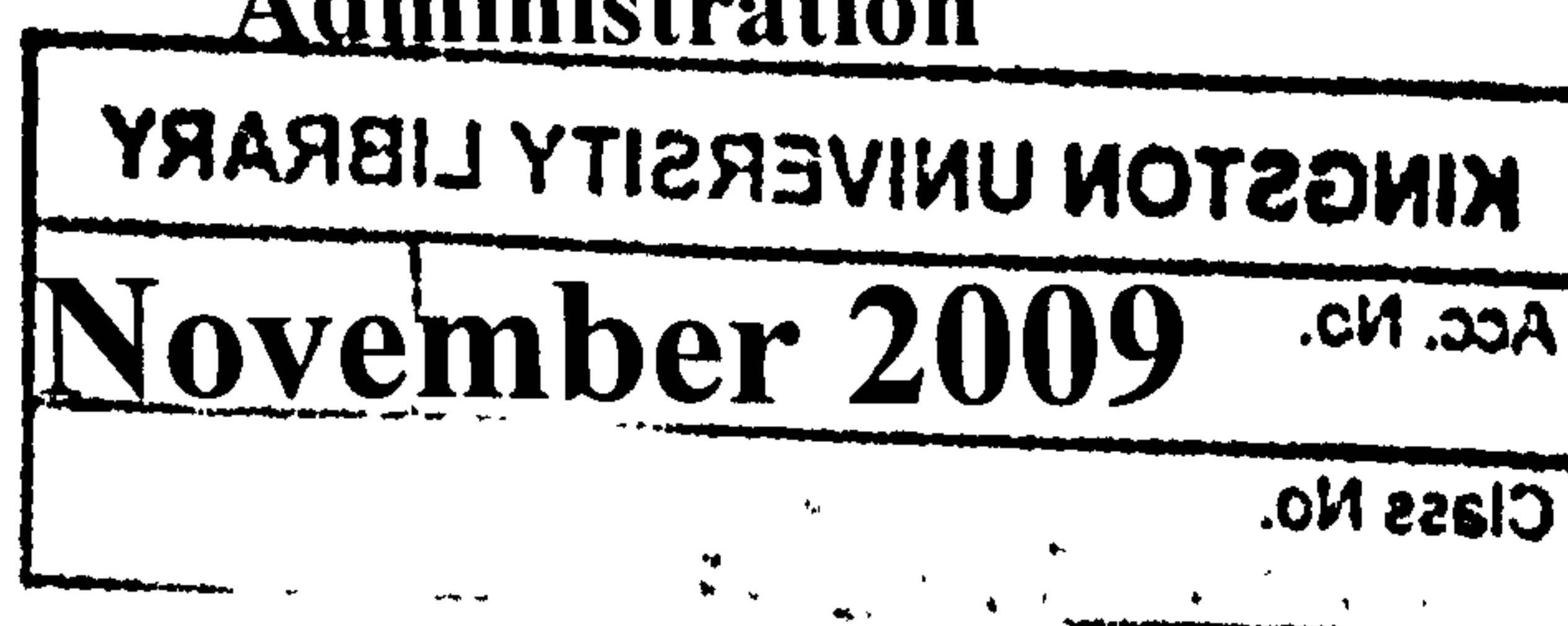


MANAGING RELATIONSHIPS IN PUBLIC PRIVATE PARTNERSHIPS

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Administration



Abstract

In seeking to establish and maintain a quality relationship and optimise performance, partners in long-term inter-organisational partnerships must choose which of the available governance strategies and control strategies to use in managing their partnership. Despite literature reporting that governance and control strategy mechanism choices will affect partnership performance this literature is silent about the relationship between these strategies and the impact of their mechanism choices on the quality of their relationship. To address these shortcomings, this study examined the use of governance and control strategies in bilateral long-term inter-organisational partnerships. Two conceptual models were developed and operationalised. Measurement items were mainly borrowed from existing research and contextualised and adapted for this study. One new scale (financial performance) was developed based on expert comments in the exploratory research phase.

Prior to issue of the self completion questionnaire, telephone contact was made to identify those with direct partnership management responsibility in the public and private sectors. On identification the nature of the study was explained and confirmation of a willingness to participate sought. Only those who agreed to participate were sent the questionnaire. Local Authority Private Finance Initiative projects were used as the research setting and this produced a sample size of 211. Of the 113 people who agreed to participate, 64 completed and returned a questionnaire. The overall return rate was 29% with 29% of the public sector and 29% of the private sector participants responding.

Partial Least Squares (PLS) was used to test the high level research and lower level operational model structures and hypothesised casual pathways. Despite both the research and operational models demonstrated satisfactory R^2 and Goodness of Fit results. Both model results were tested for reliability and validity with all constructs meeting widely accepted psychometric benchmarks. The findings from both models are reported and debated.

As with all studies, there are a number of limitations. These include possible limits to the generalisability given the very specific type of partnership from which the data is drawn. In carrying out a cross-sectional study the benefits associated with a longitudinal study have been forsaken and it would be helpful to understand if the passage of time impacts on governance and control strategy choices. Similarly, the absence of control variables means it is not possible to understand whether more experienced partnership managers employ a different approach to their less experienced counterparts in the management of their partnerships.

The findings provide an original contribution to academia through an evaluation of the role of governance strategy, control strategy and relationship quality in the management of long-term inter-organisational partnerships. These confirm that integrated governance strategy is a significant determinant for integrated control strategy and that integrated governance and integrated control strategy are both significant determinants for relationship quality. Relationship quality has been found to link governance and control strategy to performance, confirming its mediating role in maximising performance outcomes.

The major contribution to business practice is the development of normative guidelines that support informed decisions about how the partnership should be managed to optimise performance. Specifically the guidelines promote that governance strategy, control strategy and relationship quality should be treated as three interdependent elements of an integrated partnership management framework. This implies that those exploring new partnerships and those in existing partnerships should design their governance and control strategies to capitalise on those mechanisms that act in a complementary and reinforcing manner to strengthen the quality of their relationship and in turn optimise performance.

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CHAPTER 1 - INTRODUCTION

1.1 BACKGROUND TO THE STUDY

The complex and dynamic nature of modern business, the pace of change and intense competition are challenging the effectiveness of traditional business structures. Consequently, organisations (private and public) are adopting management strategies such as strategic partnering, cooperative arrangements and the outsourcing of key functions to independent firms to access the scarce resources (financial and human), skills and expertise needed to compete and survive (Ring and Van de Ven, 1992).

In response to these challenges, the United Kingdom Government introduced Public Private Partnerships in 1992. These partnerships involve a public sector organisation teaming up with a private sector partner to deliver new or upgraded public sector infrastructure (hospitals, courts, schools, social housing etc.) together with related services in a long-term partnership of typically 25-30 years. This new approach has transformed the way many major capital projects and services are procured resulting in public sector organisations entering into long-term contracts in which the historical 'arms length' transactional relationship is being replaced a relational exchange of much of longer duration.

Since their introduction, the growth of PPP's in the United Kingdom has been remarkable. By April 2007, some 590 Private Finance Initiative (PFI) projects (a subset of the wider public private partnerships market) with a total capital value of £53.4 billion had been signed committing the public sector to over £160 billion in capital and revenue payments between 1996/97 and 2033/34 (HM Treasury Signed Projects List – July 2007).

Given the increasing significance of public private partnerships in the delivery of UK public sector infrastructure and related services, it is important that the approach to the management of these long-term inter-organisational partnerships is structured to maintain sound relationships and optimise performance. However, as identified by the National Audit Office (2001) survey of central government public private partnerships, 'it is not easy to secure the

type of relationship where both sides are open, share information fully and work together to solve problems' (p. 23). The same survey also identified that a strong relationship, 'will be supported where the right contractual arrangements and governance structure are in place' (p. 23).

Seeking empirical evidence from English local authority PFI projects, a subset of the wider public private partnership market, this study attempts to investigate the use of governance and control strategies and sets out their impact on the quality of the partners relationship and partnership performance. Public private partnership's are a suitable research area given their growth, their emergence as important business services partnerships, the increasing number of organisations and personnel involved in the management of long-term inter-organisational partnerships for the first time and the recognised need for guidance on how the governance structure impacts of the partners relationship and on contractual performance.

The study will advance theory by examining the previously overlooked relationships between governance and control strategy and their relationships with relationship quality. Practitioners will benefit from the production of new and guidelines aimed at providing them with the knowledge to establish and maintain secure high quality relationships and optimise partnership performance.

In the remainder of this Chapter, an overview of the study is presented, the research problem is delineated and the conceptual and theoretical foci are provided. The background to the study is explained and the long-term inter-organisational partnership management summarised. The study aim and objectives are defined, the conceptual model reviewed and the managerial and theoretical contributions together with the study limitations are identified. In the next section, the author provides an overview of the choices managers face in designing an appropriate framework for the management of their partnership.

1.2 MANAGING LONG-TERM INTER-ORGANISATIONAL PARTNERSHIPS

In entering into long-term partnerships organisations should be aware of the distinction to be drawn between discrete transactions (which have a distinct, short duration and sharp ending via performance) and relational exchange (which is an ongoing process of longer duration), (Dwyer *et al.* 1987). Those entering into relational exchanges should recognise the importance of the ongoing relationship and embrace activities directed towards developing and maintaining this relationship.

The key theories that underpin these decisions are Transaction Cost Economic (Williamson, 1975, 1985) and Agency Theory (Jensen and Meckling, 1976) - see Chapter 2 for discussion. The TCE literature explores the interplay between three key transaction dimensions (asset specificity, uncertainty and frequency) and three main assumptions about human behaviour (bounded rationality, uncertainty and frequency) to determine how best to structure the governance arrangements and highlights the role of contract law in managing the partnership. Whilst Agency Theory examines the role of monitoring, compensation and socialisation in the partnership and provides guidance about how the pay-performance relationship between principal and agent could be structured. Together, TCE and Agency theories provide the partners with the guidance needed to design an appropriate management framework for the management of their partnership/s.

The review of the inter-organisational partnerships management literature highlights how the available governance and control mechanisms have been used and the related outcomes. This confirms that the choice of governance strategy (see Chapter 3) and the nature of the control strategy (see Chapter 4) will impact on partnership performance and is likely to impact on the quality of the partners relationship.

Thus in seeking to establish and maintain an effective relationship and optimise performance, the partners are faced with a choice of which of the governance and control strategy mechanisms to use and how these might be combined given their distinct and identifiable

impacts. For example, the governance strategy could be based on explicit contracts (Heide, 1994), relational governance (Woo and Ennew, 2004), or both used in a complementary manner (Lazzarini *et al.* 2004). Similarly, the control strategy could make use of formal controls (Genctürk and Aulakh, 1995), informal controls (Ouchi, 1979) or a combination of both used simultaneously (Heide *et al.* 2007). In the remainder of this section a synopsis of the available governance and control strategies is provided and gaps in this literature identified.

1.2.1 Governance Strategy

The term governance has been defined broadly as, ‘a mode of organising transactions’ (Williamson and Ouchi, 1981, p.367). A more concise definition is provided by Palay (1984; p.265) who defines it as, ‘a shorthand expression for the institutional framework in which contracts are initiated, negotiated, monitored, adapted and terminated.’

Two types of governance strategy (Griffiths and Meyers, 2005) have been studied: economic governance strategies such as contracts (Lusch and Brown, 1996) and relational governance strategies such as relational norms (Haugland and Reve, 1993) and two competing governance research streams have emerged. In one, contracts and relational contracting are seen as substitutes (Dyer and Singh, 1998; Gulati, 1995; Macaulay, 1963; Paswan *et al.* 1998; Ring and Van de Ven, 1994; Roxenhall and Ghauri 2004; Woolthuis *et al.* 2005) and in the other as being complementary (Bergen *et al.* 1995; Brown *et al.* 2000; Carson *et al.* 2006; Larson, 1992; Lazzarini *et al.* 2004; Luo, 2002; Lusch and Brown, 1996; Poppo and Zenger, 2002; Uzzi, 1997; Yan and Gray, 2001).

Those who view contracts and relationalism as substitutes, consider contracts to be detrimental to relational behaviour (Dyer and Singh, 1998; Woolthuis *et al.* 2005). Reasons for this negative relationship include that the drawing up of the contract is viewed as a signal of distrust (Bradach and Eccles, 1989) and that the contract can evoke opportunism and hinder the development of relational behaviour (Woolthuis *et al.* 2005). Conversely, they promote the benefits of relational governance as a substitute for contracts because relational norms evolve from shared descriptive expectations (e.g., this is the way we do things in this

relationship) to become shared normative expectations (e.g., this is the way things should be done in this relationship) (Berger and Luckmann, 1967; Larson, 1992) and governance emerges from the values, norms and agreed processes found in these social relationships (Heide and John, 1992; Macneil, 1978, 1980; Noordeweir *et al.* 1990), thereby rendering contracts unnecessary.

Those who view contracts and relational governance as complementary believe they should be used simultaneously (Möllering, 2002). Based on TCE and contract theory they believe the established contract limits the possibilities for opportunistic behaviour (Woolthuis *et al.* 2005) and that contractual specifications increase the occurrence of relational behaviour between the exchange partners. For example, explicit contracts state formally how the parties should behave over time (Lusch and Brown, 1996) and contracts reduce the gains of short-term opportunism through incentives or punishments thereby increasing the value of honouring more informal dealings such as relational governance (Lazzarini *et al.* 2004; Poppo and Zenger, 2002).

Used simultaneously, advantage can be taken of their (contracts and relational governance) differential impacts to enhance their individual outcomes (Brown *et al.* 2000; Weitz and Jap, 1995). This complementary and reinforcing use (defined as an integrated governance strategy by the author) has also been found to have a positive impact on inter-organisational performance (Bello *et al.* 2003; Brown *et al.* 2000, Cannon *et al.* 2000; Ferguson *et al.* 2005; Genctürk and Aulakh, 2007; Luo, 2002; Poppo and Zenger 2002). See Chapter 3, Section 3.3.2 for a more detailed debate.

Although extant research has explored governance strategy's impact on performance, the author has not been able to locate research examining the impact on control strategy or on the quality of the partners relationship. This study will therefore examine these relationships in a business services-based long-term inter-organisational partnership and in so doing respond to the call for research to inform a discriminating theory of governance choice (Rindfleisch and Heide, 1997) and a united governance framework encompassing economic and sociological

perspectives (Luo, 2002). It will also add to the inter-organisational performance literature by responding to the call by Vandaele *et al.* (2007) to examine the inter-relationships between contractual governance, relational governance and performance outcomes in business services setting.

1.2.2 Control Strategy

Tannenbaum (1968) identified control as an important concept in management with its major function being to bring about conformance with organisational requirements and achievement of the organisation's ultimate purpose, with organisation's tending to be more confident about partner cooperation when they feel they have an adequate level of control over their partners (Beamish, 1988; Sohn, 1994).

In inter-organisational partnerships control has been assumed to reflect the principal's effort to coordinate and influence agent actions rather than the exercise of authoritative ability to dictate agent behaviour (Bello and Gilliland, 1997; Celly and Frazier, 1996). Thus in this study, control has been defined as the process by which a partner influences the behaviour and output of other partners (Child and Faulkner, 1998).

This control can be exerted through formal and/or informal control mechanisms. The former come about as a result of a formal/legal agreement between the parties and can be behaviour (process) or outcome based (Jaworski, 1988; Ouchi and Maguire, 1975). The latter are linked to (Ouchi's, 1979) concept of social, clan or normative control, with its reliance on people strategies and social patterns to influence and control behaviour and has been categorised as professional and cultural control (Jaworski *et al.* 1993).

Based on research in organisational approaches to control (Child, 1973; Jaworski, 1988; Ouchi, 1979), Genctürk and Aulakh (1995; p.757) define formal controls as, 'management-initiated mechanisms that are designed to regulate organisational activities to ensure their conformance with established expectations.' Formal control employs codified rules, goals, procedures and regulations that specify desirable patterns of behaviour and is designed to

regulate organisational activities, formalising interactions between principals and agents in intra and inter-organisational settings. While providing clear boundaries for what is and is not acceptable, empirical research has produced mixed findings about their effectiveness and impact. This is demonstrated by research that has found formal control to signal distrust (Sitkin and Roth, 1993) and motivate opportunistic behaviour (Aulakh and Genctürk, 2000), yet in the shape of behaviour (process) control lead to greater agent compliance and have no affect on agent economic performance (Aulakh and Genctürk, 2000).

Informal control refers to the pattern of shared values and beliefs that guide norms of behaviour within the organisation (Deshpande and Webster, 1989) and their use in controlling a relationship implies that a common understanding underscores the relationship (Achrol and Gundlach, 1999). In this situation, the focus is on the partners relationship with an emphasis on social or people strategies (Eisenhardt, 1985; Jaworski, 1988) used to design mechanisms that either inhibit opportunistic behaviour, or induce relationship promoting behaviours (Coleman, 1990; Stump and Heide, 1996). Informal controls have been found to lead to improved partnership working, reductions in opportunism and improved performance (Aulakh and Genctürk, 2000; Dahlstrom and Nygaard, 1999).

However, in his seminal work Anthony (1952) recognised that each control mechanism does not exist in isolation and that it is easy to over emphasise formal control mechanisms and to miss entirely or under emphasise informal controls. Building on Anthony's (1952) work, Jaworski (1988) identified that the isolation of a single control mechanism does not accurately reflect the complete set of controls in operation and that doing so is unnecessarily limiting. In so doing, Jaworski recognised that formal controls can play a role in shaping the informal system (Anthony, 1988; Jaworski, 1988) and that management initiated formal control mechanisms operate in conjunction with informal controls to yield desired outcomes (Jaworski, 1988). This simultaneous use of formal and informal controls was also recognised by Heide *et al.* (2007), an approach that has been defined by the author as an integrated control strategy.

Empirical testing of integrated control strategies has concluded that the a high control strategy in which informal and formal controls are used produces the strongest positive effect on performance (Cravens *et al.* 2004; Jaworski *et al.* 1993). Oliver and Anderson (1995) suggest determining the right combination of controls may be more important than trying to place a particular management control strategy into a fixed typology, Aulakh and Genctürk, (2000) identify the combination of behaviour (process) and social control functioning as complements provides the best control strategy for controlling overseas agent performance and Heide *et al.* (2007) found that with the presence of a social contract (informal control) the opportunism they found associated with behaviour control was reduced, whilst the lower levels of opportunism they found when output control was used were reduced further. See Chapter 4, Section 4.3 for a more detailed debate.

Research examining the integrated use of formal and informal control mechanisms remains limited as is evidenced by Gibbons (1999) who in his conceptual paper called for research to examine the complex interactions between formal and informal relationship elements. Since this call, the author has identified two empirically based studies (Cravens *et al.* 2004; Heide *et al.* 2007) that have examined the complementary and reinforcing use of formal and informal control mechanisms with both finding this beneficial to performance. However, only (Heide *et al.* 2007) investigated inter-organisational control and its impact on partnership performance. This study will therefore build on the sparse inter-organisational research base broadening this by examining these relationships in a business services based partnership.

Additionally, the author has been unable to locate research examining the impact of control strategy on the quality of the partners relationship. This study will examine this relationship for the first time thereby providing evidence to inform a discriminating theory of control strategy choice.

1.3 STUDY AIM AND OBJECTIVES

The aim of this study is to establish a management framework that will inform those managing inter-organisational partnerships about how their choice of governance and control strategies will impact on the quality of the partner relationships and on partnership performance.

Four objectives have been defined in order to achieve this aim:

- a) To develop through an extensive literature review a theoretically grounded model that will enable the evaluation of the impact of governance and control strategy on relationship quality and partnership performance in long-term inter-organisational partnerships;
- b) To operationalise the model constructs;
- c) To use appropriate data collection methods and analytical tools to analyse the research data and provide the information needed to evaluate the relative importance of importance of governance and control strategy choices on relationship quality and partnership performance in long-term inter-organisational partnerships; and
- d) To develop, based on the empirical results, normative managerial guidelines setting out how the choice of governance and control strategy mechanisms will impact on partner relationships and partnership performance.

In meeting the study aim and objectives, the author will make significant contributions to the advancement of theoretical knowledge and managerial practice. The theoretical contributions are based on being the first study to:

- a) Investigate the impact of the higher order constructs of integrated governance strategy and integrated control strategy on the quality of the partners relationship;
- b) Examine the relationship between integrated governance strategy and integrated control strategy, and

- c) Explore the impact of relationship quality on partnership performance where relationship quality is a mediator linking integrated governance strategy and integrated control strategy with performance.

Further contributions arise from the development of a second theoretically grounded model comprising the lower order constructs of the four higher order constructs. This will provide further insights by illuminating the unique relationships and impacts associated with the individual lower order constructs.

Based on the insights gained from the two theoretical models, the practice of inter-organisational partnership management will be enhanced through the improved understanding of the impacts associated with their choice of management tools and how these interact with each other. Managers will be presented with a clear framework that can be used to optimise partnership performance, and provided with clear guidelines that communicate the distinct and identifiable impact of available governance and control strategy mechanisms, their inter-relationships and their relationships with relationship quality and performance.

1.4 THE RESEARCH METHODOLOGY

The research methodology is based on the research design framework proposed by (Sekaran, 2003), see Figure 1-1. This provides a logical and manageable framework that guided the author from the initial activities designed to identify gaps in the extant literature, through the development of the research instrument to the collection of data and subsequent analysis and evaluation in order to support or refute the hypotheses. A detailed explanation of the review methodology and the author's approach within this is provided in Chapters 6, 7 and 8. To provide the reader with an overview of the process the key steps are briefly discussed in the remainder of this section.

Step 1 - In order to establish what has been published about the chosen management area, the author started by reviewing the extant literature. Using electronic databases as the primary search tool, books and academic journals in which research examining the management of

long-term inter-organisational partnerships had been reported were identified. The combination of empirical and conceptual research provided the author with an understanding of the theories which underpin this area of management as well as the options available to managers of long-term inter-organisational partnerships. It also highlighted where limited, or no research had taken place and where researchers had called for further investigations to be carried out to test emerging theories.

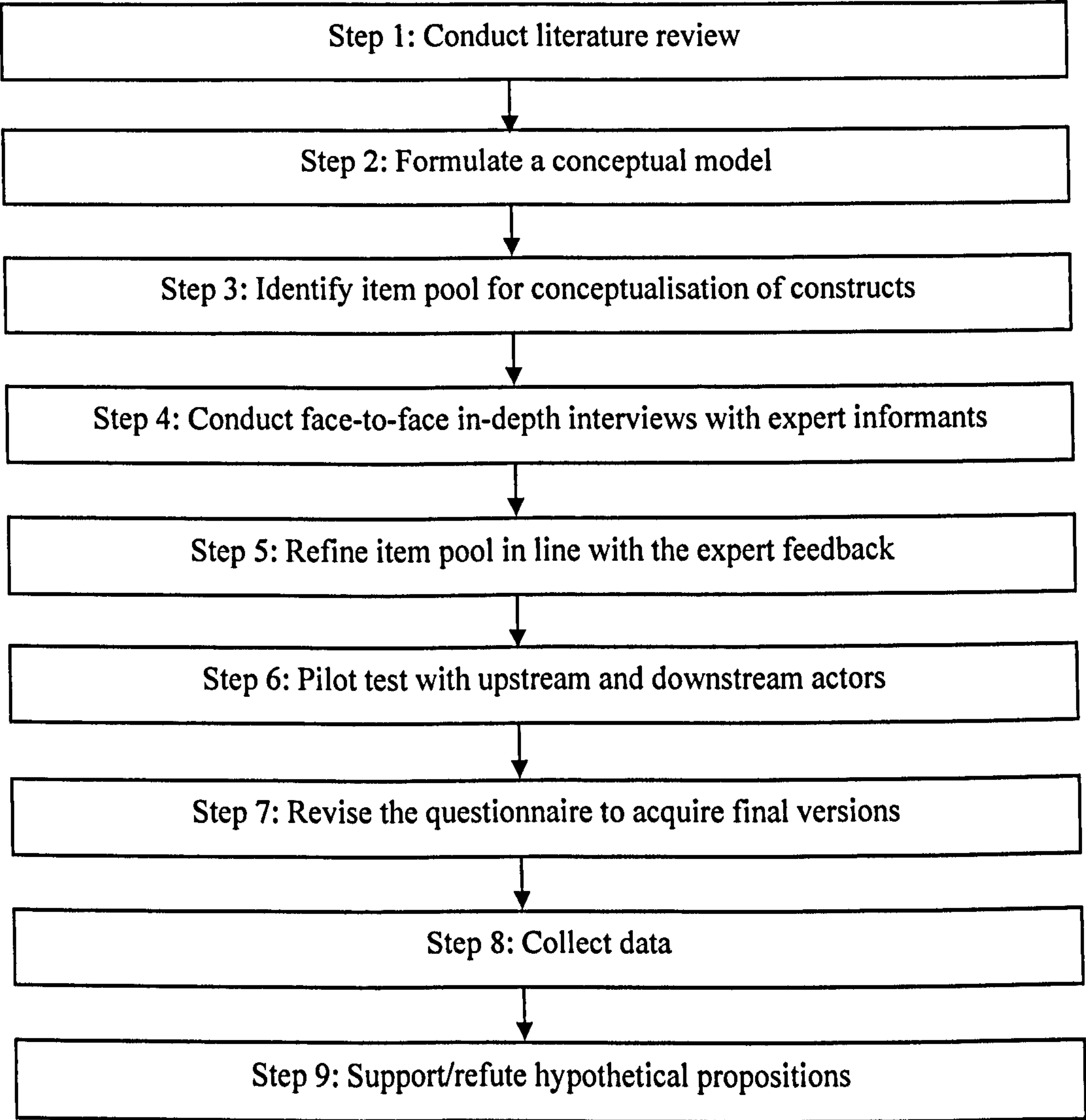


Figure 1-1 - The Research Design Process

Source: Sekaran, U. (2003) *Research Methods for Business: A Skill Building Approach*, ' 4th edition, John Wiley and Sons.

On completion of the literature review, the author had identified that in managing the long-term inter-organisational partnership, managers could make use of a range of available governance and control mechanisms and that how they used these (their strategy) would affect the partnership. Extant research highlighted their choice could affect their relationship and partnership performance and that the relationships between the governance, control,

relationship quality and performance constructs had not been fully explored. **Step 2** - As a result, an initial conceptual model containing four constructs and six hypotheses was produced - see Chapter 5, Section 5.2.

Step 3 - Having identified the research constructs, a further detailed literature review was undertaken to identify how these had been operationalised in the extant research. With the approach to operationalisation of same the construct often being markedly different and context specific, the author had to make some initial decisions regarding the content of the pool of indicators for each of the constructs.

Step 4 - The views of industry experts were then sought in order to validate the choice of indicators and to provide information and suggestions about how these should be adapted and/or contextualised to make them sector specific. **Step 5** - Based on this feedback a refined pool of indicators was established and incorporated into an initial draft of the questionnaire that was to be used to collect the data.

Step 6 - This draft questionnaire was tested on eight target respondents known to the author who were actively engaged in the management of local authority PFI projects. Those involved were asked to comment on their understanding and interpretation of the statements in the draft questionnaire as well as issues such as grammar and layout. **Step 7** - Feedback received during this 'pilot testing' stage was incorporated reflected in the final questionnaire which was subsequently professionally designed and printed.

Step 8 - The data collection activity was targeted at a research population comprising English local authorities who were working in long-term inter-organisational PFI partnership projects. This produced a small population of 126 projects (221 possible respondents), which made it possible to use a census approach in the data collection phase. In the absence of a reliable database providing information about the persons who were directly responsible for managing the partnership, a two stage approach based on a telephone call and subsequent issue of the questionnaire was adopted. A total of 113 questionnaires were issued to managers who had

agreed to participate following an initial telephone call. This resulted in 64 questionnaires being returned; a return rate of 57% or 29% of the total respondents. No single questionnaire was returned unusable.

Step 9 - On receipt of the questionnaires the responses were transferred to SPSS and the data inputs independently checked for errors. The high level research and lower level operational models and the hypothesised pathways were tested using the Partial Least Squares multivariate statistical tool.

1.5 STUDY LIMITATIONS

Although considerable efforts have been made to ensure the robustness of the study, as with all research studies, this one has a number of limitations that suggest future research would benefit from a different approach. Firstly the study data is from a sub-set of business services public private partnership projects, which may limit generalisation to other business sectors and to more traditional business to business partnerships. The absence of control variables meant it was not possible to identify whether more experienced partnership managers used a different management framework than their less experienced counterparts. It would also be helpful to understand how the passage of time impacts on governance and control strategy choices, something a longitudinal study would assist in identifying. A further potential limitation is related to the measurement of relationship quality, in which atmosphere could be viewed as a proxy for relationship quality as the partnership climate (atmosphere) is derived from the extent of the relational behaviours associated with cooperation and adaptation. This would explain why neither cooperation nor adaptation has a significant link with either of the performance constructs. A full list of the limitations can be found in Section 11.6 of this Chapter.

1.6 THESIS STRUCTURE

This section provides a brief overview of the remaining thesis Chapters, starting with a review of the extant literature before providing an insight into the chosen research methodology and

details of the data analysis results. The thesis concludes with comments on the results and the contributions to theory and management practice.

Chapters 2, 3 and 4 are devoted to a review of the relevant literature, the purpose of which is to establish a comprehensive understanding of the theory that underpins the management of long-term inter-organisational partnerships and to identify gaps in the extant literature that will serve as the empirical and theoretical base for the study research model and hypotheses. The review commences with an investigation of the theories linked to the management of inter-organisational partnerships in Chapter 2, where the primary theories - transaction cost theory and agency theory – are presented and critiqued. In the next two Chapters – 3 and 4 - the author explores the governance strategy and control strategy literature to identify the choices those responsible for managing inter-organisational partnerships have in designing the partnership management framework. Chapter 3 reviews the governance strategy literature, which highlights the available governance mechanisms and the research (empirical and theoretical) exploring their use. Chapter 4 reviews the control strategy literature which is underpinned by agency theory and follows the same format as Chapter 3. At the end of each chapter the author identifies gaps and/or limitations for exploration in this study.

