organisation to serve us is a bit hit or miss.	Reliability
474	Air	Firm	The relationship we have established is very good and robust but, we still have a long way to go to understand each others drivers and how we can jointly improve the way we do business with each other.		Stability
475	Air	Firm	In my experience the quality of our relationship with the DLO is one that the DPA could emulate.		Creativity
476	Air	Firm		The area of bidding could do with considerable improvement by both parties.	Reliability
477	Air	Firm	Many of the issues raised in your survey correspond to those we have found in our own exercise. We are going to workshop them through with the IPT.		Creativity
478	Air	Firm	In other areas we put our own people into the IPT to help them do their PDS cases. This saves both sides time, money and accuracy. I hope to persuade this IPT to accept the same arrangement.		Creativity
480	Air	IPT		We have a very one-sided contract implementation regime	Quality

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
				where the contractor knows he cannot easily be replaced and uses this to his benefit and our cost.	
481	Air	IPT		There is no competition in this field to break the hold the contractor has over us.	Quality
482	Air	IPT		There is no evidence of risk-sharing without us paying the cost at a later date.	Quality
483	Air	IPT	Their contribution to the success of the relationship is most apparent when we have to deal with a significant engineering problem. They are responsive, constructive and work hard to resolve it whilst putting aside the commercial aspects.		Creativity
484	Air	IPT		Their response to routine work is much less efficient than that for problems.	Reliability
485	Air	Firm	Although the business arrangements and operational outputs of the 2 organisations are far from ideal, honesty and openness are not only promoted but are lived every day.		Reliability
486	Air	Firm	Both organisations learn from their mistakes rather than blaming the other party (mostly..). This fosters an environment responsive to change at all levels.		Creativity
487	Air	Firm	I believe that the will is evident from both sides to have the relationship succeed.		Stability
488	Air	Firm		The basis of some distrust and traditional methods of operation will require significant effort to breach. 'Us and them' is still very apparent at a number of personal levels.	Reliability
489	Air	Firm	We try and keep abreast of possible problems and try to mediate between the various parties. However we are constrained by budgets, timescales and product liability.		Reliability
490	Air	Firm	We have a good working relationship despite differing backgrounds and experience.		Communication
491	Air	Firm	We are looking at ways of empowering individuals with better information to improve their effectiveness.		Communication
492	Air	Firm	We used to have a Civil service-style structure. Now we are		Communication

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
			much flatter and communication is better. People also know where they stand.		
493	Air	Firm	The report has been very useful; it has provoked a response. We intend to use it as a springboard to improved teamworking with the IPT.		Creativity
494	Air	Firm		I'm concerned the DLO does not have an objective view on where to focus on the important relationships.	Stability
495	Air	Firm	If you don't understand peoples' motives you can't improve. There seem to be some real barriers to progress at the lower levels.		Stability
496	Air	Firm	There is a different culture that has crept in at the middle and above; an acceptance for the need to change.		Stability
497	Air	Firm	The key is to harmonise the main objectives. Others that are not important and act as obstructions must be identified and suppressed.		Stability
498	Air	IPT		The firm is unwilling to disclose problems until it has produced a solution which is advantageous to him and cannot be changed except at significant cost.	Creativity
499	Air	IPT		He employs devious ways to ensure that the MoD and GFE suppliers are seen as holding up the programme.	Stability
500	Air	IPT		The relationship is characterised by frustration at the contractor's unwillingness to share information.	Communication
501	Air	IPT		We will never achieve a true business footing because there is no open market competition for the MoD and we are shackled to this supplier - and he knows it!	Reliability
502	Air	IPT		This relationship is at best arms-length and routinely adversarial furthermore, individual relationships are not consistent and this creates communication difficulties.	Stability
503	Air	IPT		Despite all the good words industry is still hide-bound by an order book mentality and an inability to change commercial practices to meet, deliver and cost schedules.	Reliability

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
504	Air	IPT		I am trying to support an ageing weapon system which does not bear a good return to industry.	Quality
505	Air	Firm		Due to moving responsibility from one department to another they seem to be unable to get their act together in a timely manner to let a contract to repair the equipment.	Reliability
506	Air	IPT		They are nice chaps who take us out to lunch but as an entity they are lacking in service delivery.	Reliability
507	Air	IPT		It takes ages to get information out of them despite numerous reminders.	Communication
508	Air	IPT		It's old technology; maybe we are small beer.	Quality
509	Air	Firm		I go back a long way and when we did business with the MoD PE they had much better control over their money.	Creativity
510	Air	Firm		We seem to have too much interaction with numerous stakeholder agencies. There is no buffer between us and a plethora of voices, often giving conflicting messages.	Communication
511	Air	Firm		We have a finite pool of engineers. The more we can plan together the more chance there is of having the resources available when needed.	Communication
512	Air	IPT		We have a good relationship with our counterparts but when their project manager is around they clam-up. Now he has moved on things should improve.	Creativity
513	Air	IPT	When we go to meetings with them we ensure that we are fully prepared so we can appear as a cohesive, intelligent, professional customer.		Creativity
514	Air	IPT	I am open and above board as to where my objectives lie - they may be hard but I have no secrets.		Creativity
515	Air	IPT	I have assembled a full team of stakeholders so the Firm can get a comprehensive view of the customer.		Communication
516	Air	IPT		I worry that within a year I will be moved on and all my relationship building work will be lost.	Reliability

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
517	Air	IPT	I don't want to move yet to a CLS arrangement until I am confident it will work. I'm carefully watching the progress of others to see how they get on and why.		Quality
518	Air	IPT		I'm very dubious about any CLS arrangement that involves DARA. They still have a long way to go until they become commercially competitive. Their hourly rate is double that of my partner firm.	Quality
519	Air	IPT		There is a gulf in perception between the sides over performance which also extends to the front line. Without a common understanding of how we are doing we cannot move forward.	Creativity
520	Air	IPT	My team is only 60 strong and small is beautiful. Many people can't understand they can do more with less. We concentrate on essentials; the nice to do only encourages growth in overheads.		Creativity
521	Air	IPT		The supply staff think they are pond-life but they seem to have the clearest view of what's happening across the boundary between us. I'm not sure how to use this capability effectively.	Communication
522	Air	IPT	We're making progress with the company. At our last monthly meeting I was surprised to see they were portraying their performance figures honestly and without massaging.		Reliability
523	Air	Firm		They see us as over-priced outputs supplied late and where quality could be better. However, the customer shows no recognition of our problems and therefore offers us no sympathy or practical assistance.	Creativity
524	Air	Firm		They don't seem to realise that a fixed price contract limits our ability to react flexibly to changes once work has started.	Reliability
525	Air	Firm		They don't seem to realise that we have great difficulty in finding and retaining people with the right skills. If we do not receive orders we cannot afford to hang on to these people.	Reliability
526	Air	Firm		Cash flow is very important to a business like our's but asking for	Reliability

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
				part-payment for partial completion of the job does not meet with a positive response.	
527	Air	Firm		Although I believe our success should be closely linked to that of our customer, his willingness to competitively tender every requirement to the absolute lowest bidder and the lack of information to allow us to plan our future R&D do not help.	Quality
528	Air	Firm		Maybe we marked the questionnaire too generously; not wanting to be too open about our customer.	Communication
529	Air	Firm		We thought the relationship was a lot better than the report suggested.	Communication
530	Air	Firm		We have had a few problems with some key individuals on the other side.	Stability
531	Air	Firm	Is their team-leader concerned about the findings of the report and keen to do something about it? We want to change the perception. We don't want to fight over it.		Creativity
532	Air	Firm	The situation in the report give us serious cause for concern. We have a sizeable business with our main UK customer who thinks we are 'crap'. We must do something about it.		Quality
533	Air	Firm		Communications at working level are good but we don't have any high-level reviews; I haven't seen their team-leader for 18 months. I don't even know if they think we are important.	Communication
534	Air	Firm		When the new team-leader arrived he organised an industry day and planned working groups to tackle issues. Eighteen months later what, has happened?	Stability
535	Air	IPT		New business must be diminishing. The firm must start concentrating on long-term service to existing products.	Stability
536	Air	IPT		We went to see them and offered them a total support package. We have had no response.	Creativity
537	Air	IPT		They think they are brilliant but the legacy side is almost forgotten. They have had a horrendous turnover of staff; god	Creativity

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
				knows what their HR policy is like.	
538	Air	IPT		I suspect that our respondents did not provide you with a balanced view.	Communication
539	Air	IPT		We do have a poor relationship but it's not as bad as your report implies.	Communication
540	Air	IPT		Their PDS performance is mediocre at best. I think this is because they don't see it as a money-earner and thus do not allocate enough manpower resources to supporting the contract.	Stability
541	Air	Firm		They are generally easy to do business with but we often have to chase them for information. Why not give it up-front?	Communication
542	Air	Firm	We don't have any problems with their commercial people; they are quick and efficient. Probably the best area in the MoD I have worked with.		Communication
543	Air	Firm		They don't seem to understand we have lead-times; they often want it tomorrow.	Stability
544	Air	Firm		In the PDS area we are totally dependent on production; we have to fit-in wherever we can. The MoD just isn't realistic in its expectations.	Reliability
545	Air	Firm		I seem to be fighting fires all the time rather than planning ahead. All I seem to deal with is problems.	Reliability
546	Air	Firm		I programme-manage 20 or 30 contracts. There is lots of contact between my engineers and the other party. It's a pity I don't have a similar relationship with their programme managers.	Communication
547	Air	IPT		The knee-jerk reaction of the MoD to its current funding problems is the biggest turn-off to industry.	Quality
548	Air	IPT		We are locked into a 10 year contract set up by the DPA whose aim was to sustain the company's regional business for employment purposes and to maintain a capability. To us this is not 'smart' and we are trapped.	Quality
549	Air	IPT		The legacy equipment is not 'sexy' to the company. They put all their brightest commercial	Quality



ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
				and programme managers on the new projects.	
550	Air	IPT		They are constantly turning over their staff.	Stability
551	Air	IPT		Their commercial attitude is: 'you have a problem, what are you going to do about it'. Mind you, we screw them into the ground and know every detail of their costs.	Reliability
552	Air	IPT		They think they can make money by taking over the whole business. But we don't pay for storage and distribution so only small Supply Chain efficiencies are possible. There are no easy solutions.	Reliability
553	Air	IPT	We envisage we will set up a joint management team with future, new equipments.		Creativity
554	Air	IPT	Their customer services people are trying hard; they seem to have vision.		Stability
555	Air	IPT		If we start a long term agreement for say 30 years, we must have top-level support to ensure we do not do the usual MoD trick of cutting back the funding at little notice.	Stability
556	Air	IPT		At the moment we are getting conflicting messages. The MoD wants us to enter into long term arrangements but the finance community is trying to hold back spending. We are not geared up to implement Smart Acquisition.	Stability
557	Air	Firm		We are concerned that the DLO's target of a 20% reduction in support costs within 5 years is incompatible with our desire to grow the business.	Stability
558	Air	IPT	We jointly attended a partnership team building workshop to improve our working relationship. The results have been agreed at senior level and we have since seen a steady improvement.		Reliability
559	Air	IPT	Their man is on our side. He takes the trouble to sit down and talk to us. This is good for a director.		Communication
560	Air	IPT	They are always thinking of the future; wanting to know what our budget is for the next 4 years, what are our equipment plans, what they can do to enhance the equipment and exploring how		Stability

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
			they can offer a better support service.		
561	Air	IPT		There is some uncertainty in the company; they are talking of moving and centralising. We are worried that they will lose expertise.	Stability
562	Air	IPT		I've had a 90% staff turnover. Maybe this is why they think we are bad.	Stability
563	Air	IPT		They have a really bad supply manager that we normally bypass - hence perhaps their low mark for our communication.	Communication
564	Air	IPT		The company increased the responsibilities of this division at short notice. Due to lack of knowledge and resources they have struggled to achieve their personal and contractual objectives.	Reliability
565	Air	IPT		It is important that the results of your study are promulgated to the senior levels in the company so that they will allocate more resources to improve the service.	Creativity
566	Air	IPT		We need the senior management to put pressure on industry to develop a better attitude to working together, to set long term objectives and to agree joint objectives.	Quality
567	Air	IPT		The current contract is due to expire and I note the company proposes a 32% price increase for the follow-on.	Quality
568	Air	IPT		The company's performance has been very poor with numerous warnings at progress meetings and several letters of formal complaint.	Reliability
569	Air	IPT		The company closed their site and moved. As a result all expertise was lost and delays in getting things done are very frustrating.	Stability
570	Air	IPT		Their man promises a lot at meetings but nothing is delivered. They are totally reactive.	Reliability
571	Air	IPT		They have taken on additional tasks without the resources. They don't have the staff to chase their sub-contractors who let them down.	Reliability

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
572	Air	IPT		They are not at all proactive in offering us ideas to improve the equipment.	Reliability
573	Air	IPT		They are located a long way away and we haven't had a team building meeting to develop forward plans. This is our fault.	Communication
574	Air	IPT	They have been involved with supporting our equipment for over 20 years and are fully committed to us.		Creativity
575	Air	IPT	We are good friends and thus talk openly and often.		Communication
576	Air	IPT		Because the equipment gives us no problems we have to concentrate on fire-fighting elsewhere hence we have never met to talk about the future.	Communication
577	Air	Firm		Your procurement people like to remind us that we haven't a divine right to the business. However, we have invested heavily in knowledge and experience. This doesn't seem to be recognised or valued.	Communication
578	Air	Firm		They need to value continuity; we are not the cheapest in the world.	Creativity
579	Air	Firm	My opposite number and I find innovative ways of providing the best support.		Creativity
580	Air	Firm	It's individuals that make it happen.		Creativity
581	Air	Firm	We need to find a new way of achieving long term contracts that are all-embracing. Short term gains and cheapest prices will cost more in the end.		Stability
582	Air	Firm		I feel really let down that the current review by the IPT into a new product has cut us out and ignored our long experience.	Stability
583	Air	Firm		In this day and age I believe no large company will try to rip-off the MoD. The audit trail and accountability are there so why not trust us?	Quality
584	Air	Firm		Although it is easy to do business with my opposite number there is still a 'them and us' atmosphere.	Quality
585	Air	Firm		We have built a lengthy bid approvals process that is designed to protect ourselves because we have been stung by the MoD in the past. This does	Reliability

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
				not come cheap and is reflected in our price.	
586	Air	Firm		There are often different expectations from them; it's the Civil Service v Commercial attitude. Today we don't have time to provide a gilded solution; 95% has to do.	Stability
587	Air	Firm		The company closed down a site and we inherited the work without staff. The IPT was not consulted. They are frustrated that we are taking a long time to sort ourselves out.	Stability
588	Air	Firm	We get as much forward planning information as they can give us. There is a lot of 'out of the blue' work and we must be flexible.		Communication
589	Air	Firm		We would like to meet more often than we do but budgetary issues seem to impact on the matter in the IPT.	Communication
590	Air	IPT	He's a forward-thinking, go-getter in the company who is going places. He is a pleasure to do business with.		Stability
591	Air	IPT	He's open and honest and gets on the phone to deal with problems as soon as they appear.		Reliability
592	Air	IPT		We recently had a joint partnering workshop. Despite lots of promises at working and senior level since, nothing has changed.	Quality
593	Air	IPT		Our ability to compete is completely hampered by reliance on the company as Design Authority to authorise alternatives.	Quality
594	Air	IPT		The relationship seems to be always driven by us.	Reliability
595	Air	IPT		Although we are committed to a contracted spend profile, the annuality and fluctuations of Defence budgets makes getting the best out of the relationship very difficult.	Reliability
596	Air	IPT		Despite chasing, we often don't get information on delivery delays until the routine progress meetings.	Communication
597	Air	IPT		It is difficult to harmonise our objectives because the company appears to keep theirs close to their chest.	Stability

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
598	Air	IPT		There is tremendous commitment on both sides at working-level but we are all short of resources to take forward strategic relationship improvements. We don't seem to have the top management support that we need.	Quality
599	Air	Firm	We have had a few days out on the golf course which really helps people to get to know each other.		Quality
600	Air	Firm		We have a customer satisfaction survey and I am audited on its results under ISO 9000. However, because the MoD are unsure of their regulatory position they refuse to cooperate and I fail the test.	Reliability
601	Air	Firm	We are hosting the next quarterly progress meeting. I am going to raise the report for consideration.		Communication
602	Air	Firm	I am happy to see our views in the report are in accord. We have had a recent brain-storming session which put everything on the table.		Communication
603	Air	Firm	The relationship has been absolutely outstanding. The trust established makes us want to do anything we can for the customer.		Quality
604	Air	Firm	Our parent company is very customer-oriented and typical of the best of the American people.		Creativity
605	Air	Firm	It wasn't an easy project but regardless of time of day they would hop a plane and be here. 'You have a problem: how can we work it out?'		Creativity
606	Air	IPT	The speed with which the project was placed to contract and the success of the programme is largely due to our close partnering arrangement. They have proved to be reliable and innovative.		Reliability
607	Air	IPT	They have proved to be excellent partners and have actively supported us in all aspects of a difficult procurement.		Stability
608	Air	IPT	At every stage of the acquisition process they applied a consistently positive and constructive approach to negotiations. If anything this attitude has continued to develop since contract let.		Creativity

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
609	Air	IPT		We are not optimising our support policy. Our engineers are not interested in the wider aspects of support and we leave too many important decisions to un-supported, supply staff.	Reliability
610	Air	Firm		In the recent strategic review we didn't have clear accountability in the company and we didn't resource the effort with the right skills.	Stability
611	Air	Firm		Perhaps the results of the review were threatening to people at the lower levels in their organisation which is why it failed.	Stability
612	Air	Firm		Maybe the company is still stumbling to come to terms with a new support business area. We are still working out what we can add or not.	Stability
614	Air	Firm		One of the real problems in trust-building is the rapid change of IPT staff and especially because the newcomers want to stamp their persona on the relationship. We waste so much time. Progress is really slowed.	Creativity
615	Air	IPT		My confidence in their ability has taken a real knock since the failure of our strategic review. I hoped they would think differently. Now they are suspicious of my motives and the relationship has soured.	Stability
616	Air	IPT		They don't seem to be at all good at learning from experience. Their organisation is very network-based and thus loop-closing is poor.	Stability
617	Air	IPT		Their inability to change fill me with despair that they can ever become a partnership-oriented organisation.	Stability
618	Air	IPT		The equipment is mature, I don't want to invest any more effort; I am quite happy to have an adversarial relationship.	Reliability
619	Air	IPT		Their performance against the contract continues to decline. I intend to increasingly use the contract to manage the situation.	Reliability
620	Air	IPT		Although our engineering relationships are very strong we sometimes suffer problems due to the various commercial requirements and frequently	Creativity