The author next considered the full research process in order to ensure the relevant methodological issues were explored in full before embarking on the process of gathering data. The aim was to develop a coherent approach that seeks to minimise error, was consistent with any overriding constraints such as time and cost and produced sufficient data to test in full the high level research model and hypotheses. Collectively, known as the ‘Research Methodology’ these methodological issues are identified, considered and the preferred option communicated in the four **Chapters, 5 to 8** inclusive. Chapter 5 sets the scene for the study by presenting a theoretically justified model and associated hypothesis grounded in the literature debated in Chapters 2, 3 and 4. In Chapter 6 the high level framework for the research process is established, for example, the time horizon is identified as being a cross sectional one and a questionnaire is determined to be the most appropriate of the data collection methods. In

Chapter 7, issues related to measurement and the measures as well as the design of the research instrument are addressed, while in Chapter 8 the final decisions about sampling design, unit of analysis and data analysis taken. At the end of the Research Methodology Chapters, the author has an established research methodology, to be used in collecting the study data.

Having collected the data, the penultimate part of the thesis is devoted to the analysis of this data. This comprises two **Chapters, 9 and 10**, the content of which guides the reader through the data analysis methods used by the author. In Chapter 9, the accuracy of the constructs is tested by measuring the multicollinearity of the formative latent variables and the accuracy and validity of reflective latent variables and in Chapter 10 the research model fit and hypothesis testing are presented.

With the data analysis completed the author discusses the results and draws conclusions in **Chapter 11**. The debate has both theoretical and practical aspects, for example, placing the results within the relevant body of literature and using these to propose normative management guidelines. The theoretical contribution, study limitations and recommendations for future research are identified and relevance to stated research aims and objectives assessed.

CHAPTER 2 - LITERATURE REVIEW

2.1 THE UNDERPINNING THEORETICAL FRAMEWORK

Following an extensive literature review conducted to identify the theoretical framework underpinning the management of long-term inter-organisational partnerships it was apparent that the most relevant of the theoretical areas were: Transaction Cost Theory (Coase, 1937; Williamson, 1975, 1985, 1991, 1996), Agency Theory (Jensen and Meckling, 1976; Eisenhardt, 1985), Governance (Macneil, 1974, 1978, 1980, 1981, 1983; Macauly, 1963; Williamson, 1991) and Control (Jaworski, 1988; Ouchi, 1979). In reaching this conclusion, the author recognised the role of Transaction Cost Theory in guiding the ‘make or buy’ decision and the relevant monitoring and enforcing activities, as well as Agency Theory in shaping the agency relationship between the public sector client and its private sector partner. The Governance and Control theories provide a rationale for the chosen management approach, with Governance theory shaping the strategic and Control theory the operational management approaches respectively.

Whilst there are others theories, such as inter-firm power (Frazier, 1999) that will impact on the management of inter-organisational partnerships, the ones used in this research are those most closely aligned to the author’s area of research, namely; how to structure the management framework for long-term inter-organisational partnerships in order to build and maintain a successful partnership (see study aim in Chapter 1, Section 1.3). In the remainder of this Chapter, Transaction Cost Theory and Agency Theory literature will be reviewed, with Governance and Control literature reviewed in Chapters 3 and 4 respectively.

2.2 TRANSACTION COST ECONOMICS

Transaction cost theory was first proposed by Coase (1937) in his article, *The Nature of the Firm*, in which he described firms (hierarchies) and markets as the governance choices available to managers. He argued that each has a different governance structure and transaction costs and that under certain conditions the costs of conducting economic exchange in a market can exceed the costs of organising the exchange within a firm (hierarchy). In this

context the transaction costs are the costs of running the system and include *ex ante* costs such as drafting and negotiating contracts and *ex post* costs such as monitoring and enforcing agreements.

Building on the work of Coase (1937) by demonstrating that testable hypotheses could be developed to overcome the difficulties in measuring transaction costs, Williamson (1975, 1985, 1996) augmented Coase's initial framework by suggesting that transaction costs include both the direct costs of managing the relationship and the opportunity costs of making inferior governance decisions.

Williamson's (1975) book, '*Markets and Hierarchies*' served as the base from which the theory of Transaction Cost Economics (TCE) was developed. TCE maintains that there are 'rational economic reasons' for choosing the means of governing transactions' (Williamson 1985: p.52). This is captured in what Williamson (1991: p.277) calls the, 'discriminating alignment hypothesis,' which holds transactions with differing attributes will be aligned with the most appropriate governance structure in a discriminating way to minimise transaction costs.

TCE has emerged as a leading framework for understanding how to craft governance arrangements because it purports to provide a rationale for answering the question, 'under what kind of governance structure are transactions performed most efficiently?' (Heide and John, 1988: p.20). Indeed such has been TCE's impact that Masten (1993: pp.119-120) wrote, 'Transaction Cost Economics aspires to influence as well as understand behaviours. It is not just a positive theory of business practice but also a normative theory of organisational choice and design. In effect, TCE offers a normative set of rules for choosing among alternative forms of governance arrangements. To the extent that governance choices are an important determinant of firm performance, managers would be well advised to heed those rules and to factor transaction cost concerns into their decision making calculus.'

However, this view of TCE is not universally held. TCE has been criticised for being an adhoc theory divorced from reality (Simon, 1991), lacking generality because of ethnocentric bias (Dore, 1983), presenting an under-socialised view of human motivation and an over-socialised view of institutional controls (Granovetter, 1985) as well as its normative implications (Pfeffer, 1994, Geyskens *et al.* 2006). In their critique, Ghoshal and Moran (1996: p.16) state, ‘Williamson’s arguments ... are not only inapplicable to most decisions making situations in firms but, if so applied, are also likely to adversely affect their performance.’ In the same critique they also claim, ‘any conclusion that TCE is an empirical success story appears to be premature’ (1996: p.69). This latter claim is supported by Robert and Shin-Kap (2004: p.47) who in their assessment of empirical support for TCE conclude, ‘with overall support for the predictions of TCE at 47%, our results keep us from universally agreeing that the theory is an empirical success story’ as claimed by Williamson (1996: p.55).

With TCE generating such opposing views as to its merits it is no surprise it has become one of the most studied organisational frameworks (Geyskens *et al.* 2006). The extent of this research activity is highlighted in the narrative review of transaction cost literature covering multiple social science disciplines undertaken by Boerner and Macher (2002), which identified more than 600 articles that investigate some aspect of transaction cost theory. While in their assessment of the empirical support for TCE Robert and Shin-Kap (2004) found over 1 million TCE articles in their search of the ABI and Econ Lit databases.

Despite the research spanning disciplines such as economics, organisation, law, sociology and marketing, the absence of integration across the different disciplines has limited the impact of this research on the development of transaction cost theory (Geyskens *et al.* 2006). This presents further research opportunities and in Section 2.2.1 the author presents an overview of TCE and examines its impact on the management of long-term inter-organisational partnerships.

2.2.1 An Overview of TCE Theory

TCE belongs to the ‘new institutional economics’ paradigm. Within the vast body of TCE research Chiles and McMakin (1996) identify two separate research streams, which they state arise as a result of contrasting views on what is meant by economic costs. They label these as, ‘economic natural selection which has been adopted by evolutionary theorists and managerial choice which has been adopted by decision theorists’ (1996: p.75). These differences have led to the respective research streams addressing different levels of analysis, time frames and dependent variables.

The TCE decision theorists’ seek to assist managers choose governance structures based on a subjective interpretation of transaction costs. This approach is reflected throughout the work of Williamson and is consistent with Coase (1937) who stated, ‘there is no one decision which can be considered to maximise profits independently of the businessman’s attitude to risk taking. A further point is that the correctness of the decision cannot be determined by subsequent events’ (p.104-105).

Decision theorist’s empirical TCE research focuses on the individual firm as the level of analysis, a short run time frame and the behaviours of a single or few firms (Walker and Weber, 1984). In so doing, researchers focus on ‘transactions and the costs that attend completing transactions by one institutional mode rather than another’ (Williamson, 1975: p.1-2), with the transaction a transfer of goods or services as the unit of analysis and the means of effecting the transaction the principal outcome of interest’ (Williamson, 1985: p.1). In so doing, these researchers are seeking to answer the original transaction cost theory question; whether the transaction is more efficiently performed within a firm (hierarchy/vertical integration) or outside of it by autonomous contractors (market governance).

Market governance corresponds to *classical contract law*, whereby the identity of the transacting parties is irrelevant and neither is dependent on the other. Market transactions are governed by formal terms interpreted in a legalistic way, characterised by ‘hard bargaining’ between the parties and are discrete in nature. Hierarchy or internal organisation is more

elastic and adaptive. In this governance form the parties solve disputes internally: they work out their differences or appeal unresolved differences to the hierarchy for decision. Williamson (1991) states this form of governance is supported by the '*law of forbearance*'.

Despite transaction cost theory's original framework posing the governance question as a discrete choice between market and internal organisation (firms), complete integration is not always desirable or feasible. As transaction cost theory has developed and recognised that the features of internal organisation can be achieved without ownership or complete vertical integration (e.g., Heide and John, 1992) a third option was identified by Williamson (1993) and named as hybrid governance.

In the hybrid governance form, the parties to the transaction maintain autonomy but are bilaterally dependent on each other in a non-trivial way. Supported by *neoclassical law*, which is more elastic and adaptive than *classical contract law* (see Chapter 3.3 for further details), hybrid governance foresees unanticipated disturbances, provides a 'tolerance zone' within which misalignments can be absorbed, requires information disclosure when adaptation occurs and provides for arbitration (prior to going to the courts) in the event of disagreement. This in turn means the identity of the parties does matter as each could not be replaced without the other incurring costs.

Each of the governance transaction forms; market, hierarchy and hybrid, is supported by a different form of contract law and employs its own coordination and control system. In Williamson's micro-analytical framework all three seek to address the interplay between three key transaction dimensions (asset specificity, uncertainty and frequency) and three main assumptions of human behaviour (bounded rationality, opportunism and risk neutrality). Additionally, Mayer and Salomon (2006: p.943-994) add the dimensions of appropriability, which refers to the contracting hazards that expose valuable intellectual property to expropriation (Gulati and Singh, 1998; Oxley, 1997; Pisano, 1990) and observability which relates to the extent to which outcomes can be observed (Holmstrom, 1979). Mayer and Salomon (2006) in their empirical study identify technological capability (Hoetker, 2005;

Kogut and Zander, 1992; Leiblein and Miller, 2003; Martin and Salomon, 2003a, 2003b) as an additional dimension to be taken into account in making the governance decision. They acknowledge there are many forms of capability (e.g., managerial, operational, marketing), however, their research findings show technological capabilities do have a role to play, but that they only affected the governance decision in the presence of hold-up hazards and not where observability or appropriability were a problem.

2.2.1.1 *Transaction Dimensions*

A transaction's *asset specificity* refers to the degree to which assets (specialised assets, specialised skills or a combination of specialised assets and skills) are used in support of the transaction can be redeployed to 'alternative uses and by alternative users without sacrifice of productive value' (Williamson, 1991: p.282). As asset specificity increases, the ease of transfer to alternative uses decreases, bilateral dependence increases with a corresponding increase in the parties contracting hazards. This results in maladaptation costs and pushes transactions with high asset specificity into more integrated (adaptive) governance forms.

Transaction cost theory therefore predicts that transactions with low asset specificity will be undertaken in the market, those with intermediate asset specificity in hybrid governance forms and those with the highest asset specificity in hierarchical forms of governance. In their meta-analysis of transaction cost theory which quantitatively synthesised extant empirical research, Geyskens *et al.* (2006) found that as asset specificity increased hierarchical governance was indeed preferred to market governance.

Uncertainty, the second of the transaction dimensions arises either when the relevant contingencies surrounding an exchange are too difficult to specify in the contract *ex ante*, (there is environmental uncertainty) or performance cannot be easily verified *ex post* (there is behavioural uncertainty). Environmental uncertainty as a concept has been sub-divided and identified as comprising volume and technological uncertainty (Walker and Weber, 1984). Volume uncertainty is the inability to forecast volume requirements in a relationship and technological uncertainty the inability to accurately forecast the technical requirements in a

relationship (Walker and Weber, 1984). The primary consequence of environmental uncertainty is an adaption problem that can be addressed through hierarchical governance. However, authors such as Klein (1989) have argued that high environmental uncertainty also encourages firms to maintain flexibility, which would make hierarchical governance less attractive. As Klein noted, 'it appears that uncertainty is too broad a concept and that different facets of it lead to both a desire for flexibility and a motivation to reduce transaction costs' (p.256).

In reviewing research from the governance and measurement branches of TCE Carson *et al.* (2006) concluded that the impact of uncertainty on governance choice had not been robustly explored. As a result they identify and distinguish between two components of uncertainty which they name; volatility and ambiguity (p.1059). Volatility is defined as the rate and unpredictability of change in an environment over time which creates uncertainty about future conditions. Since it is difficult to anticipate all future possible contingencies *ex ante*, *ex post* adjustments usually become necessary in volatile environments. Ambiguity refers to the degree of uncertainty inherent in perceptions of the environmental state irrespective of its change over time. Ambiguity consists of several aspects including; lack of clear information, uncertainty about the importance of environmental variables, uncertainty of cause and effect relationships between variables and uncertainty about available courses of action and their potential effects (Draft and Macintosh, 1981; Thompson, 1967). A key result of ambiguity is that firms can differ in their perceptions of the same environment and in their decisions about how to act (Draft and Macintosh, 1981).

Behavioural uncertainty is a performance evaluation problem and exists where it is difficult *ex post* to determine whether contractual compliance has taken place. According to transaction cost theory the general response is vertical integration (hierarchy) as this is assumed to give greater evaluation capability. In their meta analysis, Geyskens *et al.* (2006) found as volume uncertainty increased hierarchical governance was the preferred governance form, whilst increases in technological uncertainty led to market governance being preferred. Hierarchical

governance was also the preferred as behavioural uncertainty increased. These findings being consistent with the arguments of Klein (1989).

However, in transaction cost theory uncertainty is assumed to be conditional on the level of asset specificity. Transaction cost theory postulates that when asset specificity is low, whatever the degree of uncertainty market governance should be the default choice of governance form. This is because continuity matters little and new transaction arrangements can be easily arranged by both parties if necessary (Williamson, 1985: p.59). When asset specificity is significant continuity between the parties becomes important and adaptive capabilities necessary. In this situation, increases in uncertainty render market governance subject to costly haggling and maladaptiveness thereby increasing the relative attractiveness of hierarchies and hybrids (Williamson, 1985: p.79). At the highest levels of uncertainty, the ‘intermediate range of asset specificity within which hybrid forms are preferred tends to shrink and may well disappear’ (Williamson, 1991: p.292). ‘This is because existing bilateral dependencies prevent unilateral adaptations (as with market governance) or by fiat (as in hierarchies), instead, needing mutual consent’ (Williamson, 1991: p.292).

Investigating the impact of uncertainty in formal and relational contracts, Carson *et al.* (2006) highlighted research following Williamson’s (1985) ‘governance branch’ of TCE. In support of Robert and Shin-kap (2004), they identify uncertainty as comprising of volatility and ambiguity dimensions and find little evidence in their empirical study for the hypothesised relationships between volatility and either opportunism or governance (Anderson, 1988; Artz and Brush, 2000; Pilling *et al.* 1994, Rindfleisch and Heide, 1997; Sako and Helper, 1998). For example, they found that formal contracts help firms limit opportunism in ambiguous environments suggesting this comes from the significant *ex ante* effort required by the partners to shape and agree the contract. They also found relational contacts to be more effective safeguards than formal contracts (hierarchy) in volatile (uncertain) environments, which they conclude is due to the weakness of formal contracts when environmental change prompts the renegotiation of formal agreements *ex post*.

The third of the transaction dimensions is *transaction frequency*, which refers to the extent to which transactions recur. According to Williamson (1985: p.60) higher levels of transaction frequency provide an incentive for firms to employ hierarchical governance because ‘the cost of specialised governance structures will be easier to recover for large transactions of a recurring kind.’ As a result frequency of the transaction operates in a similar way to uncertainty where asset specificity is non-trivial. Asset specific transactions occurring frequently require constant monitoring effort, while those that occur infrequently need not be attended to continuously and do not merit the bureaucratic costs of establishing a hierarchy. Thus in the presence of asset specificity, frequency also pushes transactions away from the market towards hierarchy Williamson (1985). This dimension of transaction cost theory has received the least research attention (Rindfleisch and Heide, 1997) a position confirmed as unchanged by the Geyskens *et al.* (2006) meta-analysis.

TCE theory states the extent to which the transaction dimensions of asset specificity, uncertainty and transaction frequency are features of a transaction will determine which of the available governance choices (markets/hybrids/hierarchies) is most appropriate for the transaction. In general, as *uncertainty* and *transaction frequency* increase manager’s will switch from markets to hierarchical governance, however, in the case of technological uncertainty the desire for flexibility (Klein, 1989) results in a preference for market governance Geyskens *et al.* (2006). However, in contrast to the assertion that TCE owes much of its predictive content to asset specificity (Williamson, 1998, p.36), supported by David and Han (2004) and Shelanski and Klein (1995), Geyskens *et al.* (2006) in their meta analysis found the importance of asset specificity to be overstated. Their empirical research found that whilst volume uncertainty had a weaker impact on governance choice than asset specificity, the effects of behavioural and technological uncertainty were not significantly different from the effect of asset specificity. Moreover, the joint effect of all three components of uncertainty was larger than that of asset specificity, thus raising questions about the conditionality effect of asset specificity.

2.2.1.2 Human Behaviour Assumptions

The transaction specific impact on governance choice is further informed as a result of interaction with, or assumptions about the partner behaviours aligned to opportunism, bounded rationality and risk neutrality. *Opportunism*, which Williamson (1985) defined as self interest of a strategic (i.e., secretive, deceptive, or guileful) nature undertaken to redirect profit from vulnerable partners, encompasses a wide range of specific behaviours including; bargaining, shirking, failing to fulfil obligations and withholding valuable information (Grossman and Hart, 1986; Williamson, 1985). Such opportunism is facilitated by transactions in which transaction specific assets and/or uncertainty are present. Where a partner is assumed to be opportunistic, or the conditions to be opportunistic are favourable, the preference will be for a form of hierarchical governance (Williamson, 1985).

Bounded rationality is based on the assumption that decision makers have constraints on their cognitive capabilities and limits on their rationality. Although decision makers often intend to act rationally, this intention may be circumscribed by their limited information processing and communication ability (Simon, 1951). These constraints become problematic in uncertain environments where the circumstances surrounding an exchange cannot be specified *ex ante* (i.e., environmental uncertainty) and performance cannot be easily verified *ex post* (i.e. behavioural uncertainty).

An assumption of *risk neutrality* suggests the party is, ‘indifferent between a prospect of uncertain profits and a certain profit, provided that the expected average of the prospective fluctuating profits is equal to the certain profit’ (Aoki, 1984: p.15). This behavioural assumption was not considered in depth by Williamson (1985) when proposed as one of the key behavioural dimensions of TCE. Williamson justified this on the grounds that the focus of TCE is, ‘on the attributes of transactions rather than the risk attitudes of transactors’ (1985: p.389). By adopting the simplifying assumption that all transactors are neutral in their attitudes to risk, Williamson argued attention is firmly focused on the transaction as the unit of analysis. However, as the framework rests in the interplay between the transaction dimensions

and human behaviours, whether the party is risk neutral, risk averse or risk seeking it seems reasonable to conclude this will shape their approach when asset specificity and/or uncertainty are present.

Having reviewed the generic transaction cost framework (transaction dimensions and assumptions of human behaviour), the next section of this Chapter will focus on the interaction between Transaction Cost Theory and the governance mechanisms available to manage long-term inter-organisational partnerships.

2.2.2 Transaction Cost Economics and Governance Mechanisms

As indicated above, in the event of market failure integration is not always desirable or feasible. Researchers such as Poppo and Zenger (2002) have argued that transaction cost theory overstates the desirability of integration and explicit contractual safeguards to protect against transaction hazards. A position, reflected in the theoretical extensions to the transaction cost framework that have shown the benefits of vertical integration stem not only from ownership or integration per se, but rather from the ability to exercise decision control (Heide, 1994). As Stinchcombe argued, the ability to govern by means of authority is not limited to intra-firm settings but can also be achieved between firms by means of contractual provisions which essentially, ‘produce the effects of hierarchies’ (Stinchcombe, 1985: p.165).

Practical examples of this approach can be seen in many industries where managers engage in complex, collaborative market exchanges such as alliances, involving high levels of asset specificity also characterised by other hazards (Dyer, 1997; Hill, 1990). Williamson (1985: p.83-84) described these as hybrid mechanisms and acknowledged that these, ‘middle range transactions as more common.’ Hybrid governance structures range from formal mechanisms such as contractual provisions and equity arrangements (Joskow, 1987; Osborn and Baughan, 1990) to informal mechanisms such as information sharing, joint planning, the development of relational norms and the establishment of quasi-integrated channel structures based on mutual commitment (Heide and John, 1992; Noordeweir *et al.* 1990, Palay, 1984; Powell, 1987).

In the context of these inter-organisational partnerships, TCE's general proposition is that managers align governance features to match known exchange hazards, particularly those associated with asset investment, difficult performance measurement, or uncertainty (Williamson, 1985, 1991). The rationale behind this premise is based on three assumptions about an internal organisation and its ability to minimise transaction costs. Firstly, organisations have more powerful control and monitoring mechanisms than markets because of their ability to measure and reward behaviour as well as output (Anderson and Oliver, 1987; Eisenhardt, 1985), which enhances their ability to detect opportunism and facilitate adaptation. Secondly, organisations are able to provide rewards of a long-term nature the effect of which is to reduce opportunism. Thirdly, Williamson (1975) acknowledges the possible effects of organisational atmosphere in which organisational culture and socialisation processes may create convergent goals and reduce opportunism. Williamson's logic is based on the claim that hierarchical control reduces opportunistic behaviour and the use of formal monitoring systems and informal socialisation processes can achieve this.

Despite the mix of formal and informal mechanisms identified by Williamson, it is on the formal systems that Williamson places the most emphasis being of the opinion the use of informal social controls can be viable only in cultures where additional, 'more elaborate informal governance apparatus' (Williamson and Ouchi, 1981: p.361-363) are available to offset the greater risk of opportunistic behaviour. Williamson concludes, 'social control cannot reliably safeguard the interests of non-opportunists from the guile of opportunists, and it is therefore non-viable' (Williamson, 1993: p.98). This position is supported by research which using the transaction cost framework has suggested transaction specific investments increase the costs of switching to an alternative partner creating exit barriers to the relationship (Heide and John, 1988) and that firms making smaller investments than their partners tend to act opportunistically within the relationship (Gundlach *et al.* 1995).

For decision makers shaped by the logic of Williamson's theory, the need for 'guarantees against the intrusion of unscreened and unpenalised opportunists' (Williamson, 1985: p.65)

will severely restrict the viability of social controls and will induce them to use formal controls. As the increased use of formal controls (a) increases the organisations dependency on those controls, (b) shifts voluntary compliance and extra role behaviour to compulsory compliance and work-to-rule, and (c) encourages difficult to detect opportunistic behaviour, the cost of removing these controls will grow until it is no longer an option for the organisation. Management options for responding to opportunistic behaviour will narrow to formal controls and as a result governance arrangements will become increasingly bureaucratic and inefficient. In reaching this conclusion it is assumed TCE cannot account for the efficacy of social controls in most realistic settings and that managers guided by TCE are likely to avoid their use and forego their potential for enhancing efficiency. In effect they become focused on the use of explicit contracts.

This rejection of social controls has been identified by Ghoshal and Moran (1996) as a reason why the theory's mainstream development has remained immune to important contributions such as Ouchi's (1980) insights on social control; Granovetter's (1985) argument for the need to consider social relations in which economic behaviour is embedded even Williamson's own ideas about 'atmosphere' (1975) and 'dignitary values' (1985).

Recognising this limitation, Geyskens *et al.* (2006) tested a number of hypotheses designed to understand the interaction between the transaction dimensions and relational governance, which 'incorporates a large informal component not easily enforceable' (p.522). Economists emphasise the calculative origins of relational governance, emphasising expectations of pay-offs from future cooperation (Axelrod, 1984), whilst sociologists emphasise shared values and affective feelings that emerge from a history of trustworthy interactions (Uzzi, 1997). Geyskens *et al.* (2006) accept relational governance involves the use of non-judicial mechanisms such as mutual dependence, trust, parallel expectations, joint action and procedural fairness (Bradach and Eccles, 1989) and that the mechanisms through which relational governance mitigates exchange hazards are both economic and sociological.

Despite differences, both economists and sociologists have argued that repeated exchanges provide information about the cooperative behaviour of exchange partners, which may allow for informed choices about who to trust or not trust (Poppo and Zenger, 2002). In addition, both economists and sociologists have argued that relational governance operates as a self-enforcing safeguard: the value of a future relationship is sufficiently large that no party wishes to renege (Tesler, 1980; Woolthuis *et al.* 2005). Geyskens *et al.* (2006) found evidence that transaction cost theory shapes the use of relational governance. They reached this conclusion because their meta-analysis established that as asset specificity increases relational governance is preferred to markets and as uncertainty increases markets are preferred to relational governance. In the next section the research examining the relationship between transaction cost theory and performance is reviewed.

2.2.3 Transaction Cost Theory and Performance

Geyskens *et al.* (2006) also found evidence about the relationship between transaction cost theory and performance. Their hypotheses that achieving an appropriate alignment between TCE transaction dimensions and hierarchical or relational governance would enhance performance were confirmed.

In researching the performance implications of transaction cost theory Geyskens *et al.* (2006) found choosing hierarchical or relational governance in response to transaction hazards increased performance. However, the effect of relational governance on performance was substantially higher than for hierarchical governance. They identify one possible reason for this as being the uniqueness of relational governance as a governance mechanism because it not only minimises transactions costs but also creates value in the exchange relationship through superior information sharing (Dyer and Chu, 2003). This suggests that in developing the approach to the management of inter-organisational partnerships, the partners should consider the use of hierarchical and relational governance mechanisms if they want to achieve the optimum solution.

The exploration of these governance modes as complements and the influence of governance choice on performance are fertile areas for further empirical work (Geyskens *et al.* 2006). For further insights into relational governance see Chapter 3.3.2.

2.2.4 Transaction Cost Economics Conclusions

Transaction cost economics has emerged as a leading framework for understanding how to craft governance arrangements. In effect, transaction cost economics offers a set of normative rules for choosing among alternative governance forms. It identifies these governance forms as markets, hierarchy (internally organised or vertically controlled) or hybrid in which the advantages of internal organisation are achieved without ownership or vertical integration. In governing inter-organisational partnerships the partners can choose to employ either formal, informal or both formal and informal governance mechanisms. The simultaneous use of formal and informal mechanisms and the impact of these choices on performance has been identified as an area for future research (Geyskens *et al.* 2006), which will be addressed in this study.

In the next section the author examines Agency Theory.

2.3 AGENCY THEORY

Agency theory (Jensen and Meckling, 1976) is based on the dyadic contractual relationship between a principal and an agent. Arrow (1985: p.42) states, ‘the agency relationship is a significant component of almost all exchange’ and is created where the principal depends on the agent to undertake some form of action on the principal’s behalf. Agency theory can be applied to *ex ante* (e.g., adverse selection) and *ex post* (e.g., moral hazard) situations, however, it is the *ex post* phase that is the focus of this study.

The theory has emerged as the principle theory guiding organisational research on the pay-performance (compensation) relationship (Gerhart and Milkovich, 1990; Roth and O'Donnell, 1996; Stroh *et al.* 1996) which forms part of the dilemma faced by a principal who is seeking

to design a contract to govern the principal/agent exchange when the parties often have divergent interests (Baiman, 1990; Eisenhardt, 1989; Jensen, 1983).

In designing the contract the principal will take into account the underpinning agency theory behavioural assumption: that both parties are rational self-interested utility maximisers, the principal is risk neutral and the agent is both effort and risk-averse (Baiman, 1990; Jensen and Meckling, 1976; Levinthal, 1998). Additionally, both assume realised outcomes are partly influenced by external factors such as environmental uncertainty and that they will suffer problems associated with incomplete information. These assumptions suggest that the agent's rational self-interest and effort aversion create the potential for moral hazard (self interest and opportunism), providing agents with the opportunity to pursue their own interests even where these are inconsistent with those of the principal (Jensen and Meckling, 1976).

Opportunism can occur particularly when information asymmetry between agent and principal is high. This is because information asymmetry makes it difficult for the principal to determine whether agents are behaving opportunistically or not. In these circumstances, some agents will view this as an incentive to act opportunistically and in such circumstances even the presence of strong social norms will not always lead to cooperation. However, rational self-interest would mean the agent considering the consequences of actions such that if either cooperation and/or compromise was needed to satisfy personal objectives then cooperation/compromise would be preferred to opportunism (Gomez-Mejia *et al.* 2005).

In considering rational self interest, the impact of society and the restrictions this places on behaviour through social norms cannot be overlooked if for example self-interest involved reputation. Thus the pursuit of self interest cannot be separated from the social context in which it occurs (Gomez-Mejia *et al.* 2005). Nevertheless, where the agent acts in self-interest or is opportunistic, the agent could act to maximise outcomes (e.g., compensation) without extending effort toward achieving the principal's objectives (Baiman, 1990; Eisenhardt, 1989; Nilakant and Rao, 1994).

In classic definitions of agency theory an optimal compensation system is contingent on the need to balance agents effort and risk aversion (Eisenhardt, 1990; Jensen, 1983; Levinthal, 1998). The theory focuses on how differences in the structure of monitoring and compensation systems lead to variations in organisational success (Gibbons and Murphy, 1990; Jensen, 1983) and states an optimal contract, will have been achieved where the contract maximises the principal's outcomes (Bergen *et al.* 1992; Levinthal, 1998). How this might be achieved in *ex post* settings is discussed in the sections below.

2.3.1 Designing the Optimal Agency Relationship

The contract regulates the context of the agency relationship and provides incentives to reduce any attitudinal differences by aligning the interests of the agent with those of the principal. It also makes it possible to monitor the behaviour of the agent directly, to reduce information asymmetry. In addition to the costs associated with incentives and monitoring there is the risk that the agent will make decisions in his/her interest rather than those of the principal.

The balance between contractual monitoring and/or compensation governance mechanisms and the impact of the parties relationship will depend on the principal's ability to observe the agent's actions (monitoring), the ability of the compensation regime to align the interests of the agent with those of the principal (Jensen and Meckling, 1976) and the nature of the principal/agent relationship. These factors are discussed in the sections below.

2.3.1.1 Monitoring

'A principal can limit the agency problem by incurring monitoring costs or by designing appropriate incentives for an agent' (Jensen and Meckling, 1976: p.308). In simple situations, resources may be invested into directly monitoring agents actions (Holmstrom, 1979). However, in more complex situations, difficulty in monitoring or verifying agent behaviour results from a situation in which the agent has information that is not available to the principal (Gomez-Mejia and Balkin, 1992). Such information asymmetries are created when agents have a high level of managerial discretion and more specialised knowledge than principals regarding task performance (Gomez-Mejia and Balkin, 1992; Rajagopalan and Finkelstein,

1992). Managerial discretion accompanies environmental and strategic complexities, which in turn create operational contexts with multiple decision options, low task programmability, and ambiguous cause-effects (Eisenhardt, 1988; Gerhart and Milkovich, 1990; Rajagopalan and Finkelstein, 1992).

In these situations, the approach to monitoring can be behaviour (process) or outcome based and the decision about which is most appropriate to use will be governed by the availability of monitoring systems and their costs. Where outcome measures are comprehensive, difficult to manipulate and reflective of agent behaviour consistent with that desired by principals (Gomez-Mejia, 1994; Predergast, 1999) these can be used. However, where this is not possible because monitoring agent effort and behaviour is difficult and costly, principals must rely more heavily on incentives to align agents interests (Jensen and Murphy, 1990; Kren and Kerr, 1993). One such way to achieve this is to use compensation based on agent performance (Conlon and Parks, 1990).

Given the characteristics of the parties involved and that environmental uncertainty and the costs of obtaining information will almost certainly make it impossible for the principal to monitor every agent action, the role to be played by incentive (compensation) alignment becomes an important means by which to address the agency problem.

2.3.1.2 Compensation

Rather than devise monitoring systems, a principal can establish reward incentive systems for agents (Eisenhardt, 1988; Jensen and Meckling, 1976). As Gomez-Mejia and Balkin (1992: p.923) note, 'when an agent has high autonomy, independence and highly specialised knowledge, monitoring becomes very difficult and expensive, so principals will rely on incentives to reward agents for appropriate outcomes.' Incentive alignment is defined as, 'the extent to which the reward structure is designed to induce managers to make decisions that are in the best interests of the principal' (Tosi and Gomez-Mejia, 1989: p.171), its aim being a reduction in agent opportunistic behaviour.

Much of the agency-based compensation research (e.g., Baker *et al.* 1988; Jensen and Murphy, 1990; Tosi *et al.* 1994) supports the notion that incentive pay can be useful for aligning the actions of agents with desired organisational outcomes. Optimal contracts must therefore reflect the trade-offs inherent in this balance, using enough incentive pay to align the agent's interests with those of the principal without shifting too much risk and compensation variability to the agent (Gibbons and Murphy, 1990; Jensen and Murphy, 1990).

Since performance can be signalled by either actions or the outcomes of those actions (Govindarajan and Fisher, 1990), in aligning compensation and performance the principal's primary choice centres on creating the balance between base (behaviour based) pay and incentive (outcome based) pay that is necessary to induce the agent to act in the principal's best interests (Baiman, 1990).

However, for the principal there are costs including performance trade-offs associated with the use of incentive pay as it can cause agents to reduce effort, demand higher pay levels or engage in practices designed to reduce the variability of their pay (compensation) that are coincidentally detrimental to organisational outcomes (Amihud and Lev, 1981; Walsh and Seward, 1990). Ideally, the principal would structure compensation contracts in favour of agents preferences for fixed compensation (Baiman, 1990; Eisenhardt, 1989; Stiglitz, 1987), however, as identified by Baiman (1990) the principals ability to observe/monitor agent actions may rule out the fixed compensation option.

The focus of the research on effort aversion has been at the expense of the concerns about risk which has resulted in a tendency to de-emphasise concerns (Beatty and Zajac, 1994; Levinthal, 1998) related to the fact that agents do not like variability (risk) in their compensation (Eisenhardt, 1989; Stiglitz, 1987). Risk is uncertainty about outcomes or events, especially with respect to the future (Miller and Bromiley, 1990).

Business risk impairs forecasting and planning activities and such impairment makes it harder for decision makers to create an efficient organisational strategy and plan future actions

(Sharpe, 1990). Typically defined as greater variability in organisational returns and increased chances for corporate ruin (Baird and Thomas, 1985; Fiegenbaum and Thomas, 1988; Miller and Bromiley, 1990), business risk is of concern to both principals and agents. For principals the primary source of concern is whether their agent will exert productive effort toward their objectives. Higher levels of business risk not only make it more difficult for principals to establish what actions agents do take, but also make it more difficult for the principals to determine what actions agents should take (Stiglitz, 1987; Stroh *et al.* 1996). Under conditions of greater business risk, 'managerial behaviour simultaneously figures more prominently in a firm's future and becomes more difficult to monitor' (Demsetz and Lehn, 1985: p.1159; cf. Kren and Kerr, 1993). In turn a principal cannot easily determine if an agent's actions 'are being taken in pursuit of the principal's goals or are self-interested misbehaviour' (Milgrom and Roberts, 1992: p.171). In other words, greater business risk makes it difficult to determine whether variations in organisational performance are due to inferior managerial (agent) performance or to factors outside of the manager's control (Antle and Smith, 1985).

At the same time, managers may adopt detrimental 'entrenching' practices such as; compromising performance measures, neutralising control mechanisms, adopting deleterious corporate strategies (Walsh and Seward, 1990) or failing to take actions that enhance a firm's value (Quinn and Rivoli, 1993). For example, Hoskisson *et al.* (1993) found that outcome based performance measures (e.g., financial controls) were associated with lower investments in research and development even when the lower investments worked against an organisation's interests.

Higher business risk with its concurrent potential for insufficient firm performance or outright organisational ruin also affects the agent. In addition to potentially jeopardising an agent's pay or employment, higher business risk also means that external factors outside the agent's control may negatively influence outcome measures, thereby reducing the agent's incentive pay (Antle and Smith, 1985; Janakiraman *et al.* 1992). Industry-wide economic conditions and other external forces may negatively affect a firm's performance regardless of an agent's actions,

whilst impeding the agent's ability to positively affect outcome measures. Thus higher business risk may reduce or negate agent incentives even though the agent is working to achieve the principal's objectives. Bloom and Milkovich (1998) in their empirical research investigating managerial compensation and its impact on firm performance found that as the manager's control over outcomes decreases it makes less sense to rely on performance based pay. These findings support Eisenhardt (1988) who established that outcome uncertainty was positively related to the use of salaries (behaviours/process) and negatively related to the use of commissions (outcomes).

Nevertheless, a well designed reward structure promotes self-monitoring as it provides incentives that, 'impel agent's to minimise opportunistic behaviour and promote compliance with the principal's interest' (Kosnik and Bettenhausen, 1992: p.312).

2.3.1.3 Socialisation

In addition to monitoring and compensation systems there is the social perspective for principals to take into account. From an agency perspective, social relationships are created as a result of the interaction between a principal and agent evident through concerns about commitment and/or psychological alignment at the individual level.

Organisational commitment, as an attitude, has been defined by Mowday *et al.* (1982), 'as an individual's identification with and willingness to embrace organisational goals.' Where an agent does not embrace organisational goals, the divergence of principal and agent interests is known as goal incongruence. Eisenhardt (1989: p.62) wrote, 'if there is no goal conflict, the agent will behave as the principal would like, regardless of whether his or her behaviour is monitored.' Eisenhardt (1989) suggested goal incongruence, or conflict, may be reduced in situations in which there is a high level of socialisation, such as a 'clan-oriented' firm, or where behaviour is not self-directed.

Bruce *et al.* (2005) in their conceptual research illustrated by real life examples, argue that principal agent relations are socially embedded such that social constraints influence the nature

of the governance mechanisms used by principals and set limits on what agents can do without triggering ‘social outrage’. Gomez-Mejia *et al.* (2005) agree that the design of the contract, the mechanisms used to enforce the contract and the nature of both the agent and principal’s interests are all socially embedded devices, which mean behaviour is constrained not simply by the principal agent contract, but also by the prevailing society values and norms. At the same time, Gomez-Mejia *et al.* (2005) claim that socialised solutions cannot fully replace the need for other governance mechanisms since agents interests, regardless of how noble, will not always align with those of the principal.

2.3.2 Agency Theory Conclusions

Ex post agency theory which is the focus of this study, provides the partners with guidance about how to structure the principal agent relationship so as to maximise the principal’s outcomes (Bergen *et al.* 1992). The theory focuses on the outcomes associated with decisions taken about the extent of monitoring of activity as well as the way in which agent performance is rewarded. Additionally, the role of social relationships as a means of controlling agent behaviour is identified and debated.

2.4 LITERATURE REVIEW CONCLUSIONS

The literature review identifies the role of both transaction cost economics and agency theory in providing partners in inter-organisational partnerships with alternative management options. Agency theory informs their choices about how to monitor and reward partners and highlights the important role of socialisation as an alternative to the formal approach. Transaction cost economics provides the partners with guidance on how to govern the partnership most efficiently (Heide and John, 1988). The options are identified as market transactions, hierarchy or internal organisation or hybrids in which the features of internal organisation can be achieved without ownership or complete vertical integration.

The literature review highlights that in agency theory the role of socialisation is under researched, whilst in transaction cost economics, the exploration of hierarchical and relational mechanisms used in a complementary way and the influence of such choices on performance

are seen as areas for further research (Geyskens *et al.* 2006). Both will be examined in this study starting with the partners governance strategy choices which are examined in the next Chapter.

CHAPTER 3 - GOVERNANCE STRATGEY

3.1 INTRODUCTION

The complex and dynamic nature of modern transactions together with the pace of change and intense competition pose problems in the performance of exchange obligations. Consequently business organisations are adopting management strategies such as strategic partnering and the outsourcing of key functions to independent firms, with these inter-organisational relationships designed to achieve more than the organisations independently (Van de Ven, 1976).

As these relationships demonstrate, one way to achieve this is a partnership with business suppliers and/or customers that is more productive and enduring than traditional market based transactions. In entering into such partnerships, organisations should be aware of the distinction to be drawn between the discrete transaction, 'which has a distinct, short duration and sharp ending by performance, and relational exchange, which is longer in duration...' (Dwyer *et al.* 1987). To achieve a secure and enduring partnership the partners should embrace activities directed towards developing and maintaining a successful relational exchange by establishing a governance structure that avoids the uncertainty, conflict and opportunism of market transactions as well as the bureaucracy and inefficiencies of enforced cooperation via hierarchy or third party governance.

In the context of this study the term 'governance strategy' has no links to the set of processes, customs, policies, laws and institutions affecting the way a company is directed, administered or controlled, often referred to a corporate governance. Rather, it means the governance structure used to manage an inter-organisational partnership. In the next section of this Chapter a review of available inter-organisational partnership governance mechanisms is undertaken with the aim of highlighting gaps in the literature to serve as the basis for a conceptual model. This high level research model can be found at in Chapter 5, Section 5.2.

3.2 GOVERNANCE MECHANISMS

The term governance has been defined broadly as, ‘a mode of organising transactions’ (Williamson and Ouchi, 1981: p.367). A more concise definition is provided by Palay (1984: p.265) who defines it as, ‘a shorthand expression for the institutional framework in which contracts are initiated, negotiated, monitored, adapted and terminated.’ For a governance mechanism to emerge and thrive it must address the problems of adapting, coordinating and safeguarding exchanges more efficiently than other governance mechanisms (Williamson, 1991).

Historically in Transaction Cost Economics (TCE), the two dominant governance mechanisms were markets and hierarchies, which respectively give one partner no or complete control over the other (see Figure 3-1).



Figure 3-1 - The Degree of Control over a Partner's Activity

Source: Heide, J. B. and John, G. (1992) ‘Do Norms Matter in Marketing Relationships?’ *Journal of Marketing*, Vol. 56, (April), pp. 32-44.

However, as organisational relationships based on neither discrete nor hierarchical transactions emerged, recognition and acceptance that a variety of governance mechanisms exist between the two extremes of market and hierarchy gathered momentum. For example, Williamson identified a third model called ‘hybrids’, which he loosely defines as, ‘various forms of long-term contracting, reciprocal trading, regulation, franchising and the like.’ (Williamson, 1991: p.280). Anchoring exchange along a continuum extending from discrete to hierarchical transactions (see Figure 3-2) scholars (Dwyer *et al.* 1987; Webster, 1992) studying different aspects of marketing have emphasised the changing nature of exchange.



Figure 3-2 - The Range of Marketing Relationships

Source: Webster, E. W. Jr. (1992) 'The Changing Role of Marketing in the Corporation', *Journal of Marketing*, Vol. 56, (October), pp. 1-17.

These exchanges involve participants engaging in complex, long-term collaborative relationships to achieve their individual goals and include; working partnerships (Anderson and Narus, 1990), relational exchange (Goetz and Scott, 1981; Goldberg, 1979; Macneil, 1980), domesticated markets (Arndt, 1979), co-marketing alliances (Bucklin and Sengaputa, 1993) and networks (Webster, 1992). PPP projects are a further type of such a partnership.

Two studies (Boyle *et al.* 1992; Young *et al.* 1996) placed different types of inter-firm exchanges along a hypothetical transactional-relational continuum to determine if they could be differentiated on the basis of relationalism. Young *et al.* (1996) reported a continuum of increased relationalism moving from traditional supply agreements through to just-in time agreements, vertical supply alliances and co-marketing alliances. Similarly, relationalism was found to be higher when a buyer firm was owned or a franchise of the supplier, compared to being vertically aligned with the supplier or being supplied by the manufacturer (Boyle *et al.* 1992). The Boyle *et al.* (1992) findings are supported by (Heide and John, 1992) whose empirically grounded research investigating vertical control and coordination in manufacturer-supplier relationships found that when buyer control over supplier decisions interacted with transaction specific asset investments on the part of the buyer there was an increased level of relationalism. Whilst on the basis of the evidence the results of these two studies provide evidence of the same phenomenon, they differ in their credibility. The Boyle *et al.* (1992) findings are based on two independent studies both of which had response rates approaching double that of the (Young *et al.* 1996) study. Nevertheless, the studies do provide the evidence of the existence of a third governance mechanism.

Using contractual elements as the basis of comparison (Dwyer *et al.* 1987) established a framework for the development of buyer seller relations in which they highlighted the difference between discrete and these relational transactions, see Table 3-1. This framework confirms that when compared to discrete transactions, relational transactions place a greater emphasis on joint working to achieve performance and other objectives. It also highlights that as the relationship develops, a higher level of mutual understanding and a willingness to be flexible are required. For example, in the discrete transaction no effort is made to cooperate in the areas of planning and performance, whereas in the relational transaction joint efforts related to performance and planning with significant adjustment over time are endemic. To relate this research to the study, the Table has been adapted to show features of public private partnership private finance initiative exchanges.

Table 3-1 – The Nature of PFI Partnership Exchanges

Contractual Elements	Discrete Transactions	Relational Transactions	PPP PFI Exchanges
Situational Characteristics			
Timing of exchange (commencement, duration and termination of exchange)	Distinct beginning, short duration and sharp ending by performance	Commencement traces to previous agreements; exchange is longer in duration, reflecting an ongoing process	No previous agreements but exchange is more relational than discrete because of the long
Number of parties (entities taking part in some aspects of the exchange process)	Two parties	Often more than two parties involved in the process and governance of exchange	Usually involves more than two parties.
Obligations (three aspects: sources of content, sources of obligation and specificity)	Content comes from offers simple claims, obligations come from beliefs and customs (external enforcement) standardised obligations	Content and sources of obligations are promises made in relation plus customs and laws, obligations are customised, detailed and administered within the relation	All features of relational exchanges are found.
Expectations for relations (especially concerning conflicts of interest, the prospects of unity and potential trouble)	Conflicts of interest (goals) and little unity are expected, but no future trouble is anticipated because cash payment upon instantaneous performance precludes future interdependence	Anticipated conflicts of interest and future trouble are counterbalanced by trust and efforts at unity	Anticipates future conflicts of interest and established legal remedies to deal with them. No formal clauses promoting trust or unity.
Process Characteristics			
Primary personal relations (social interaction and communication)	Minimal personal relationships, ritual like communications predominate	Important personal, non-economic satisfactions derived; both formal and informal communications are used	As long-term partnerships (25-30 years) these are relational in nature.
Contractual solidarity (regulation of exchange behaviour to ensure	Governed by social norms, rules, etiquette and prospects of self	Increased emphasis on legal and self regulation; psychological satisfactions	More relational than discrete.

Contractual Elements	Discrete Transactions	Relational Transactions	PPP PFI Exchanges
performance)	gain	cause internal adjustments	
Transferability (the ability to transfer rights, obligations and satisfactions to other parties)	Complete transferability; it matters not who fulfils the contractual obligations	Limited transferability; exchange is heavily dependant on the identity of the parties	This is true for the majority of services, however, there are others where the service provider is regularly market tested implying the identity of the partner is not paramount.
Cooperation (especially joint efforts at performance and planning)	No joint efforts	Joint efforts related to both performance and planning overtime, adjustment over time is endemic	No formal contractual obligations promoting joint effort, however, this can happen informally.
Planning (the process and mechanisms for coping with change and conflicts)	Primary focus on the substance of exchange, no future is anticipated	Significant focus on the process of exchange; detailed planning for future exchange within new environments and to satisfy changing goals; tacit and explicit assumptions abound	All relational features present.
Measurement and specificity (calculation and reckoning of exchange)	Little attention to measurement and specifications; performance is obvious	Significant attention to measuring, specifying and quantifying all aspects of performance, including psychic and future benefits	Significant attention to measuring performance, though no emphasis of future benefits.
Power (the ability to impose one's will on others)	Power may be exercised when promises are made until promises are executed	Increased interdependence increases the importance of judicious application of power in the exchange	Whilst this may be the aim, these partnerships are often adversarial.
Division of benefits and burdens (the extent of sharing of benefits and burdens)	Sharp division of benefits and burdens into parcels; exclusive allocation to parties	Likely to include some sharing of benefits and burdens and adjustments to both shared and parcelled benefits and burdens over time	Although there is a sharp division of burdens and benefits, it is a feature that these will be adjusted over time.

Adapted from: Dwyer, F. R. Schurr, P. H. Oh, S. (1987, p. 13) 'Developing Buyer Seller Relationships,' *Journal of Marketing*, Vol. 51, Issue 2 (April), pp. 11-27.

The different ways in which power is used is also highlighted by comparing discrete and relational transactions with the higher level of interdependence in relational exchange meaning power is used more thoughtfully than in a discrete relationship where the impact on the partner is of little or no concern.

3.2.1 Governance Mechanism Conclusions

As highlighted above relational exchange differs from the polar governance alternatives of market and hierarchy identified by transaction cost theory (Williamson, 1985) and given the purpose of this study is to examine long-term non-market or hierarchical inter-organisational partnerships, the author will not review the market and hierarchy literature. The focus of this

study will instead be on the governance mechanisms available to those who are responsible for managing long-term inter-organisational partnerships that can be described as relational in nature. In the remainder of this Chapter the author will explore the role of economic and relational governance mechanisms before examining how they can be/are used to deliver hybrid integrated governance. This will start with a short introduction to the available hybrid governance mechanisms.

3.3 HYBRID GOVERNANCE MECHANISMS

Inter-organisational partnerships can employ formal and informal governance mechanisms to manage the partnership. These fall broadly into three categories, contracts, relational governance mechanisms and a combination of contract and relational governance. In this section, these alternative will be explored starting with the an explanation of the available contract types.

3.3.1 Contract Types

The governance of inter-organisational transactions has been described as a contracting problem (Macneil, 1985; Williamson 1985) and according to (Klein *et al.* 1978: p.302), ‘a primary alternative to vertical integration and markets ...is some form of enforceable long-term contract which incorporates aspects of both markets and hierarchies.’ Contracts are detailed, binding legal agreements that specify obligations and the roles of both parties in the relationship, performing the dual roles of controlling and coordinating the relationship (Mellewigt *et al.* 2007). A complete contract reduces the uncertainty faced by organisational decision makers and the risks stemming from opportunism on the part of one or more of the contracting parties (Williamson, 1985). It provides a safeguard against *ex post* performance problems by restraining the partners ability to pursue private goals at the expense of common benefits. These safeguards provide at a minimum cost, the control and trust necessary for the partners to believe that engaging in the exchange will make them better off (Williamson, 1985). As such, contracts can be considered as substitutes for the formal governance

mechanisms of hierarchy or integration in business exchanges (Ferguson *et al.* 2005; Lusch and Brown, 1996).

Contract law addresses the exchange of objects already owned through the provision of rules, procedures and remedies for exchanging parties (Calamari and Perillo, 1987). It addresses promises made between these parties by creating a legal duty to perform and a remedy for failure to perform or breach and in so doing provides two primary benefits to the exchanging parties. First, through legal bonds they provide the protection available through the legal system should something go wrong (Beale and Dugdale, 1975) and secondly, they regulate the relationship by furnishing a plan for the future (Macneil, 1980).

Contractual governance is considered a formal, legal and economic governance strategy (Ferguson *et al.* 2005; Lusch and Brown, 1996) and as the number of inter-organisational partnerships has grown three legal contract traditions have evolved. The dominant and longest standing of these is *classical contract law* based on the doctrines and principles developed historically in common law. Under this model of contract, exchange is associated most closely with that of a discrete transaction found in markets. It is affected through formalised rules and principles that delimit exchange to that of a zero-sum, single issue 'market' transfer. Macneil (1978) explains that classical contract law emphasises the exchange as being transactional and separate from all past and future relations. The parties to the transaction are irrelevant; the subject of the exchange is short term, specific and limited to the content of the transaction at a given point in time. They agree on the most efficient and economical form of exchange and distinguish governance by markets (i.e., price mediated exchange) and hierarchies (i.e., exchange governed through legal authority) (Gundlach and Achrol, 1993). In so doing, governance of the exchange is interpreted from a micro-economic and utilitarian perspective (Macneil, 1978, 1981) with any relationship viewed as an externality (Goldberg, 1979; Macneil, 1981).

Neoclassical contract law represents a more modern perspective of exchange and is intended to address problems inherent in exchange relationships. These include the inability of

participants to anticipate and incorporate into their agreement all future contingencies and to make provisions to facilitate adaptation to changed circumstances as contemplated under freedom of contract notions. Given the less discrete nature of these relationships and the associated potential of one party taking advantage of another, neoclassical contract law (Macneil, 1978, 1981) introduces the concept of long-term contractual relations with specific planning and the need for flexibility. However, the structure is essentially the same as classical contract law because it does not provide a complete system to enforce contractual relations in the face of excessive indefiniteness or uncertainty thus providing weak protection against significant deviations from expected behaviour (Williamson, 1991). There are no mechanisms to anticipate or solve the conflicts that can occur in changing circumstances and the termination of the exchange is planned as an economic event.

Neoclassical law relies on the concept of utility maximisation, however, given that man is a self-sacrificing and social creature as well as selfish and opportunistic, Macneil (1974) concludes that faced with this inherent irrationality exchange behaviour cannot be understood by relying solely on reason or on the concept of utility maximisation. This irrationality and the increasing prevalence of exchange forms that come close to, or mirror internal organisation (strategic alliances, joint ventures) has prompted development of a third contract law tradition *relational contracting* (Macneil, 1975).

Relational contracts lie at the relational end of a spectrum of contractual behaviour (Macneil, 1983). In contrast to TCE which seeks a discriminating match between governance structures and characteristics of exchanges using a comparative governance approach, relational contracting advocates the greater efficiency of relational mechanisms over administered and market governance alternatives in general (Dyer and Singh, 1998; Macneil, 1980; Uzzi, 1997). These contracts are characterised by relatively deep and extensive communications and significant elements of non-economic personal satisfaction (Macneil, 1974). They are relational because the parties deal with one another under such complex circumstances they are unable to reduce important terms to well defined obligations (Goetz and Scott, 1981) and

considerable information sharing activity is required and involved between the exchanging parties (Mohr *et al.* 1994) to make it work.

Viewing this form of exchange as involving an interactive process, (Macneil, 1978) has shown that when compared to discrete transactions these exchanges require considerable planning, tailoring and customisation amongst participants if each party is to meet its long-term goals. As such these contractual arrangements differ from the classical model in that they proceed in an environment whereby future contingencies are peculiarly intricate and uncertain (Goetz and Scott, 1981), requiring formal governance under the classical and neoclassical contract versions be supplanted through informal mechanisms (Macneil, 1981).

The logic behind relational contracting is that there are many non-legal sanctions that make it expedient for individuals and organisations to fulfil commitments (Macaulay, 1963). To address these requirements, relational contracting comprises both legal contracts and extralegal governance devices. Extralegal devices include less formal governance mechanisms such as social norms and the influence of reputation and in contracting terms, the law is more relational to the extent that it relies on these extra-legal governance devices in its rules and requirements (Goetz and Scott, 1981).

Relational contracting theory suggests that the more relational the exchange the less it would be characterised by the many rules and procedures consistent with formalisation and centralisation. Formalisation and centralisation are means of presentiation, or bringing the future into the present (Macneil, 1983). Both discreteness and presentiation are characteristics of the transactional exchanges and presuppose predictability and planning in order to control the future. Confirming this, (Haugland and Reve, 1993) studying the dyad of fish farmers and exporters found a negative association between the relationalism (in the form of relational norms) formalisation and the degree of centralisation.

The role of non-legal governance devices was also explored by (Cannon *et al.* 2000), whose empirically grounded investigation of buyer-seller relationships found that performance suffers

when detailed contracts (legal devices) are used without well-developed social relationships extra legal devices (relational social norms) in relationships with high environmental uncertainty. Relational governance and contractual complexity have also been found to function as complements in explaining satisfaction with exchange performance (Poppo and Zenger, 2002).

In the remainder of this Chapter the author will examine in greater depth the role played by explicit and relational contracts in the management of long-term inter-organisational partnerships.

3.3.1.1 *Explicit Contracts*

According to TCE the manager's task is to craft governance arrangements with minimal cost that ensure the delivery of the desired quantity, price and quality of the suppliers services or products (Dyer, 1997). One mechanism producing the desired level of decision control is the legal contract. Explicit written contracts between buyer and seller are established in the commitment stage (Ring and Van de Ven, 1994) and formally state how parties to the contract should behave over time (Lusch and Brown, 1996). They play an important role on the organisation of exchange activities in long-term inter-organisational relationships (Dyer and Ouchi, 1993; Malone *et al.* 1987), represent promises or obligations to perform particular actions in the future (Macneil, 1978) and perform the dual role of control and coordination (Mellewigt *et al.* 2007).

Classical contract theory defines formal explicit contracts, 'as agreements in writing between two or more parties, which are perceived, or intended as legally binding' (Lyons and Mehta, 1997: p.241). These contracts vary in their degree of completeness, with complete contracts containing more and more specific clauses and incomplete contracts leaving more open to interpretation, rendering them less legally binding because they contain fewer clauses or because the clauses used are neither verifiable nor observable (Chen, 2000). Efficient outcomes are assumed when the contractual form rightly reflects the uncertainty, asset

specificity and frequency of transaction (Williamson, 1985), however, as Llewellyn (1931, pp.736-737) states:

‘The major importance of a legal contract is to provide a framework...a framework highly adjustable, which almost never accurately indicates real working relations, but which affords a rough indication around which relations vary, an occasional guide in case of doubt and a norm of ultimate appeal when the relations cease in fact to work.’

Thus the contract with its legal authority details the rights and obligations of parties to the exchange. Through coordination it provides the context for ongoing interaction between organisations and a reference point in the event of disputes and through their control mechanisms such as the backing of legal authority they seek to limit opportunistic behaviour. However, as the contract reflects the partners agreement at a fixed point in time and the partners relationship will evolve over time, contracts often do not reflect the day to day working arrangements nor provide sufficient authority to control a partners behaviour. This need not however be the case as Stinchcombe (1985, p.126) points out:

‘A structure with legitimate authority, with a manipulable incentive system, a method for adjusting costs, quantities, and prices, with a structure for dispute resolution, and with a set of standard operating procedures, looks very much like a hierarchy...all these features are routinely obtained by contracts between firms in some sectors of the economy.’

The operation of hierarchies through contractual mechanisms involves the use of devices such as; authority, incentive, dispute resolution and operational systems that contractually detail and integrate the obligations and rights of the exchange parties and render control of decisions normally the province of one party, to the other. Nevertheless, the use of these contractual safeguards, which act to minimise the costs and performance losses arising from exchange hazards (Heide, 1994; Joskow, 1988; Macneil, 1978) has been found to rise in line with exchange hazards (Klein *et al.* 1978; Williamson, 1985). For example, Gundlach and Achrol (1999) in a simulation depicting manufacturing and distributor relationships found that exchange parties faced with uncertainty will craft contracts that simulate aspects of a hierarchy a finding supported by (Heide, 1994). However, Carson *et al.* (2006) who refine uncertainty to include; volatility and ambiguity, found that faced with uncertainty, contracts are not a strong safeguard should *ex post* renegotiation be required. Whilst providing solid data to support their findings based on a response rate (31%) which is consistent with similar inter-

organisational studies (Cannon *et al.* 2000 (23%); Claro *et al.* 2003 (31%); Heide and Miner, 1992 (27%)), the Carson *et al.* (2006) study is the first to examine these relationships.

The contract development process is, however, affected by the partners bounded rationality which can cause difficulties in identifying all the contingencies required to produce a complete contract (Busch and Horstmann, 1992). Contracts seeking the maximum pay-off will maximise the delineation of both the substance (specificity) and the structure of the exchange (Williamson, 1979). In order to describe exchange substance, detailed specifications of contractual terms are required and to delineate exchange structure, contingent adaptability must be included to govern how reciprocal dependency and adaptation are to proceed within the contractual period. Lou (2002) defines contingent adaptability as the extent to which unanticipated contingencies are accounted for and relevant guidelines for handling these contingencies are delineated in the contract. He defines term specificity (substance) as the extent to which all relevant terms and clauses are detailed and specific. Thus while term specificity relates to how specific and detailed the terms are, contingency adaptability provides the means to contractually respond to future problems, conflicts and contingencies.