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
				protracted negotiations.	
621	Air	IPT		I think they take the view that our equipment is legacy, that we are an undemanding customer and they can use us as a 'milk cow'.	Quality
622	Air	IPT		Although we negotiate down the price, we know they will recoup the money somewhere else.	Quality
623	Air	IPT		They only achieve about 30% of their delivery forecasts. They don't seem to have the capacity to meet our needs.	Reliability
624	Air	IPT		They never ask us why we are ordering things - perhaps we are ordering the wrong things.	Reliability
625	Air	IPT	We need to understand industry's capabilities. They are very good at engineering but very bad at service.		Stability
626	Air	IPT		In engineering terms the equipment is old hat and our best people want to work on new projects.	Stability
627	Air	IPT		Their commercial people are intransigent and at loggerheads with their engineers.	Stability
628	Air	IPT		We offered to remove components prior to a return to works programme which their engineers approved and believed would save us £2m. Their commercial people offered us a rebate of £2.5k. The nerve of it!	Stability
629	Air	IPT		For economy reasons we have centralised our Commercial Organisation. This is a big mistake. Although they are focussed on the company, they are not focussed on the business output and don't appear to be accountable for their actions.	Stability
630	Air	IPT		The DLO HQ does not have a strategic view of industry relationships. This is a big problem. They do not know that we are responsible for future systems. They think that's DPA business.	Stability
631	Air	IPT		Our relationship is very personality-driven and we get on with them extremely well. However at the professional level they are terrible.	Reliability

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
632	Air	IPT		Our efforts to persuade the firm to be more output focused are not helped by a front line customer who cannot provide us with a CSA.	Reliability
633	Air	Firm		Our engineering staff firmly believe in providing the best possible support to the front line customer but the constraint on this are often not understood by other staffs on both sides.	Reliability
634	Air	Firm	I strongly believe that successful working relationships are built on trusting personal relationships.		Reliability
635	Air	Firm		The teams are doing their best to provide the end customer with the best possible service but budget constraints are often not understood either by the MoD or by our own people.	Reliability
636	Air	Firm		We are particularly concerned about DARA and its so called 'protected order book'.	Stability
637	Air	Firm	Our relationship is changing for the better because we have understood that closer involvement, communications and understanding between all stakeholders are the key.		Communication
638	Air	IPT		Objectives can never be fully compatible because industry aim to maximise their profit and the MoD seeks best Value For Money.	Stability
639	Air	IPT		Our contract is single source and although the relationship works well, we would prefer to have a competition option.	Quality
640	Air	Firm	Our arrangement is amicable, sensible and pragmatic.		Stability
641	Air	IPT		All they want to do is make products and push them out of the door. They don't understand the meaning of Service.	Stability
642	Air	IPT	I have recently arrived in this job and find your report a really useful introduction to this relationship. I will also use it in my first meeting with the Firm.		Creativity
643	Air	IPT	Having been in trouble, the company is now restructuring and recruiting staff and the performance has improved markedly.		Creativity
644	Air	Firm	I am currently composing a presentation for dissemination within the company to put new		Communication



ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
			life into our customer focus. I shall use your report to support this.		
645	Air	Firm	It's great to see how we see each other. One generally has a feeling but an objective view is better.		Communication
646	Air	Firm		There is some reticence in the company about moving into support rather than supply. Our Culture does not accommodate this and needs to change.	Stability
647	Air	Firm		We are driven by commercial needs and it is a continual battle to pump the IPT for planning data.	Communication
648	Air	Firm	We look forward to a shared data environment where more information both ways is available.		Communication
649	Air	Firm		As a sub-contractor we feel out on a limb with new prime contractor/MoD partnering schemes. We will lose touch with the IPT staffs and the end customers.	Reliability
650	Air	Firm	We are especially keen to embrace a payment system that does away with the expensive and unreliable MoD F640 system.		Reliability
651	Air	Firm	A good team is dependent on the mix of individuals. We have been particularly lucky that the people in our joint teams have hit it off so well.		Creativity
652	Air	Firm	Our good partnering contract simplifies the operation of our relationship and frees us to encourage one another to higher performance levels.		Stability
653	Air	Firm	Direct access to MoD data sources such as stocks and flying hours would speed up processes and improve support.		Communication
654	Air	IPT	Our 5yr, periodically indexed firm price arrangement removes all the tension from price re-negotiations.		Creativity
655	Air	IPT	Our firm price contract incentivises quality because all rejects come out of profit.		Creativity
656	Air	IPT	Now that we have a partnering arrangement around a good framework contract we just concentrate on the customer - we no longer refer to the small print.		Creativity

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
657	Air	IPT	We don't have a contract monitoring team - they just create distrust.		Creativity
658	Air	IPT	We have simple, obvious, open performance measures. Every week the firm sends us a statement of work achieved, problems and forecasts and we pass them consumption data. The achievements are open for all to see.		Communication
659	Air	IPT	We have 2 kinds of modifications. Those to our benefit we subject to the full procedure and pay for, those to the firm's benefit which it pays for but is free of admin. This way increased reliability is incentivised.		Stability
660	Air	IPT	All stakeholders were involved in the project including the end customers who helped design the performance targets. The same people are involved in implementation.		Stability
661	Air	IPT		Interpersonal relationships are very important. Recently all our staff have changed. It will be interesting to see if things run smoothly.	Stability
662	Air	IPT	I'm not sure if our success in setting up a good partnering arrangement was all luck (people) - maybe the clarity of contract aims helped.		Creativity
663	Air	IPT	Their team had to keep an eye on their commercial man; he had a tendency to go for the small print.		Creativity
664	Air	Firm	I would like to repeat this survey over time to see how perceptions change as a result of our joint efforts.		Creativity
665	Air	Firm	If we are to be successful we must change the perceptions of our customers about us.		Stability
666	Air	IPT		Communication has proved difficult at the managerial level.	Communication
667	Air	IPT		We do not feel valued as a customer.	Quality
668	Air	IPT	We work closely and most successfully with a small team.		Stability
669	Air	IPT		A lot of problems of late deliveries arise because of incompatibility of IT systems between the MoD, the firm and the sub-contractors and, because of lack of manpower.	Reliability

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
672	Air	Firm		When you drill down into any organisation you will uncover frustrations.	Reliability
673	Air	Firm		IPTs are often better resourced than Industry with specialised people in larger teams.	Reliability
674	Air	Firm	Currently quotes take a long time to process. I am suggesting 2 monthly meetings with the IPT Commercial Officer to smooth the task.		Creativity
675	Air	Firm	Our margins are much smaller these days and this limits the number of people involved in our interface channels. We are having to learn how to make this as effective as possible.		Communication
676	Air	IPT	I receive an understanding, consistent service from the company. They tend to do what they say.		Reliability
678	Air	IPT		DARA have come up with a money-saving idea (£1m per annum) but it depends on the co-operation of the Firm. However, the latter are not enthusiastic because this cuts their profit.	Quality
679	Air	IPT		If we scream they react. Everything is short term; they are not forward-looking.	Creativity
680	Air	IPT		No one seems to own the problem. It's always been the same with this company. Nothing has changed despite big words about Smart Acquisition.	Creativity
681	Air	IPT		We have put in a huge amount of effort to jointly streamline processes but the Firm just does not deliver what they should do. They are currently achieving less than 50% performance against their order book in all areas.	Reliability
682	Air	IPT		We have little incentive to help them grow their business if they can't even do the basics.	Stability
683	Air	IPT		I think they understand that they must do a great deal to improve their performance but, we are locked-in with them either way; no one else can do the work.	Quality
684	Air	IPT		I am convinced that we must do more to reduce our own costs because the Firm has been unable or unwilling to. Maybe our emphasis on developing	Quality

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
				partnering over the last 2 years has been premature.	
685	Air	IPT		We are about to sign an incentivised contract and if they do well they will get paid more but, I have not got the money. Smart Acquisition is not geared-up for this kind of flexibility	Creativity
686	Air	IPT		We agree round the table then nothing ever happens.	Reliability
687	Air	IPT		Part of our process improvement has meant finding and paying lost/un-submitted invoices. This is going to cost my IPT £9m this year from a very tight budget. I feel I am paying for the Firm's inefficiency.	Reliability
688	Air	IPT		We are developing a partnering arrangement with the Firm. At the managerial level they are keen to improve their performance but this has not filtered down to the workers.	Stability
689	Air	IPT		Although we work well with our opposite numbers in the Company, I am always wary of a hidden agenda in their hierarchy.	Reliability
690	Air	Firm		SPS are a bunch of gautleiters and gestapo. They argue over pennies and halfpennies and it takes us 9 months to agree prices. This is a huge disaster when we are trying to respond quickly to the IPT.	Reliability
691	Air	Firm		the original breakthru atmosphere was brilliant but when we got down to the practicalities of doing business we are again walking through treacle.	Stability
692	Air	Firm	Success is personality-driven. Meeting in pleasant circumstances where minds are allowed to meet will develop mutually profitable solutions.		Stability
693	Air	Firm	We recently held a Kaison event to talk about the ordering process. Everyone was present and 'books were opened'. We are now doing activities in parallel rather than series and have eliminated the nastiness that has existed for years.		Creativity
694	Air	Firm		The IPT is reluctant to take the initiative and adopt new business practices that have been developed in other areas.	Creativity

ID	BU	Organisation	Positive Comment	Negative Comment	Dimension
695	Air	IPT		They just don't seem to be customer-focussed. Perhaps this is due to their frequent reorganisations.	Stability
696	Air	IPT		We asked them to quote for an order worth over £1m. Only 9 months later after some pressure did we get a response.	Communication
697	Air	IPT		They have established a centralised spares ordering point. It just seems to build-in delay.	Reliability
698	Air	IPT		They sit on repairs for 2-3 years. Perhaps we are small beer compared to other customers.	Reliability
699	Air	IPT		They have plans to centralise their facilities. We fear they will lose expertise in the process.	Reliability
700	Air	IPT		They speak nicely, make lots of promises but nothing ever happens.	Reliability

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## Appendix 7

### Detailed Data Analysis Q3 Transaction Cost Economics & Q4 The Theoretical Framework (Detailed Perspective)

#### 1 Introduction

This Appendix shows in the following Sections the detailed data analysis for each of the theoretical dimensions against the following questions:

- **Q3 – Can factors within Transaction Cost Economics (TCE) such as Asset Specificity and Opportunism explain the dynamics within monopolistic UK Defence Procurement relationships?**

and:

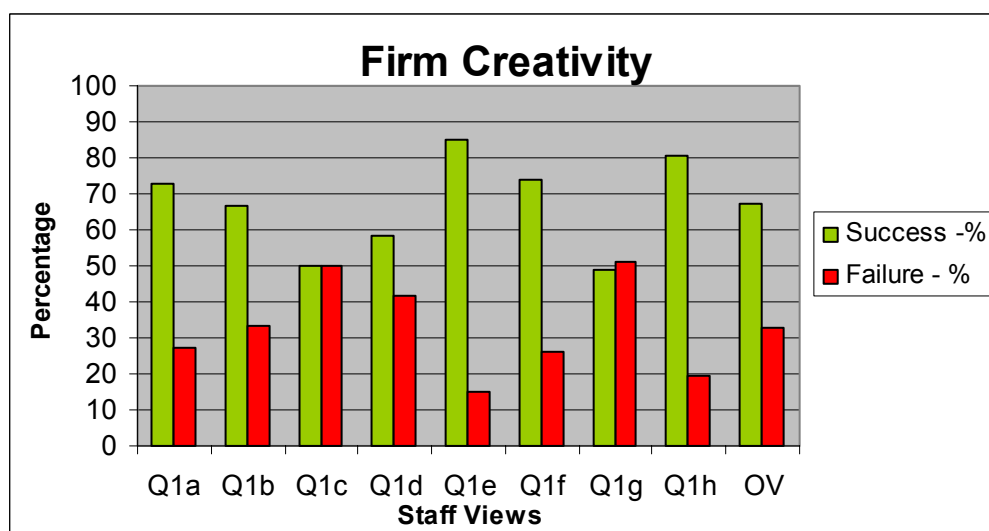
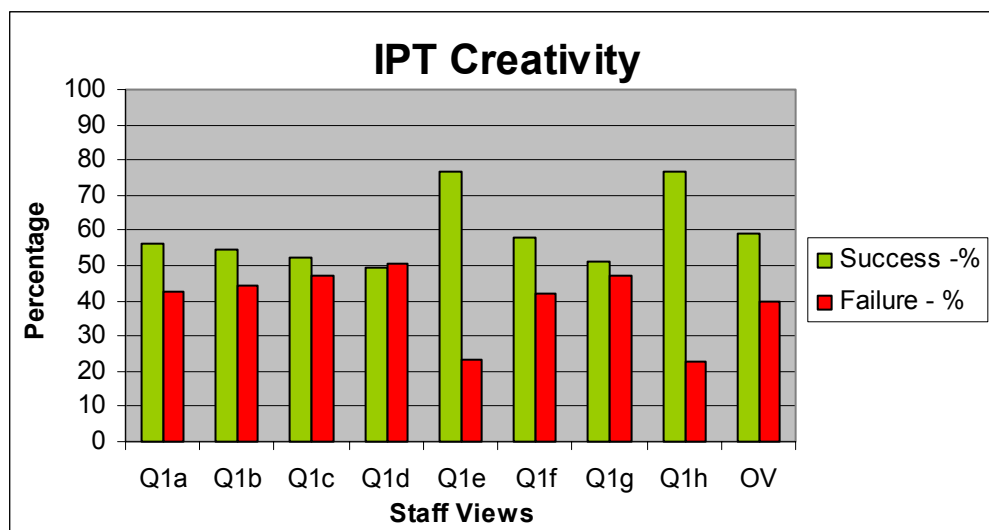
- **Q4 – Can the TCE Organisations Failure Framework be used as a theoretical lens with which to view monopolistic relationships within UK Defence Procurement?**

In each of the following Sections the appropriate questions from the questionnaire (see Appendix 1) are repeated and the overall comparative graphical results are portrayed. Then, under categories that emerged from the qualitative data, examples of the qualitative data (listed fully at Appendix 6) are used to illustrate the salient numerical points (numbers in brackets following quotations refer back to Appendix 6). Because the theoretical model is essentially negative in its perspective, the presentation of results in these Sections highlights the high and low relationship aspects revealed by the data. At the end of each, the key points are provided. The overall summary of Key Points from this Appendix is found in Chapter 4, Section 5.

## 2 Dimension 1 – Bounded Rationality (Relationship Creativity)

People have only so much capacity to rationalise what is going on around them and they therefore naturally limit their performance to the adequate rather than the optimum (Simon, 1957) (Chapter 3, 4.2). The converse of this statement generated the following questionnaire questions (see Appendix 1):

- a. The relationship encourages the achievement of high performance by both parties ie. reliable equipment, on-time delivery, good forecasts.
- b. The relationship encourages us to be innovative in the way we do business.
- c. Performance measurement is used to raise standards.
- d. Disputes & problems are resolved: 'quickly'.
- e. Disputes & problems are resolved: 'fairly'.
- f. The other party is reliable and consistent in dealing with us.
- g. The other party is dedicated to making our business a success.
- h. When an unexpected problem arises, both parties would rather work out a solution than hold each other to the original contract terms.



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## **2.1 Introduction**

Although the Firms were overall generally more optimistic (68%) than the IPTs (59%), the pattern of positive results is virtually identical and indicates a strong measure of agreement between the parties.

## **2.2 Low Relationship Points**

There appeared to be 2 low relationship points in this dimension and both of which are illustrated by semi-structured interview quotations that are examples of bounded rationality and also a lack of willingness to invest in specific assets. The lowest point was Q1c – Performance measurement is used to raise standards (IPTs: 52%/Firms: 50%).

IPT:

‘There is a gulf in perception between the sides over performance. Without a common understanding of how we are doing we cannot move forward’ (519).

and:

‘Performance measurement is used but standards are never raised. Why invest more time and money for no benefit’ (90).

Firm:

‘They show no signs of wanting to do better; their management is self-satisfied’ (67).

and:

‘They have no idea or system for judging our performance’ (66).

In the second low point, Q1g – Mutual dedication to business success, there was a slight difference of opinion between the sides where the IPTs had a positive view and the Firms were negative. However, the difference was not very marked due to the general low opinion expressed (IPTs: 45%/Firms: 46%).



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Firm :

'The customer shows no recognition of our problems and offers us no sympathy or practical assistance' (523).

IPT:

'Industry has trained us to expect we will be let down and this sums up why we think the Firm is not dedicated to our success' (49).

and:

'We offered them a total support package. We have had no response' (536).

### **2.3 High Relationship Points**

Both sides agreed that Fair dispute and problem resolution (Q1e) were the best aspect of the relationships (IPTs: 77%/Firms: 85%). A sample of illustrative comments indicated examples of long-termism and investment in relationship-building specific assets.

IPT:

'Our 5 year, periodically indexed, firm price arrangement removes all the tension from price re-negotiations' (654).

Firm:

'Frequent contacts, even as often as daily, build confidence, reduce risks of misunderstandings and ensure fair and reasonable outcomes' (47).

A close second (IPTs: 76%/Firms: 80%) was Q1h where each side would react flexibly to unexpected problems.

IPT:

'They are responsive, constructive and work hard to resolve problems whilst putting aside the commercial aspects' (483).

Firm:

‘It wasn’t an easy project but regardless of time of day they would hop a plane and be here. You have a problem, how can we work it out?’ (605).

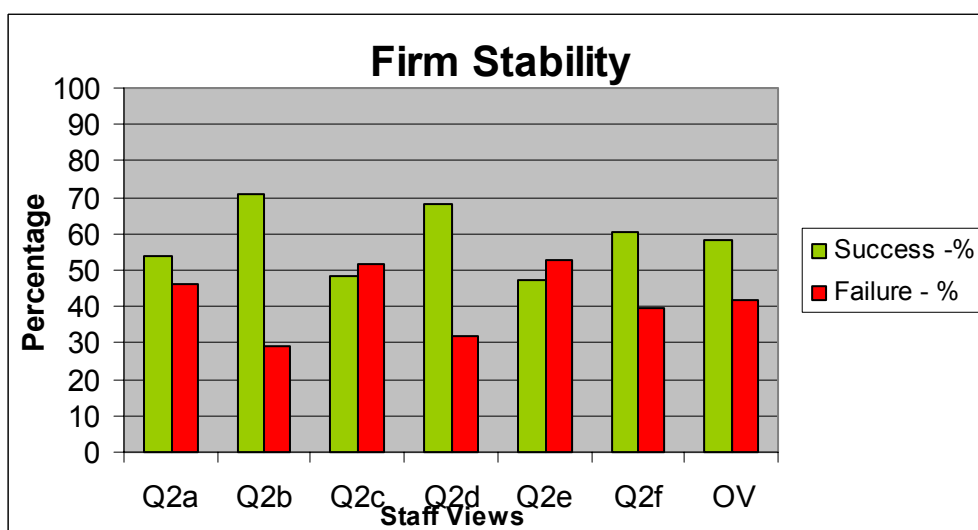
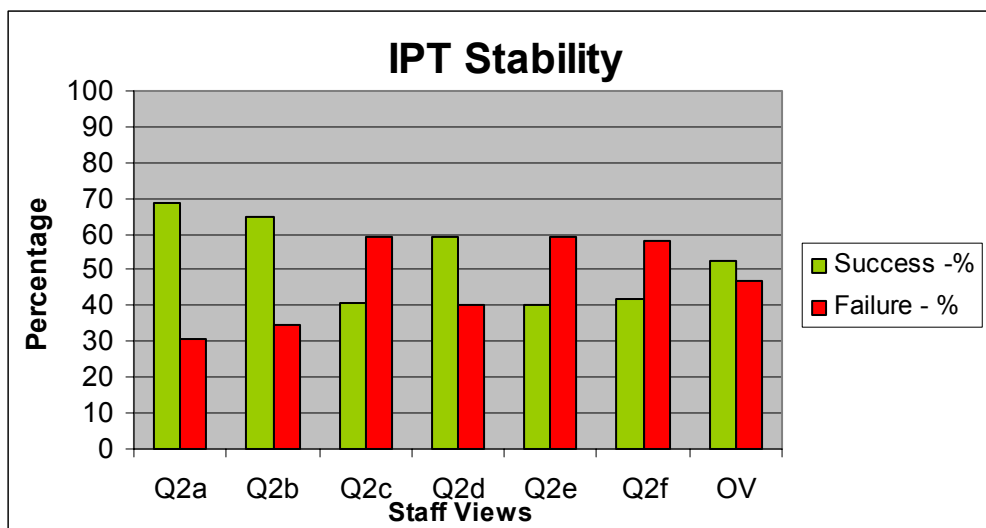
#### **2.4 Key Findings**

Under this dimension aspects of bounded rationality and a lack of investment in specific assets are clearly featured in the relationships surveyed. However, it appeared that more creative features such as equity and customer-focused flexibility were more dominant and bore out the overall dimension success score of 64%.

### 3 Dimension 2 – Uncertainty/Complexity (Relationship Stability)

People have difficulty in making sense of complex current and future events (Williamson, 1975) (Chapter 3, 4.3). The converse of this statement generated the following questionnaire questions (see Appendix 1):

- a. The other party displays a sound, strategic understanding of our business.
- b. The objectives of both parties are clearly stated.
- c. The objectives of both parties are fully compatible.
- d. Both parties co-operate wholeheartedly.
- e. The relationship provides a dynamic business environment within which both parties can seek increasing rewards.
- f. I have complete confidence in the intentions of the other party.



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### **3.1 Introduction**

Firms were overall generally more optimistic (69%) than IPTs (53%) in this dimension. The pattern of both positive and negative results indicated some measure of agreement although in the Q2f 2<sup>nd</sup> level dimension the parties' views were clearly at variance.

### **3.2 Low Relationship Points**

There were 2 low relationship points of virtually equal intensity. The first was Q2e – A dynamic business environment - (IPTs: 40%/Firms: 47%) and illustrative comments indicate opportunistic, short-termist behaviour and lack of relationship-developing investments.

IPT:

'We feel we are being ripped-off by the Firm over prices and as a result we have real difficulty in reducing our costs' (394).

and:

'They drag their feet on modifications that improve reliability because the more they stop things going wrong the more they make on repairs' (398)

Firm:

'They seem to think the cheapest means value for money. They do not take a long-term view of the relationship' (172).

and:

'We can't see the IPT's desire to make this arrangement a success or to understand our drivers' (208).

The second was Q2c – Fully compatible objectives - (IPTs: 41%/Firms: 48%) where the highly idiosyncratic nature of the business, imbalance in power positions and a lack of interdependence based upon credible commitments were suggested.

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IPT:

'The company wants to be into new technology, volume manufacture. They don't like our old kit that is hard to maintain' (213).

Firm:

'We are concerned that the DLO's target of 20% reduction in support costs is incompatible with our desire to grow the business' (557).

### **3.3 High Points**

Both interdependence and a reduction in the need for sophisticated controls to guard against opportunism are noted. Both sides agreed that Q2b – Clear objectives - was the best aspect of the relationship (IPTs: 65%/Firms: 71%).

IPT:

'Our strategic partnering arrangement has addressed many of the old problems including poor objectives' (355).

Firm:

'We are highly focussed on the customer's needs' (174).

and:

'A sound, clearly understood working structure of contract and procedures has been an important success factor' (163).

A close second was Q2d – Co-operation - (IPTs: 60%/Firms: 68%).

IPT:

'They have proved to be excellent partners and have worked with us in all aspects of a difficult procurement' (607).

and:

'Despite the Firm's structural problems, there is a good working relationship at desk level' (168).

Firm:

‘Our engineers talk daily and have a highly professional relationship with each other’ (204).

### **3.4 Significant Relationship Difference**

The 2<sup>nd</sup> order dimension Q2f – Mutual confidence - suggested a significant difference of views where one side had a positive perception (IPTs) and the other’s (Firms) was negative (IPTs: -42%/Firms: +61%). This is illustrated in the first instance by a lack of mutual hostages (specific asset investments) to prevent opportunism and short-termism.

IPT:

‘All they want to do is make products and push them out of the door. They don’t seem to understand the meaning of service’ (641).

and:

‘He employs devious ways to ensure that the UK MoD and OEMs are seen as holding-up the programme’ (499).

On the other hand in the second case the relationships appeared to be more co-operative and interdependent.

Firm:

‘Our arrangement is amicable, sensible and pragmatic’ (640).

and:

‘I believe the will is evident from both sides to have the relationship succeed’ (487).

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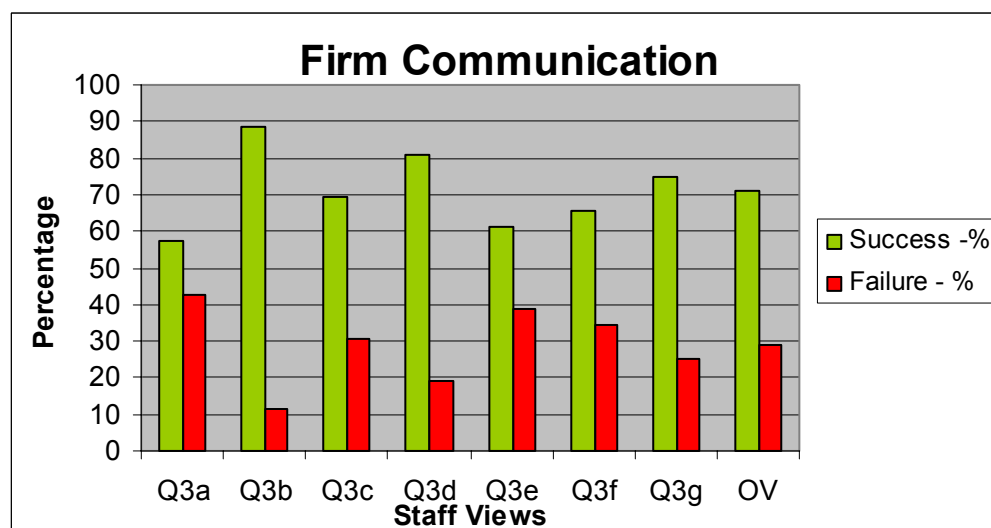
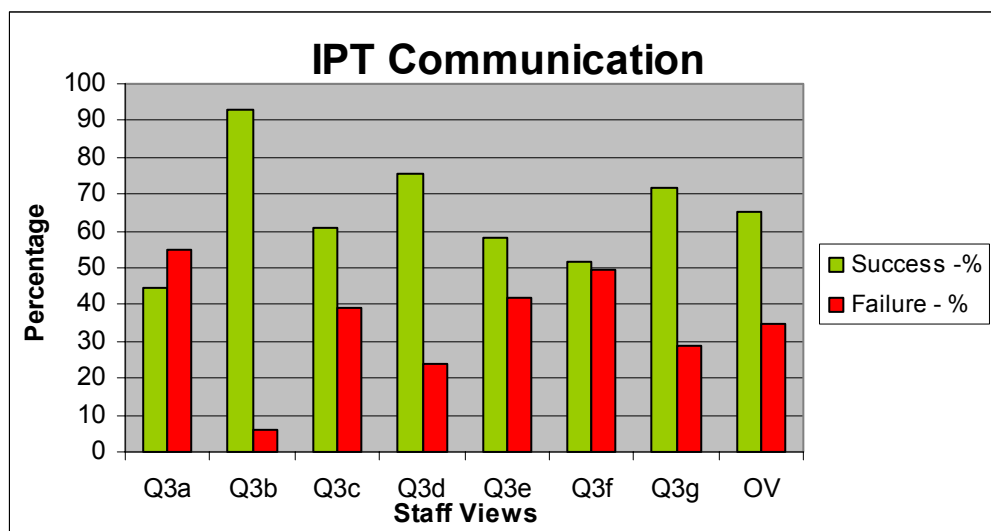
### **3.5 Key Findings**

Although this dimension was overall evenly balanced (56%) between the negative, monopolistic relationship features and the more successful aspects, the generally more pessimistic IPT views over the lack of relationship-stabilising behaviour of their partners was evident. In the face of Uncertainty/Complexity acting on the monopolistic relationships a lack of interdependence-promoting actions and short-termism appeared to be prevalent amongst Firms. Nevertheless, both sides acknowledged the need for clear, joint objectives and co-operation as means of achieving interdependence and reducing costly governance measures.

#### 4 Dimension 3 – Information Impactedness (Communication)

The imbalance caused by selective information disclosures, and distortions which are difficult or expensive to verify at the time and which undermine the durability of contract arrangements (Williamson, 1975) (Chapter 3, 4.4). The converse of this statement generated the following questionnaire questions (see Appendix 1):

- a. Where the other party has proprietary information that could improve the performance of the joint business, it is freely available.
- b. We would welcome a shared data environment where planning, technical and pricing information are made freely available.
- c. We understand the information requirements of all participants in the support chain from sub-contractors to end-user.
- d. Exchange of information in this relationship takes place frequently and informally – not just according to specified agreement.
- e. Objective performance measurement is an important part of this relationship.
- f. We are aware of the performance requirements for all participants in the support chain from sub-contractors to end-user.
- g. We provide the other party with regular information including long-range forecasts to enable him to do his business better.





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## **4.1 Introduction**

Firms were overall generally more optimistic (71%) than IPTs (66%) in this dimension. The pattern of both positive and negative results correlated quite clearly and indicated a good measure of agreement although in the Q3a 2<sup>nd</sup> level dimension, the parties' views were at variance.

### **4.1.1 Low Relationship Points**

The agreed low relationship point was Q3a – Availability of proprietary information - (IPTs: 44%/Firms: 58%). It is also noticeable that because of the inversion of results, the IPTs believed this factor was especially unsatisfactory. However, both sides mentioned information disclosure selectivity and implied power-balance problems.

IPT:

‘We use technical data to compete; the Firm uses it to make their products more proprietary’ (22).

and:

‘Because the operating system software Intellectual Property Rights belongs to the Firm we are locked into the relationship and they ‘have us over a barrel’ (20).

Firm:

‘They hide behind the excuse that their data is not good enough to give us as a means of keeping information from us. They are not open with us’ (15).

The further low point from the IPTs' perspective was Q3f – Support chain performance requirements - (IPTs: 51%/Firms: 56%), which suggested a lack of ability to verify contract fulfilling arrangements and a calculative approach to trust.

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IPT:

'We are not always sure that the prime contractor has clear communications with his sub-contractors' (3).

#### **4.2 High Relationship Points**

Under both the high point, 2<sup>nd</sup> order dimensions the value of sharing information freely and the importance of investing in specific resources to support the approach were highlighted. Both sides agreed that Q3b – Shared data environment - was the best aspect of the relationship (IPTs: 93%/Firms: 89%).

IPT:

'Information is useless unless it is shared. It allows us to pre-empt risks so the firm doesn't have to build 'insurance' into its prices. The results are increased competitiveness for the Firm and increased value for money for us' (389).

Firm:

'We are exploring ways of empowering individuals with better information to improve their effectiveness' (491).

Q3d – Frequent Information exchange - (IPTs: 76%/Firms: 81%) was also seen as a high point.

IPT:

'We have introduced an industry forum where the companies we deal with come together and thrash through issues with us. They provide the chairman' (41).

and:

'Their man is on our side. He takes the trouble to sit down and talk to us. This is good for a director' (559).

Firm:

‘Regular meetings at strategic and tactical levels that examine performance and future plans and tasks enable us to plan our forward allocation of resources’ (25).

and:

‘We are very proud of the way we communicate with the IPT; we speak at least daily’ (12).

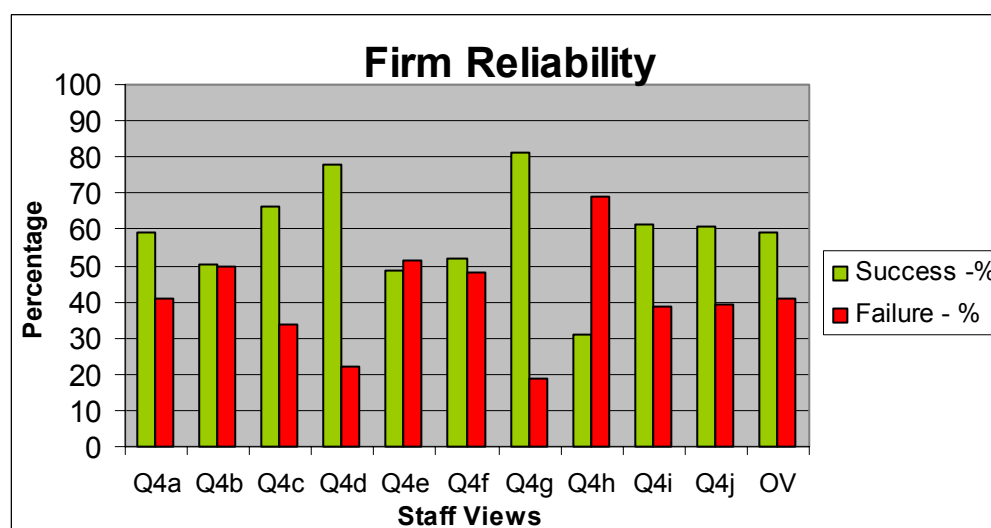
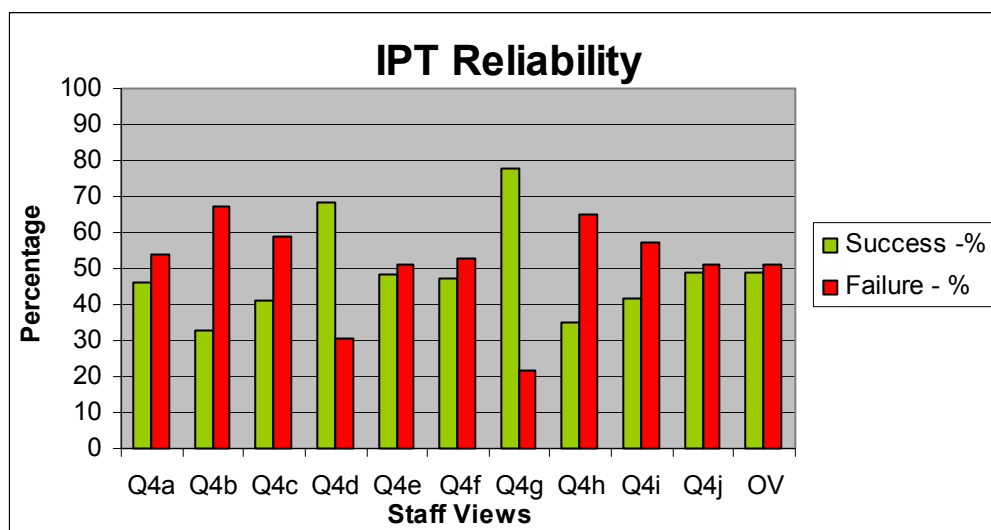
### **4.3 Key Findings**

Some aspects of information impactedness such as deliberate withholding, the use of proprietary rights as a weapon and confusion over performance measures were clearly discernible in the survey. Nevertheless, there are also more positive features in evidence such as routine all-level communications, special communication events and staff exchanges. On balance adverse monopolistic features appeared to be outweighed by the more positive aspects found in normal markets and this was borne out by the dimension’s overall 68% success score.

## 5 Dimension 4 - Opportunism (Relationship Reliability)

Constitutes a lack of candour or honesty and includes self-interest seeking with guile. (Williamson, 1979) (Chapter 3, 4.5). The converse of this statement generated the following questionnaire questions (see Appendix 1):

- a. The quality of the contract outputs ie. spares/repairs/services, is entirely satisfactory.
- b. The quality of service delivery ie. delivery times, billing, payment, is entirely satisfactory.
- c. The relationship is characterised by a continually improving quality ethos.
- d. Problems are solved in a joint, open, constructive manner.
- e. Such is the goodwill in the relationship, the other party would willingly put himself out to adapt to our changing requirements.
- f. We trust the other party to act in our best interests.
- g. The responsibility for making sure the relationship works is shared jointly.
- h. The other party provides us with useful cost reduction and quality improvement ideas.
- i. The other party is always totally open and honest with us.
- j. The other party always does what he says he will do.



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## **5.1 Introduction**

Firms were overall more optimistic (59%) than IPTs (49%) who saw this dimension as a failure. Nevertheless, the pattern of both positive and negative results correlates quite distinctly which indicates a good measure of agreement between the Firms and the IPTs on the 2<sup>nd</sup> level dimension highs and lows.

## **5.2 Low Relationship Points**

The qualitative data reveals aspects of information impactedness with both reticence and selectivity over disclosure as well as opportunistic behaviour concerning poor service delivery and commercial practices. The agreed low point was Q4h – Provision of cost and quality improvement ideas - (IPTs: 35%/Firms: 31%).

IPT:

‘They are not at all proactive in offering us ideas to improve the equipment’ (572).

Firm:

‘We continue to be hounded by the UK MoD to provide a level of technical performance which was not part of the original contract’ (439).

and:

‘They want to do things right but their people return equipment to us with little care or information. Often we find no fault and the diagnostic work costs us all money’ (247).

A further joint, low point was Q4b – Customer service - (IPTs: 33%/Firms: 51%):

IPT:

‘Getting service out of the Firm is like getting ‘poop’ out of a rocking horse!’ (426).

and:

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'They only achieve about 30% of their delivery forecasts. They don't seem to have the capacity to meet our needs' (623).

Firm:

'The IPT's Project Managers need constant chivvying to get things done and then we get the blame for being late' (289).

IPTs were also concerned over Q4c – Continuous improvement - (IPTs: 41%/Firms: 67%):

IPT:

'The firm lives under a 'halo' effect. When the chips are down they respond amazingly quickly and effectively but, they are very poor at routine supply, commercial and product improvement' (606).

and:

'We have to concentrate on the numerous issues regarding poor products which prevents us from looking at strategy' (252).

and Q4i – Openness & honesty - (IPTs: 42%/Firms: 61%):

IPT:

'We have been thwarted at every turn to obtain fair and reasonable prices from the Firm. Recently without warning, they marked-up prices by 2-300%' (591).

### **5.3 High Relationship Points**

The high relationship point exhibited incidences of interdependence which also involved the commitment of specific assets used to cement the relationships. Both sides agreed that Q4g – Shared relationship responsibility - was the best aspect of the relationships (IPTs: 79%/Firms: 81%).

IPT:

‘The speed with which the project was placed to contract and the success of the programme are largely due to our close partnering arrangement. They have proved to be reliable and innovative’ (278).

Firm:

‘Because 60% of our business is with the UK MoD we are very experienced in meeting their needs and working with them’ (255).

A second, agreed high point was Q4d – Joint, open, constructive problem solving (IPTs: 69%/Firms: 78%).

IPT:

‘He is open and honest and gets on the phone to deal with problems as soon as they appear’ (268).