Luo (2002) investigating contractual completeness and its link with cooperation in International Joint Ventures (IJV's) concludes that contractual completeness stimulates IJV performance, findings consistent with Williamson's (1979) writing. In contrast, (Woolthuis *et al.* 2005) building on earlier TCE research (Williamson, 1975, 1985) and on that of the social scientists (Gulati 1995; Nooteboom, 1996; Ouchi, 1980) found that even where a detailed and extensive contract was in existence this was not necessarily sufficient to protect the interests of one partner. Their research based on longitudinal case studies, concluded that despite the contract providing suitable technical mechanisms (contract clauses) to enforce its rights, the partner who felt they were in a one-sided relationship (the other partner being much bigger and more powerful in the industry) chose not to use the contract to enforce their rights because social considerations (reputation) and the shadow of the future (they may need the partner again) made it undesirable to do so.

The effectiveness of contracts at dealing with uncertainty was recently explored by (Carson *et al.* 2006) who in their extensive empirically grounded research study of 125 inter-organisational relationships involved in new product research and development found that the effectiveness of formal contracts in addressing uncertainty was not as clear as previous research (Anderson, 1988; Artz and Brush, 2000; Rindfleische and Heide, 1997) implied. Carson *et al.* (2006) provide evidence that contracts are weak safeguards when environmental change prompts the renegotiation of formal agreements *ex post*, but that through their coordination role they are more effective (than relational contracts) in addressing ambiguity.

These findings (Carson *et al.* 2006; Woolthuis *et al.* 2005) are at odds with the findings of TCE and contract theory which both consider contracts an effective form of safeguard (Chen, 2000; Lyons and Mehta, 1997; Williamson, 1985). However, they support Macneil's (1981) claim that the contract cannot be considered in isolation of its social context and meaning and are consistent with (Williamson, 1993) who, despite being sceptical about the governance role of social norms, recognises that contracts alone fail to provide effective governance in exchanges characterised by a high degree of asset specialisation and uncertainty.

Thus whilst contracts help 'flush out' unspoken assumptions and create a genuine meeting of the minds at the outset of a relationship (Smitka, 1994), they also provide the framework within which the history of interaction and reinforcement required for social norm development (Gundlach, 1994) can take place. This finding is supported by (Bacherach and Gambetta, 2001) who found they act as a symbol or signal for showing commitment and by (Woolthuis *et al.* 2005) who found that contracts aided coordination between the parties and acted as a framework to react to unforeseen contingencies.

This examination of the impact of explicit contracts on the partners relationship highlights both positive and negative outcomes. On the positive side, as explicit contracts state in the present how various future situations will be handled, they were found in an empirical study of channel relationships between wholesale distributors and their suppliers to increase supplier commitment by reducing uncertainty about behaviours and outcomes and by providing formal

rules and procedures that make clear the legal and economic consequences of violating the contract (Lusch and Brown, 1996). Shenkar and Zeira (1992) demonstrate contractual completeness reduces role conflict and role ambiguity for IJV managers and enhances IJV performance. Carson *et al.* (2006) found that in drawing up a complete contract the parties will devote considerable *ex ante* resources in overcoming problems and formalising coordination efforts and this effort is one of the advantages of explicit contracts, particularly in ambiguous environments.

Explicit contracts it has been argued enhance trust (Lorenz, 1999; Popo and Zenger, 2002; Sitkin, 1995) because the contracting process promotes expectations of cooperation and generates commitment to a relationship. Popo and Zenger (2002) found empirical support for a positive effect of contracts on trust. However, in a case study of four companies whose relationship with their partner was governed by explicit contracts, Woolthuis *et al.* (2005) investigating the role of the contract as the basis for trust through its limitation of opportunities and incentives for opportunism, concluded the general conceptualisation of contracts as uni-dimensional legal safeguarding instruments is wrong. In contrast with (Larson, 1992; Ring and Van de Ven, 1994; Woolthuis *et al.* 2005) also found the contract is not an important precondition for trust and concluded that depending on circumstances a contract could either act as a substitute for trust or could be complementary to trust.

On the downside, Macaulay's (1963) examination of exchange relationships contends that reliance on the law (contract) lessens the chance of future interaction and the findings of later studies in the automotive (Frazier and Summers, 1984), rail freight industries (Palay, 1984) and within supplier exchanges involving complex goods (Beale and Dugdale, 1975), support Macaulay. Young and Wilkinson (1989) exploring the role of trust and cooperation in marketing channels have suggested that contract disadvantages due to inflexibility and the perceptions of mistrust outweigh the advantages offered by specific guidelines and specification of penalties for opportunistic behaviour. Whilst Fehr and Gächter (2000), Ghoshal and Moran (1996) and Macaulay (1963) found that explicit contracts can signal

distrust of an exchange partner and by undermining trust, encourage rather than discourage opportunistic behaviour. Bernheim and Whinston (1999) in their conceptual study found that making contracts more explicit can encourage opportunistic behaviour surrounding actions that cannot be specified within contracts.

The findings (Achrol and Gundlach, 1999; Fehr and Gächter, 2000; Ghoshal and Moran, 1996; Macaulay, 1963) that explicit contracts stimulate mistrust is consistent with the dominant conceptualisation of trust and contracts as ‘opposing alternatives’ (Knights *et al.* 2001: p.314) with contract leading to less trust and trust leading to decreased contract completeness. There is evidence (Bradach and Eccles, 1989; Lyons and Meheta, 1997; Neu, 1991) that contracts can be detrimental to trust development since these can be interpreted as a sign of distrust and can lead to behaviours that are inconsistent with trust. For example, the active use of contracts (e.g., monitoring activities, threats or litigation) evokes conflict (Gaski, 1984; Hunt and Nevin, 1974; Lusch, 1976), opportunism (Ghosal and Moran, 1996) and defensive behaviour (Hirschmann, 1984; Zand, 1972). Taking this ‘dark side’ of contracts into consideration it is reasonable to conclude it may not always be desirable to completely specify and enforce a contract (Chen, 2000; Fehr *et al.* 2001; Fehr and Schmidt, 2002; Lyons and Meheta, 1997).

3.3.1.2 *Explicit Contract Conclusions*

Contracts and trust (relational contracting) can be both complementary and substitutes and (Woolthuis *et al.* 2005) in their empirically grounded research argue that how trust is used will depend on the intentions with which the contracts are drawn up and used. Their findings confirm that where the contract is not interpreted as a strict legal safeguard, trust and contract work in a complementary manner. However, when the parties distrust each other, they put great emphasis on contracts and detailed safeguarding clauses in which contracts substitute for trust.

In contrast, research has found contracts to have a positive affect on trust (Poppo and Zenger, 2002). Carson *et al.* (2006) found that each has specific advantages and disadvantages when dealing with the two types of uncertainty (ambiguity and volatility). For example, Carson *et*

al. (2006) found that in drawing up a complete contract the parties will devote considerable *ex ante* resources in overcoming problems and formalising coordination efforts and this effort is one of the advantages of explicit contracts, particularly in ambiguous. However, they also found that contracts are weak safeguards when environmental change prompts the renegotiation of formal agreements *ex post*. This suggests that the use of the formal contract as the sole governance mechanism may not be the most effective solution.

In the next section of this Chapter the use of relational contracting to manage inter-organisational partnerships is explored.

3.3.1.3 *Relational Contracting*

Inter-organisational exchanges are typically repeated exchanges embedded in social relationships in which the parties cultivate and rely on personal bonds and social norms to define expectations and guide their conduct (Macaulay, 1963). As the literature on inter-organisational partnerships has developed, there has been a tendency amongst organisational scholars to downplay the importance of contracts and related formal structures in facilitating economic exchange. In so doing they draw on research which emphasises the role of non-legal (relational) mechanisms such as reputation, continuity, trust and social ties in exchange processes (Ghoshal and Moran, 19996; Gulati, 1995; Larson, 1992; Macaulay, 1963; Ring and Van de Ven, 1992; Uzzi, 1997).

One of the earliest recognitions that explicit contracts do not work in isolation of the parties relationship is Llewellyn's (1931) work in which he advances the concept of the contract as a flexible framework of yielding rules, rather than iron rules for managing commercial relationships. Llewellyn (1931) explains that many of the key provisions of business contracts are relatively open ended, vague, or of dubious enforceability in order to allow the parties the flexibility they need, with as little recourse to the courts as possible - so called private ordering. Macaulay (1963: p.58) provides evidence for this when following a study of business people contracting behaviour he concluded,

'Business people often prefer to rely on 'a persons word' in a brief letter, a handshake, or common honesty and decency – even where the transaction involves exposure to serious risks.'

Macneil (1974, 1978) also views the contract as a framework, developing a distinction between transactional and relational modes of contracting. According to Macneil (1974, 1978, 1980, 1981, 1983, 1985) classical contract law and neoclassical contract law are not sufficient to explain the governance of exchange in sophisticated and complex societies because they fail to take into consideration the relational component present to some extent in all exchanges. The core of this problem is that the law of contract as a basis for the governance of modern exchange is limited. Underlying contract law's difficulties is the lack of workable theory of contract that illuminates the factors, contingencies, motivations and decision making strategies employed by parties engaged in exchange (Scott, 1987). Therefore, exchange relationships predicated on no more than the material benefits of the exchange are likely to require more costly and sophisticated control systems and are likely to suffer from higher partner turnover (Bentein *et al.* 2005; O'Reilly and Chatman, 1986).

To overcome these problems, exchange partners often adopt alternative or supplementary forms of regulation and depend on mechanisms of governance not rooted in law to guide their conduct. Literature in economics (Williamson, 1985), contract law (Macneil, 1980), and organisation theory (Ouchi, 1980) emphasises the key governance role played by social norms in longer term exchange, where the governance mechanisms are oriented towards self-regulation and exude the properties of a 'mini-society' with an array of norms beyond those centred on the exchange and its immediate process (Macneil, 1980). Such exchanges, Macneil suggests, lie on a spectrum from discrete exchanges through to relational exchanges. He states, 'some contracts called here 'contractual relations' are far more relational than others. They lie towards the relational end of the spectrum of contractual behaviour, opposite from the non-relational end where the discrete transaction is found' (Macneil, 1983: p.342).

Relational governance is defined as the strength of the social norms present in the exchange and has often been referred to as relationalism (Ferguson *et al.* 2005). Relationalism points not

only to the relationship orientation of the partners, but also to the emphasis placed by them on exchange behaviours as indicators of closeness in buyer-seller relationships. Relational norms can be structural, cognitive, political or cultural (Uzzi, 1997) and are defined in literature as shared expectations regarding behaviour (Axelrod, 1986; Bendor and Mookerjee, 1990; Gibbs, 1981). They have also been defined as the bilateral expectations that exchange partners will act in ways that assist each other during the course of the relationship (Joshi and Campbell, 2003).

Initially, Macneil (1980: p.38) identified nine relational norms which he later expanded to ten in 1983. However, with regard to exchanges that are more relational he suggests five have the greatest significance (role integrity, preservation of the relation, harmonisation of relational conflict, supra-contractual relations and propriety of means). Two of these (role integrity and propriety of means) are identical to those found in the ten contractual norms, whilst the other three are built from a combination of a number of the other eight contract norms. Macneil's norms determine the behaviour that must occur if relations are to continue and hence ought to occur so long as their continuance is of value (Macneil, 1980: p.64). They also provide a frame of reference, order and standards against which to evaluate appropriate behaviour in ambiguous and uncertain situations (Bettenhausen and Murnighan, 1991).

However, in relationally governed exchanges the enforcement of obligations, promises and expectations occurs through the social processes and behaviours that promote norms such as flexibility, solidarity and information exchange. Management literature identifies the norms of flexibility, information sharing and commitment help to circumvent the potentially high costs of exchange hazards (Alder, 2001; Granovetter, 1985; Jones *et al.* 1997; Macaulay, 1963; Palay, 1984) and as the parties commit to such norms, mutuality and cooperation characterise the resultant behaviour.

These relational norms evolve from shared descriptive expectations (e.g., this is the way we do things in this relationship) to shared normative expectations (e.g., this is the way things should be done in this relationship) (Berger and Luckmann, 1967; Larson, 1992) and governance

emerges from the values, norms and agreed processes found in these social relationships (Heide and John, 1992; Macneil, 1978, 1980; Noordeweir *et al.* 1990).

As relational norms evolve they become internalised by the exchange partners (Kelman, 1958) and consequently serve as moral controls that promote pro-relationship behaviours such as commitment and prevent unilaterally beneficial behaviours, such as opportunism. They motivate performance by focusing attention on the partners shared values to safeguard and rely on peer pressure and social sanctions to mitigate the risk of shirking and opportunistic expropriation. Because they involve expectations rather than rigid requirements of behaviour, they create a cooperative as opposed to a confrontational environment for negotiating adaptations, thus promoting continuity in exchange. The mechanisms used to facilitate relational contracting include a variety of contracting practices such as the use of structural inducements or self interest stakes (Anderson and Weitz, 1992; Williamson, 1983), reliance on reputational consequences (Coase, 1988), ethics (Macneil, 1983), hybrid contracts (Stinchcombe, 1985), and implied legal construction (Butler, 1983).

However, the governance capabilities of norms are not unequivocal and to be effective they require acceptance and commitment of both parties and usually the consensus of the larger social network in which the exchange is embedded. In these circumstances they have been found to minimise transaction costs when compared to governance based solely on formal contracts (Dyer, 1996; Dyer and Singh, 1998). Empirical tests by Noordeweir *et al.* (1990) suggest relational norms may be important behavioural frameworks only in the face of uncertainty, thus increasing the relational content of a governance structure is likely to result in positive performance implications in uncertain environments. This position is supported by Weitz and Jap (1995) who found that as norms are based on general expectations rather than specific rules and obligations they can create role ambiguity and ineffective coordination in stable exchange environments.

In contrast, Cannon *et al.* (2000) found that increasing the relational content of a governance structure alone brings enhanced performance for relationships involving both high and low

levels of transactional uncertainty. They conclude this works because the partners focus on their shared values and the importance of the well-being of the relationship as a whole. This difference with the Noordewier *et al.* (1990) findings could be explained by the fact that they considered only the efficiency aspects of performance (thus would have looked at the costs of developing social norms in isolation) and the Cannon *et al.* (2000) study considered both the efficiency and effectiveness aspects of performance. However, the Cannon *et al.* (2000) study was based on a small sample size (23%) indicating that care should be taken when seeking to generalise from this study.

In addition, Cannon *et al.* (2000) found that exchanges characterised by high levels of transactional uncertainty and governed via detailed contracts combined with greater relational content deliver enhanced exchange partner performance. Thus it seems that whilst norms may not be costless to develop and maintain, they focus attention on the shared values of the partners and the well-being of the relationship as a whole. This could be because while high transactional uncertainty makes writing and administering contracts difficult, detailed contracts become useful mechanisms of governance provided they are embedded in a highly developed social relationship.

The contract itself serves as the broad structural framework for the relationship and the basis of negotiating modifications and affecting adaptations when the need arises. It complements the use of norms, which as they are not formally codified can result ambiguous expectations and misunderstandings that undermine coordination (Weitz and Jap, 1995). Relational norms on the other hand provide the complementary apparatus for dealing with unforeseen contingencies, providing the flexibility, mutuality of interests and harmony necessary for safeguarding the partner interests when adapting to changing environments or when the tasks themselves are ambiguous.

Nevertheless, social exchange theorists contend that cooperation and its underlying normative behaviours operate as self enforcing safeguards that are a more effective and less costly alternative to contractual design (Gulati, 1995; Uzzi, 1997). Norms do not have to be

cooperative, but structurally embedded norms propel firms to be cooperative so as to reduce monitoring and coordination costs (Jones *et al.* 1997). Norms of cooperation provide the flexibility that assists in mitigating exchange hazards under uncertainty and strengthens bilateral commitment to exchange-specific investments (Dyer and Singh, 1998; Liebeskind *et al.* 1996). Sociologically, relational contracts are best enforced within a cooperative culture because there exist mechanisms that favour the creation of an internal norm of reciprocity (Granovetter, 1985).

Relational contracting was thought to particularly effective in ambiguous environments where equivocality is introduced into evaluations (through monitoring difficulties) of the counterpart firm behaviour, thus increasing the opportunity for the partners to engage in opportunism without being caught. Ouchi (1980) advanced the core of the argument when he suggested that hierarchy can fail in the presence of ambiguity because the monitoring and control of employee behaviour on which hierarchy is based becomes ineffective. This applies equally to inter-organisation control and monitoring and happens because the standards with which behaviour are compared are ambiguous and it is difficult to accurately evaluate observed behaviours. As Ouchi (1980: p.134) stated, 'these standards only indicate the value of an output approximately and are subject to idiosyncratic interpretation.' Ouchi (1980) proposed an alternative relational governance mechanism 'clans' which he suggested effectively controlled opportunism in ambiguous environments by aligning goals and thus removing incentives for opportunism.

However, Carson *et al.* (2006), which is apparently the only published empirical study to examine uncertainty and relational contracting, found relational contract effectiveness is limited by ambiguity because it significantly relies on social sanctioning for its safeguarding effect. As ambiguity increases, opportunism cannot be observed, evaluated and reliably sanctioned thereby decreasing the disincentive to be opportunistic in relational contracting. At the very least these findings indicate managers should be vigilant in highly ambiguous environments and be prepared to expend more resources on problem solving *ex ante* and *ex*

post to evaluate partner behaviour and protect themselves against opportunism in so far as possible Carson *et al.* (2006).

Relational contracting should, however, retain its effectiveness regardless of volatility because relational safeguards do not need to be altered to accommodate change. Indeed, behaviour during *ex post* adjustments should provide clear evidence of the cooperative or opportunistic behaviour of partners, as relational governance emerges from the values and agreed-upon processes found in the relationship and further develops within the relationship (Macneil, 1980, 1983). Thus relational contracting is a more effective safeguard than a explicit contract in volatile environments because despite their many advantages explicit contracts are weak safeguards when environmental changes prompts the *ex post* renegotiation of formal agreements, Carson *et al.* (2006).

In examining the application of relational contracting principles to the management of business relationships, Claro *et al.* (2003) identified the importance of the social norm of cooperation. In relational contracting/governance the decision to cooperate with others reflects the degree to which joint actions are established in a business relationship (Bensaou and Venkatraman, 1995; Heide and Miner, 1992). Claro *et al.* (2003) found that despite joint planning being proactive and joint problem reactive, the two actions were central to relational governance.

Joint planning refers to the extent to which future contingencies and consequential duties and responsibilities in a relationship have been made explicit *ex ante* (Heide and John, 1990; Heide and Miner, 1992). It allows mutual expectations to be previously established and cooperative efforts to be specified. Moreover, when a party's actions influence the ability of the other to effectively compete, there is an increasing need for jointly setting goals, long-term plans, responsibilities and expectations. Joint problem solving refers to the extent to which recent disagreements with a partner have been productively resolved (Heide and Miner, 1992; Lusch and Brown, 1996) and through joint problem solving, a mutually satisfactory solution may be reached for every contingency and consequently add to relationship success. There are however a number concerns about this study, not least of which is that the market in which the

data was gathered (Dutch flower growers) is still dominated by market transactions. Additionally, data was gathered only from the supplier side of the inter-organisational partnership and this is the first conceptualisation of relational governance comprising joint problem solving and joint planning.

3.3.1.4 *Relational Contracting Conclusions*

The above text highlights the role of relational contracting in the governance of inter-organisational partnerships. For some researchers (Ghoshal and Moran, 1996; Gulati, 1995; Larson, 1992; Macaulay, 1963; Ring and Van de Ven, 1992; Uzzi, 1997) this approach offers such benefits it should be used instead of formal structures such as explicit contracts. Others such as Cannon *et al.* (2000) have found that combining detailed contracts with a relational content enhances exchange partner performance. This complementary and reinforcing use of explicit contracts and relational contracting to govern inter-organisational partnerships is examined in the next section of this Chapter under the heading Integrated Governance.

3.3.2 Integrated Governance

As highlighted in sections 3.3.1.1 and 3.3.1.3 two types of governance strategy (Griffiths and Meyers, 2005) have been studied: economic governance strategies such as explicit contracts (Lusch and Brown, 1996) and relational governance strategies such as relational norms (Haugland and Reve, 1993). In this section, the author is seeking to build on the earlier research highlighting the complementary use of contractual and relational governance by exploring what Gundlach and Achrol (1999) claim is the interesting question about contractual and governance mechanisms; their interaction effect.

The complementary view argues that contracting methods and relational activities are supposed to complement each other and thus should be considered simultaneously (Möllering, 2002). When relational and contractual governance mechanisms are used in this way, advantage can be taken of their differential impacts to enhance their individual outcomes (Brown *et al.* 2000; Weitz and Jap, 1995), which will provide more efficient outcomes than the use of either in isolation (Lazzarini *et al.* 2004; Poppo and Zenger, 2002). The author has

defined the approach where formal contractual and informal relational governance mechanisms are used simultaneously to complement and reinforce each other as an 'integrated governance' strategy and will use this term throughout the remaining Chapters of this thesis.

The integrated governance strategy comprises the simultaneous use of relational governance (comprising joint planning and joint problem solving) and explicit contracts in a reinforcing and complementary manner. This is shown diagrammatically in Figure 3-3.

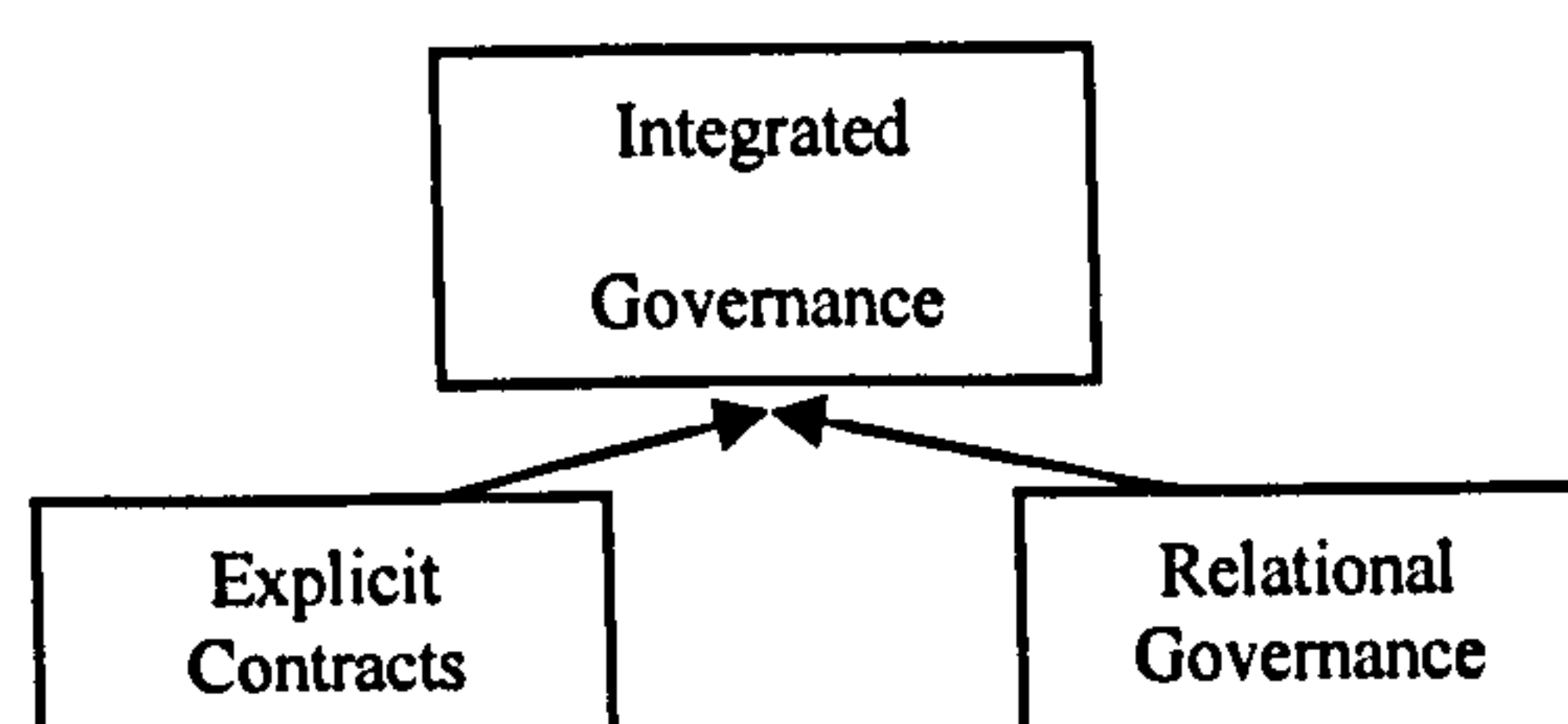


Figure 3-3 – An Integrated Governance Strategy

Early evidence that the governance of exchange is often achieved by a combination of mechanisms was provided by Eccles (1981) study of the home builders market in which relationships between general contractors and subcontractors were found to be governed by both prescriptions of competitive bidding (market) and trust (social norms). In related work, Stinchcombe (1985) documents instances from weapons procurement and North Sea oil refinement to franchise relationships in the automobile industry that illustrate the simultaneous use of market and authority (i.e., contract) driven governance. Similar findings have been reported by Mariotti and Cainarea (1986) for the textile clothing industry in Italy.

In 1989, Bradach and Eccles contended that exchange is best understood as embedded in a complex matrix of economic, social and political structures and that the governance of exchange relations more often relies on combinations of market, social or authority-based mechanisms than on any one category exclusively. Bradach and Eccles (1989: p.97) argue that of particular importance is the manner in which governance mechanisms are interrelated and applied within an exchange relationship, stating,

'In contrast to conventional approaches that view market and hierarchy as mutually exclusive control mechanisms (or bipolar forms), we argue that price, authority and trust are independent and can be combined in a number of ways.'

Citing evidence in market, intra-organisational and personal exchanges Bradach and Eccles (1989) explore how price mechanisms are sometimes built into hierarchies and how authority mechanisms often bind independent exchange partners in a market. Gundlach and Achrol (1993) found that exchange partners involved in more interactive exchanges employ social norms to a greater degree than less interactive exchanges and concluded that participants choose differing levels of contractually governed hierarchy dependent on environmental conditions. Their findings are consistent with those of (Hadfield, 1990: p.929) who stated,

'when a contract is embedded within an identifiable [supportive] relationship ...contractual obligations are often modified, supplemented or completely supplanted by the norms of the ongoing relation.'

In response to this early research, two competing governance research streams emerged. In one, contracts and relational contracting are seen as substitutes (Dyer and Singh, 1998; Gulati, 1995; Macaulay, 1963; Paswan *et al.* 1998; Ring and Van de Ven, 1994; Roxenhall and Ghauri 2004; Woolthuis *et al.* 2005) and in the other as being complementary (Bergen *et al.* 1995; Brown *et al.* 2000; Carson *et al.* 2006; Larson, 1992; Lazzarini *et al.* 2004; Luo, 2002; Lusch and Brown, 1996; Poppo and Zenger, 2002; Uzzi, 1997; Yan and Gray, 2001).

Those who view contracts and relationalism as substitutes, consider contracts to be detrimental to relational behaviour (Dyer and Singh, 1998; Woolthuis *et al.* 2005). Reasons for this negative relationship include that the drawing up of the contract is viewed as a signal of distrust (Bradach and Eccles, 1989) and that the contract can evoke opportunism and hinder the development of relational behaviour (Woolthuis *et al.* 2005). Dyer and Singh (1998) argue that informal self-enforcing agreements, which rely on trust and reputation often displace the formal controls characteristic of formal contracts. Ring and Van de Ven (1994) argue in their conceptual research, that formal contracts and trust (a relational governance mechanism) have a substitutive relationship and Alder (2001) found that trust reduces transaction costs by replacing contracts with handshakes. In 1999, Gundlach and Achrol found the presence of distinct forms of governance operating dynamically within exchange relationships. In particular the presence of social norms containing relational content and the degree of decision control (hierarchy) were found to be inversely related.

Thus while researchers in the substitute's camp view the presence of one governance mechanism to hinder or preclude the emergence of the other (Paswan *et al.* 1998; Poppo and Zenger, 2002), others are less convinced, claiming that contracts are merely established to determine the business relationship and hardly ever established to prove what was agreed upon or to enforce the agreement (Roxenhall and Ghauri, 2004).

Taking this as their starting point, those in the research stream who view contracts and relational governance (relationalism) as complementary believe they should be used simultaneously (Möllering, 2002). Based on TCE and contract theory they believe the established contract limits the possibilities for opportunistic behaviour (Woolthuis *et al.* 2005) and that contractual specifications increase the occurrence of relational behaviour between the exchange partners. For example, explicit contracts state formally how the parties should behave over time (Lusch and Brown, 1996) and contracts reduce the gains of short-term opportunism through incentives or punishments thereby increasing the value of honouring more informal dealings such as relational governance (Lazzarini *et al.* 2004; Poppo and Zenger, 2002). These findings are supported by Ivens (2005) who in a business service exchange, identified that formal and detailed contracts between buyer and seller increase the likelihood that relational behaviour is performed.

In their complementary role, Poppo and Zenger (2002) found the relational governance and contractual complexity function as complements in explaining satisfaction with exchange performance. They found increases in the level of relational governance to be associated with greater levels of contractual complexity and increases in the level of contractual complexity to be associated with greater levels of relational governance. Poppo and Zenger (2002) demonstrate that managers accompany their increasingly customised contracts with increased levels of relational governance and that the interdependence between contractual complexity and relational governance underlies their ability to generate improvements in exchange performance. In their empirical research of international manufacturer-distributor exchanges,

(Gençtürk and Aulakh, 2007), found that inter-organisational problems can be addressed by developing vertical control and norms to govern relational exchanges.

Larson (1992) argues that formal contracts are rather unimportant in the exchange agreements she has examined and (Uzzi, 1997) that the embeddedness of exchanges within social structures circumvents and thus economises on time otherwise spent costly contract renegotiations. Bergan *et al.* (1995) in the industrial distribution context, found that augmenting an agent system with a direct sales force, permitted a manufacturer to manage the safeguarding and performance evaluation problems that might otherwise be associated with a unitary agent system. Paswan *et al.* (1998) found that emergent relational norms can override bureaucratic norms more strongly and that bureaucratic norms can impact on relationalism. Brown *et al.* (2000) in an empirical study of the use of three governance mechanisms (ownership, investment in transaction specific investments, norms of relational exchange) in the U.S. hotel industry found that there was a synergistic effect when relational exchange was combined with the hotel's investment in idiosyncratic assets. Cannon *et al.* (2000) demonstrate that performance suffers when detailed contracts are used without well-developed social relationships to govern exchanges involving high transactional uncertainty, but not where transactional uncertainty is low.