Firm:

‘We jointly test and de-bug the equipment before handover to the end-customer’ (396).

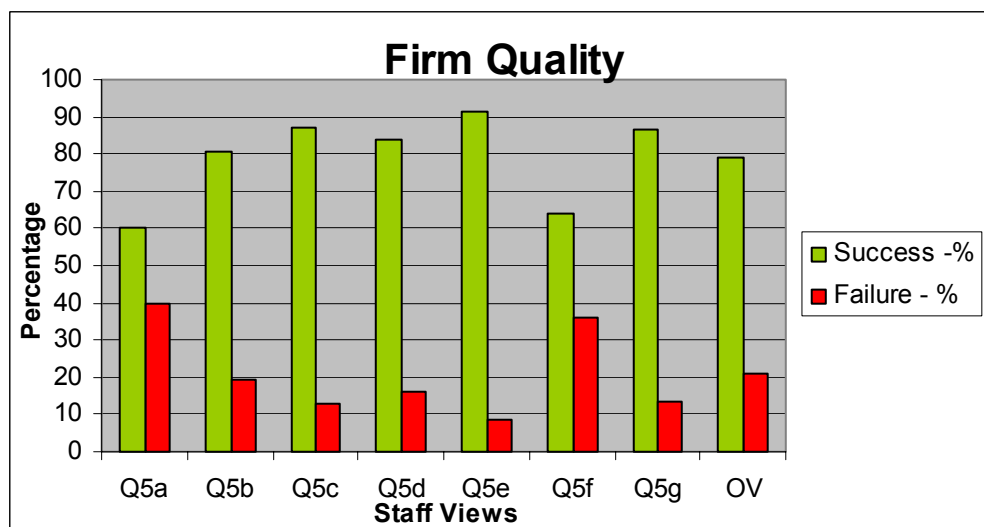
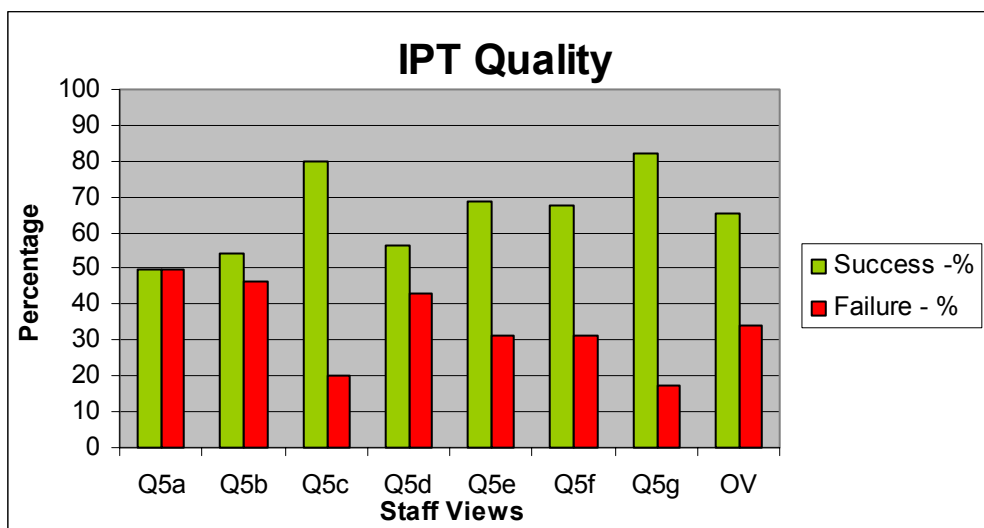
#### **5.4 Key Findings**

Dimension 4 gained the lowest overall success score (54%) in the survey. Although IPTs mentioned some satisfactory aspects of interdependence achieved through joint investment in relationship-building, the low rating was primarily because IPTs believed that Firms behaved opportunistically in providing poor service by taking advantage of their monopolistic market position.

## 6 Dimension 5 – Small Numbers (Relationship Quality)

The combination of problem behaviours requires sophisticated controls that are only found in or close to the firm and may result in failure of market conditions (Williamson, 1979) (Ch3, 4.6). The converse of this statement generated the following questionnaire questions (see Appendix 1):

- a. The gains from this relationship are equally shared between both parties.
- b. We do not feel imprisoned within the current relationship.
- c. We are willing to invest more ie. money, time, information, effort, in the current relationship.
- d. We are happy that our future is bound to the success of our relationship partner.
- e. We feel totally committed to this relationship.
- f. The other party is genuinely concerned that our business succeeds.
- g. Both sides are working to improve this relationship.





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## **6.1 Introduction**

The Firms were markedly more optimistic (79%) than IPTs (66%) in this dimension. However, the pattern of both positive and negative results suggests enough similarity to indicate a measure of agreement in most of the 2<sup>nd</sup> level dimensions.

## **6.2 Low Relationship Points**

Despite the optimism gap in this dimension (13%), Firms provided equally poignant comments to the IPTs and clearly indicated frustration at the failure of contractual governance to maintain equity and relationships free of the fear of 'lock-in'. The agreed low relationship point was Q5a – Equally shared gains - (IPTs: 50%/Firms: 60%).

IPT:

'Although we negotiate down the price we know they will recoup it elsewhere' (622).

and:

'There is no evidence of risk-sharing without us paying the price later' (482).

Firm:

'The IPT has no intention of sharing any cost savings they make with us. They have told us that if the partnering arrangement makes a staff member redundant he will be redeployed in the office and no saving will be shared' (390).

and:

'The UK MoD Commercial staff' view of sharing is they have the lion's share and we get what's left over' (137).

A further joint, low relationship point from the IPTs perspective was Q5d – Future bound to the partner - (IPTs: 57%/Firms: 84%):

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IPT:

'We have the impression that we must support the company at all costs because of political reasons' (132).

The IPTs were also concerned over Q5b – Being imprisoned in the relationship - (IPTs: 54%/Firms: 81%):

IPT:

'We fear the company 'pulling the plug' or worse, applying a long period of take it or leave it' (470).

and:

'The current contract is due to expire and I note the Firm proposes a 32% price increase for the follow-on' (567).

and:

'The contractor knows he cannot easily be replaced and he uses this to his benefit and our cost' (480).

Both sides were also concerned over Q5f – Mutual, beneficial concern - (IPTs: 68%/Firms: 64%):

IPT:

'Our equipment is old and not 'sexy' to the company. They put all their brightest commercial and programme managers on the new projects' (549).

Firm:

'Their willingness to competitively tender every requirement to the lowest bidder does not engender a long-term spirit of partnership' (527).

### **6.3 High Relationship Points**

The high relationship points were characterised by long-termism and interdependence marked by co-operation and investment in relationship-promoting

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resources. The agreed highest point was Q5g – Both sides working to improve the relationship (IPTs: 82%/Firms: 87%).

IPT:

‘This has always been a good, close-knit relationship. We have worked together for about 7 years’ (151).

Firm:

‘The new partnering arrangement will run over 10 years and allow gainshare. At last we can start to improve the relationship for both sides’ (146).

A second, agreed high point was Q5c – Willingness to invest more in the relationship (IPTs: 80%/Firms: 88%).

IPT:

‘They were very arrogant with a take it or leave it attitude but we have worked hard to break this down’ (332).

Firm:

‘We are investing heavily in time and effort to improve the relationship’ (112).  
and:

‘Both sides are going to put their hands in their pockets to bail out this project’ (437).

Firms independently saw Q5e – Commitment (IPTs: 69%/Firms: 92%) as their highest point.

Firms:

‘There was top-level commitment to the project from the outset and high quality leaders were selected’ (117).  
and:

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‘We have made great efforts to provide effective support despite the lack of investment by the UK MoD. We have lost money in this process’ (436).

#### **6.4 Key Findings**

Despite asking overt questions about the quality of monopolistic relationships, dimension 5 gained the highest joint score (73%) in the survey. There were comments about the hopelessness of the monopoly impasse situation, especially from the IPTs side but these were generally outweighed by more optimistic views about striving to turn round poor situations and an acceptance that making the best of the situation was preferable to the negative alternative. The following IPT remark is salient:

‘They have a monopoly but they also depend upon us for 95% of their business. We have developed a symbiotic relationship’ (149).

The large gap in the scale of optimism appeared to be in the areas of sharing gains, feelings of imprisonment and lack of long-term outlook.

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## Appendix 8

### Detailed Data Analysis Q1 – Supply Chain Management

#### 1 Introduction

This Appendix shows in the following Sections the detailed data analysis for each of the theoretical dimensions against the following questions:

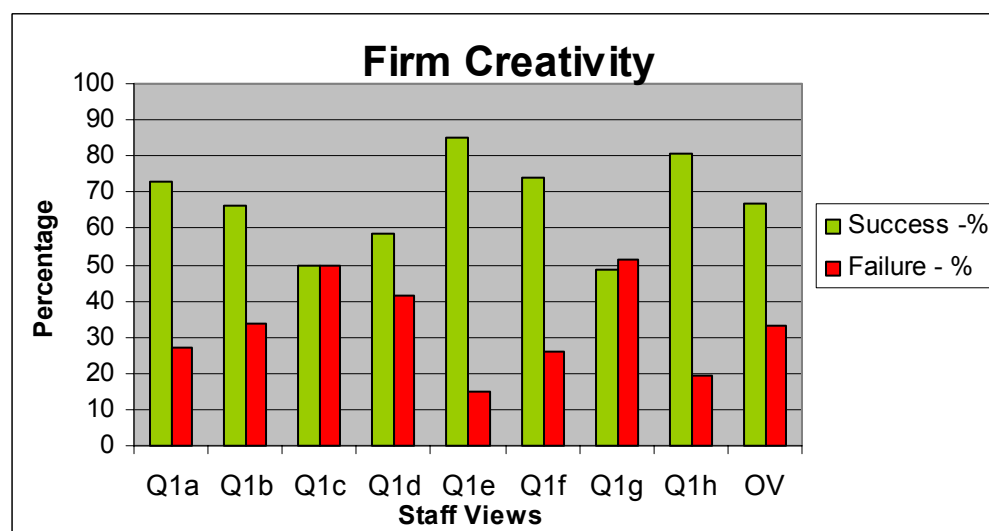
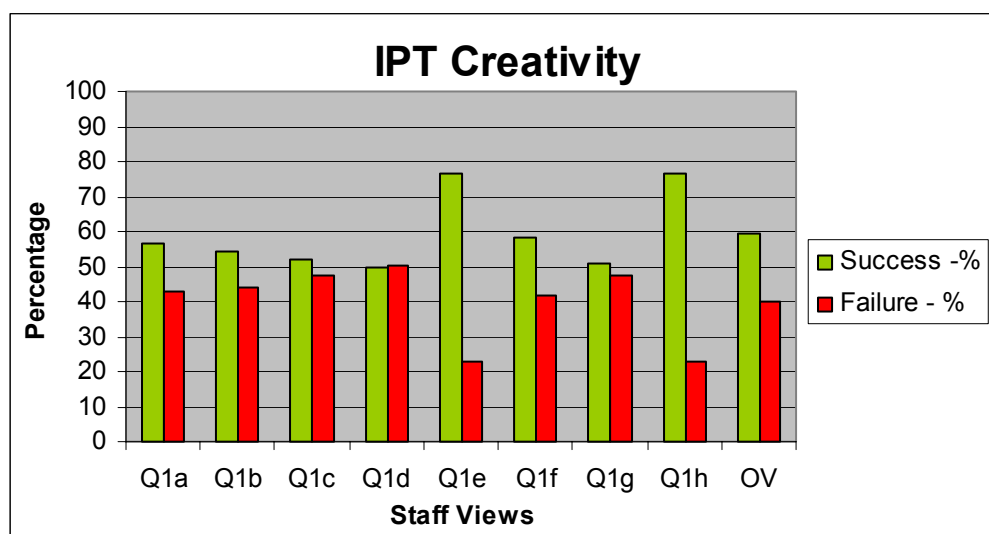
**Q1 – Can SCM partnering activities, processes and requirements from the commercial environment, such as those encapsulated in Figure 2.8, provide an understanding of the monopolistic relationships found within UK Defence Procurement?**

In each of the following Sections the appropriate questions from the questionnaire (see Appendix 1) are repeated and the overall comparative graphical results are portrayed. Then, under categories that emerged from the qualitative data, examples of the qualitative data (listed fully at Appendix 6) are used to illustrate the salient numerical points (numbers in brackets following quotations refer back to Appendix 6). At the end of each Section the key points are provided. The overall summary of Key Points from this Appendix is found in Chapter 4, Section 6.

## 2 Dimension 1 – Bounded Rationality (Relationship Creativity)

People have only so much capacity to rationalise what is going on around them and they therefore naturally limit their performance to the adequate rather than the optimum (Simon, 1957) (Ch3, 4.2). The converse of this statement generated the following questionnaire questions (see Appendix 1):

- a. The relationship encourages the achievement of high performance by both parties ie. reliable equipment, on-time delivery, good forecasts.
- b. The relationship encourages us to be innovative in the way we do business.
- c. Performance measurement is used to raise standards.
- d. Disputes & problems are resolved: 'quickly'.
- e. Disputes & problems are resolved: 'fairly'.
- f. The other party is reliable and consistent in dealing with us.
- g. The other party is dedicated to making our business a success.
- h. When an unexpected problem arises, both parties would rather work out a solution than hold each other to the original contract terms.



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## **2.1 Introduction**

Under this dimension the data is searched for instances of SCM actions that overcome short-term approaches to logistics business relationships.

## **2.2 Framework Contracting**

A number of positive and negative points were made on the significance of the contract type that governed the relationship that are covered by Q1b – Innovative business arrangements (IPTs: 54%/Firms: 66%).

IPT:

‘Now we have a partnering arrangement around a good framework contract we just concentrate of the customer – we no longer refer to the small print’ (656).

and:

‘Enabling contracts reduce admin costs by freeing us from frequent competitions as long as the company continues to demonstrate it has given us best value for money’ (69).

countered by:

‘It’s a traditional contract which promotes archaic ways of working and provides no incentive to them to perform’ (451).

Firm:

‘The contract has flexibility built-in to handle unforeseen events – especially of an operational nature’ (430).

and conversely:

‘Although we have a partnering arrangement, both sides at the outset could have better addressed the support aspects. This would have resulted in major savings in whole-life costs’ (101).

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### **2.3 Planning & Control**

The next feature reported in the data concerns Q1b - Innovation (IPTs: 54%/Firms: 66%) and Q1a – Performance (IPTs: 57%/Firms: 73%).

IPT:

‘We used to keep a pool of items to feed into repair. With our new partnering arrangement we track individual items and have significantly cut down on their number’ (399).

and conversely:

‘We just don’t have time to take a strategic view, we are too busy looking after 30 other contracts’ (81).

Firm:

‘The benefits of the partnering arrangement are we are ‘future-proofed’, uncertainty is removed, we can plan and most importantly, we can really focus on the customer’ (411).

and alternatively:

‘They just don’t seem to be able to take a long-term view. If we knew where we were we could start to plan’ (92).

### **2.4 Service Delivery**

Focus on the customer involving Q1a – Performance (IPTs: 57%/Firms: 73%) and Q1b - Innovation (IPTs: 54%/Firms: 67%) is the next grouping.

IPT:

‘This is real support chain management; the mechanism is invisible to the end customer’ (377).

and alternatively:



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'They are an engineering-focussed firm who produce good products but they are second rate on relationships, finance and contracts' (97).

Firm:

'My opposite number and I find innovative ways of providing the best support' (579).

conversely:

'Industry is still in Cold War deterrence mode; it is not yet prepared for long-term service provision' (106).

### **2.5 Joint Activity & Organisation**

Finally under this Dimension, joint endeavour and organisational issues that affect the relationship found under Q1b - Innovation (IPTs: 54%/Firms: 67%), Q1c - Performance (IPTs: 52%/Firms: 50%) and Q1f - Consistency (IPTs: 59%/Firms: 74%) are considered.

IPT:

'My team is only 60 strong and small is beautiful. We seem to be able to do more with less. We concentrate on essentials; the nice to do only encourage growth in overheads' (520).

and:

'We will form a joint management team for the next project' (553).

conversely:

'Our efforts to improve this relationship is inhibited by continuous change and management initiatives within our own area' (89).

also:

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'The company is dealing with an old product, the spares are in short-supply, there are obsolescence problems and on top of that, its organisation is poorly focussed' (62).

Firm:

'The secret of success is small easily controllable work packages and teams where greater onus is put on individual responsibility and where performance is clearly visible"(79).

and:

'We now sit down with the IPT to write their Post Design services requirements. This saves months of bureaucracy' (107).

alternatively:

'The relationship between our people is excellent but frequent staff changes in the IPT disrupt our working arrangements and incur costs' (301).

and:

'We have high hopes that Resource Accounting and Budgeting and full cost accounting will bring commercial realism to the IPT' (72).

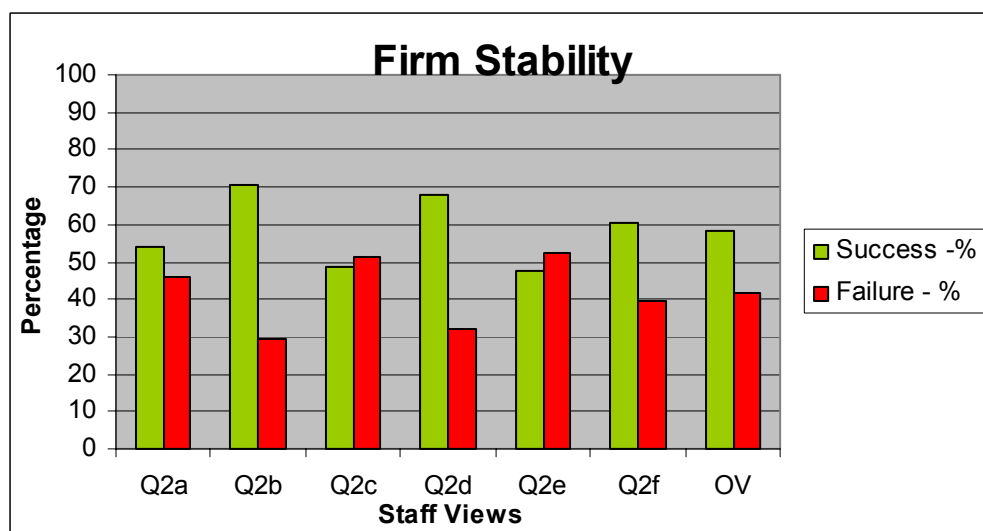
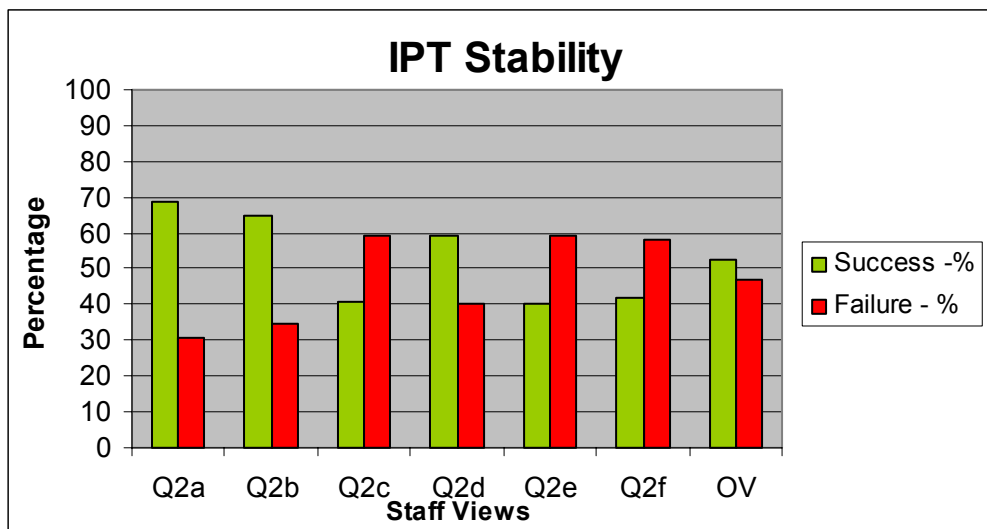
## **2.6 Key Findings**

The qualitative data suggests that within monopolistic UK Defence Procurement successful relationships occur when innovative contracts exist, which reduce costs and promote customer focus. Furthermore, organisational arrangements that promote consistency and performance are also valued. However, it appears that both deliberate and unconscious expediency often come into play that reduce relationship effectiveness. The balance of data bears out the overall dimension success score of 64%.

### 3 Dimension 2 – Uncertainty/Complexity (Relationship Stability)

People have difficulty in making sense of complex current and future events (Williamson, 1975) (Chapter 3, 4.3). The converse of this statement generated the following questionnaire questions (see Appendix 1):

- a. The other party displays a sound, strategic understanding of our business.
- b. The objectives of both parties are clearly stated.
- c. The objectives of both parties are fully compatible.
- d. Both parties co-operate wholeheartedly.
- e. The relationship provides a dynamic business environment within which both parties can seek increasing rewards.
- f. I have complete confidence in the intentions of the other party.



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### **3.1 Introduction**

The following instances of SCM that either overcome or succumb to business environmental uncertainty/complexity were found in the research data.

### **3.2 Customer Focus**

Firstly under this dimension, SCM aspects found under Q2a - Mutual understanding (IPTs: 69%/Firms: 54%) and Q2d - Co-operation (IPTs: 60%/Firms: 68%) are considered.

IPT:

‘Their customer services are trying hard; they seem to have vision’ (554).

alternatively:

‘New business must be diminishing. The Firm must start concentrating on long-term service to existing products’ (535).

and:

‘Their business managers don’t like being exposed to the detail of their poor performance’ (187).

Firm:

‘We organised a training day on the MoD’s site to educate their staff about the company and its products. Knowledge about each other’s business is important to our professional relationship’ (167).

conversely:

‘They don’t seem to understand we have lead times; they often want it “tomorrow”’ (543).

and:

‘Maybe the company is still stumbling to come to terms with a new support business area and working out what we can add or not’ (612).

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### **3.3 Commercial Understanding**

Next, SCM aspects found under Q2c – Compatible objectives (IPTs: 40%/Firms: 49%) and Q2e – Dynamism (IPTs: 40%/Firms: 48%) are considered.

IPT:

‘We aim for a 10, 12, 15 or even 30 year contract. This fosters a long-term ethos, cuts the costs of frequent renegotiations and allows the Firm to plan and resource’ (388).

but on the other hand:

‘The Firm would like to ‘cherry-pick’ the easy and profitable spares for the new contract rather than take the whole package’ (177).

Firm:

‘Our partnering contract simplifies the operation of the relationship and frees us to encourage one another to higher performance levels’ (652).

however:

‘Budget constraints in the MoD reduce the relationship to ‘fire-fighting’. It’s impossible to plan ahead’ (180).

and:

‘We gave them a proper solution. They said it was too expensive. We cut back and now we are all suffering’ (184).

### **3.4 Co-operative Activities**

Lastly, SCM aspects found under Q2d – Co-operation (IPTs: 60%/Firms: 68%), Q2e – Dynamism (IPTs: 40%/Firms: 48%) and Q2f – Confidence (IPTs: 42%/Firms: 61%) are considered.

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IPT:

'They are always thinking ahead; wanting to know our budget over the next 4 years, our equipment plans, what they can do to enhance its performance and, exploring how they can offer better support services' (560).

and:

'All stakeholders were involved in the project including the end-customers who helped design the performance targets. The same people are now involved in implementation' (660).

but:

'Their commercial people are intransigent and at loggerheads with their engineers' (627).

and:

'The Company closed their site and moved. As a result all expertise was lost and delays in getting things done are very frustrating' (569).

Firm:

'Upheaval on the MoD side from staff and organisation change and vacant posts makes it impossible to generate a stable business environment' (181).

and:

'I feel really let down that the current review by the IPT into a new project has cut us out and ignored our long experience' (582).

and:

'The commercial side is the weakest. The MoD still has traditional views. We put in a lot of effort to work with them but they are unable to change' (209).

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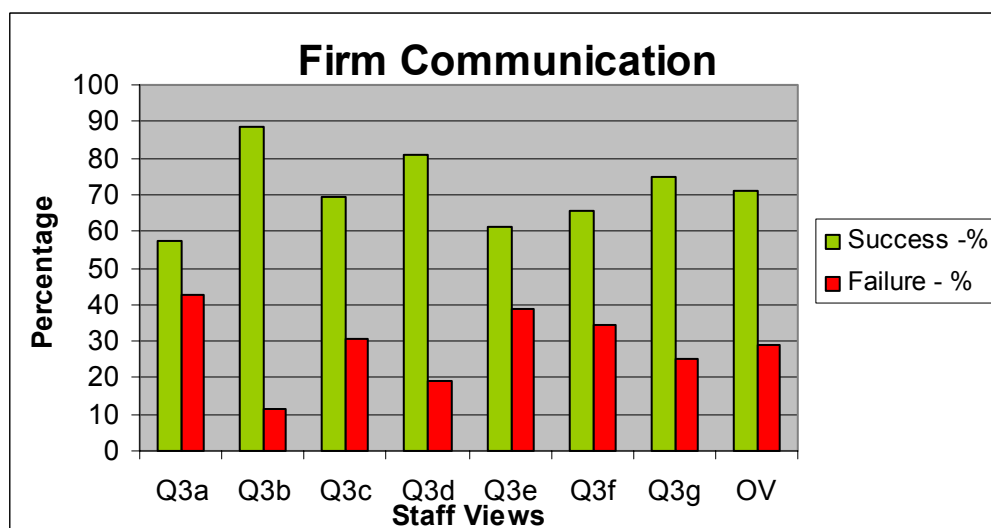
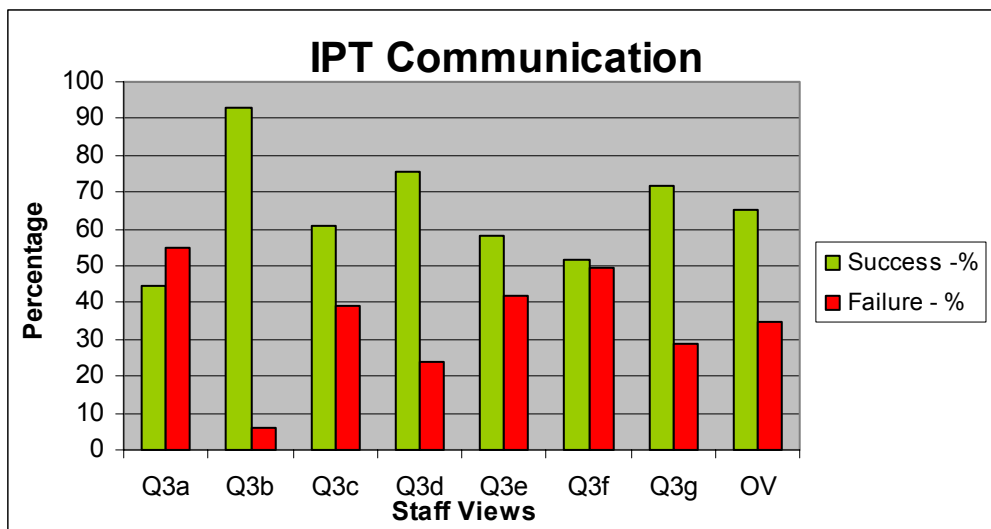
### **3.5 Key Findings**

Forward-looking, holistic partnering arrangements supported by customer-focussed, supply chain-bolstering activities were detected. However, there were a similar number of instances of negative approaches such as insular practices, disruptive organisational changes and short-term strategies that promoted rather than countered the adverse effects of uncertainty and complexity. These views matched the overall positive dimension score of only 56%.

#### 4 Dimension 3 – Information Impactedness (Communication)

The imbalance caused by selective information disclosures, and distortions which are difficult or expensive to verify at the time and which undermine the durability of contract arrangements (Williamson, 1975) (Chapter 3, 4.4). The converse of this statement generated the following questionnaire questions (see Appendix 1):

- a. Where the other party has proprietary information that could improve the performance of the joint business, it is freely available.
- b. We would welcome a shared data environment where planning, technical and pricing information are made freely available.
- c. We understand the information requirements of all participants in the support chain from sub-contractors to end-user.
- d. Exchange of information in this relationship takes place frequently and informally – not just according to specified agreement.
- e. Objective performance measurement is an important part of this relationship.
- f. We are aware of the performance requirements for all participants in the support chain from sub-contractors to end-user.
- g. We provide the other party with regular information including long-range forecasts to enable him to do his business better.





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#### **4.1 Introduction**

In this dimension communication provide the 'life-blood' of planning and performance data to facilitate the flow of goods and services from suppliers to customers. Unfortunately, deliberate actions and poor management can hinder this information. This sub-Section considers the research data found on SCM Communication.

#### **4.2 Management Communication**

Firstly under this Dimension, SCM aspects found under Q3d – Frequent, open communication (IPTs: 76%/Firms: 81%) are considered and it can be seen that these scores do not quite match the generally negative comments made.

IPT:

'Quarterly review meetings where outstanding orders are discussed have led to improved availability' (5).

alternatively:

'We have waited for months for answers to questions raised at review meetings' (401).

Firm:

'We have worked hard to make a success of communications but, maybe this has taken our eyes off the other aspects of the relationship that need attention' (29).

and:

'Communications at working level are fine but we don't have any high-level reviews; I haven't seen their team leader for 18 months. I don't even know if they think we are important' (533).

---

### **4.3 Supply Chain Planning**

Next, SCM aspects found under Q3c – SC Information provision (IPTs: 61%/Firms: 70%) and Q3g – Information for forecasting (IPTs: 72%/Firms: 75%) are considered and show that although some very positive comments were made, fundamental problems were raised.

IPT:

‘We are endeavouring to improve the forecasting of our requirements to assist the Firm in providing a better service’ (357).

alternatively:

‘We sent then 10 items to repair. They got stuck on one, held up the batch and didn’t tell us for 9 months’ (402).

Firm:

‘Very poor information on the MoD’s consumption and usage rates makes planning extremely difficult’ (17).

conversely:

‘All support chain parties, including the end customer, attend planning meetings to discuss requirements, pool knowledge and resolve problems’ (344).

### **4.4 Supply Chain Performance**

SCM aspects found under Q3e – Performance measurement (IPTs: 59%/Firms: 61%) and Q3f – SC performance (IPTs: 52%/Firms: 66%) are considered next but they show that although respondents understood the importance of performance measurement, effective implementation was a difficult issue.

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IPT:

'We have simple, obvious, open performance measures. Every week the firm sends a statement of work achieved, problems encountered and forecasts. We provide them with consumption data. Achievements are open for all to see' (658).

but surprisingly:

'The fact that we do not have a performance measurement system whilst the Firm thinks we have is a real failure to communicate' (2).

Firm:

'We are starting to face up to performance issues at our regular meetings. In the past mutual defensiveness has got in the way of making improvements. This is a very hard area to tackle ' (30).

and:

'I am concerned by our lack of touch with the end customers. We need seamless performance measurement throughout the logistics chain' (358).

#### **4.5 Working-Level Communication**

SCM aspects found under Q3b – Shared data (IPTs: 93%/Firms: 89%) and Q3d – Frequent, open communication (IPTs: 76%/Firms: 81%) are considered.

IPT:

'They have a really bad supply manager that we normally by-pass (563).

and:

'People think the supply staff are pond life but they seem to have the clearest view of what's happening between us. I'm not sure how to use this capability effectively' (521).

Firm:

'We look forward to a shared data environment where more information is available both ways' (648).

and:

People do talk more freely and there is a genuine desire to solve problems in an open manner' (35).

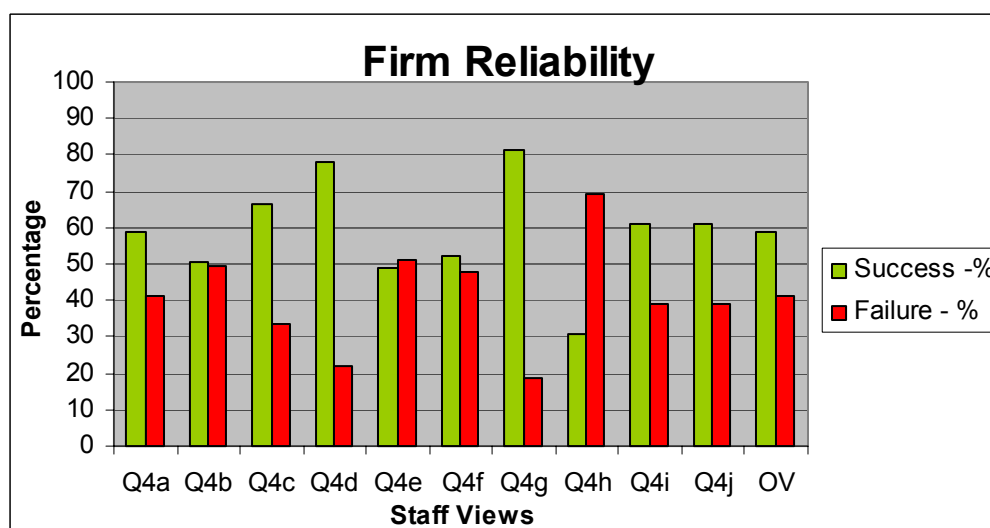
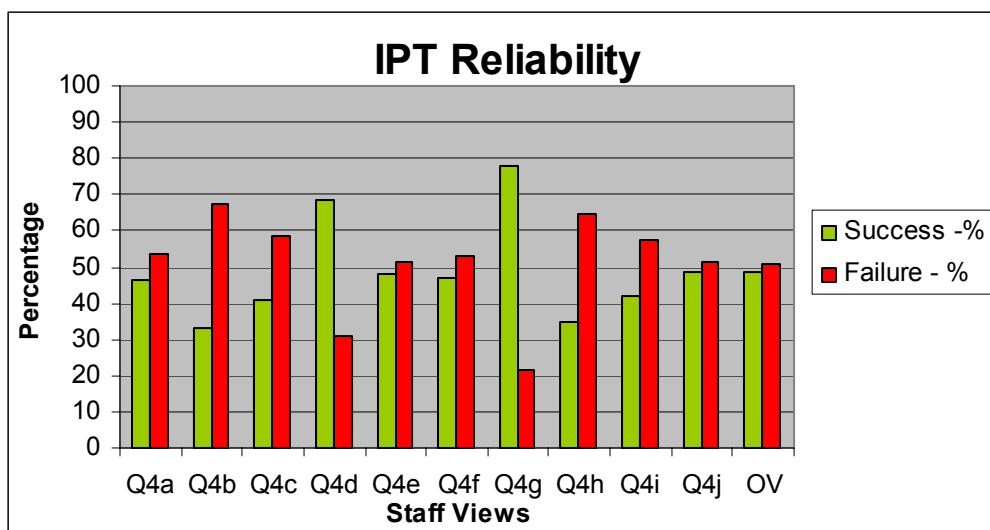
#### **4.6 Key Findings**

Overall the research revealed that the importance of Supply Chain communication was understood and efforts were being made to improve. This is born out by the overall dimension success score of 68%. But, there were very few examples where integrated measures were in place and good results were being achieved. Some instances of information impactedness due to the monopolistic situation were detected but, the practical difficulties of providing regular, management focus on order book performance through the use of joint performance measurement and service level systems appeared to be the key problems.

## 5 Dimension 4 - Opportunism (Relationship Reliability)

Constitutes a lack of candour or honesty and includes self-interest seeking with guile. (Williamson, 1979) (Chapter 3, 4.5). The converse of this statement generated the following questionnaire questions (see Appendix 1):

- a. The quality of the contract outputs ie. spares/repairs/services, is entirely satisfactory.
- b. The quality of service delivery ie. delivery times, billing, payment, is entirely satisfactory.
- c. The relationship is characterised by a continually improving quality ethos.
- d. Problems are solved in a joint, open, constructive manner.
- e. Such is the goodwill in the relationship, the other party would willingly put himself out to adapt to our changing requirements.
- f. We trust the other party to act in our best interests.
- g. The responsibility for making sure the relationship works is shared jointly.
- h. The other party provides us with useful cost reduction and quality improvement ideas.
- i. The other party is always totally open and honest with us.
- j. The other party always does what he says he will do.



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### **5.1 Introduction**

From the SCM perspective Relationship Reliability involves the creation and operation of joint service delivery systems. This sub-Section illustrates how the research data portrays this feature together with its opportunistic antithesis.

### **5.2 Quality & Continuous Improvement**

Firstly under this Dimension, SCM aspects found under Q4c – Quality Ethos (IPTs: 41%/Firms: 67%) and Q4h - Co-operation (IPTs: 35%/Firms: 30%) are considered.

IPT:

‘We have major issues meetings twice per year and they appreciate honesty from us over our quality requirements’ (334).

alternatively:

‘Quality issues are ignored by the Firm’ (230).

Firm:

‘Our quality culture isn’t just ISO, it also includes liP. These things build-in continuous improvement’ (271).

and:

‘We have great faith in the quality of our products and our service’ (226).

### **5.3 Service/Product Focus**

Next, the following SCM aspects found under Q4a – Contract outputs (IPTs: 48%/Firms: 59%) are considered. A number of quite crucial points are made about environmental influences.

IPT:

‘I am impressed by their willingness to co-operate on all matters involving technical queries, spares procurement and repair of assets’ (329).

however:

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'We feel that we have to keep the pressure on price and delivery to keep the Firm on its toes. We feel we are paying a high price for mediocre performance' (244).

and:

'The Company moved a couple of years ago and often use this to excuse defective products' (219).

Firm:

'We are very proud that visitors comment that the refurbished equipment looks brand new' (273).

however:

'In the Post Design Services business we are totally dependent on Production resources. The MoD is totally unrealistic in its expectations' (544).

and:

'They don't seem to realise that a fixed price contract limits our ability to react flexibly once work has started' (524).

and:

'The supply chain is highly disjointed with a mix of in-house and industry participation. There is over-capacity and inefficiency. No one has an overview of the whole' (286).

and:

'The supplier base is very small; it is thus easy to have critical supply chain breakdowns' (288).

and lastly:

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‘It’s a problem maintaining 30 year old equipment. It’s used and abused and we have difficulty finding people and sub-contractors with the necessary skills’ (287).