Several researchers (e.g., Eriksson and Sharma, 2003; Wathne and Heide 2004) state that contracts are only partly helpful and that the development of relational governance is a necessity. In research examining the performance of International Joint Ventures, Yan and Gray (1994, 2001) find the simultaneous use of both contractual and cooperative mechanisms is particularly critical in an uncertain environment and that they have complementary stimulating affects. They report that contract completeness moderates the relationship between cooperation and performance, cooperation having a stronger influence on sales and profit when the contractual framework within which cooperation performs is more complete. Luo (2002) concludes the significance of mutual influence between contracts and cooperation requires a united framework, encompassing economic and sociological perspectives. Luo's (2002)

findings are supported by Poppo and Zenger (2002), who established that cooperation is an important safeguard mechanism mitigating external and internal hazards and overcoming adaptive limits of contracts.

3.3.2.1 *Integrated Governance Conclusions*

Thus contracts and relational norm structures complement each other in a kind of flexible way (Allen and Lueck, 1992; Gulati, 1995; Ring and Van de Ven, 1994). Cannon *et al.* (2000) have identified an advantage of contractual governance as the foundation it provides, with the legal structure providing a broad framework defining the relationship and an authoritative safeguard of last resort. Ferguson *et al.* (2005) found a significant positive performance affect where an *ex ante* established contract is used alongside relational governance. It can therefore be argued that formal contracts and relational governance cannot operate effectively in isolation as one serves to cure the imperfections of the other and that to optimise performance they should be used simultaneously in an integrated governance strategy.

In the next section the author will provide a summary of the extant research, identify relevant gaps in this and set out how the study will address these.

3.4 GOVERNANCE STRATEGY RESEARCH DISCUSSION AND CONCLUSIONS

In sections 3.3 and 3.4 the governance mechanisms available to partners in long-term inter-organisational partnerships have been reviewed and their outcomes identified. The empirical research providing evidence of the outcomes has been summarised in Table 3-2. These outcomes are debated to identify the gaps in governance strategy research which will be used to develop the high level research model. This starts with the explicit contracts.

In the context of inter-organisational partnerships contracts are defined as detailed, binding legal agreements that specify obligations and the roles of both parties in the relationship, performing the dual roles of controlling and coordinating the relationship (Mellewigt *et al.* 2007). The research in Table 3-2 confirms that they have a positive impact on performance

(Luo, 2002; Shenkar and Zeira, 1992) although in both cases the inter-organisational partnerships were between businesses in different countries. Research investigating the impact of explicit contracts on inter-organisational performance between organisations in the same country and a business services partnership has not been undertaken and both merit investigation.

Table 3-2 – Governance Research Outcomes

Author/s	Date Published	Channel	Governance Type	Findings
Frazier and Summers	1984	Car dealer-manufacturer partnerships	Explicit Contracts	Contracts lessen the future chance of interaction and therefore will not be good for relationships.
Young and Wilkinson	1989	Inter firm relationships; manufacturer-distributor and buyers-sellers	Explicit Contracts	Contract disadvantages (inflexibility and perceptions of mistrust) outweigh advantages offered by specific guidelines and specification of penalties for opportunistic behaviour.
Shenkar and Zeira	1992	International Joint Ventures	Explicit Contracts	Contracts enhance IJV performance.
Weitz and Jap	1995	Relationship marketing in distribution channels	Explicit Contracts	Contracts serve as a broad framework for the relationship and complement the use of norms.
Lusch and Brown	1996	Wholesale distributors and suppliers	Explicit Contracts	Contracts increase supplier commitment by reducing uncertainty.
Lyons and Meheta	1997	Conceptual paper Research gap	Explicit Contracts	Contracts can be detrimental to trust development by leading to behaviours inconsistent with trust.
Knights <i>et al.</i>	2001	Financial Services sector	Explicit Contracts	Contracts and trust are 'opposing alternatives'
Luo	2002	International Joint Ventures	Explicit Contracts	Complete contracts stimulate IJV performance.
Poppo and Zenger	2002	Computer company executives	Explicit Contracts	Contracts have a positive effect on trust.
Ivens	2005	Business to Business	Explicit Contracts	Increase the likelihood relational behaviour will be performed.
Woolthuis <i>et al.</i>	2005	Technical collaborative partnerships	Explicit Contracts	Contracts found to be a substitute for and complementary to trust. Also found to be substitute for relational contracting.
Carson <i>et al.</i>	2006	New product research and development	Explicit Contracts	Contracts are a weak safeguard in the face of uncertainty, but are more effective than relational contracts when faced by ambiguity.
Gulati	1995	Industry Alliances	Relational Contracting	Relational norms operate as self enforcing safeguards and more effective and less costly than contracts
Dyer, J. H.	1997	Japanese Automotive Transactors	Relational Contracting	Use of self-enforcing safeguards such as relational trust to lower transaction costs.

Author/s	Date Published	Channel	Governance Type	Findings
Uzzi	1997	Entrepreneurial firms	Relational Contracts	Relational norms operate as self enforcing safeguards and more effective and less costly than contracts.
Cannon <i>et al.</i>	2000	Buyer-Sellers-Retailers	Relational Contracting	Increasing relational context of a governance structure brings enhanced performance.
Bello <i>et al.</i> (2003)	2003	Manufacturers and foreign distributors	Relational Governance	Positive influence on performance.
Claro <i>et al.</i>	2003	Dutch flower suppliers and buyers	Relational Governance	Positive influence on performance.
Carson <i>et al.</i>	2006	New product research and development	Relational Contracting	Relational contracting effectiveness limited by ambiguity, but remains effective in the face of volatility when compared to contracts.
Yan and Gray	1994/2001	International Joint Ventures	Integrated Governance	Contractual and cooperative mechanisms stimulate performance.
Brown <i>et al.</i> (2000)	2000	U.S. hotel industries	Integrated Governance	Support for relational norms in the management of opportunism. Exacerbation of opportunism when ownership or investment in transaction-specific assets are accentuated as governance mechanisms.
Cannon <i>et al.</i> (2000)	2000	Buyer-seller relationships	Integrated Governance	Performance suffers when detailed contracts are used without well developed social relationships when high transactional uncertainty exists, but not where transaction uncertainty is low.
Poppo and Zenger	2002	Information service exchanges	Integrated Governance	Relational governance and explicit contracts function as complements in explaining satisfaction with exchange performance.
Eriksson and Sharma	2003	Bank branch managers	Integrated Governance	Contracts are only partly helpful and development of relational governance is a necessity.
Lazzarini <i>et al.</i>	2004	Experimental evidence	Integrated Governance	Simultaneous use of relational and contractual governance mechanisms will provide more efficient outcomes than the use of either in isolation.
Ferguson <i>et al.</i>	2005	Commercial bank clients and account managers	Integrated Governance	Positive performance affect where an <i>ex ante</i> established contract is used alongside relational governance.

The research examining the impact of explicit contracts on the partners relationship and trust a key antecedent of a high quality relationship, produces mixed results. Contracts have been found to be good for building trust (Poppo and Zenger, 2002), to complement relational norms (Weitz and Jap, 1995, Woolthuis *et al.* 2005), increase supplier commitment (Lusch and

Brown, 1996) and increase the likelihood that relational activity will be performed (Ivens, 2005). In contrast, the research has also identified a negative impact with two studies identifying an adverse impact on trust (Knights *et al.* 2002; Lyons and Meheta, 1997) and another saying they lessen the chance of future interaction (Frazier and Summers, 1984). Although on balance the research suggests a positive impact on partner relationships the certainty with which this can be predicted would be enhanced by further positive study.

Relational contracting or governance is defined as the strength of the social norms present in the exchange and has often been referred to as relationalism (Ferguson *et al.* 2005). Relationalism points not only to the relationship orientation of the partners, but also to the emphasis placed by them on exchange behaviours as indicators of closeness in buyer-seller relationships. Research examining the use of relational contracting/governance in inter-organisational partnerships is limited, although the findings are consistent showing a positive impact on performance (Cannon *et al.* 2000; Claro *et al.* 2003) and identifying a reduction in transaction costs when compared to contracts (Dyer, 1997; Gulati, 1995; Uzzi, 1997). There is, however, no research examining how the sole use of relational contracting/governance to manage the partnership affects the partners relationship. The two studies that have investigated performance affects both involved the exchange of goods, which highlights an absence of research examining a business services partnership.

The integrated governance strategy research outcomes identify that the simultaneous use of contracts and relational governance has a positive impact on performance (e.g., Ferguson *et al.* 2005; Lazzarini *et al.* 2004). This research includes a single business services partnership (Poppo and Zenger, 2002) between independent corporate entities and as such further research involving business services based partnerships between independent organisations is merited.

Table 3-2 highlights that none of the governance strategy research involved inter-organisational partnerships between the public and private sectors. It also confirms that there is no research examining the relationship between the chosen governance strategy and the partners control strategy decisions, despite both widely researched. This study will therefore

be the first investigation of these relationships. The next Chapter reviews the Control Strategy literature.

CHAPTER 4 - CONTROL STRATEGY

4.1 INTRODUCTION

Tannenbaum (1968) identified control as an important concept in management with its major function being to bring about conformance with organisational requirements and achievement of the organisation's ultimate purpose. Despite its importance, Eisenhardt (1985) identified control as a sometimes neglected facet of organisational design and Merchant (1988) found the study of control to be in its infancy.

Reviewing extant control research initiatives Baldauf *et al.* (2005) identified these to have been fragmented and a good example of this is the various ways in which 'control' is used. Flamholtz *et al.* (1985) use control to refer to the cybernetic type of control involving measurement and feedback processes, whilst Merchant (1985) uses it in a broader sense to include everything people in an organisation do to implement the agreed strategy. Lorange *et al.* (1986) under the label 'strategic control', refer to the processes designed to determine whether the strategy is (or remains) appropriate in partnerships and Child and Faulkner (1998) refer to control as the process by which a partner influences the behaviour and output of other partners.

According to Merchant (1984) effective control means that an informed person can be reasonably confident that no major, unpleasant surprises will occur. To O'Reilly (1989: p.11) a control system generically is, 'the knowledge that someone who knows and cares is paying close attention to what we do and can tell us when deviations are occurring.' This can only be achieved when the system receives management attention, includes standards of comparison and a means of deviation detection, allows feedback and enforces corrective action (Hofstede, 1978). Thus the chosen control system allows the person to 'monitor' the actions of another or others by reducing the information asymmetry between them (Eisenhardt, 1985).

Despite the advantages of reduced information asymmetry, control is not an inherent property of integrated systems (Geringer and Herbert, 1989; Heide, 1994) and controlling complex

organisational tasks is an elusive process that is not well understood (Flamholtz *et al.* 1985, Merchant, 1988; Snell, 1992). Indeed, Heide and John (1992) surmise that control of agents is not necessarily desirable but is subject to efficiency/effectiveness considerations and deliberate choice.

Much empirical control research has focused on the antecedents of different control mechanisms (Anderson and Weitz, 1992; Lusch and Brown, 1996; Stump and Heide, 1996) with these studies largely carried out in intra-organisational settings where the exchange is internalised. In such settings the intent of management control is to direct and influence the attitudes and behaviours of employees to achieve the organisation's objectives (Anderson and Oliver, 1987; Eisenhardt, 1985; Jaworski, 1988; Ouchi, 1979). To do this specific control mechanisms must be put in place with management choosing between control mechanisms with fundamentally different properties (Anderson and Oliver, 1987).

As with the intra-organisational research, control research examining inter-organisational partnerships has a top down emphasis. In these partnerships control has been assumed to reflect the principal's effort to coordinate and influence agent actions rather than the exercise of authoritative ability to dictate agent behaviour (Bello and Gilliland, 1997; Celly and Frazier, 1996).

Despite the growth of inter-organisational partnerships such as international joint ventures /strategic alliances and control being acknowledged as essential (Geringer and Herbert, 1989; Medcof, 1997) there have been a limited number of attempts (e.g., Aulakh and Genctürk, 2000; Celly and Frazier, 1996), to assess how inter-organisational control mechanisms operate. Researchers such as (Luo, 2002; Yan and Gray, 1994) have focused on the characteristics of control mechanisms, the organisational arrangements designed to determine and influence what organisations do and the level of control stemming directly from the controlling process, with mixed results.

In inter-organisational control studies, researchers (Dahlstrom and Nygaard, 1999; John, 1984) agree that control mechanisms are likely to affect organisational outcomes, however, empirical results have failed to support direct main effects in any consistent or generalisable fashion. For example, it has been demonstrated that bureaucratic control both increases and decreases opportunism (Dahlstrom and Nygaard, 1999; John, 1984) and that formal control may or may not enhance performance outcomes (Bello and Gilliland, 1997). Yan and Gray (1994) identified positive affects via a contingent relationship between managerial control and alliance performance and Provan and Skinner (1989) identified negative effects in their finding that dealers opportunistic behaviour is positively related to supplier control over dealer decisions.

These conflicting findings led to Gibbons (1999) stating that the use of differing control mechanisms and their effectiveness across different governance modes requires further investigation. With this in mind, the author will examine the range of control mechanisms and their use in the management of inter-organisational partnerships. In so doing, the author will adopt the Child and Faulkner (1998) definition of control, as the process by which a partner influences the behaviour and output of other partners.

In the context of this research the author distinguishes control strategy with its specific focus on influencing a partner, from the wider practice of risk management which is defined as the identification, assessment and prioritisation of risks followed by coordinated and economical application of resources to minimise and control the probability of unfortunate events. This study focuses specifically on the identification of available control mechanisms, their use and outcomes, a process that starts with an overview of these control mechanisms in the next section.

4.2 AN OVERVIEW OF CONTROL MECHANISMS

Organisations tend to be more confident about partner cooperation when they feel they have an adequate level of control over their partners (Beamish, 1988; Sohn, 1994). In exercising this control they are faced with two alternative approaches. The first is linked to the transaction cost

paradigm of Williamson (1979) and variants of internalisation theory to understand an organisation's control patterns on the basis of governance mode used to organise exchange relationships (Aulakh and Kotabe, 1997; Klein *et al.* 1990). See Chapter 3 for a detailed review of this research. The second is based on Agency Theory (see Chapter 2.3) which provides guidance about how controls can be employed to manage internal employer/employee relationships (Cravens *et al.* 2004) and how the different control mechanisms can be used to influence or coordinate exchange partnerships with external organisations (Frazier, 1999). In this Chapter the author will focus on how partners in long-term inter-organisational partnerships employ control in the management of their partnership.

Control can be exerted through formal and/or informal control mechanisms. The former come about as a result of a formal/legal agreement between the parties and can be behaviour (process) or outcome based (Jaworski, 1988; Ouchi and Maguire, 1975). The latter are linked to Ouchi's (1979) concept of social, clan or normative control, with its reliance on people strategies and social patterns to influence and control behaviour. This has been categorised as professional and cultural control (Jaworski *et al.* 1993).

Underpinning the use of one or both of the control mechanisms is Ellickson's (1987) control framework which was established following his study of the economic and sociological aspects of social control. In this study, Ellickson identified that any relationship contains an instrumental and social strain with formal control residing in the instrumental strain and informal control in the social strain. The study also identified that in either strain, there are substantive and remedial rules with the former defining what primary conduct is to be punished, rewarded or ignored and the remedial rules specifying the nature and magnitude of any sanction that is to be applied if the substantive rule is violated. This focus of the relationship, social or instrumental, is important because it establishes the foundation for communication, bonding, and control (Meyer and Allen, 1991; Mohr *et al.* 1998).

Drawing on the behavioural research paradigm Kirsch (1996) identified the characteristics of the two control types as shown in Table 4-1. This Table provides the reader with a complete summary of control mechanism characteristics, thereby enabling their respective merits to be compared and contrasted. It highlights the characteristics of formal control (behaviour/outcome) have little social content. Formal control is therefore to be found in the instrumental strain of a relationship and is concerned with functionality, economic gain, the execution of required tasks and the achievement of tangible results (Kanter, 1972).

It involves precisely and rigidly administering the substantive and remedial rules of control (Black, 1998; Jaworski, 1988). In the absence of a social element, the substantive and remedial rules are the only vehicles by which information regarding appropriate behaviour can be transmitted.

Table 4-1 – Control Type Characteristics

Control Type	Control Strain	Control Classification	Control Type Characteristics
Behaviour (process) Control	Instrumental	Formal	Behaviours that transform inputs into outputs are known
			Principal monitors and evaluates agent's behaviours.
			Explicit link between extrinsic rewards and following behaviours.
Output Control	Instrumental	Formal	Desired task outcomes are known and measurable.
			Agent evaluates whether outcomes are met.
			Explicit link exists between extrinsic rewards and producing outcomes
Social/Clan	Social	Informal	Task related behaviours and outcomes are not prescribed.
			Goals are determined by clan and evolve during the task period.
			Clan attitudes are based on acting in accordance with clan values and attitudes.
			Shared experiences, values, and beliefs among the clan members.
			Members exhibit strong commitment to the clan.

Adapted from: Kirsch, L. J. (1996) 'The Management of Complex Tasks in Organization: Controlling the Systems Development Process,' *Organization Science*, Vol. 7, pp. 1-21.

In contrast, informal control is based on social or people strategies (Eisenhardt, 1985; Jaworski, 1988) and through social control utilises organisational values, norms and cultures to encourage

desirable behaviour. It relies on normative considerations and on established social patterns to influence behaviour, administer control and to influence future adherence to the rules (Ellickson, 1987). In socially controlled exchange, relationship behaviour is specified by the organisational culture and performance is viewed as a social obligation maintained via mechanisms of social pressure (Jaeger, 1983).

Residing in the social strain of a relationship, informal control includes high levels of professional and cultural control. Professional control is concerned with encouraging cooperation and information sharing amongst the parties, whilst cultural control refers to the pattern of shared values and beliefs that guide norms of behaviour within the organisation (Jaworski *et al.* 1993: p.58). Both are based on the common values that exist among parties (Granovetter, 1985; Ouchi, 1979), which serve as the basis for developing shared goals, flexibility, mutuality, toleration and other social patterns that guide the relationship (Black, 1998; Kaufmann and Stern, 1988).

Faced with a choice of which control type to utilise, a key determinant will be the extent to which the partners have established common grounds for conducting business (Ellickson, 1991; Ouchi, 1979). Jaworski *et al.* (1988) found it is important to 'match' the control mechanism with the prevailing conditions, for example, a shift to collaborative relationships will influence the choice of control with the view of control as a process comparing actual with desired results in the traditional authoritarian 'command and control' form becoming less relevant (Corcoran *et al.* 1995). Jaworski *et al.* (1993) in their empirical research found that using formal controls in certain circumstances and informal controls in others will enhance the overall effectiveness of the exchange. Although this research is widely cited and is based on an exceptionally high mail survey response rate (79.1%) this is the first attempt to conceptualise the professional and cultural control types and the intra-organisational emphasis casts doubts about the generalisability of the results. Nevertheless, the findings suggest that organisations should take conscious strategic

decisions concerning which of the control types to employ, given these comprise the organisation's strategy for managing employees, customers or partners.

In the remainder of this Chapter the author considers formal and informal control mechanisms in greater detail.

4.2.1 Formal Control

Gençtürk and Aulakh (1995: p.757) based on research in organisational approaches to control (Child, 1973; Jaworski, 1988; Ouchi, 1979) define formal controls as, 'management-initiated mechanisms that are designed to regulate organisational activities to ensure their conformance with established expectations.' Formal control employs codified rules, goals, procedures and regulations that specify desirable patterns of behaviour. In a governance structure in which the contract is the key document (as is the case in public private partnerships), contractual relationships can include several hierarchical control elements embedded in their structure (Stinchcombe, 1985) including; a command structure, authority systems, incentive systems, standard operating procedures and dispute resolution procedures. These hierarchical controls institutionalise, or formalise interactions between partners (Van de Ven, 1976).

Formal control has been found to influence behaviour patterns by delineating clear boundaries and motivating compliance through a unilateral provision of information, supported by recognised authority (Bello and Gilliland, 1997). Whether the target of control is prescribing specific performance goals (output control) or specific behaviours (process control), the implication is that no one person can have full autonomy in deciding what is best for the partner organisation/s. This reservation suggests a lack of belief in the partners goodwill, reliability or competence. Indeed, even though legitimate authority provides for the use of formal control (Ouchi, 1979) their use is not always perceived as being appropriate as they are associated with the exercise of top-down coercive power in which punishments may be arbitrary or even punitive (Black, 1976). For example, Sitkin and Roth (1993) report limited effectiveness of legalistic remedies (formal rules

and contracts) for building trust, recognised as being essential for a strong relationship (Bradach and Eccles, 1989).

Following their empirical research Jaworski, (1988) and Ouchi and Maguire, (1975) identified two formal control mechanisms; behaviour (process) and output based control. Eisenhardt (1985) in her widely cited and acknowledged research of compensation practices for retail salespeople identifies external measure-based control, which emphasises the establishment and utilisation of formal rules, procedures and policies to monitor and reward desirable behaviour – a behaviour (process) approach. This has been defined as, ‘personal surveillance’ (Ouchi and Maguire, 1975: p.559) in which according to Anderson and Oliver (1987: p.77), ‘active managers, backed by significant management information gathering staff, vigorously monitor and direct the operations of the sales force.’

Behaviour (process) controlled exchange relationships require active and involved management and involve principals dictating and providing the inputs agents need to achieve the organisation’s goals. Principals relying on behaviour (process) control tend to have a well-defined idea and understanding of the processes they expect agents to undertake (Ouchi, 1979) and they are able to impose their ideas on agents to achieve the desired results. Anderson and Oliver (1987) argue that behavioural (process) controls reward long-term outlook by removing pressures and incentives to sacrifice long-term success for immediate results.

Dahlstrom and Nygaard’s (1999) research in a franchisee/franchiser channel found that as operating procedures become more precise in the designation of duties and responsibilities, channel partners become more aware of their obligations and those of their partners and this fosters performance of prescribed activities and lowers opportunism. Aulakh and Genctürk (2000) found the formal monitoring synonymous with behaviour (process) control failed to affect agent economic performance in external or internal exchanges. Their empirical findings gained from a solid sample of experienced and credible respondents show behaviour (process) control enhances

agent compliance as it exerts a significant positive impact on perceived relationship flexibility when used in inter-organisational exchange relations. However, Churchill *et al.* (1990) argue that strict guidelines from the principal regarding agent behaviour reduces the latter's sense of autonomy and self-control. This argument aligns with the findings of Murry and Heide (1998) who in their empirical research established that manufacturer efforts to verify compliance with in-store promotional programmes undermined retailer confidence. Bello and Gilliland (1997) found behaviour (process) control had no performance effect in export channel performance and Gilliland and Manning (2002) established in their empirical review of the use of formal control by regulatory organisations that it does not motivate compliance behaviour and in the absence of agreement with the substantive and remedial rules actually motivates opportunistic behaviour. Research has thus identified contrasting outcomes for the use of behaviour (process) control.

Control mechanisms that focus on outcomes represent a laissez-faire approach that assumes agents are best able to determine their direction and level of effort necessary to achieve a firm's goals (Oliver and Anderson, 1994). Ouchi and Maguire (1975: p.559) define output controls as, 'measurement of outcomes', which (Anderson and Oliver, 1987: p.76) equate as being 'approximate to market contracting wherein salespersons are left to achieve the results in their own way using their own strategies.' Anderson and Oliver (1987) suggest that output controls signal to agents the extent to which they achieve set standards will determine their rewards. However, because output control leaves a partner to succeed on their own, there is a risk that the partner could engage in self-serving defiant actions that might not serve the interests of the principal. They could also be resistant to making adjustments in their relationship with the principal in the case of changed circumstances.

4.2.2 Formal Control Conclusions

Dahlstrom and Nygaard (1999) whose research examined franchise-franchisor relationships found that the less well defined the operating procedures the greater the level of opportunism. These

findings were supported by those of (Aulakh and Genctürk, 2000), who when examining international principal-agent relationships found output control to be positively related to lower agent compliance. Aulakh and Genctürk (2000) found that the use of output control encourages deviant agent behaviour by negatively influencing compliance, however, Bello and Gilliland (1999) found output control to enhance export channel performance. In inter-organisational partnership research, a supplier's reliance on both behaviour (process) and output controls was found to be fundamental to interfirm coordination processes in administered channel system for industrial products (Celly and Frazier, 1996). Thus as with behaviour (process) control, output control research generates mixed findings about its effectiveness and impact.

4.2.3 Informal Control

Ouchi (1979) suggests if the task is neither programmed nor has a measurable outcome, then the alternative control strategy of minimising divergence of preferences becomes appropriate. Eisenhardt (1985) emphasises the establishment of organisational norms, values, culture and the internalisation of goals as a means of reducing goal incongruence and preference divergence. In so doing, goal preference discrepancies between the principal and agent are reduced through the establishment of common culture and values (Kirsch, 1996), or informal control.

The term informal control refers to the pattern of shared values and beliefs that guide norms of behaviour within the organisation (Deshpande and Webster, 1989) and their use in controlling a relationship implies that a common understanding underscores the relationship (Achrol and Gundlach, 1999). In this situation the focus is on the partners relationship with an emphasis on social or people strategies (Eisenhardt, 1985; Jaworski, 1988) to administer the substantive and remedial rules of control and to influence future adherence to the rules Ellickson (1987).

Jaworski *et al.* (1993) in their empirical research of marketing executives identified two types of informal control, namely; professional and cultural (social). Professional control is concerned

with encouraging cooperation and information sharing and cultural (social) control, 'the pattern of shared values and beliefs that guide norms of behaviour within an organisation' (p.58).

Whilst professional control arises from the shared standards promoted by membership of a professional organisation (for example the Chartered Institute of Marketing), cultural (social) control represents an informal control mechanism based on prevailing social perspectives and patterns of interpersonal interactions. It relies on normative considerations, which promote implicit organisation-wide culture to influence others behaviour and to orient them toward organisational rather than parochial goals. In socially controlled exchange relationships, behaviour is specified by the organisational culture and performance is viewed as a social obligation maintained via mechanisms of social pressure (Jaeger, 1983). Desirable behaviour is induced through soft measures, so social control is associated more with such terms as 'informal control', 'normative control', and 'clan control' (Leifer and Mills, 1996).

The underlying assumption is that social control allows people to ultimately determine their own behaviour. Influence comes only in the form of shared goals, values and norms and as such social control is manifested in a certain level of confidence in members' judgement and competence, which lays the foundation for trust (Larson, 1992). In general social control involves designing mechanisms that either inhibit opportunistic behaviour or induce behaviours that promote the continuance of a given relationship (Coleman, 1990; Stump and Heide, 1996). Social control therefore provides a supportive environment for partner firms to understand the process and objective of say, alliance management (Doz, 1996) and because firms value relational exchange they tend to avoid behaviours that would send a signal their partner is not valued (Van de Ven, 1994).

The use of social control in agreements that are purposely designed within individual exchange mechanisms (rather than at the level of societal norms), was recognised by Dunfee *et al.* (1999). They noted that although these agreements were not necessarily legally binding (they may build

on a legal agreement), rather they were one party's 'salient relationship issues' in the interaction with another exchange partner (John, 1984: p.280). In their empirical research (Heide *et al.* 2007) found when investigating business to business relationships between suppliers and buyers of building materials that the effect of the type of control depends on the type of control in use, and the context in which it is used – more specifically on the strength of the social contract underpinning the relationship. This research also provides evidence that informal organisational arrangements are important prerequisites for the deployment of formal ones.

One early form of social control was classified as clan control (Ouchi, 1979). This involves the use of selection processes and social mechanisms to control the behaviour of individuals. Ouchi (1979, 1980) describes a clan as any group of individuals who have common goals and who are dependent on one another and posits that clan control will be implemented when knowledge of the transformation process is imperfect and outcomes are difficult to measure. Indeed, Ouchi argues that as the proper behaviours are often unknown and desired outcomes evolve, the organisational group should cultivate a common philosophy, values and approaches to problem solving, for clan control to be effective.

Jaworski *et al.* (1993) in their empirical research which investigated the use of different control combinations found that 'clan' control, the combination of professional and cultural control, was the second most effective of the control combinations. These findings were revisited by (Cravens *et al.* 2004) who confirmed in their empirical research of the impact of control types on salespersons that the control combination known as 'clan' in which the emphasis on professional and social control is significantly higher than that of the formal mechanisms of behaviour (process) and output control, which was the second most effective combination.

Aulakh and Genctürk (2000) in their empirical research found that social controls exert a positive effect on the relationship flexibility and agent performance across governance structures. Social controls enhance relationship flexibility and economic performance as parties jointly determine

activity and manage performance through a socialisation process that fosters shared values, adaptability and negotiated adjustments. The achievement of long-term economic performance targets may be further enhanced in socially controlled principal-agent relationships where desired behaviour is specified by the organisational culture and monitored via mechanisms of social pressure (Jaeger, 1983). Dahlstrom and Nygaard (1999) found the informal control of cooperation leads to partners working together and reduces opportunism. Heide *et al.* (2007) found that with the presence of a social contract (informal control) the opportunism they found associated with behaviour control was reduced, whilst the lower levels of opportunism they found when output control was used were reduced further. The Heide *et al.* (2007) research is the only longitudinal study examining the impact of control choices in inter-organisational partnerships. With a good theoretical framework and research design the only note of caution about generalisation from the results is the relatively low response rate (19%) over the two time periods.

4.2.4 Informal Control Conclusions

The above text highlights the role of informal or social controls in the management of inter-organisational partnerships. To some researchers (e.g., Dahlstrom and Nygaard, 1999) the use of such controls has benefits such as better partnership working and reduced opportunism and they should be used instead of formal controls. Others (e.g., Govindarajan and Fisher, 1990) have indicated that control systems should be tailored to individual circumstances. Having therefore explored the independent use of formal and social controls, in the next section the author will examine the simultaneous use of formal and informal controls under the heading Integrated Control.