#### **5.4 Business Practice**

Lastly, SCM aspects found under Q4b – Service delivery (IPTs: 34%/Firms: 51%) and Q4e – Adaption (IPTs: 48%/Firms: 49%) are considered.

IPT:

‘By giving the Firm full control over the service we can reduce the number of spares we need to buy’ (259).

however:

‘They have taken on additional tasks without the resources. They now don’t have the staff to chase their sub-contractors who let them down’ (571).

Firm:

‘We are especially keen to embrace a payment system that does away with the current, expensive, unreliable, paper-based MoD system’ (650).

but:

‘At the working level they are not trained very well. It galls me to know that my people know more about the IPT staff’s jobs than they do’ (418).

#### **5.5 Key Findings**

A number of positive SCM aspects such as quality ethos, service delivery and process improvement can be observed in the data. However, this dimension scored the lowest success rate in the research project (54%) and it is possible to see that environmental limitations on time, budget and investment and, product technical complexity and age had a strong bearing on the monopolistic business environment



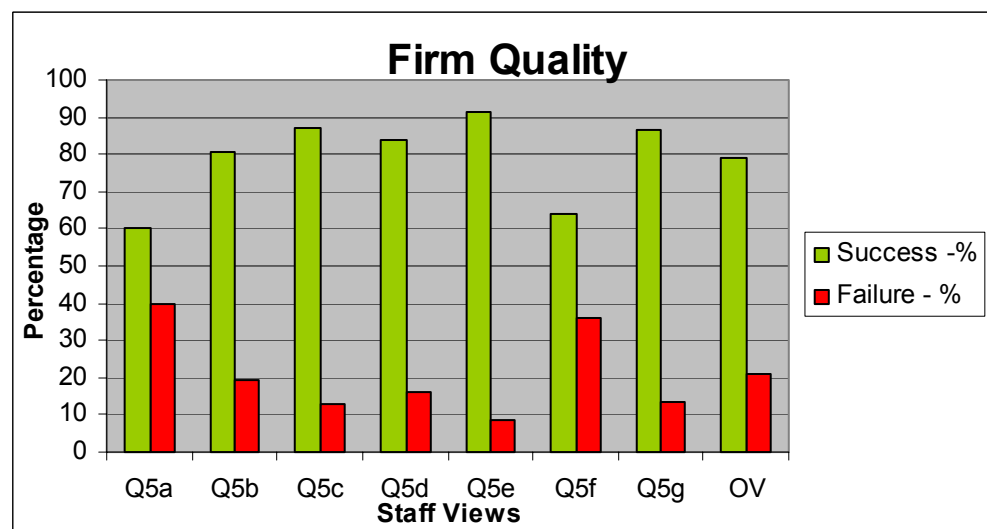
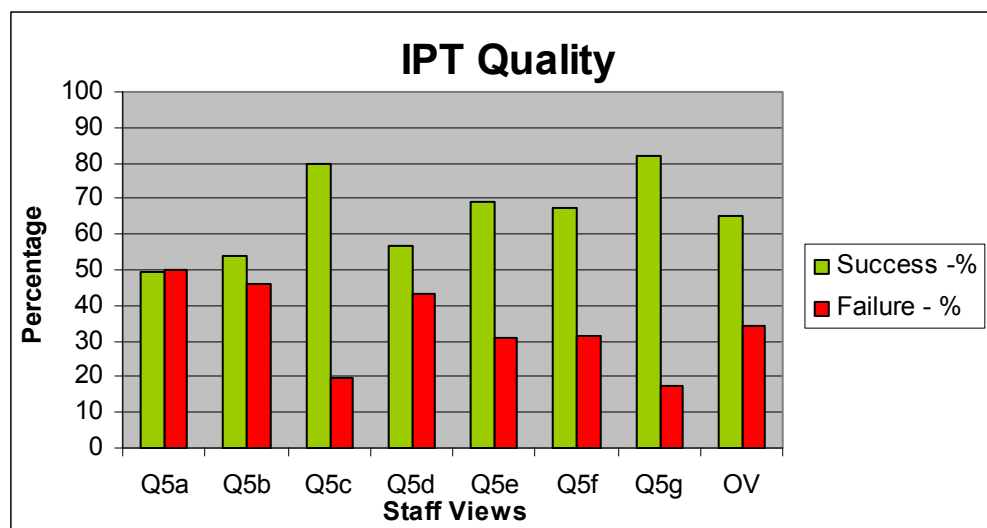
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under scrutiny. It is also evident that instances of opportunistic behaviour were prompted as reactions to these features.

## 6 Dimension 5 – Small Numbers (Relationship Quality)

The combination of problem behaviours requires sophisticated controls that are only found in or close to the firm and may result in failure of market conditions (Williamson, 1979) (Ch3, 4.6). The converse of this statement generated the following questionnaire questions (see Appendix 1):

- a. The gains from this relationship are equally shared between both parties.
- b. We do not feel imprisoned within the current relationship.
- c. We are willing to invest more ie. money, time, information, effort, in the current relationship.
- d. We are happy that our future is bound to the success of our relationship partner.
- e. We feel totally committed to this relationship.
- f. The other party is genuinely concerned that our business succeeds.
- g. Both sides are working to improve this relationship.



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### **6.1 Introduction**

This sub-Section examines the impact of the restricted freedom on managers' actions within monopolistic relationships on SC operations.

### **6.2 Relationship Development**

Firstly under this Dimension, SCM aspects found under Q5c – Willingness to invest (IPTs: 80%/Firms: 88%) and Q5g – Working for improvement (IPTs: 83%/Firms: 87%) are considered.

IPT:

'I offered them a 25 year contract to show how committed we were. This surprised the Firm' (328).

conversely:

'There is reluctance by the Firm to take risks in supporting our plans such as buying long lead-time items in advance' (128).

and:

'I am trying to support an ageing weapon system which does not bear a good return to industry' (504).

Firm:

'We can now leave the contract behind us and concentrate on the output to the customer' (374).

on the other hand:

'There is a bit of the old 'cost-plus, bowler-hatted' attitude in both the Industry and MoD commercial staffs that must be overcome' (134).

and:

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'We are very frustrated. We have invested by placing a man in the IPT but the proposal was not welcomed. They said they could take or leave the idea and we would have to pay the costs' (122).

### **6.3 Equality & Understanding**

Lastly, the following SCM aspects found under Q5a – Equality (IPTs: 50%/Firms: 60%) and Q5f – Concern for success (IPTs: 68%/Firms: 64%) are considered.

IPT:

'Gainshare is built into the contract which also supports the Company's export aims' (116).

but:

'Our ability to compete is completely hampered by reliance on the Company as design Authority to authorise alternatives' (593).

and lastly:

'Overall the Company lacks goodwill and believes it can charge what it likes' (352).

Firm:

'Blame does not work, it just perpetuates poor performance in the long term' (133).

however:

'Our fear is the feast and famine situation of Defence spending. There are times when we must stop work, lay off experienced staff and then race to get back going again. I worry that we cannot respond fast enough and that this adversely affects customer-satisfaction' (144).

and:

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‘Their worry is that because we are their single source and have changed hands a couple of times in the last 10 years, we might go out of business and leave them high and dry’ (145).

#### **6.4 Key Findings**

This dimension provided the best overall success score (73%) in the theoretical framework but although there is some evidence of working together in the best interests of relationships, the majority of semi-structured interview comments were negative. As already mentioned in Chapter 4, sub-Section 4.2.1, although the gap in quantitative response perceptions between the IPTs and the Firms was not statistically significant with a high correlation factor of 0.928, the gap between the quantitative scores and the overall tone of the qualitative data was inexplicable and it is suggested that further research would be useful. The adverse points in 6.2 where the sides felt trapped and at the mercy of the other sides’ budgetary and commercial vagaries especially epitomise concerns about monopolist business and support the low quantitative results in 2<sup>nd</sup> level dimension Q5a.

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## Appendix 9

### Detailed Data Analysis Q2 – Relationship Marketing

#### 1 Introduction

This Appendix shows in the following Sections the detailed data analysis for each of the theoretical dimensions against the following questions:

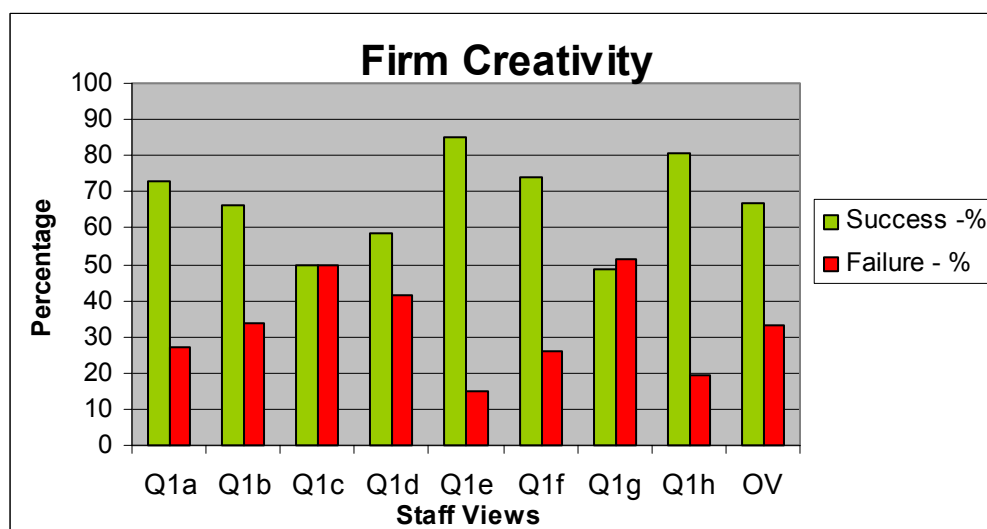
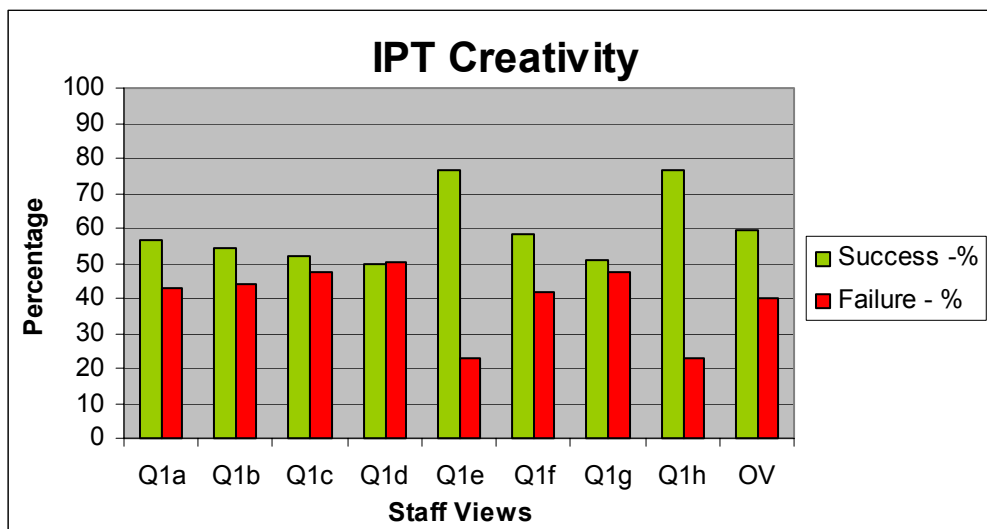
**Q2 – Can RM behavioural variables, especially those shown in Figure 2.16, provide an understanding of the monopolistic relationships found within UK Defence Procurement?**

In each of the following Sections the appropriate questions from the questionnaire (see Appendix 1) are repeated and the overall comparative graphical results are portrayed. Then, under categories that emerged from the qualitative data, examples of the qualitative data (listed fully at Appendix 6) are used to illustrate the salient numerical points (numbers in brackets following quotations refer back to Appendix 6). At the end of each Section the key points are provided. The overall summary of Key Points from this Appendix is found in Chapter 4, Section 7.

## 2 Dimension 1 – Bounded Rationality (Relationship Creativity)

People have only so much capacity to rationalise what is going on around them and they therefore naturally limit their performance to the adequate rather than the optimum (Simon, 1957) (Ch3, 4.2). The converse of this statement generated the following questionnaire questions:

- a. The relationship encourages the achievement of high performance by both parties ie. reliable equipment, on-time delivery, good forecasts.
- b. The relationship encourages us to be innovative in the way we do business.
- c. Performance measurement is used to raise standards.
- d. Disputes & problems are resolved: 'quickly'.
- e. Disputes & problems are resolved: 'fairly'.
- f. The other party is reliable and consistent in dealing with us.
- g. The other party is dedicated to making our business a success.
- h. When an unexpected problem arises, both parties would rather work out a solution than hold each other to the original contract terms.



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## **2.1 Introduction**

Under this dimension the data is searched for instances of RM relationship variables used to overcome short-term approaches to monopolistic business relationships.

## **2.2 C<sup>3</sup> Behaviour (Co-operation, Collaboration, Co-ordination)**

A number of positive and negative points were made on working together in a harmonious and efficient manner towards shared objectives that are covered by Q1a – High performance (IPTs: 57%/Firms: 73%) and Q1h – Flexibility (IPTs: 77%/Firms: 81%). It will be noted that comments specifically home in on commercial functions.

IPT:

‘When we were able to focus together on an emergency programme to replace defective, safety-critical items, the Company initially found it hard but after that it really worked well’ (61).

but:

‘Our Commercial staff have resisted integrating with us. As a result my ability to be innovative is restricted’ (409).

and:

‘No one seems to own the problem. It’s always been the same with this Company. Nothing has changed despite big words about Smart Acquisition’ (680).

Firm:

‘As a result of working through the problems together, customer satisfaction appears to be improving’ (54).

and:

‘Currently quotes take a long time to process. I am suggesting 2 monthly meetings with the IPT Commercial Officer to smooth the task’ (674).



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but conversely:

‘Of all the MoD departments we speak to the Contracts staff are the worst. They are set in their ways, won’t take risks, have an adversarial mindset and they slow things down’ (93).

and:

‘My experience of dealing with the MoD is one of frustration through time-consuming bureaucracy and regulatory requirements’ (359).

### **2.3 Commitment**

The next relationship variable considers the willingness of the parties to devote maximum effort to sustaining and improving the relationship and data is found under Q1g – Mutual dedication (IPTs: 51%/Firms: 49%) and Q1f – Reliability and consistency (IPTs: 59%/Firms: 74%).

IPT:

‘They are committed to improvement and are on-track, through a big effort, to clear the 40% level of overdue orders’ (63).

and :

‘They have been involved with supporting our equipment for over 20 years and are fully committed to us’ (574).

however:

‘It’s almost policy that we let these relationships run without much management effort. We need to be more proactive’ (80).

Firm:

‘It was difficult to get the contract so we try extra hard not to mess it up’ (94).

but:

‘Smart Procurement brought a breakthrough but where is the follow-up?’ (74).

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and:

‘The IPT doesn’t seem to have walked the talk; instead they have sunk back into their comfort zone’ (99).

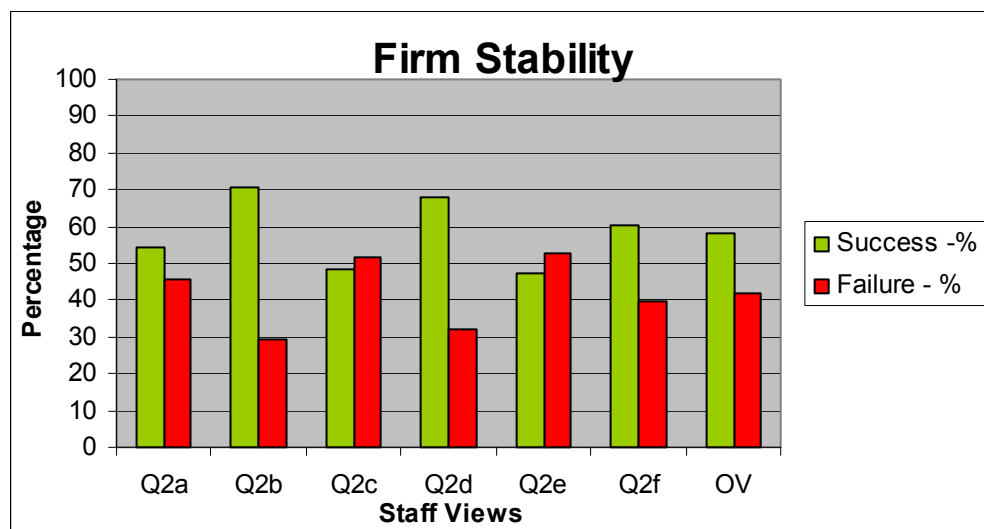
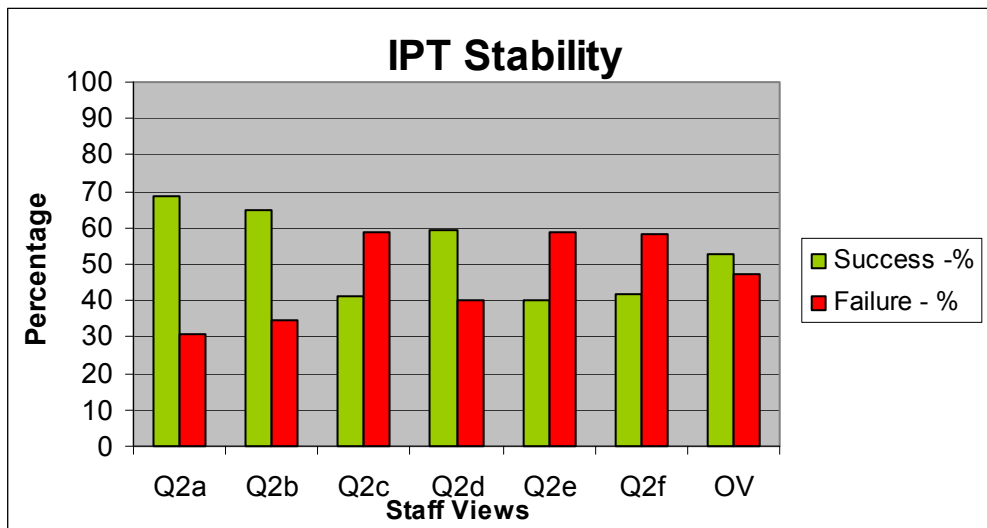
#### **2.4 Key Findings**

The qualitative data suggests that within monopolistic UK Defence Procurement relationships Commercial attitudes and practices are both a source of frustration and the key to good partnerships – overall satisfaction score 64%. Moreover, although there is evidence of long running relationships, lack of commitment to ‘walk the talk’ also contributes to short-termism and bounded rationality.

### 3 Dimension 2 – Uncertainty/Complexity (Relationship Stability)

People have difficulty in making sense of complex current and future events (Williamson, 1975) (Chapter 3, 4.3). The converse of this statement generated the following questionnaire questions:

- a. The other party displays a sound, strategic understanding of our business.
- b. The objectives of both parties are clearly stated.
- c. The objectives of both parties are fully compatible.
- d. Both parties co-operate wholeheartedly.
- e. The relationship provides a dynamic business environment within which both parties can seek increasing rewards.
- f. I have complete confidence in the intentions of the other party.