4.3 INTEGRATED CONTROL

Organisations tend to be more confident about partner cooperation when they feel an adequate level of control over their partners (Beamish, 1988, Sohn, 1994). However, in his seminal work Anthony (1952) recognised each control mechanism does not exist in isolation and that it is easy

to over emphasise formal control mechanisms and to miss entirely or under emphasise informal controls. Ouchi (1979) who focused on each control mechanism independently acknowledged that the problem of organisational design is to discover the balance of socialisation and measurement which most effectively permits a particular organisation to achieve cooperation among its members.

Building on Anthony’s (1952) work, Jaworski (1988) identified that the isolation of a single control mechanism does not accurately reflect the complete set of controls in operation and that doing so is unnecessarily limiting. In so doing, Jaworski recognised that formal controls can play a role in shaping the informal system (Anthony, 1988; Jaworski, 1988) and that management initiated formal control mechanisms operate in conjunction with informal controls to yield desired outcomes (Jaworski, 1988). This simultaneous use of formal and informal controls was also recognised by Heide *et al.* (2007).

The author has defined the approach where a combination of formal and informal controls are used simultaneously to complement and reinforce each other as an ‘integrated control strategy’ and will use this term throughout the remaining Chapters of this thesis. An integrated control strategy comprises the simultaneous use of formal controls and informal controls and is shown diagrammatically in Figure 4-1.

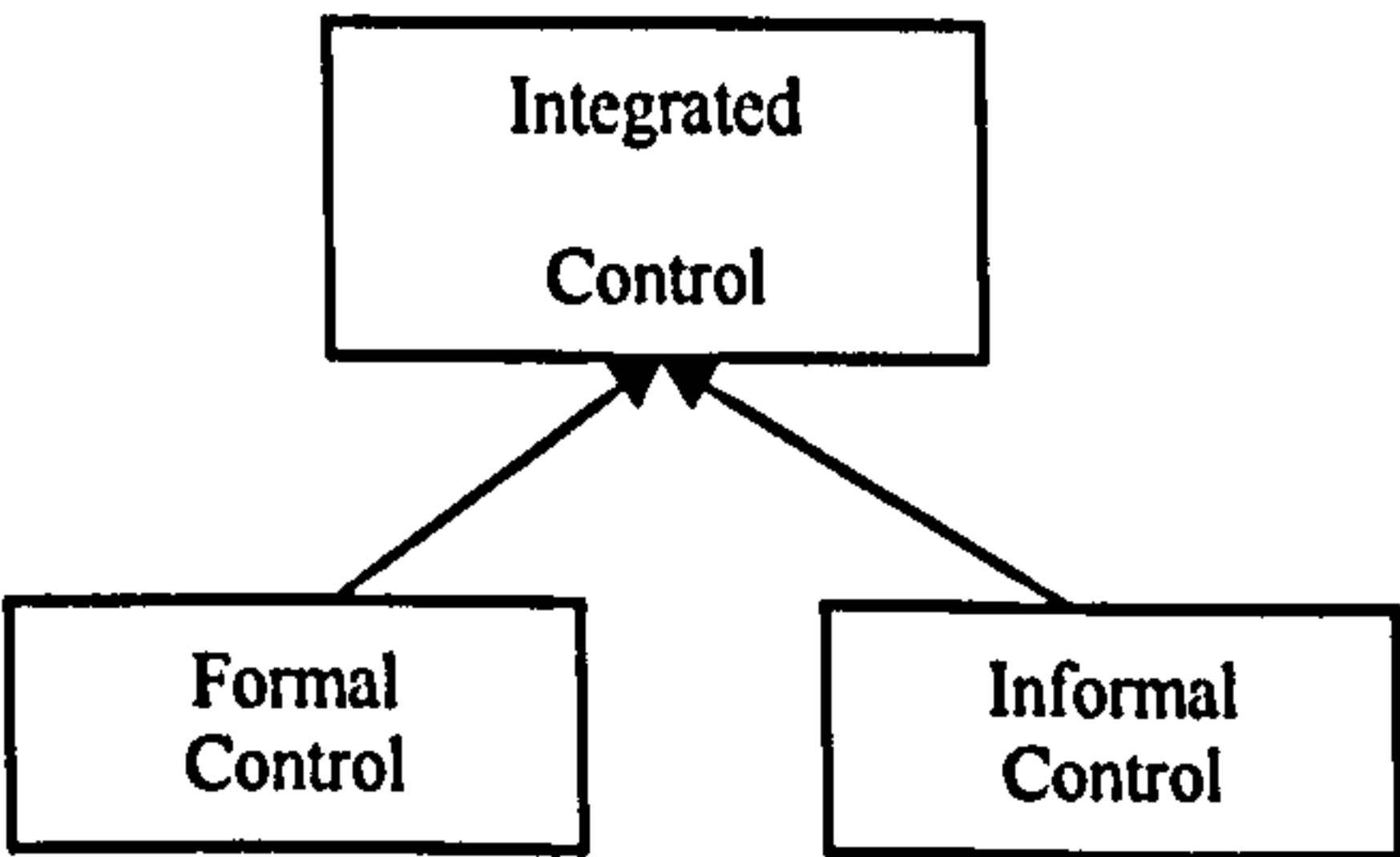


Figure 4-1 – An Integrated Control Strategy

Bradach and Eccles (1989: p.97) drawing on the work of amongst others (Granovetter, 1985; Macaulay, 1963; Ouchi, 1980) provide a multidimensional perspective on transaction governance and state that,

'to view markets, vertical integration and relational norms as mutually exclusive alternatives for governance obscures rather than clarifies our understanding ... price, authority, and trust are combined with each other in assorted ways in the empirical world.'

Govindarajan and Fisher (1990) found that firms should not use a standard control system to manage all of their Strategic Business Units (SBU), rather the control systems should be tailored to the strategy of the individual SBU and that control systems are an important ingredient in implementing strategy and achieving performance objectives. Ghoshal and Moran (1996) found that hierarchical controls can facilitate coordination through informal means, creating a sense of shared purpose that can motivate and guide participants and minimise conflict between them.

In assessing how to achieve the maximum benefits from employed controls, it is important that those involved in the decision making process recognise the different control mechanism characteristics in order to make an informed decision about which control mechanism or combination of control mechanisms should be employed. In Ouchi's (1979) conceptualisation, shown in Table 4-2, the choice of control depends on 'knowledge of the transformation process' and 'ability to measure outputs' which requires there to be a fit between task characteristics and the control mechanisms employed.

This Table provides guidance about the most appropriate conditions to employ the different control mechanisms. For example, it highlights that where knowledge of the transformation process is perfect - the organisation knows the precise behaviours and processes that will transform inputs into outputs – it can use behaviour (process) control, basing rewards on whether the agent has followed the correct behaviours. In contrast, if it is possible to measure the

organisation’s desired results, output control can be used and the agent will be rewarded solely on whether the desired output has been achieved.

Table 4-2- Organisational Literature Concept of Control

Knowledge of the Transformation Process			
Ability to Measure Outputs		<i>Perfect</i>	<i>Imperfect</i>
	<i>High</i>	Behaviour or Output Measurement	Output Measurement
	<i>Low</i>	Behaviour Measurement	Ritual, Ceremony, ‘Clan’ Control

Source: Ouchi, W. (1979) ‘A Conceptual Framework for the Design of Organizational Control Mechanisms,’ *Management Science*, Vol. 25, Issue 9, pp. 833-848.

Although Ouchi (1979) proposes that behaviour (process) based control can be used only when knowledge of the transformation process is perfect, agency theory states that behavioural contracts can be structured when knowledge is imperfect if principals invest in information systems in order to observe or monitor the actions of agents (behaviour observability). Agency theory therefore adds to Ouchi’s conceptualisation by positing that the choice of a control strategy is also dependent on behaviour observability and the extent to which the controller has access to information systems that reveal agent actions.

Using agency theory Eisenhardt (1985) has further developed Ouchi’s (1979) model replacing knowledge of the transformation process with the concept of task programmability. Govindarajan and Fisher (1990) extended this line of research into the strategy literature by building on Eisenhardt’s and Ouchi’s models. They built on Ouchi’s original model to include the behaviour observability construct from agency theory, whilst retaining the notion of task programmability from Eisenhardt’s work. They therefore identified behaviour observability, outcome measurability, and task programmability as antecedents of the choice of control. Emphasising the importance of the principal’s knowledge, they conclude the more knowledgeable the principal, the more likely they will be to implement behaviour (process) based control.

This is consistent with Snell’s (1992) finding that among other things the use of behaviour control is dependent on, having complete cause-effect knowledge. Govindarajan and Fisher (1990) point

out that their model is normative, implying that for effective performance an organisation should use the form of control specified in the model. It is, however, questionable if this can be a normative model when no reference is made to informal control, which is widely recognised as being effective (Jaworski *et al.* 1993; Ouchi, 1979).

Indeed, Jaworski *et al.* (1993) sought to investigate how best to combine the available control mechanisms by examining the implications of adopting different combinations. They identified four combinations of control; bureaucratic, clan, high and low control. In the bureaucratic system of control a high level of formal controls are combined with a low level of informal controls and it is dominated by management initiated, written controls, with professional and cultural mechanisms operating in a secondary role. Clan control is typified by a high level of informal controls combined with a low level of formal controls, in which the role of cultural and professional control mechanisms are dominant. In a high control environment, high formal control is combined with high informal control, bringing all four types of control into play. An environment with no dominant control type is known as a low control environment. These classifications and their performance affect ranking are shown in Table 4-3.

Table 4-3 - Control Type Combinations

Control Combination	Formal		Informal		Performance Affect Ranking
	Output	Process	Professional	Cultural	
High	H	H	H	H	1
Bureaucratic	H	H	L	L	3
Clan	L	L	H	H	2
Low	L	L	L	L	4

Adapted from: Jaworski, B. J. Stathakopoulos, V. Krishnan, H. S. (1993) 'Control Combinations in Marketing: Conceptual Framework and Empirical Evidence', *Journal of Marketing*, Vol. 57, (January), pp. 57-69.

Cravens *et al.* (2004) sought to revisit the Jaworski *et al.* (1993) research by investigating its impact on salesperson consequences and replicated the findings.

In addition to these intra-organisational studies, the author has identified three inter-organisational studies examining the use of integrated controls. Oliver and Anderson (1995) researching control of sales representatives in the electronic components industry identify three control combinations- behaviour (process), output and hybrid - and their findings suggest that determining the right combination of control dimensions may be more important than trying to place a particular management control strategy into a fixed typology. Aulakh and Genctürk (2000) in their empirical study identify the combination of behaviour (process) and social control functioning as complements provides the best control strategy for controlling overseas agent performance. Heide *et al.* (2007) in their empirical longitudinal study of buyer-seller relationships in the building materials industry found that with the presence of a social contract (informal control) the opportunism they found associated with behaviour control was reduced, whilst the lower levels of opportunism they found when output control was used were reduced further.

4.3.1 Integrated Control Conclusions

Researchers have identified that the isolation of a single control type and/or mechanism does not accurately reflect the complete set of controls in operation (Jaworski *et al.* 1988). The simultaneous use of formal and informal controls in the form of output control, behaviour (process) control and social controls in inter-organisational partnerships has not been extensively researched. However, extant research has found the use of these control mechanisms in an integrated control strategy to reduce opportunism (Heide *et al.* 2007) and improve performance (Genctürk and Aulakh, 2007).

In the next section, the author will provide a summary of the extant control strategy research, identify relevant gaps and set out how the study will address these gaps.

4.4 CONTROL STRATEGY RESEARCH DISCUSSION AND CONCLUSIONS

In sections 4.2 and 4.3 the control mechanisms available to partners in long-term inter-organisational partnerships have been reviewed and their outcomes identified. The empirical

research providing evidence of the outcomes has been summarised in Table 4-4 and these outcomes have been used to identify control strategy research gaps, which will be used to develop the high level research model. This starts with behaviour (process) control.

Behaviour (process) control is characterised by active and involved management by principals who dictate what behaviours are expected/processes are to be followed, in order to achieve an organisations goals. These behaviours are actively monitored and the agent is rewarded for following them. Extant inter-organisational research has produced conflicting outcomes with behaviour (process) control having been found to have no performance effect (Bello and Gilliland, 1997; Aulakh and Genctürk, 2000), undermine performance (Murry and Heide, 1998) and not to motivate compliance with rules (Gilliland and Manning, 2002). In contrast, it has been found to foster performance and lower opportunism (Dahlstrom and Nygaard, 1999), positively impact on relationship flexibility (Aulakh and Genctürk, 2000) and be fundamental to inter-firm coordination (Celly and Frazier, 1996).

Whilst there has been no research specifically investigating the impact of behaviour (process) control on relationship quality, the reported positive findings in respect of inter-firm coordination and perceived relationship flexibility suggests this could be positive. Additionally, with only four studies investigating the performance affect - one identifying a positive impact, one negative and two neutral – the author is unable to confidently predict the impact. This study will therefore investigate both outcomes.

Research examining the role of output control in inter-organisational partnerships is limited. The performance outcomes are mixed with output control having been found to be detrimental to performance by increasing levels of opportunism and non-compliance (Aulakh and Genctürk, 2000; Dahlstrom and Nygaard, 1999; Heide *et al.* 2007). In contrast there is only one study that has found output control to enhance performance (Bello and Gilliland, 1997), thus the

performance affect merits further investigation. No extant research has investigated the impact of output control on relationship quality, a gap this study will also address.

Table 4-4 – Control Research Outcomes

Author/s	Date Published	Control Type	Channel	Outcome/s
Celly and Frazier	1996	Behaviour (process)	Supplier/distributor	Fundamental to interfirm coordination processes
Bello and Gilliland	1997	Behaviour (process)	Export manufacturers and foreign-based distributors	No performance effect
Murry and Heide	1998	Behaviour (process)	Manufacturer/Retailer	Undermined retailer performance
Dahlstrom and Nygaard	1999	Behaviour (process)	Franchisee/franchisor	Fosters performance and lowers opportunism
Aulakh and Genctürk	2000	Behaviour (process)	Principal/agent relationships in industrial export markets	No performance affect but positive impact on perceived relationship flexibility in inter-organisational exchanges.
Gilliland and Manning	2002	Behaviour (process)	Health Department/Restaurants	Does not motivate compliance with the rules
Celly and Frazier	1996	Output	Supplier/distributor	Fundamental to interfirm coordination processes
Bello and Gilliland	1997	Output	Export manufacturers and foreign-based distributors	Enhances performance
Dahlstrom and Nygaard	1999	Output	Franchisee/franchisor	Increases levels of opportunism
Aulakh and Genctürk	2000	Output	Principal/agent relationships in industrial export markets	Encourages deviant behaviour negatively influencing compliance
Dahlstrom and Nygaard	1999	Informal	Franchisee/franchisor	Increased partnership working and lower opportunism levels.
Jap <i>et al.</i>	1999	Informal	Buyer/seller	Creates confusion and damages relationships.
Aulakh and Genctürk	2000	Informal	Principal/agent relationships in industrial export markets	Positive affect on relationship flexibility and on agent performance
Jaworski <i>et al.</i>	1993	Integrated	Marketing Executives	Performance enhanced by simultaneous use of high levels of formal and informal controls
Oliver and Anderson	1995	Integrated	Employee/employer	Right combination of controls more important than trying to use a fixed approach.
Cravens <i>et</i>	2004	Integrated	Employer/Employee	Performance enhanced by

Author/s	Date Published	Control Type	Channel	Outcome/s
<i>al.</i>				simultaneous use of high levels of formal and informal controls
Gençtürk and Aulakh	2007	Integrated	Manufacturer/foreign distributor	Use of norms-based governance increases performance and satisfaction with distributor. Use of formal control and behavioural norms (informal control) fosters effectiveness of relationship between autonomous firms.
Heide <i>et al.</i>	2007	Integrated	Buyer/Seller Building Materials	Social controls used together with both behaviour (process) and output controls reduced opportunism.

Informal control refers to the shared pattern of values and beliefs that guide norms of behaviour within the organisation (Deshpande and Webster, 1989) and their use in controlling a relationship implies that a common understanding underscores the relationship (Achrol and Gundlach, 1999). The inter-organisational partnership informal control research base is also very limited with mixed outcomes reported. There has only been one study that examined the performance affect, which was found to be positive (Aulakh and Gençtürk, 2000). The impact on partnership relationship quality has been examined on three occasions with mixed outcomes reported. It has been found to have a positive affect on relationship flexibility (Aulakh and Gençtürk, 2000) and increase partnership working (Dahlstrom and Nygaard, 1999), however, it has also been identified to create confusion and damage relationships (Jap *et al.* 1999). This study will therefore examine both the performance and relationship quality outcomes.

The impact of an integrated control strategy on inter-organisational partnership performance is also unclear because of a dearth of reported research. Whilst a positive affect has been identified in intra-organisational settings, only a single study has identified the performance affect in inter-organisational setting (Gençtürk and Aulakh, 2007). This was found this to be positive and the author will seek to replicate this.

The impact of an integrated control strategy on the quality of the partners relationship has been examined indirectly in inter-organisational partnerships. The findings are positive with reductions in opportunism (Heide *et al.* 2007), more effective relationships (Genctürk and Aulakh, 2007) and increased satisfaction (Genctürk and Aulakh, 2007) having been identified. Unfortunately, this limited research base makes it difficult to predict outcomes with any degree of certainty and the author will therefore directly investigate the impact of an integrated control strategy on the quality of the partners relationship. .

Table 4-4 highlights that the extant research involved neither an inter-organisational partnership between the public and the private sectors, or a business services based partnership. This study is will therefore provide the first investigation of these constructs in these settings.

In the next Chapter (5) the author sets out his high level research and lower level operational models and the related hypothesis.

CHAPTER 5 - THE RESEARCH MODEL and RELATED HYPOTHESES

5.1 INTRODUCTION

The literature review (see Chapter 2) identified that in developing the right contractual arrangement and governance structure the partners approach should be informed by the Transaction Cost Economics (TCE) and Agency Theories. The TCE literature explores the interplay between three key transaction dimensions (asset specificity, uncertainty and frequency) and three main assumptions about human behaviour (bounded rationality, uncertainty and frequency) to determine how best to structure the governance arrangements and highlights the role of contract law in managing the partnership (see Chapter 2, Section 2.3.1). Whilst Agency Theory, examines the role of monitoring, compensation and socialisation in designing the relationship and provides guidance of how to structure the pay-performance relationship where a principal is designing a contract to govern a relationship with an agent (see Chapter 2, Section 2.5). Together, TCE and Agency theory provide partners with the theoretical base from which to build a framework for the management of the partnership.

The review of the inter-organisational partnerships management literature has identified that the choice of governance strategy (see Chapter 3) and the nature of the control strategy (see Chapter 4) will impact on performance. This emphasises the role that both formal and informal governance and control mechanisms play in managing partnerships and that sole reliance on either formal or informal mechanisms at the expense of the other (see Chapter 3, Sections 3.3.1 and 3.3.2 and Chapter 4, Sections 4.2.1 and 4.2.2) is unlikely to produce the best solution for partnership relations or performance.

This study is designed to examine the use of governance and control mechanisms in the management of long-term inter-organisational partnerships and will use local authority PFI projects, a subset of PPP projects as an appropriate research population. PPP's are a suitable research area given their growth, their emergence as important business services partnerships,

the increasing number of organisations and personnel involved in the management of long-term inter-organisational partnerships for the first time and the recognised need for guidance on how the chosen governance structure impacts of the partners relationship and on contractual performance.

In so doing, the relationships between the integrated governance and control strategies, integrated governance strategy and relationship quality and integrated control strategy and relationship quality, see Chapters 3.5 and 4.4 for discussion, which have apparently not been previously investigated will be examined. This will involve the author building on previous calls for further research in areas such as the use of formal and social governance mechanisms to determine the optimal governance solution (Geyskens *et al.* 2006). In the remainder of this Chapter the author will present the high level research model and related research hypotheses before presenting the lower level operational model and hypotheses.

5.2 THE HIGH LEVEL RESEARCH MODEL

The aim of the study (see Chapter 1, Section 1.3) is to establish a partnership management framework which supports high quality partner relationships and strong partnership performance. To achieve this, the partners must decide how best to structure their governance and control strategies. The review of extant integrated governance and control strategy research set out in Chapter 3, Section 3.5 and Chapter 4, Section 4.4 respectively, identifies the gaps in this, which have been used to develop the high level research model (see Figure 5-1).

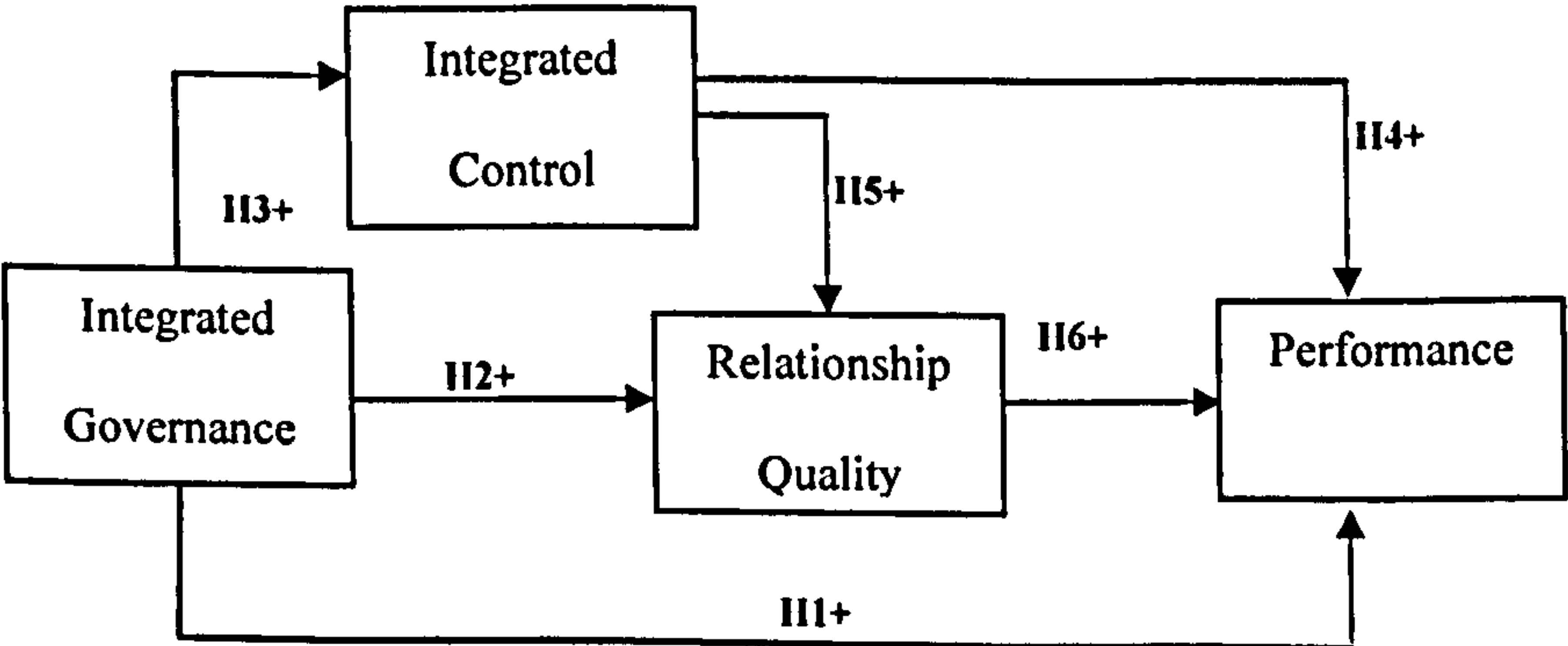


Figure 5-1 – The High Level Research Model and Hypotheses

Using this model, the author will investigate how their decisions impact on the quality of partner relationships and on partnership performance. To assist the reader, the author provides a brief overview of the integrated governance strategy, integrated control strategy and relationship quality constructs before presenting the rationale for the six hypotheses. This starts with Integrated Governance.

5.2.1 Integrated Governance Strategy

In general two types of governance strategy (Griffiths and Meyers, 2005) have been studied: economic governance strategies such as contracts (Lusch and Brown, 1996) and relational governance strategies such as relational norms (Haugland and Reve, 1993). The contract is a formal governance mechanism with relational governance classified as an informal governance mechanism. A review of the extant governance strategy research highlights this to have been divided between two research streams; one in which contracts and relational governance are viewed as substitutes and in the other they are seen as complements. For a detailed review of this research and the associated references (see Chapter 3, Section 3.5).

In this study the governance strategy comprises the simultaneous use of relational governance (comprising joint planning and joint problem solving dimensions) and explicit contracts in a reinforcing and complementary manner an approach the author has defined as an integrated governance strategy. The integrated governance strategy construct, its dimensions and components are shown in Figure 5-2.¹

By seeking to establish the impact of an integrated governance strategy on performance, relationship quality and integrated control strategy, this study is responding to the call by Rindfleisch and Heide (1997) for research to inform a discriminating theory of governance choice, to calls to explore the interaction effect of the concurrent use of contracts and relational

¹ The direction of the arrows in figures 5-2, 5-3 and 5-4 is explained in full in Chapter 7, Section 7.3.

governance (Gundlach and Achrol, 1999) and the need for a united governance framework encompassing economic and sociological perspectives identified by Luo (2002).

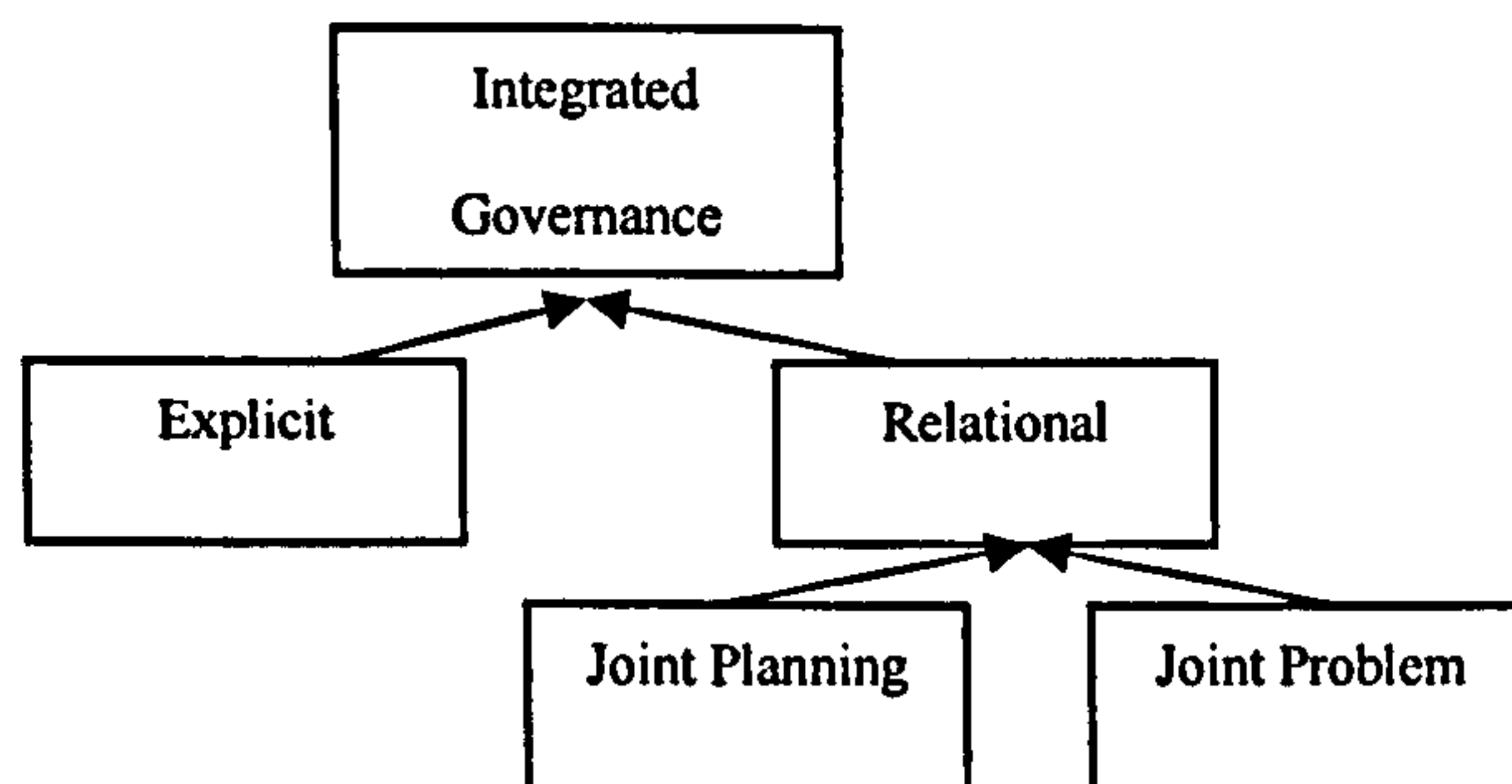


Figure 5-2 – The Integrated Governance Strategy Construct

5.2.2 Integrated Control Strategy

The control strategy literature which is reviewed in Chapter 4 confirms that organisation's tend to be more confident about partner cooperation when they feel an adequate level of control over their partners (Beamish, 1988, Sohn, 1994). In establishing this control, the partners can choose to deploy formal output or behaviour (process) controls (Jaworski, 1988; Ouchi and Maguire, 1975), informal social controls (Ouchi, 1979) or a combination of formal and informal controls (Cravens *et al.* 2004) used in a reinforcing and complementary manner. The use of formal and informal control mechanisms in this way has been defined by the author as an integrated control strategy. This construct and its dimensions are shown in Figure 5-3 and for a detailed review of the control mechanisms see Chapter 4.