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### **3.1 Introduction**

Under this dimension the data is searched for instances of RM relationship variables used to overcome environmental uncertainty and complexity within UK Defence Procurement monopolistic business relationships.

### **3.2 C<sup>3</sup> Behaviour (Co-operation, Collaboration, Co-ordination)**

This variable is supported by data found under Q2d – Co-operation (IPTs: 60%/Firms: 68%) and Q2e – Dynamic environment (IPTs: 40%/Firms: 48%).

IPT:

‘Joint presentations externally provide a reinforcing image of the partnership’ (297).

and:

‘We work closely and most successfully with a small team’ (668).

however:

‘We offered to remove components prior to a return to works programme which their engineers approved and believed would save us £2m. Their Commercial people offered us a rebate of £2.5k. the nerve of it!’ (628).

and:

‘It’s difficult to harmonise our objectives when the Company keep their’s so close to their chest’ (597).

Firm:

‘We have a healthy, open relationship’ (175).

and:

‘As the reputation of the team within the business has grown this has helped to boost the confidence of the members and spurred them on to further gains’ (299).

but conversely:

‘Quality and giving the end-customer the best equipment to do the job should be our joint, prime aims in life. Instead we appear to be trying to catch each other out and score points’ (341).

and:

‘The original ‘breakthru’ atmosphere was brilliant but when we got down to the practicalities of doing business we are again walking through treacle’ (691).

### **3.3 *Adaption***

The next relationship variable concerns efforts made by the partners to adjust to each other’s business partnership requirements. The quantitative data concerns Q2b – Clear objectives (IPTs: 65%/Firms: 70%) and Q2c – Compatible objectives (IPTs: 41%/Firms: 49%).

IPT:

‘Frequent reorganisations in the Firm’s team increases uncertainty’ (293).

and :

‘There was a clash of wills with them wanting to make more money by adding extras and us digging-in for basic outputs’ (379).

and:

‘At the managerial level they are keen to improve their performance but this has not filtered down to the workers’ (688).

Firm:

‘The key is to harmonise the main objectives. Others that are not important and act as obstructions must be identified and suppressed’ (497).

but:

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'We speak different languages. To them it's a bit of kit to be pulled out and exchanged. To us it's a delicate instrument' (217).

### **3.4 Personal Relationships**

Quantitative data concerning the importance of personal relationships to business partnership success is found under Q2f – Mutual confidence (IPTs: 41%/Firms: 60%).

IPT:

'He's a forward thinking, go-getter in the company who is going places. He is a pleasure to do business with' (590).

Firm:

'The IPT changes its staff too often and because the relationship is very personality-dependent is like a roller-coaster ride. Out go the old faces, in come the new and we are back to square one

### **3.5 Corporate Culture-Matching**

Culture is something of an intangible but comments recorded emphasised the importance of the 'right attitude and atmosphere' to the success of business relationships. The quantitative data concerns Q2e – Dynamic environment (IPTs: 40%/Firms: 48%).

IPT:

'They are almost fun to deal with; they are not full of management-speak. They are a bit like us; evolutionary and resource-capped' (315).

Firm:

'Even though their Commercial staff are embedded in their organisation I believe they are constantly looking over their shoulders back up their

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traditional chain of command. It is going to take a long time to change this culture' (195).

### **3.6 Long Term Orientation**

The final variable concerns efforts made by the partners to overcome the instability engendered by uncertainty and complexity by taking a long-term view of the relationship. The quantitative data concerns Q2a – Strategic understanding (IPTs: 69%/Firms: 54%).

IPT:

'If we start a long-term agreement for say 30 years we must have top-level support to ensure we do not do the usual MoD trick of cutting back the funding at little notice' (555).

Firm:

'We need to find new ways of achieving long-term contracts that are all embracing. Short-term gains and cheapest prices will cost more in the long run' (581).

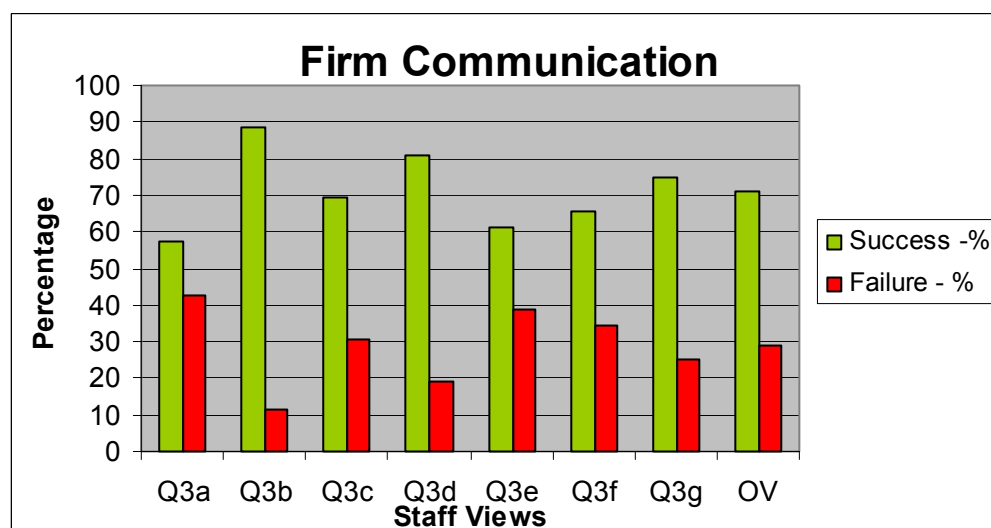
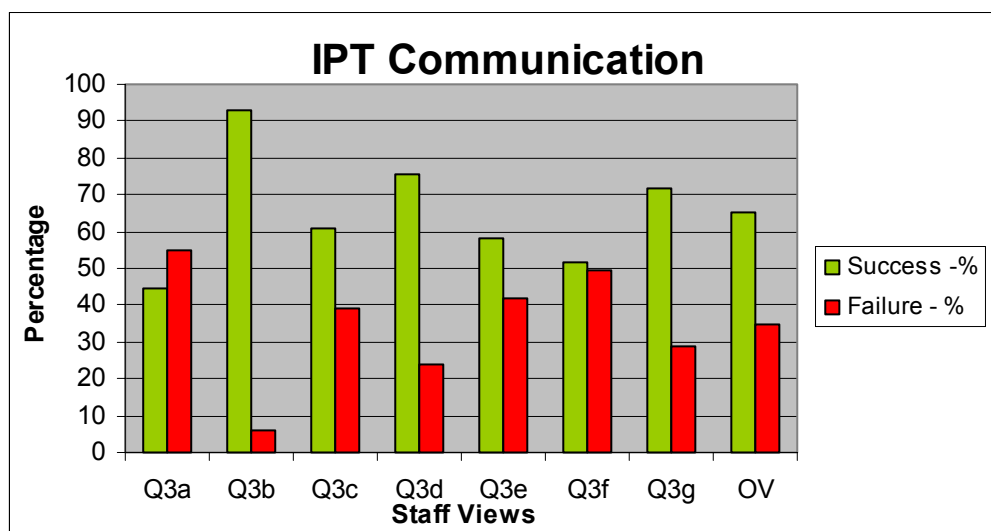
### **3.7 Key Findings**

The data highlights the problems of staff turnover, short-term commercial practices, the importance of culture change and the difficulty of establishing a long-term approach to business partnerships. The importance of C<sup>3</sup> Behaviour and Adaption are particularly emphasised but it is noticeable that respondents were especially sceptical about the sincerity of the other's intentions. Lastly, the significance of softer facets such as personal relationships and culture matching were emphasised. The positive and negative responses within this dimension were evenly balanced and bear out the overall 56% success score.

#### 4 Dimension 3 – Information Impactedness (Communication)

The imbalance caused by selective information disclosures, and distortions which are difficult or expensive to verify at the time and which undermine the durability of contract arrangements (Williamson, 1975) (Chapter 3, 4.4). The converse of this statement generated the following questionnaire questions:

- a. Where the other party has proprietary information that could improve the performance of the joint business, it is freely available.
- b. We would welcome a shared data environment where planning, technical and pricing information are made freely available.
- c. We understand the information requirements of all participants in the support chain from sub-contractors to end-user.
- d. Exchange of information in this relationship takes place frequently and informally – not just according to specified agreement.
- e. Objective performance measurement is an important part of this relationship.
- f. We are aware of the performance requirements for all participants in the support chain from sub-contractors to end-user.
- g. We provide the other party with regular information including long-range forecasts to enable him to do his business better.





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#### **4.1 Introduction**

Under this dimension the data is searched for instances of RM relationship variables used to overcome poor and deliberately confused communication within monopolistic business relationships.

#### **4.2 C<sup>3</sup> Behaviour (Co-operation, Collaboration, Co-ordination)**

Qualitative data on this variable was encompassed by Q3d – frequent information exchange (IPTs: 76%/Firms: 81%) and Q3g – Regular planning data (IPTs: 72%/Firms: 75%).

IPT:

‘We asked them to quote for an order worth over £1m. Only 9 mths later after some pressure did we get a response’ (696).

and:

‘We don’t agree all the time but at least we communicate clearly’ (380).

but:

‘The firm does not seem to be able to forecast expenditure with the accuracy needed by our forecast of outturn’ (6).

and:

‘Information on pricing and delivery is difficult to obtain and I usually inaccurate when received’ (393).

Firm:

‘Frequent contacts, even as often as daily, build confidence, reduce risks of misunderstandings and keep the team focussed’ (8).

and:

‘The IPT never holds back on providing data on advance requirements when known. This helps us to plan better’ (9).

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but:

‘There seems to be a gap in communications between the IPT and the end-customer. We could solve modification problems much more quickly if they were also present at reviews’ (36).

and:

‘We desperately need better performance management systems to ensure that actions are logged and analysed against standards’ (362).

### **4.3 Adaption**

The next relationship variable reported in the data concerns Q3g – Regular planning data (IPTs: 72%/Firms: 75%).

IPT:

‘We have a pragmatic way of working with frank exchanges; we are always business-like’ (40).

alternatively:

‘Communication has proved difficult at the managerial level’ (666).

and:

‘The company seems unable to understand that one point of contact is inadequate to deal with the multi-level issues that occur’ (472).

Firm:

‘By having a member of staff in their team we are able to communicate much better, reduce misunderstandings and, gain a much clearer idea of the plans for the business’ (31).

and:

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‘Our margins are much smaller these days and this limits the number of people involved in our interface channels. We are having to learn how to make this as effective as possible’ (675).

but:

‘Their procurement people like to remind us that we haven’t a divine right to the business. However, we have invested heavily in knowledge and experience. This doesn’t seem to be recognised or valued’ (577).

#### **4.4 Personal Relationships**

The quantitative data for this variable concerns Q3d – Frequent & informal data exchange (IPTs: 76%/Firms: 81%).

IPT:

‘We need to separate professional and personal relationships. The latter is important but ‘win-win’ is based on openness and concentration on the job in hand’ (37).

and:

‘We are good friends and thus talk openly and often’ (575).

Firm:

‘Because we know our opposite numbers personally we don’t want to let them down’ (23).

#### **4.5 Long Term Orientation**

The quantitative data concerns Q3e – Performance measurement (IPTs: 59%/Firms: 61%) and Q3g – Regular planning data (IPTs: 72%/Firms: 75%).

IPT:

‘We have learned not to set too fast a pace. We are both busy and need to set realistic, long-term targets’ (318).

and:

'I tell the Firm honestly my budget for the coming year' (337).

Firm:

'We get more information about future policy and plans from the MoD website than from the IPT' (361).

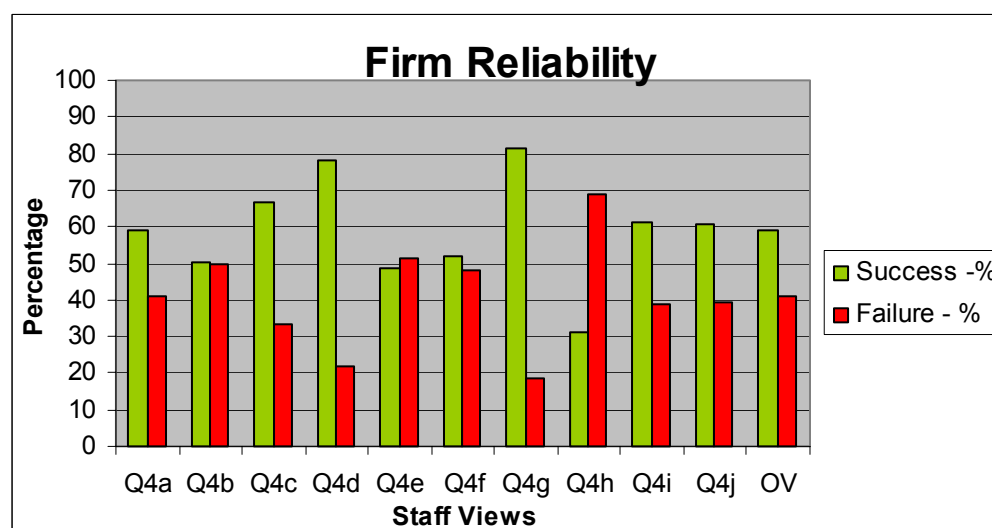
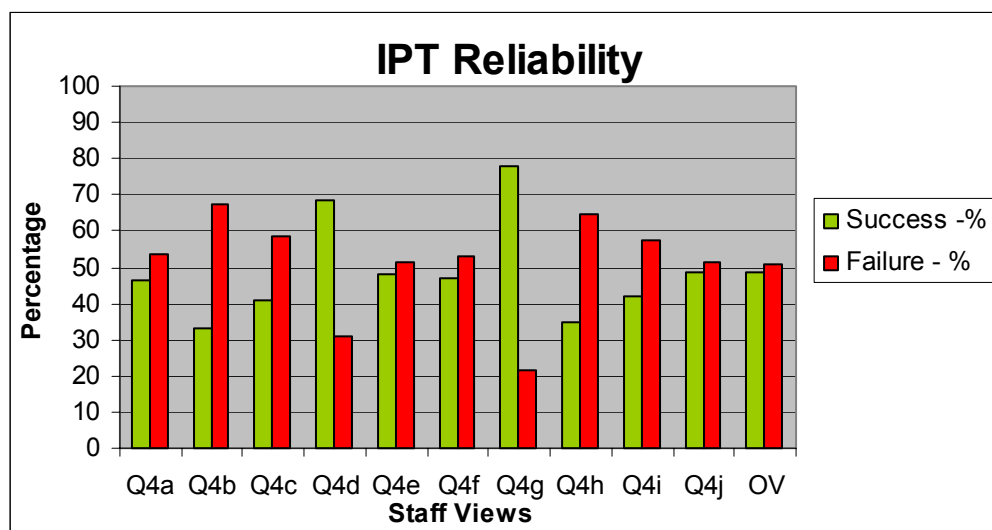
#### **4.6 Key Findings**

A RM view of this dimension highlights the personal, co-operative attitude to frequent and interactive communication – overall satisfaction score 68%. It also reveals the bitterness engendered by adversarial approaches, which ignore the important requirements of information exchange for risk reduction and effective planning.

## 5 Dimension 4 - Opportunism (Relationship Reliability)

Constitutes a lack of candour or honesty and includes self-interest seeking with guile. (Williamson, 1979) (Chapter 3, 4.5). The converse of this statement generated the following questionnaire questions:

- a. The quality of the contract outputs ie. spares/repairs/services, is entirely satisfactory.
- b. The quality of service delivery ie. delivery times, billing, payment, is entirely satisfactory.
- c. The relationship is characterised by a continually improving quality ethos.
- d. Problems are solved in a joint, open, constructive manner.
- e. Such is the goodwill in the relationship, the other party would willingly put himself out to adapt to our changing requirements.
- f. We trust the other party to act in our best interests.
- g. The responsibility for making sure the relationship works is shared jointly.
- h. The other party provides us with useful cost reduction and quality improvement ideas.
- i. The other party is always totally open and honest with us.
- j. The other party always does what he says he will do.



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### **5.1 Introduction**

Relationship Reliability requires a combination of RM variables to be exercised in order to generate a positive business interaction that results in a successful exchange relationship. This sub-Section illustrates how the research data portrays this feature together with its opportunistic antithesis.

### **5.2 C<sup>3</sup> Behaviour (Co-operation, Collaboration, Co-ordination)**

Under this relationship variable quantitative data were found under Q4g – Joint responsibility (IPTs: 78%/Firms: 81%) and Q4h – Cost & quality co-operation (IPTs: 35%/Firms: 31%).

IPT:

‘They have moved into a new line and we put them in-touch with other relevant IPTs. We both felt good from this bit of co-operation’ (311).

and:

‘We both concentrate on quality not blame’ (336).

and:

‘We’re making progress with the company. At our last monthly meeting I was surprised to see they were portraying their performance figures honestly and without massaging’ (522).

but:

‘We agree round the table but nothing ever happens’ (686).

Firm:

‘Although our Commercial people are no better or no worse than the other side, we recently achieved contract renewal a day before the old contract ran out. They must be doing something right’ (433).

however:

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'Their contracts staff have a real power to reduce the effectiveness of the relationship as we have to respond to interminable price investigations' (267).

and:

'Cash flow is very important to a business like our's but asking for a part-payment for partial completion of the job does not meet with a positive response' (526).

### **5.3 Adaption**

Next, data concerning the Adaption relationship variable were found under Q4c - Continuous improvement (IPTs: 41%/Firms: 67%) and Q4d – Problem solving (IPTs: 69%/Firms: 79%) are considered.

IPT:

'The fact that the Firm acknowledges that it is not delivering a quality service is a favourable sign' (154).

and:

'There has been a considerable improvement in obtaining delivery forecasts from the Firm's customer service desk and as a result a very good working relationship has developed' (269).

but:

'They are slow to understand our essential procedures including stock numbering' (159).

and:

'A lot of problems of late deliveries arise because of incompatibilities of IT systems between the MoD, the Firm and the sub-contractors and because of lack of manpower' (669).

Firm:

'The relationship has recently become more difficult because some of the long-standing IPT staff have turned over. The new members are not at all experienced' (290).

and:

'the biggest obstacle to improving business performance is MoD Contracts. There is a severe shortage of resources, risk aversion and lack of flexibility which lead to significant effort and delay in agreeing contracts' (349).

and:

'The relationship is highly dependent on people. We are a small company and unfortunately a shortage of resources limits our ability to focus on developing the relationship' (304).

and:

'The teams are doing their best to provide the end-customer with the best possible service but, budget constraints are often not understood either by the MoD or by our own people' (635).

#### **5.4 Trust**

Trust involves a belief that the other party will act reliably and with integrity. Quantitative data is found under Q4f – Trust (IPTs: 48%/Firms: 52%).

IPT:

'Our business success is based on trust. Recently we had a serious problem. The firm reacted instantly, sent a man and the job was done' (280).

and:



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'You can't build up trust without personal relationships to build up a good reputation' (326).

however:

'They often tender excessive price quotations, which are reduced after challenge. This does not engender a trusting relationship' (160).

and:

'Although we work well with our opposite numbers in the Company, I am always wary of a hidden agenda in their hierarchy' (689).

Firm:

'The trust that has built up over the years is a result of working together to achieve the desired end. I will go out of my way to help the MoD solve any problem' (275).

and:

'Although the business arrangements and operational outputs of the 2 organisations are far from ideal, honesty and openness are not only promoted but are lived every day' (485).

however:

'At renegotiation time because their usage rate had dropped we needed to increase prices to cover overheads. This was not understood and we were blamed for attempting to milk the contract' (371).

and:

'We have a built a lengthy bid approvals process that is designed to protect ourselves because we have been stung by the MoD in the past. This does not come cheap and is reflected in our price' (585).

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### **5.5 Commitment**

The next variable reported in the data concerns Q4j – Commitment (IPTs: 49%/Firms: 60%).

IPT:

‘The senior managers are very committed to us. They have let us know of problems before we find out by other means and let us know what they are doing about them’ (330).

however:

‘We have made huge progress with repairs and overhauls but despite their good words and assurances on spares their performance has been appalling’ (262).

Firm:

‘Profit is all very well but it is dedication to customer-service that keeps you in business’ (444).

although:

‘Despite the good words and countless initiatives and top-management commitment to openness and honesty and transparency, there still seems like a long way to go’ (347).

### **5.6 Personal Relationships**

The last relationship variable reported in the data under this dimension concerns Q4e – Goodwill (IPTs: 49%/Firms: 49%).

IPT:

‘It just comes down to people’ (285).

however:

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‘Our relationship is very personality-driven and we get on with them extremely well. However, at the professional level they are terrible’ (631).

Firm:

‘It was pure luck that a forward-thinking, enlightened team happened to form. It would have been impossible to create this deliberately because there are so few staff to choose from in our slimmed-down organisation’ (225).

and:

‘I strongly believe that successful working relationships are built on trusting personal relationships’ (634).

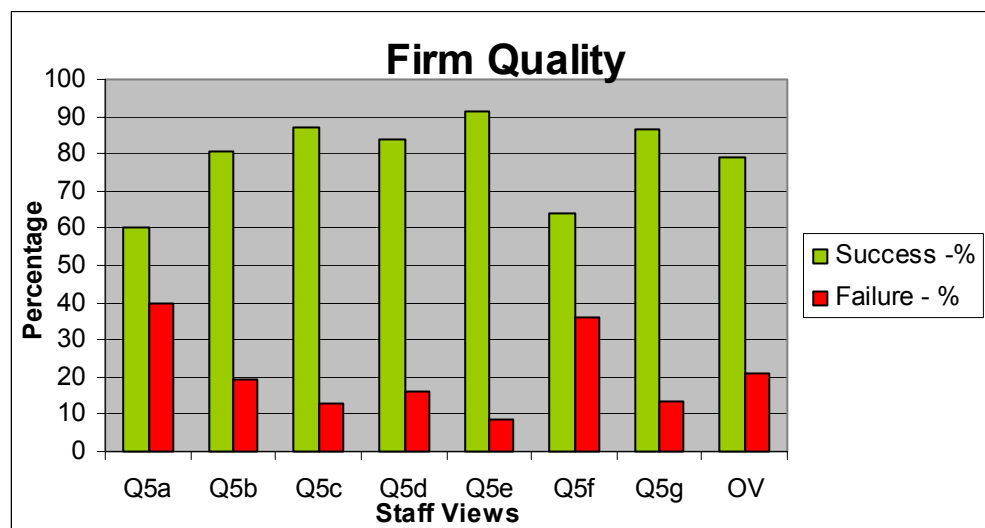
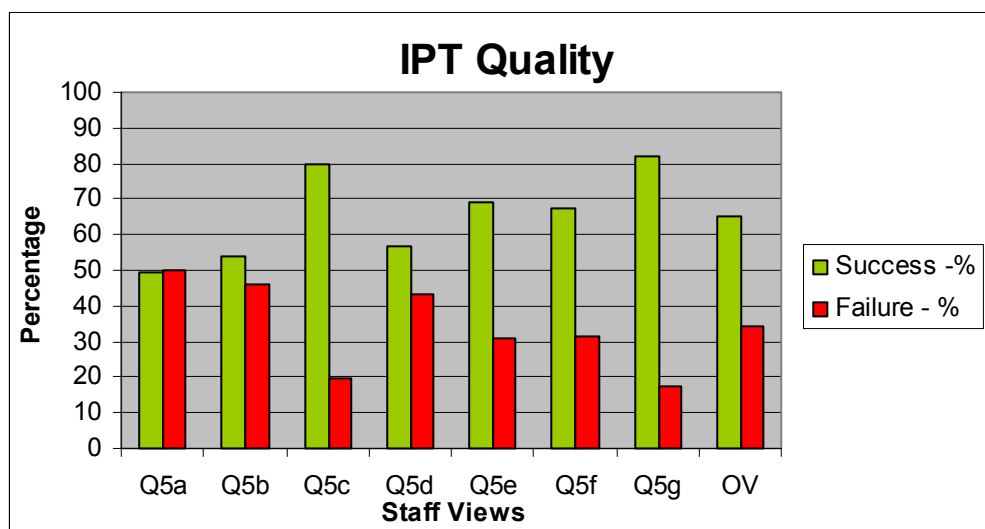
### **5.7 Key Findings**

The RM perspective of the Relationship Stability dimension indicates that although enthusiasm exists, practical obstructions within C<sup>3</sup> Behaviour and Adaption on commercial and operations activities prevent the achievement of satisfactory business outputs. Opportunistic behaviour such as adversarial bidding and hidden agendas appears to suppress the Trust and Commitment success scores. Overall, the generally negative qualitative data support the quantitative findings that present this dimension with the lowest success score of 54%.

## 6 Dimension 5 – Small Numbers (Relationship Quality)

The combination of problem behaviours requires sophisticated controls that are only found in or close to the firm and may result in failure of market conditions (Williamson, 1979) (Chapter 3, 4.6). The converse of this statement generated the following questionnaire questions:

- The gains from this relationship are equally shared between both parties.
- We do not feel imprisoned within the current relationship.
- We are willing to invest more ie. money, time, information, effort, in the current relationship.
- We are happy that our future is bound to the success of our relationship partner.
- We feel totally committed to this relationship.
- The other party is genuinely concerned that our business succeeds.
- Both sides are working to improve this relationship.



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### **6.1 Introduction**

Under this dimension the data is searched for instances of RM relationship variables that illustrate the last dimension of the theoretical framework.

### **6.2 Adaption**

Data on Adaption were found under Q5c – Relationship investment (IPTs: 80%/Firms: 88%) and Q5g – Mutual endeavour (IPTs: 82%/Firms: 87%).

IPT:

‘Managing out risk costs a great deal of top management time, This is where the hard decisions such as how much we are going to spend are made’ (378).

although:

‘The knee-jerk reaction of the MoD to its current funding problems is the biggest turn-off to industry’ (547).

Firm:

‘The Company has invested in a Key Account Manager to give the contract the appropriate focus’ (127).

but:

‘Smart procurement’s prime aim is to take money away from industry. I see no light at the end of the tunnel’ (445).

### **6.3 Commitment**

The next relationship variable reported in the data concerns Q5e – Commitment (IPTs: 69%/Firms: 92%).

IPT:

‘We have built a head of goodwill despite the problems’ (108).

alternatively:

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‘There is tremendous commitment on both sides at working-level but we are all short of resources to take forward strategic improvements. We don’t seem to have the top management support that we need’ (598).

Firm:

‘The need to dramatically improve the relationship is our number one priority’ (113).

but:

‘Reduced margins and intense competition in the sector are all very clear reasons for the reduced level of commitment and risk in the company. It has thus become increasingly difficult to secure finance from senior management to invest in this relationship’ (465).

#### **6.4 Power Balance**

Power Balance refers to the respective feelings or actions that the parties experience which engender a sense of relationship equality. The reported data concerns Q5b – Relationship freedom (IPTs: 54%/Firms: 80%).

IPT:

‘The relationship contains a healthy measure of scepticism’ (109).

and:

‘They know full-well we can’t go anywhere else but still the relationship is a good one’ (316).

however:

‘They have an air of arrogance – ‘take it or leave it, we are the sole supplier’ (138).

and:

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'I think they take the view that our equipment is legacy, that we are an undemanding customer and they can use us as a 'milk-cow'" (621).

and:

'We couldn't easily go anywhere else; they have the drawings and the knowledge. Taking Design Authority elsewhere is really a practical proposition' (469).

Firm:

'The IPT's attitude is: 'we'll share whatever you have got'" (123).

and:

'The problem is; we always seem to do the giving' (419).

and:

'Rather than work towards a satisfactory resolution of issues they keep trying to punish us' (424).

### **6.5 Trust**

Aspects of Trust found within the data under Q5f – Mutual concern (IPTs: 68%/Firms: 64%) are considered next.

IPT:

'Because my opposite number's job could be on the line he has a vested interest in portraying a warm, comfortable position' (466).

Firm:

'It's very important to start small with innovative partnering arrangements in order to let the problems sort themselves out and to build up mutual trust' (373).

but:

---

‘In this day and age I believe no large company will try to rip-off the MoD. The audit trail and accountability are there so why not trust us?’ (583).

### **6.6 Interdependence**

This relationship variable represents the dependence of each partner on the other to secure success and includes a willingness to invest effort and resources to further its ends. Data found under Q5a – Equality (IPTs: 50%/Firms: 60%) and Q5f – Mutual concern (IPTs: 68%/Firms: 63%) are considered.

IPT:

‘The Company is only concerned that our business succeeds for their benefit’ (140).

and:

‘They don’t recruit the people so we don’t place the orders’ (467).

and:

‘Our in-house partner has come up with an idea that saves £1m per year but it depends on the Firm taking part. However, they are not enthusiastic because the old way gave them more profit’ (678).

Firm:

‘The relationship is developing from tight competition contract to a more open one based upon trust and mutual gain’ (147).

but:

‘The equipment was bought at minimum cost and as a result there is much dissatisfaction from the end-customer and the IPT. We are the butt of their frustrations’ (435).



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### **6.7 Key Findings**

The balance of comments made by respondents on the aspects of this dimension were predominantly negative, which is in contrast to the more favourable view portrayed through the quantitative data (73%). There are clear examples of constructive conflict, maintaining a healthy balance of power and investment in relationship development and support measures. However, IPTs generally felt threatened by the monopoly situation where they perceived unbalanced power, lack of interdependence and poor commitment from the other side. Lack of long-term funding for projects and investment in systems appeared to exacerbate the 'small numbers' impoverishment of business relationships.

## Appendix 10

### Cluster Analysis Data

Stage	Cluster Combined		Coefficients	Stage Cluster First Appears		Next Stage
	Cluster 1	Cluster 2		Cluster 1	Cluster 2	
1	12	14	16.000	0	0	8
2	19	20	44.000	0	0	18
3	52	54	91.000	0	0	11
4	27	29	138.000	0	0	20
5	24	25	196.500	0	0	17
6	37	42	256.500	0	0	22
7	7	8	321.500	0	0	32
8	12	18	390.833	1	0	25
9	5	6	464.333	0	0	19
10	43	44	543.833	0	0	16
11	52	53	627.500	3	0	37
12	46	49	722.500	0	0	14
13	35	41	824.500	0	0	31
14	46	48	928.167	12	0	24
15	30	32	1035.667	0	0	36
16	39	43	1155.500	0	10	30
17	24	26	1291.000	5	0	33
18	13	19	1429.000	0	2	28
19	4	5	1588.167	0	9	26
20	22	27	1763.167	0	4	27
21	47	51	1939.167	0	0	37
22	34	37	2118.500	0	6	34
23	33	36	2312.000	0	0	39
24	46	50	2513.583	14	0	29
25	12	15	2753.750	8	0	35
26	2	4	2995.333	0	19	38
27	22	28	3238.083	20	0	39
28	13	17	3525.333	18	0	33
29	45	46	3823.483	0	24	46
30	39	40	4127.400	16	0	40
31	31	35	4467.400	0	13	47
32	7	9	4851.067	7	0	38
33	13	24	5234.960	28	17	43
34	34	38	5621.376	22	0	40
35	12	21	6072.276	25	0	43
36	23	30	6552.110	0	15	41
37	47	52	7091.843	21	11	46
38	2	7	7777.498	26	32	44
39	22	33	8498.248	27	23	42
40	34	39	9259.748	34	30	50
41	16	23	10120.164	0	36	49
42	11	22	11025.164	0	39	47
43	12	13	11976.455	35	33	51
44	2	3	13085.633	38	0	48
45	1	10	14333.133	0	0	48
46	45	47	16002.133	29	37	53
47	11	31	17816.333	42	31	49
48	1	2	19746.583	45	44	52
49	11	16	21830.562	47	41	50
50	11	34	25366.179	49	40	51
51	11	12	32073.741	50	43	52
52	1	11	55161.209	48	51	53
53	1	45	94847.296	52	46	0

Figure A10.1. Agglomeration Schedule (SPSS V.11)

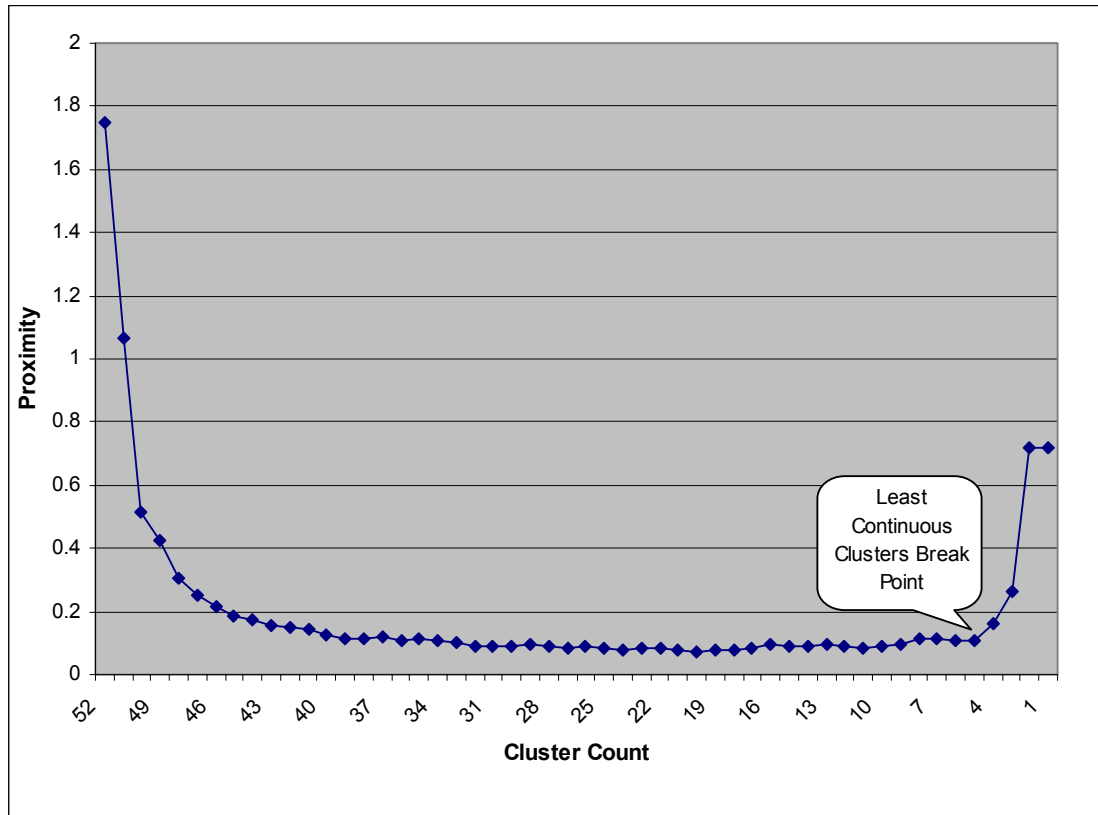


Figure A10.2. Proximity Plot Showing Coefficients/Cluster Mapping (MS Excel)

(The break point occurs when subsequent clusters cease to be statistically significant – hence 4 clusters were chosen for analysis).

	Cluster	N	Mean	Std. Deviation	Std. Error	95% Confidence Interval for Mean		Minimum	Maximum
						Lower Bound	Upper Bound		
Creativity	1	10	35.3000	10.33925	3.26956	27.9037	42.6963	22.00	56.00
	2	22	73.3636	9.36836	1.99734	69.2099	77.5173	49.00	88.00
	3	12	56.6667	4.77367	1.37804	53.6336	59.6997	50.00	63.00
	4	10	91.6000	7.48628	2.36737	86.2446	96.9554	77.00	100.00
	Total	54	65.9815	20.27033	2.75844	60.4487	71.5142	22.00	100.00
Stability	1	10	32.6000	13.84197	4.37721	22.6981	42.5019	.00	52.00
	2	22	63.0909	12.53912	2.67335	57.5314	68.6504	35.00	86.00
	3	12	48.1667	5.82835	1.68250	44.4635	51.8698	35.00	56.00
	4	10	88.1000	7.50481	2.37323	82.7314	93.4686	79.00	100.00
	Total	54	58.7593	20.88507	2.84210	53.0587	64.4598	.00	100.00
Communication	1	10	54.5000	14.46260	4.57347	44.1541	64.8459	33.00	82.00
	2	22	63.3182	13.52735	2.88404	57.3205	69.3159	39.00	94.00
	3	12	66.3333	9.22776	2.66382	60.4703	72.1964	52.00	86.00
	4	10	83.4000	13.26817	4.19577	73.9085	92.8915	64.00	100.00
	Total	54	66.0741	15.51366	2.11114	61.8397	70.3085	33.00	100.00
Reliability	1	10	28.9000	10.35428	3.27431	21.4930	36.3070	17.00	55.00
	2	22	62.6364	8.32978	1.77592	58.9431	66.3296	49.00	76.00
	3	12	45.5833	3.84846	1.11095	43.1381	48.0285	40.00	53.00
	4	10	90.2000	5.88407	1.86070	85.9908	94.4092	83.00	100.00
	Total	54	57.7037	21.30252	2.89891	51.8892	63.5182	17.00	100.00
Quality	1	10	52.8000	6.33859	2.00444	48.2656	57.3344	40.00	60.00
	2	22	76.8182	12.05794	2.57076	71.4720	82.1644	57.00	95.00
	3	12	68.9167	9.69966	2.80005	62.7538	75.0795	56.00	86.00
	4	10	92.5000	5.83571	1.84541	88.3254	96.6746	79.00	100.00
	Total	54	73.5185	15.74890	2.14315	69.2199	77.8171	40.00	100.00

Figure A10.3. Descriptive Source Statistics Table (SPSS V.11)

External Variable	Case	Chi-Squared Test	Significant
Spend Value		0.048	yes
Relationship Duration	Bands 1 & 2	0.047	yes
Team Size		0.144	no
Technology Age		0.582	no
System or Component		0.414	no
Contractors' League	Band 1	0.045	yes

Figure A10.4. External Variable Cross-Tabulation Results (SPSS V.11)

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## Appendix 11

### Cluster Analysis Qualitative Data Table

Key to Table Headings:

**Clu#:** Cluster Number

**Rel#:** Relationship Number (1-54)

**ID#:** Database Number of the Semi-Structured Interview Key Point

**Positive Comment:** Optimistic Semi-Structured Interview Key Point

**Negative Comment:** Pessimistic Semi-Structured Interview Key Point