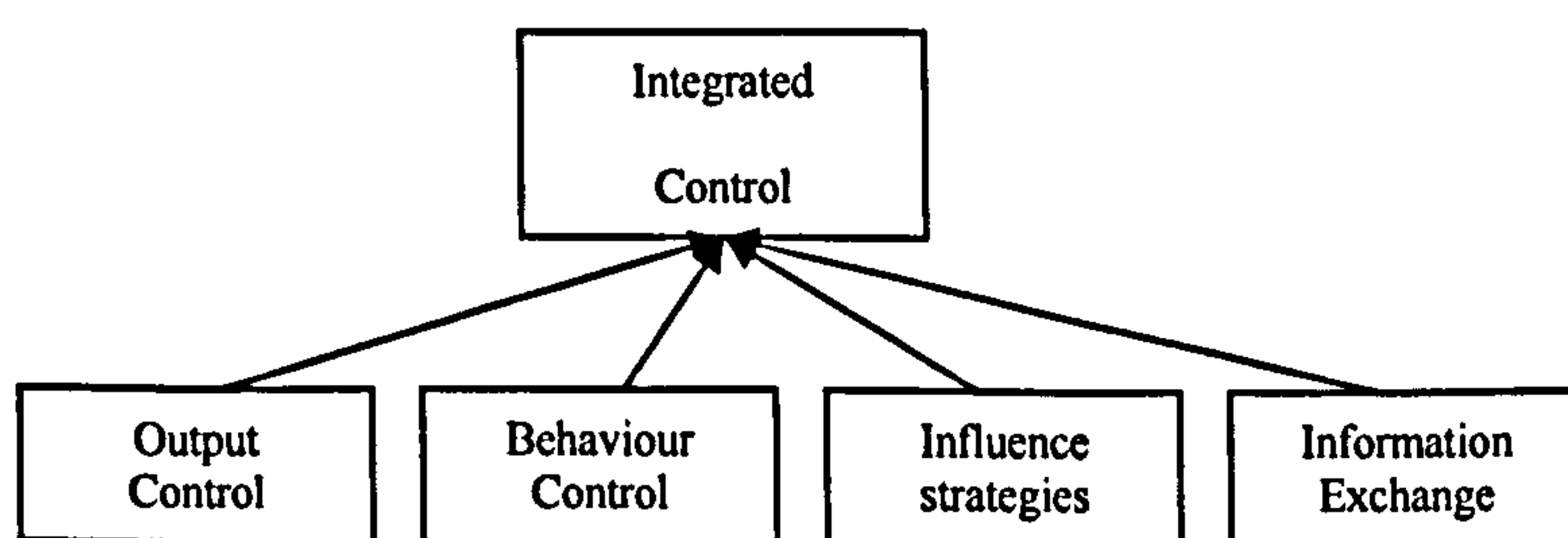


Figure 5-3 – The Integrated Control Strategy Construct

Despite the early recognition of the importance of not relying on a single control mechanism (Anthony, 1952), research examining the integrated use of formal and informal control mechanisms remains limited. This is evidenced by Gibbons (1999) who in his conceptual paper called for research to examine the complex interactions between formal and informal relationship elements. Since this call, the author has identified two empirically based studies

(Cravens *et al.* 2004; Heide *et al.* 2007) that have examined the use of multiple control mechanisms with both finding the integrated use of formal and informal control mechanisms as beneficial. The integrated control strategy in this study comprises the dimensions; output control, behaviour (process) control, influence strategy and information exchange. By exploring the relationship between integrated control strategy and performance the author will be adding to the single reported inter-organisational study. There has been no previous research that has directly explored the relationship between integrated control strategy and relationship quality.

5.2.3 Relationship Quality

The concept of relationship quality arises from theory and research in the field of relationship marketing (e.g., Crosby *et al.* 1990; Dwyer *et al.* 1987) in which the ultimate goal is to strengthen the customer relationship by building on existing strong relationships and converting indifferent ones to create loyal customers (Berry and Parasuraman, 1991).

Whilst there are numerous definitions and operationalisations of relationship quality (see Woo and Ennew, 2004; or Rauyruen and Miller, 2007 for good summaries) in this study the author has taken the phrase 'relationship quality' to represent an overall evaluation of the relationship. Thus those involved in the management of long-term inter-organisational partnerships seeking to build a strong and positive relationship would be expected to identify and employ activities and actions to achieve this.

Research examining the impact of relationship quality on performance confirms the partners' relationship does have a positive and significant impact on performance (Fynes *et al.* 2008) and that in seeking to optimise performance the partners should seek to secure a high quality relationship. However, the author has been unable to locate any research examining the relationship between integrated governance strategy and relationship quality or integrated control strategy and relationship quality.

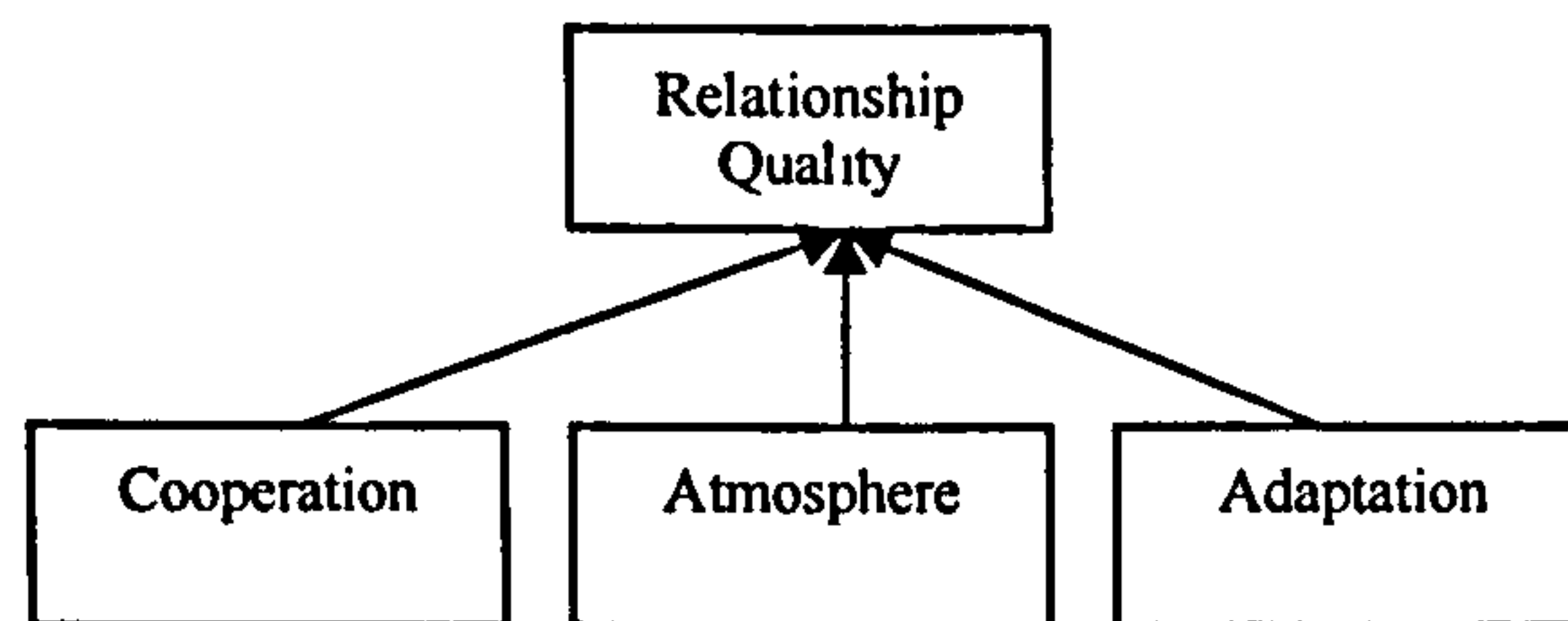


Figure 5-4 – The Relationship Quality Construct

The author has also not been able to identify any research that has explored the mediating role of relationship quality. The relationship quality construct and its dimensions are shown in Figure 5-4.

This conceptualisation will be utilised to examine the gaps highlighted above as well as seeking to replicate previous relationship quality and performance relationships. In the remainder of this section the logic and rationale for the research hypotheses, which are grounded from the discussion in Chapters 3 and 4, is provided. This starts with the direct relationship between integrated governance strategy and performance.

Hypothesis 1 - Integrated Governance Strategy → Performance

Where contracts and relational governance are viewed as substitutes the research findings about their individual impacts on performance are mixed. While the positive influence of relational governance on performance has been tested and confirmed (Bello *et al.* 2003; Claro *et al.* 2003) the link between contracts and performance is less clear. Luo (2002) found that contracts have a main effect on IJV performance through contractual completeness, whilst Lusch and Brown (1996) and Brown *et al.* (2006) have delineated the importance of examining contracts and suggest that if contracts are misused, performance outcomes and behavioural relations between buyers and sellers may be harmed. See Chapter 3, Section 3.3.1.

In contrast, Woolthuis *et al.* (2005) found that even where a detailed and extensive contract was in existence this was not necessarily sufficient to protect the interests of one partner. Particularly where this partner (the weaker of the two) chose not to enforce the contract because social considerations (reputation) and the shadow of the future made it undesirable to do so.

Contracts have also been found to be weak safeguards when environmental change prompts the renegotiation of formal agreements *ex post* Carson *et al.* (2006). Indeed, Cannon *et al.* (2000) and Ferguson *et al.* (2005) state exchange performance might decrease when detailed contracts are used and relational governance is not well developed.

In their complementary role, researchers have found that when explicit and relational governance mechanisms are used simultaneously advantage can be taken of their differential impacts to enhance their individual outcomes (Brown *et al.* 2000; Weitz and Jap, 1995). It has also established that the use of an integrated governance strategy has a positive impact on inter-organisational performance (e.g. Bello *et al.* 2003).

Poppo and Zenger (2002) found the relational governance and contractual complexity function as complements in explaining satisfaction with exchange performance. They found increases in the level of relational governance to be associated with greater levels of contractual complexity and increases in the level of contractual complexity to be associated with greater levels of relational governance. Indeed, contracts have been found to serve as the foundation for and consequently as a complement to relational governance (Cannon *et al.* 2000; Carson *et al.* 2006).

While high transactional uncertainty makes writing and administering contracts difficult, detailed contracts become useful mechanisms of governance provided they are embedded in a highly developed social relationship. The contract itself serves as the broad structural framework for the relationship and the basis of negotiating modifications and affecting adaptations when the need arises. Cooperative norms on the other hand provide the complementary apparatus for dealing with unforeseen contingencies.

Cannon *et al.* (2000) focused on legal contracts and relational norms as the two common governance mechanisms used as building blocks for complex structures of governance. These

findings provide persuasive support for those involved in the management of long-term inter-organisational partnerships to adopt an integrated governance strategy to optimise performance.

Hypothesis 1 – an integrated governance strategy is positively related to partnership performance.

Hypothesis 2 - Integrated Governance Strategy → Relationship Quality

In seeking to employ activities and actions to achieve a high quality relationship, the partners should be aware of the differing outcomes associated with contracts, relational governance and integrated governance. For example formal explicit contracts have been identified as signalling distrust, propelling opportunism and being ineffective in their ability to mitigate opportunism through decision control (Achrol and Gundlach, 1999; Ghoshal and Moran, 1996). However, they have also been found to have positive relational properties (Carson *et al.* 2006; Poppo and Zenger, 2002) though if misused behavioural relations between buyers and sellers may be harmed (Lusch and Brown, 1996; Brown *et al.* 2006).

Relational governance (see Chapter 3, Section 3.3.2) by its nature relies on relational norms to manage the partnership. Social exchange theorists contend that cooperation and its underlying normative behaviours operate as self enforcing safeguards that are more effective and less costly alternative to contractual design (Gulati, 1995; Uzzi, 1997). Sociologically, relational contracts are best enforced within a cooperative culture because there exist mechanisms that favour the creation of an internal norm of reciprocity (Granovetter, 1985).

This social norm of cooperation has also been identified as important by Claro *et al.* (2003) who state the decision to cooperate with others reflects the degree to which joint actions are established in a business relationship (Bensasou and Venkataraman, 1995; Heide and Milner, 1992). Norms of cooperation provide the flexibility that assists in mitigating exchange hazards under uncertainty and strengthens bilateral commitment to exchange-specific investments (Dyer and Singh, 1998; Liebeskind *et al.* 1996). However, Carson *et al.* (2006) found relational

governance is limited in its effectiveness where ambiguity exists as the ability to observe and evaluate opportunism is reduced and it is therefore difficult to invoke social sanctions.

Given these different characteristics, it is reasonable to conclude that the chosen governance strategy will impact on the quality of the partners relationship. This should happen regardless of whether the governance strategy relies on a contract, relational governance or an integrated governance strategy. However, despite the recognised importance of relational norms in the management of relationships (Macneil, 1983), the acknowledged advantages of integrating formal detailed/explicit contracts and relational governance mechanisms (Carson *et al.* 2006; Heide *et al.* 2007; Woolthuis *et al.* 2005) and the positive impact on the quality of relationships and the achievement of performance objectives (Poppo and Zenger, 2002), the impact of an integrated governance strategy on relationship quality has not been investigated.

In an integrated governance strategy relational governance provides a means through which the relationship can develop whilst the contract serves as the framework in which changes in contractual obligations can be negotiated in a cordial manner. It is therefore reasonable to conclude an integrated governance strategy should have a direct and positive impact on the quality of the partners relationship.

Hypothesis 2 – an integrated governance strategy is positively related to the quality of the partners relationship.

Hypothesis 3 - Integrated Governance Strategy → Integrated Control Strategy

In this study the integrated governance strategy represents the high level 'strategic' framework within which the partners manage the partnership. In contrast, the control strategy is used to determine whether the agent is delivering his/her contractual obligations and to manage the partners day to day operational activities. As with the governance strategy, the partners can combine formal and informal control mechanisms to create an integrated control strategy (Aulakh and Genctürk, 2000; Cravens *et al.* 2004; Heide *et al.* 2007; Jaworski *et al.* 1993).

In both governance and control strategy research (Genctürk and Aulakh, 2007; Heide *et al.* 2007) the use of an integrated strategy in which formal and informal (relational) mechanisms are used simultaneously has been found to directly and positively affect performance. However, the relationship between integrated governance strategy and integrated control strategy has not previously been examined. The underpinning theories (see Chapter 2) both emphasize the need for formal and informal mechanisms to be used in the management of partnerships. For example, whilst contracts help ‘flush out’ unspoken assumptions and create a genuine meeting of minds (Smitka, 1994) they also provide the framework within which the history of interaction and reinforcement for social norm development can take place (Gundlach, 1994).

A similar emphasis on the role of informal governance and control mechanisms is reported. Relational governance is defined as the strength of social norms present in the exchange and had been defined as relationalism (Ferguson *et al.* 2005). These norms can be structural, cognitive, political or cultural (Uzzi, 1997) and are defined as shared expectations regarding behaviour (Axelrod, 1986; Bendor and Mookerhejee, 1990; Gibbs, 1981). They have also been defined as bilateral expectations that exchange partners will act in ways that assist each other during the course of the relationship (Joshi and Campbell, 2003).

Informal control in the form of professional control is concerned with encouraging cooperation and information sharing amongst the parties, whilst cultural control refers to the pattern of shared values and beliefs that guide norms of behaviour within the organisation (Jaworski *et al.* 1993: p.58). Both are based on the common values that exist amongst parties (Granovetter, 1985; Ouchi, 1979) which serve as the basis for developing shared goals, flexibility, mutuality, toleration and other social patterns that guide the relationship (Black, 1998; Kaufman and Stern, 1988).

As both integrated governance and integrated control strategies have broadly similar characteristics and together provide the overall framework within which the partnership is

managed, it is reasonable to conclude that the partners should seek to align their governance and control strategies to maximise performance. It would also seem reasonable to conclude that inconsistencies between these strategies would impact on the partners relationship and that the partners would wish to avoid doing anything that adversely affected this.

Hypothesis 3 – an integrated governance strategy is positively related to an integrated control strategy.

Hypothesis 4 - Integrated Control Strategy—►Performance

Formal controls have been found to influence behaviour patterns by delineating clear boundaries and motivating compliance through a unilateral provision of information, supported by recognised authority (Bello and Gilliland, 1997). Behaviour (process) control it has been argued rewards long-term outlook by removing pressures and incentives to sacrifice long-term success for immediate results Aulakh and Genctürk (2000). Output controls have been found to enhance export channel performance and when deployed in conjunction with behaviour (process) controls to be fundamental to interfirm coordination Bello and Gilliland (1999).

Informal controls have been found to lead to improved partnership working, reductions in opportunism and improved performance (Dahlstrom and Nygaard, 1999; Aulakh and Genctürk, 2000). However, Anthony (1952, 1988) and Jaworski (1988) have identified the isolation of a single type of control does not accurately reflect the complete set of controls in operation and that doing so is unnecessarily limiting. For example, Brown *et al.* (2000) and Weitz and Jap (1995) found that when formal and informal control mechanisms are used simultaneously advantage can be taken of their differential impacts to enhance their individual outcomes. This is because formal controls can play a role in shaping the informal system and that management initiated formal controls can operate in conjunction with informal controls to yield desired outcomes Jaworski (1988).

The simultaneous use of formal and informal controls has been found to support higher job satisfaction, lower ambiguity and conflict, higher organisational commitment, coordination and improved performance in intra and inter-organisational partnerships (Aulakh and Genctürk, 2000; Cravens *et al.* 2004; Jaworski *et al.* 1993; Heide *et al.* 2007).

Since Gibbons (1999) call for research to examine the complex interactions between formal and informal relationship elements, the author has identified two empirically based studies (Cravens *et al.* 2004; Heide *et al.* 2007) that have examined the use of multiple control mechanisms, of which only Heide *et al.* (2007) investigated an inter-organisational integrated control strategy and its impact on partnership performance. Heide *et al.* (2007) confirmed a direct and positive performance impact, which this study will seek to replicate.

Hypothesis 4 – an integrated control strategy will be positively related to partnership performance.

Hypothesis 5 - Integrated Control Strategy → Relationship Quality

Ouchi (1979) who focused on each control mechanism independently acknowledged that the problem of organisational design is to discover the balance of socialisation and measurement (control) which most effectively permits a particular organisation to achieve cooperation among its members. The same applies to those managing inter-organisational partnerships where the choice of control strategy (formal, informal or integrated) can be expected to impact on levels of cooperation.

However, research examining the impact of the control mechanisms reports inconsistent outcomes. For example, formal control has been recognised being of limited effectiveness for building trust (Sitkin and Roth, 1993) and for reducing an agent's sense of autonomy (Churchill *et al.* 1990), whilst at the same time facilitating trust (Sitkin, 1995) and serving as the basis for trust (Goold and Campbell, 1987). Formal controls have also been found to facilitate coordination through informal means, creating a sense of shared purpose that can motivate and

guide participants and minimise conflict between them Ghoshal and Moran (1996). These controls have been found to lead to; improved partnership working, reductions in opportunism and improved performance (Aulakh and Genctürk, 2000; Dahlstrom and Nygaard, 1999). In inter-organisational partnerships informal controls have been found to provide a supportive environment for partner firms (Doz, 1996), to strengthen relationships (Dahlstrom and Nygaard, 1999) and have a positive effect on relationship flexibility (Aulakh and Gencturk, 2000). However, they have also been found to create confusion and damage relationships (Jap *et al.* 1999).

Research examining integrated control strategies has identified a positive influence on performance (Cravens *et al.* 2004; Genctürk and Aulakh, 2007), satisfaction with a partner (Genctürk and Aulakh, 2007), reductions in opportunism (Heide *et al.* 2007) and the fostering of effective relationships between autonomous firms (Genctürk and Aulakh, 2007).

Given these differing outcomes, it is reasonable to conclude that the chosen control strategy will impact on the quality of the partners relationship and that this should happen regardless of whether the control strategy relies on formal controls, informal controls or uses an integrated approach. In particular, the positive outcomes linked to the use of an integrated control strategy suggest there should be a positive impact on the quality of the partners relationship. However, the author has been unable to identify any research examining the impact of an integrated control strategy on the quality of the partners relationship. This research is therefore designed to examine this gap in control strategy research by extending the limited extant integrated control research.

Hypothesis 5 – an integrated control strategy is positively related to the partner's relationship quality

Hypothesis 6 - Relationship Quality → Performance

Smith (1998: p.4) defines relationship quality in terms of the strength of the relationship outcomes when he says, 'relationship quality is a higher order construct comprised of positive relationship outcomes that reflect the overall strength of the relationship and the extent to which it meets the needs and expectations of the parties.' One logical positive outcome would be performance and extant research confirms that performance in inter-organisational partnerships is a significant outcome of relationship quality (e.g., Fynes *et al.* 2008). Where relationship quality is high, improved performance has been found (Jap *et al.* 1999; Rosseau, 1995) and satisfaction with the relationship (Cannon *et al.* 2000; Woo and Ennew, 2004), sales effectiveness (Huntley 2006) and service quality (Boles *et al.* 2000) have also been identified as being significant outcomes of relationship quality.

Research examining the impact of relationship quality on performance confirms that the partners relationship does have a positive and significant impact on performance and that in seeking to optimise performance the partners should seek to secure a high quality relationship. However, the author has only been able to limited research studies (e.g., Cannon *et al.* 2000; Claro *et al.* 2003; Fynes *et al.* 2008, Poppo and Zenger, 2002 and Woo and Ennew, 2004) where inter-organisational partnerships formed the research setting. This study therefore seeks to add to this limited evidence.

Hypothesis 6 –the quality of the partners relationship is positively related to partnership performance.

5.3 THE LOW LEVEL OPERATIONAL MODEL

There is general agreement that when examining multiple structural relationships (as in this case) the researcher should compare rival or competing models rather than testing a single model (Bollen and Long, 1993). In this study, the research model has been disaggregated and

comprises lower order dimensions of the research model constructs. This will provide the author with a narrower area of generalisation and greater accuracy.

The lower level operational model (see Figure 5-5) comprises 12 constructs generating 53 hypotheses all of which are based on the same logic and have the same signs as the research model.

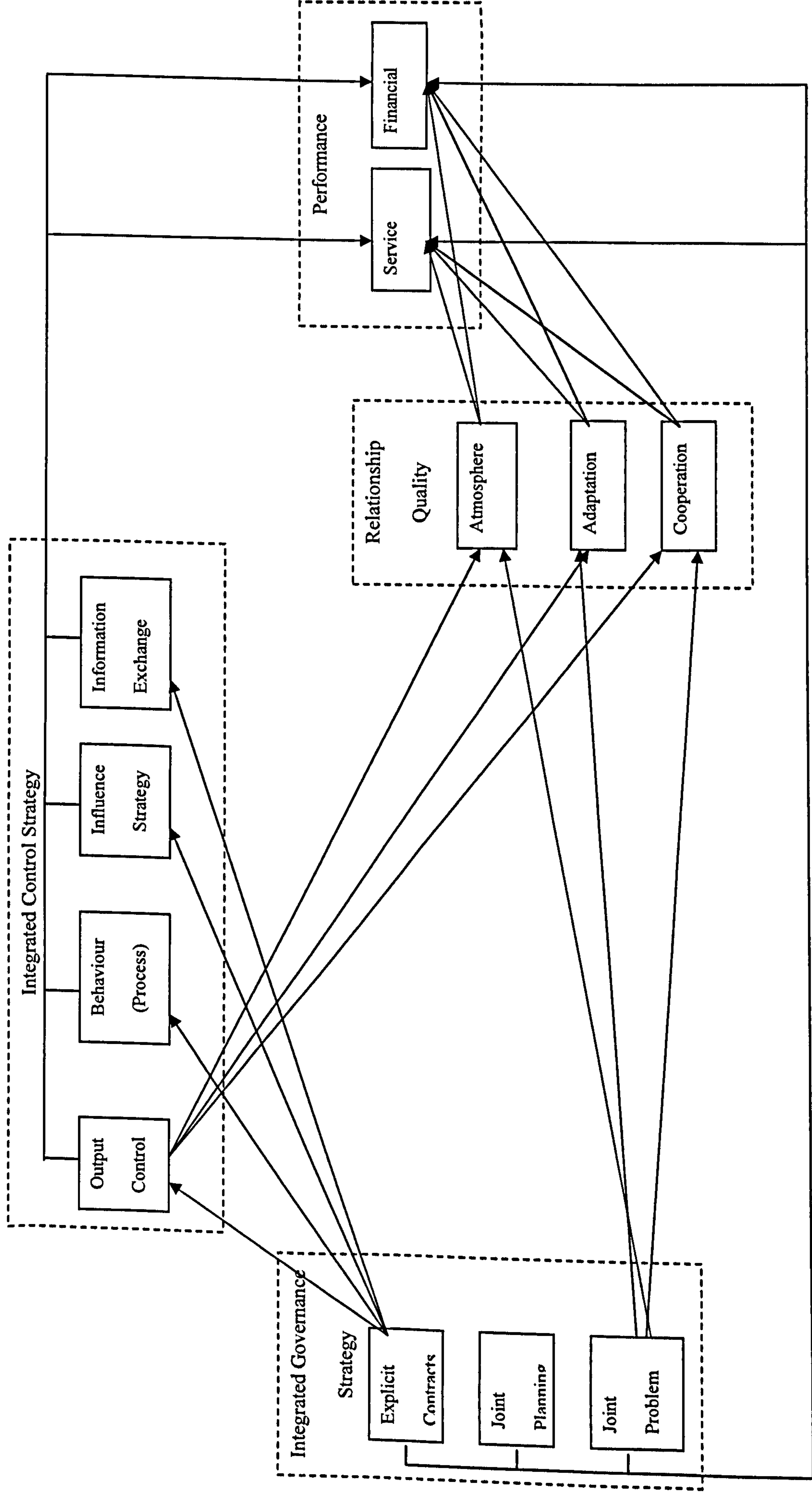


Figure 5-5 – The Low Level Operational Model

Note: For clarity not all pathways have been shown between the Integrated Governance and Integrated Control Strategies and between Integrated Control Strategy and Relationship Quality. Those missing would have the same construct pathways and direction as those shown.

CHAPTER 6 - RESEARCH METHODOLOGY (1)

6.1 INTRODUCTION

Having developed the research model, the author’s next challenge was to review the available research design options that together serve as the framework for the data collection and analysis activity needed to test the research model. In so doing the author chose the framework developed by Sekaran (2003) to ensure that the relevant methodological issues received an appropriate level of consideration. The framework components are explored in full Chapters 6, 7 and 8. In this Chapter 6, the six shaded cells in Figure 6–1 are debated to demonstrate the reasoning that shaped the chosen research methodology. This process starts with the review of the ‘Purpose of the Study’ component.

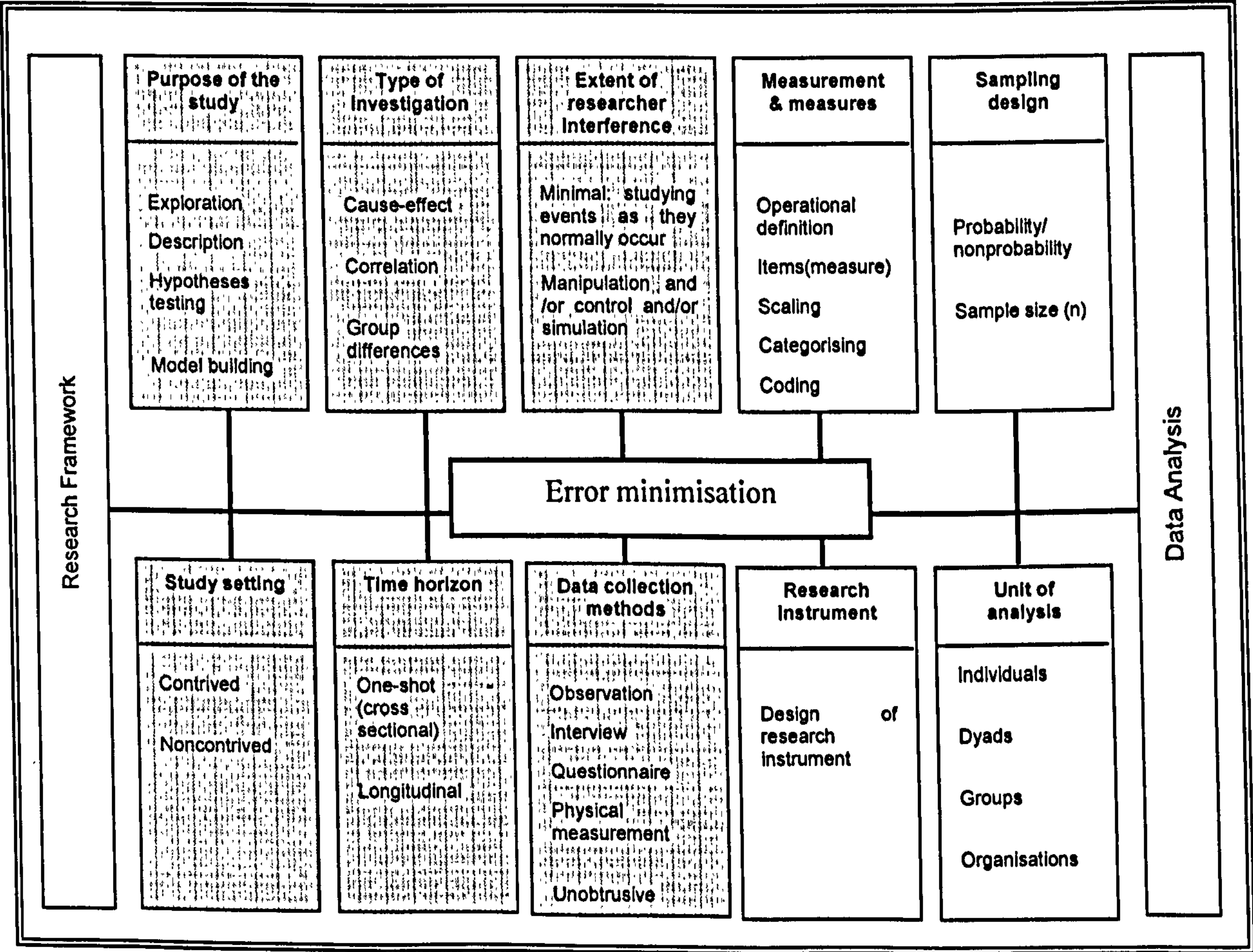


Figure 6-1 - The Research Process (i)

Source: Sekaran (2003) “Research Methods for Business: A Skill Building Approach”, 4th ed., New York, John Wiley and Sons Inc.

6.2 PURPOSE OF THE STUDY

Given the study aim and objectives the three basic research types employed to investigate the management of long-term inter-organisational partnerships were; exploratory research, hypothesis testing and model building (Kinnear and Taylor, 1996; Malhotra 2003; Churchill and Iacobucci, 2004). The study specific purpose and scope of each of these is discussed in the sections below.

6.2.1 Exploratory Research

Prior to the main field study, exploratory research designed to shape the direction, structure and operationalisation of the research model (Churchill and Iacobucci, 2004) was undertaken. Exploratory research as described by Kent (1999) was employed to achieve the following:

- 1) Increase the author's familiarity with the topic under investigation, i.e., issues related to the management of long-term inter-organisational partnerships;
- 2) Diagnosis, analysis and evaluation of the nature of the research problem;
- 3) Establish study priorities and objectives, i.e., initial investigation addressing the operationalisation of the research model was required before it was possible to decide which particular issues merited further investigation;
- 4) Provision of information related to practical problems involved with the research, such as determining issues of data collection. This was a significant issue in this research and is discussed in detail in Chapter 8, Section 8.4;
- 5) Ideas, insights and suggestions for hypotheses that could be tested.

In this study, the exploratory phase involved a thorough review of extant literature, desk research and in-depth expert interviews. The literature review provided the author with an understanding of the relevant underpinning theories, highlighted gaps and limitations in the extant literature, provided the grounding necessary to develop a research model and associated hypotheses and clarified the data analysis methods used by previous inter-organisational

partnership management researchers. The desk research phase was used to identify a population database and to establish and verify contact details.

In view of the complexity of the subject matter, prior to the commencement of the field research/data collection activity, face-to-face interviews were conducted with 'expert informants'. The Collins English Dictionary (2000) defines 'experts' as persons who have extensive skill(s) or knowledge in a particular field. The decision to seek information from experts is in line with Dutta *et al.* (1997) assertions on the importance of soliciting expert opinions and perceptions. The 'experts' were particularly helpful when exploring the research constructs, dimensions, components and the operationalisation of these.

6.2.2 Hypothesis Testing

The examination of relationships between the research constructs forms a central part of this study (see Chapter C1). Given the development of related hypotheses and the quantitative nature of the enquiry, it can be concluded that this research follows a hypothetico-deductive approach.

6.2.3 Model Building

Following the testing of the high level research and lower level operational models, normative guidelines for the management of long-term inter-organisational partnerships will be proposed. It is envisaged these guidelines will improve the information available to managers about the impact of their governance and control strategy choices on the quality of their relationship and partnership performance. These normative guidelines will be proposed on the assumption that the design of long-term inter-organisational partnership governance frameworks is a rational process.

6.3 TYPE OF INVESTIGATION

Authors such as Sekaran (2003) and Bryman and Bell (2007) posit that a researcher should determine whether a causal or a non-causal study is needed to answer the research question(s). Causal investigations are employed when the aim is to establish a 'cause-effect' relationship. In research where the purpose is to identify associations between relevant factors/constructs a correlation investigation is employed. Although the basis of this study is the examination of cause-effect relationships, due to the lack of control over events, the author cannot be certain that the relationships uncovered are 'true'. Instead, the independent variables are viewed as affording plausible explanations of the dependent variable, attributing an *ex post* factor classification to this investigation (Sekaran, 2003; Churchill and Iacobucci, 2004).

6.4 STUDY SETTING AND EXTENT OF RESEARCHER INTERFERENCE

The research was carried out in the English local authority PFI domain and took in the following sectors: housing, schools, waste, leisure and transport. No manipulation of the external factors was involved, it took place within a non-contrived setting, the researcher could not influence information transfer or management decisions and did not manipulate events, which were tested as they normally occur. Accordingly, there was no researcher interference.

6.5 TIME HORIZON

Studies can be either cross-sectional (i.e., data represent a snapshot of the research issues at a single point in time), or longitudinal (i.e., data are collected at two or more points in time; Sekaran, 2003). The ability of a cross sectional study to detect change is weaker than a longitudinal one as results from a cross-sectional study only provide indirect evidence of the causal relationships between variables at a point in time.

Despite this leading to lower research accuracy than would be the case from a longitudinal study (Malhotra, 2003), the author's limited resource and time availability meant a cross-

sectional approach had to be adopted. This has been identified as one the research limitations in Chapter 1, Section 1.5 and in Chapter 11, Section 11.2.

6.6 DATA COLLECTION METHODS

To present a clear explanation of the data collection methods used, this section is sub-divided into the exploratory research phase and the field research/data collection stages.

6.6.1 Exploratory Research

The exploratory stage of the research process consisted of a thorough review of extant academic literature, examination of other forms of published material, personal observations and face to face interviews. This approach allowed the author to identify issues relevant to the study that needed further clarification and elaboration, for example; the nature of relational governance.

In order to improve his understanding of these issues the author engaged in qualitative research, which can involve the use of techniques such as; ethnography/participation observation, qualitative interviewing, discourse and conversation analysis and analysis of qualitative texts and documents. In choosing which of the qualitative techniques was most appropriate for this study, the author reviewed the strengths and drawbacks of these techniques (see de Vaus, 2007 for a review) and chose to utilise semi-structured face-to-face in-depth interviews also referred to as ‘experience surveys’ and ‘key-informant surveys’ (Churchill and Iacobucci, 2004).

Interviews were undertaken with six ‘expert informants’ to explore the possible research constructs and measures. The interviewees, who were from the public and private sectors, were all senior PFI practitioners responsible for the management of English local authority PFI projects. See Table 6-1 for a brief profile of the ‘experts’.

Table 6-1 – Profile of Expert Informants

Interviewee Number	Respondent Profile
1	Chairman of a private sector company Board, responsible for the delivery of PFI projects.
2	Director of private sector company, responsible for the delivery of PFI projects.
3	Director of English local authority whose department managed PFI projects.
4	Management consultant expert in the field of public private partnerships.
5	Private sector senior manager with direct responsibility for management of an English local authority PFI project.
6	Public sector senior manager with direct responsibility for management of an English local authority PFI project.

Background information about the study was issued to the interviewees in advance of the meeting so that they could familiarise themselves with the content prior to the meeting. The interviews, which were scheduled to last for approximately one hour, involved a discussion about the governance and control constructs, their associated dimensions and components and the content of the relevant scales to establish if these were appropriate and/or whether other constructs/dimensions should be included or excluded.

6.6.2 Field Research and Data Collection

The three factors to be considered in designing the field research are; which of the primary data collection methods to use, how the chosen collection method will be administered and the approach to communication in so doing. A brief review of the alternatives available to the author in each area is presented and the chosen approach identified in the remainder of this Chapter.

6.6.3 Data Collection Method

In arriving at a conclusion about the most appropriate data collection approach, the author has reviewed the suitability of the most widely used data collection methods, which in quantitative marketing research are survey, observation and experimentation (McDaniel and Gates, 2005). For this study, following a review of the merits (e.g., cost and use in domain) and drawbacks (e.g., measurement and response bias) of these quantitative data collection techniques (see de Vaus, 2007 for an evaluation) the survey method was considered to be the most appropriate.

6.6.4 Mode of Survey Administration

Four basic modes of survey administration; personal interviews, phone interviews, mail surveys and various electronic types of administrative survey have been identified by Malhotra (2003) and Churchill and Iacobucci (2004).

Each of these administration modes was examined to identify its benefits (e.g., confidentiality and cost) and drawbacks (e.g., response rates and control) (Bryman and Bell, 2007) and the extent to which drawbacks could be ameliorated by careful research design and pre-research planning assessed. On completion of this exercise, the author considered the use of a mail survey to be the most appropriate of the survey administration modes.

6.6.5 Communication Method

The mail survey was designed and administered as a structured-undisguised communication method. The reasons for adopting this approach were:

- **Degree of structure** - This refers to the degree of standardisation imposed on the questionnaire (Churchill and Iacobucci, 2004). In this study the questions were primarily of a closed nature and scaled responses were required. See Appendix 1 for a copy of the questionnaire.
- **Amount of disguise** - This relates to the extent to which the respondent is aware of the underlying purpose of the research (McDaniel and Gates, 2006). In this research it was believed that by stating the purpose of the research at the outset, the respondents would be in a better position to provide accurate and relevant answers (McDaniel and Gates, 2006). Consequently, the respondents were informed of the purpose and legitimacy of the study both during the telephone call seeking their agreement to participate and in the covering letter accompanying the questionnaire.
- **Respondent targeting** - The name of each of the respondents was included as part of the postal address. Directing the questionnaire to a named respondent helps increase/improve the response rate, as it is most likely that the questionnaire will reach the person in the best position to complete it (Dillman,

2000). All the addresses were laser-printed for legibility and for professional appearance (Greer and Lohtia, 1994).

- **Letterhead** - Kingston Business School letterhead was used for the cover letter to give the questionnaire package a formal/professional look (Taylor and Lynn, 1998). The covering letter was laser printed and was restricted to one page for impact. It explained the purpose of the survey, highlighted the limited number of respondents with the relevant level of expertise and underlined the importance of the respondent's reply. It also assured the respondent of complete confidentiality (Faria and Dickinson, 1996). Each letter was signed as an act of personal attention towards the respondents and included a single page providing instructions on how to complete the questionnaire. See Appendix 2 for a copy of the letter and page of instructions.
- **Identifying the questionnaire** - Each questionnaire had an Identification Number for record-keeping purposes. The Identification Number was unique to each questionnaire so that its completion/non-completion could be tracked and non-response bias analysis could be carried out. The Identification Number was positioned in the top right-hand corner of the questionnaire so that should a respondent wish to remove it this would not affect questionnaire responses.
- **Incentives** - Inducements have commonly been offered within research studies to help increase the response rate (Church, 1993). However due to the academic nature of the study no tangible paybacks could be offered to avoid the possibility of a response bias. Instead, a 'survey summary report' was promised to each respondent.
- **Posting of the questionnaire** - All questionnaires were posted by first-class post on the day the respondent agreed to participate. This approach was adopted to ensure the questionnaire arrived as quickly as possible after receiving the respondent's agreement to participate.
- **Questionnaire return-envelopes** - Pre-addressed, postage-paid and self-adhesive envelopes were enclosed as a part of the questionnaire pack. The absence of return envelopes has been reported to have a negative effect on the response rate (Dillman, 2000).
- **Follow-up mailing** – Questionnaires were only issued when a respondent agreed to participate which meant that the mailing of questionnaires took place over a nine month period between July 2006 and March 2007. If after one calendar month a questionnaire had not been returned a follow-up telephone call was

made. If the respondent agreed to complete a questionnaire a replacement questionnaire and instructions for completion were issued. A total of 126 questionnaires were issued of which 13 were replacements. If no reply was received after issue of the replacement questionnaire it was assumed the respondent did not want to participate and no further questionnaire was issued.

CHAPTER 7 - RESEARCH METHODOLOGY (2)

7.1 INTRODUCTION

Long-term inter-organisational partnership management constructs such as governance and control strategy are usually latent and incapable of being physically observed or directly quantified. However, manifest variables linked to the underlying theoretical construct(s) are quantifiable and measurable and are assumed to represent indicators of the latent construct. Thus the measurement of marketing constructs is the process of linking abstract concepts to empirical indicators.

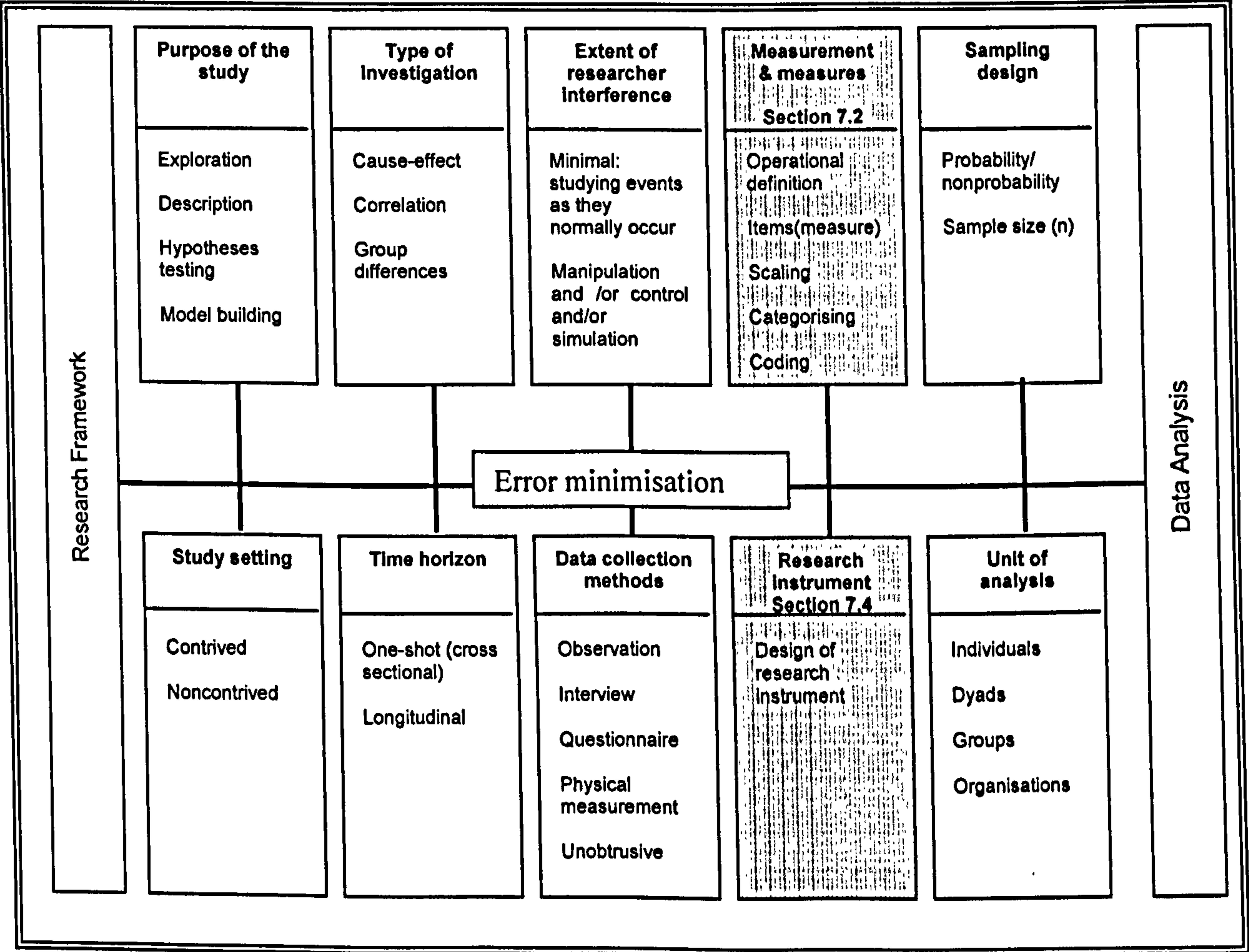


Figure 7-1 - The Research Process

Source: Sekaran (2003) “Research Methods for Business: A Skill Building Approach”, 4th ed., New York: John Wiley and Sons Inc. (p. 93)

Where this is successfully achieved, the measures will effectively express related theoretical concepts (*validity*) and will demonstrate consistency when repeated over time (*reliability*). The shaded portions in Figure 7-1, measurement and measures and research instrument, depict the issues debated in this Chapter.

7.2 MEASUREMENT AND MEASURES

Before a research instrument can be formulated, a set of robust measures must be developed. This requires a systematic approach, the aim of which is to derive scale items that capture and reflect the underlying construct as fully as possible whilst avoiding redundancy and to ensure the items reflect the underlying construct and not some other, similar, but distinct construct (Lee and Hooley, 2005).

The starting point for this search was the identification of the constructs to be investigated in the study. Having identified these, the author then discussed his approach with academic experts familiar with the research area. The next step was to carry out a search of the literature examining the management of long-term intra and inter-organisational partnerships (see Chapters 3 and 4) in order to identify how these constructs had been previously operationalised.

In so doing the author was aware of the caveats linked to the usage of coefficient alpha the best known of which relates to the number of items in the scale to be tested (Lee and Hooley, 2005). 'Specifically, as an artefact of the alpha formula itself, coefficient alpha will increase as the number of items increases *ceteris paribus* (Hair *et al.* 1998). So in other words regardless of the level of internal consistency achieved by a scale, if enough items are present the alpha will be high.' (Lee and Hooley, 2005, p.371). Coefficient alpha is also downwardly biased when few items are present in a scale and the bias at low item numbers is more pronounced than at high. Given these concerns, the author sought to identify an appropriate sample of items to:

- Ensure that the final set of items use captured or reflected the underlying construct as fully as possible, but without redundancy; and
- Ensure that the items really do reflect the underlying construct and not some other, similar but distinct construct.

These issues were actively considered when reviewing the construct dimensions and component scales used in published studies such as; Aulakh and Genctürk (2000); Claro *et al.* (2003); Frazier and Summers (1986); Heide and John (1992); Jap and Ganesan (2000); Jaworski *et al.* (1993); Woo and Ennew (2004) in order to achieve scales with not less than three indicators and not more than six.

On conclusion of the literature search phase the author had established a long list of possible scale items which were subsequently examined during meetings with industry experts. These meetings were designed to assess the suitability of the scale items for this study and the expert responses were central to the contextualisation of the scale items and the wording of the measures. Where appropriate the scale items were amended and almost all required some adaptation and/or contextualisation for this study. The original statements (and their source), along with the proposed scale measures and the nature of the Likert scales employed are shown at Appendix 3 and the research questionnaire containing the final statements can be found at Appendix 1. The operationalisation of the research constructs is discussed below, starting with integrated governance strategy.

7.2.1 Integrated Governance Strategy

The term governance has been defined by Palay (1984, p.265) as, ‘a shorthand expression for the institutional framework in which contracts are initiated, negotiated, monitored adapted and terminated.’ For a governance mechanism to emerge and thrive it must address the problems of adapting, coordinating and safeguarding exchanges more efficiently than other governance mechanisms (Williamson, 1991).

The two dominant governance mechanisms were contracts and hierarchies (see Chapter 3, Section 3.2), which respectively gave one partner no or full control over the other partner. However, as organisational relationships based on neither market or hierarchical transactions emerged, recognition and acceptance that a variety of governance mechanisms exist between the two extremes gathered momentum. Williamson (1991) defined these transactions as ‘hybrids’ and those involved in these transactions were faced with establishing a governance

approach that provided them with the means to address the problems of adapting, coordinating and safeguarding the exchange.

To do so, the partners could employ formal economic governance mechanisms such as contracts (Lusch and Brown, 1996), a relational governance approach based on relational/social norms (Haughland and Reve, 1993) or a combination of both governance mechanisms to complement and reinforce each other Genctürk and Aulakh (2007). In seeking to establish which of the alternatives provided the best solution two competing research streams emerged. In one contracts and relational governance were seen as substitutes (e.g., Dyer and Singh, 1998; Woolthuis *et al.* 2005), whilst in the other they were considered to be complementary (e.g., Bergen *et al.* 1995; Carson *et al.* 2006).

The body of research promoting the complementary approach as the better institutional framework within which to govern long-term partnerships has grown significantly (see Chapter 3, Section 3.4). This body of evidence together with the calls to develop a discriminating theory of governance choice (Rindfleisch and Heide, 1997) and identification of the need for a united framework encompassing economic and sociological perspectives (Luo, 2002) led to the author choosing to investigate an integrated governance strategy construct comprising of two dimensions: explicit contracts and relational governance.

Explicit Contracts

A review of extant inter-organisational long-term partnership research established there have been a small number of research studies, (e.g., Cannon *et al.* 2000, Lusch and Brown, 1996 Poppo and Zenger, 2002) where the use of contractual governance (explicit contracts) has been examined. The approach to measuring the existence of an explicit contract has varied significantly, with Lusch and Brown (1996) using two three item scales, Cannon *et al.* (2000) and Jap and Ganesan (2000) using a single three item scale and Poppo and Zenger (2002) a single item scale.

The Poppo and Zenger (2002) single item scale was discarded because it contained only one item and did not examine the role of the contract in managing the partnership, rather seeking to establish to what extent it was customised and required considerable legal work and the suitability of the others considered. The Lusch and Brown (1996) measures were designed to capture the extent to which the contract detailed the partners' roles as well as how it dealt with unexpected events. In the Cannon *et al.* (2002) research the measures were designed to identify the extent to which supplier and vendor relationships were formalised and where the partner roles were formally detailed. In contrast, the Jap and Ganesan (2000) sought to establish the role of the explicit contract in the management of the relationship. As PFI Public Private Partnership projects are always based on a detailed explicit contract and this study was designed to identify the way in which this contract was used in the management of the partnership, the Jap and Ganesan (2000) scale was considered the most relevant.

The following three (3) items were borrowed from Jap and Ganesan (2000) and were contextualised for this study with responses based on a seven point Lickert scale in which the anchors were 1 = Strongly Disagree and 7 = Strongly Agree.

1. Our partnership is governed predominately by the written contract – This item measures the degree to which the partners use the written contract to manage their relationship.
2. The only way we communicate effectively with our partner is when everything is formally spelt out in detail – This item measures the extent to which the partners use formal and informal communication methods.
3. We have developed ways of working with our partner not identified in the written contract (R) – This identifies the extent to which the partners are not reliant on the content of the explicit contract to manage their relationship.

Relational Governance

A review of the inter-organisational long-term partnership research established there have been a number of studies (e.g., Brown *et al.* 2000; Cannon *et al.* 2000; Claro *et al.* 2003; Poppo and Zenger, 2002) which have investigated the use of relational contracting/relational governance

as a mechanism for the management of long-term partnerships. In seeking to conceptualise this Brown *et al.* (2000) and Poppo and Zenger (2002) used relational norms, Cannon *et al.* (2000) used cooperative norms and Claro *et al.* (2003) joint planning and joint problem solving.

As indicated in the explicit contracts section, this study was designed to identify how available governance mechanisms are used to manage long-term inter-organisational partnerships and exploring whether joint planning and joint problem solving were in use, as opposed to whether relational norms such as cooperation which are likely to underpin these activities (Bensaou and Venkatraman, 1995; Heide and Miner, 1992) was considered the most appropriate approach to operationalisation. To this end, the relational governance construct is made up of two dimensions; Joint Planning and Joint Problem Solving. The Joint Planning scale comprises three (3) items and Joint Problem Solving scale four (4), all of which were borrowed from Claro *et al.* (2003). The Joint Planning scale originally comprised four measures, however, following discussions with industry experts this was reduced to three by removing the non-relevant measure related to sales forecasts, not a feature of PFI projects where services are delivered for a fixed price agreed at the commencement of the contract. The remaining measure statements were contextualised for this study and responses were based on a seven point Lickert scale in which the anchors were 1 = Strongly Disagree and 7 = Strongly Agree.

Joint Planning - The three scale items are:

1. As partners we share our short term plans with each other – This measures the degree to which the partners communicate their short term plans.
2. As partners we meet regularly to review our plans and assess their impact on partnership performance – This aims to measure how closely the partners work together to review and evaluate their plans and how these might/will impact on performance.
3. As partners we share our long-term plans with each other - This measures the degree to which the partners communicate about their long-term plans.

Joint Problem Solving - The four scale items are:

1. As partners we work together to benefit the partnership as a whole – This aims to measure the degree to which the partners work as a team to improve the partnership.
2. As partners we work together to solve problems affecting the partnership – This measures the extent to which the partners treat problem solving as a joint responsibility.
3. As partners we do not mind owing each other favours – This measures whether the partners relationship is of sufficient strength not to require any act to be immediately reciprocated.
4. In most aspects of our partnership responsibility for getting things done is shared – This measures the degree to which the partners accept joint responsibility for taking action.

7.2.2 Integrated Control Strategy

Tannenbaum (1968) identified control as an important concept in management with its major function being to bring about conformance with organisational requirements and achievement of the organisation's ultimate purpose. Beamish (1988) and Sohn (1994) identified that organisations tend to be more confident about partner cooperation when they feel they have an adequate level of control over their partners. In the context of this study, examining the management of long-term inter-organisational partnerships, the Child and Faulkner (1998) view of control as the process by which a partner influences the behaviour and output of other partners has been adopted.

The components of the integrated control strategy construct have been widely researched and were identified as comprising formal and informal controls (Chapter 4, Section 4.3). The former has been found to be made up of the dimensions output and behaviour (process) control (Jaworski, 1988) with the latter being based around the social/clan approach identified by Ouchi, (1980).

Like governance strategy, researchers have viewed formal and informal controls as either substituting for each other (Ouchi, 1979) or as being used in a complementary manner

(Cravens *et al.* 2004). However, over time it has been accepted that the use of one in isolation of the other does not produce the best outcomes and that a control strategy where both are used in a complementary and reinforcing way is the most appropriate (Heide *et al.* 2007). However, research into the use of formal and informal controls in this reinforcing and complementary manner remains limited (e.g., Genctürk and Aulakh, 2007) with only two studies identified in the management of long-term inter-organisational partnerships literature. Heide *et al.* (2007) have called for further research into this complementary use and this study seeks to advance this area of research.

Formal Control

Gencturk and Aulakh (1995: p.757) define formal controls as, ‘management-mechanisms that are designed to regulate organisational activities to ensure their conformance with established expectations.’ Following their empirical research, Ouchi and Maguire (1975) and Jaworski (1988) identified two formal control mechanisms; output based and behaviour (process) control. Behaviour (process) controlled exchange relationships require active and involved management whereby principals dictate and provide the inputs agents need to achieve the organisation’s goals. On the other hand, output control is based on mechanisms that represent a laissez-faire approach that assumes agents are best able to determine their direction and the level of effort necessary to achieve a firm’s goals (Oliver and Anderson, 1994).

Output Control - Ouchi and Maguire (1975: p. 559) define output control as, ‘measurement of outcomes’, which Anderson and Oliver (1987: p.76) equate as being, ‘approximate to market contracting wherein salespersons are left to achieve the results in their own way using their own strategies.’ However, as highlighted in Chapter 4, Sections 4.2.1 and 4.4 research exploring the use of inter-organisational output control is limited and much of what exists is not readily capable of being contextualised for this study (e.g., Celly and Frazier, 1996) because they are sales and distribution focused which is inappropriate for this study. To this end the author made use of the measure statements from (Jaworski *et al.* 1993) which examined intra-organisational output control and (Aulakh and Genctürk, 2000) which explored

the use of output control in international principal-agent relationships and were appropriate for PFI projects. A composite scale was developed and contextualised for this study. Responses based on a seven point Lickert scale in which the anchors were 1 = Strongly Disagree and 7 = Strongly Agree were sought.

This dimension comprises four (4) items which were developed as follows:

1. The contract identifies service performance targets to be achieved – This measures the extent to which the contract identifies performance targets as the basis for controlling performance (Jaworski *et al.* 1993).
2. The extent to which contractual service performance targets are achieved is actively monitored – This measures the extent to which the agreed performance targets are proactively assessed (Aulakh and Genctürk, 2000).
3. Where service performance targets are not met, a reasoned explanation for not doing so is required – This measures the extent to which the client requires the service provider to explain why performance has not been to the agreed standard (Jaworski *et al.* 1993).
4. Contractual payments are based on the extent to which service targets are achieved – This measures the extent to which service provider income is reliant on meeting agreed performance targets (Aulakh and Genctürk, 2000).

Behaviour (process) Control – Principal's relying on behaviour (process) control tend to have a well-defined understanding of the processes they expect agents to undertake (Ouchi, 1979) and they are able to impose their ideas on the agents to achieve the desired results. However, as highlighted in Chapter 4, Section 4.2.1, research exploring the use of inter-organisational behaviour (process) control is limited and much of what exists is not readily capable of being contextualised for this study (e.g., Bello and Gilliland, 1997). To this end the author made use of the measure statements from (Jaworski *et al.* 1993) which examined intra-organisational output control and (Aulakh and Genctürk, 2000) which explored the use of output control in international principal-agent relationships. These were contextualised for this

study and responses based on a seven point Lickert scale in which the anchors were 1 = Strongly Disagree and 7 = Strongly Agree.

This dimension comprises three (3) items and was developed as follows:

1. The client actively monitors the extent to which established procedures are followed – This measures the extent to which service performance is monitored against compliance with agreed procedures (Jaworski *et al.* 1993).
2. The procedures used to meet service performance targets are regularly evaluated by the client – This measures the client role in assessing the appropriateness of procedures in achieving the desired performance (Jaworski *et al.* 1993).
3. The client proposes procedural amendments when service performance targets are not achieved – This measures the degree to which the client actively designs improved procedures when performance is not at the required standard (Jaworski *et al.* 1993).

Informal Control - Historically the investigation of informal control has focused on intra rather than inter organisational management areas and an examination of extant informal control conceptualisation has proven to be unhelpful to this study. The Jaworski *et al.* (1988 and 1993) research used the professional and cultural definition which has been found to comprise clan control. The nature of these scales which are aimed at intra-organisational research renders them incapable of use in this study. The Aulakh and Genctürk (2000) scales are focused on principal-agent control in export markets and are also incapable of being readily contextualised for this study. The Dahlstrom and Nygaard (1999) research sought to identify the role of cooperation as an informal control in curbing *ex post* transaction costs and was also unsuitable for this study. To this end, the author chose to adopt a proxy for informal control in the form of influence strategies.

Influence Strategy – Defined as, ‘the alternative means of communication available to a firm’s personnel in their influence attempts with associated channel members,’ (Frazier and Rody, 1991), these strategies are used to gain compliance of a channel member from a channel

partner (Frazier and Summers, 1984) and are therefore a form of control. Previous research on influence strategies has demonstrated their importance within channels of distribution where the effect of influence strategies on channel conflict (Frazier and Rody, 1991), interfirm agreements (Frazier and Summers, 1984), satisfaction (Frazier *et al.* 1989; Sheer and Stern, 1992), relationalism (Boyle *et al.* 1992) and solidarity (Kim 2000) has been examined. This research has established that the use of non-coercive influence strategies results in positive relational outcomes and that the use of coercive influence strategies undermines relationships (e.g., Boyle *et al.* 1992; Frazier and Rody, 1991). In making use of non-coercive influence strategies the partners are seeking to rely on informal means to address issues rather than use formal controls or power. As such, the author and the industry experts considered their use to examine long-term inter-organisational partnership management was appropriate.

The scale chosen was that originally used by Frazier and Summers (1986), which contained six influence strategies. Of these, 3 are considered as coercive (threats, legalistic please and promises) and 3 non-coercive (requests, recommendations and information exchange). As indicated above, the author was keen to establish if non-coercive influence strategies were being employed. In so doing, the influence strategy of 'information exchange' was excluded as it - see page 7-11 for discussion. The seven point Lickert scale (Strongly Disagree=1, Strongly Agree=7) used originally was also used in this research.

This scale comprises five items and was adapted and contextualised from Frazier and Summers (1986) as follows:

1. Should we not comply with our partner's requests, they use negative sanctions to force our compliance – This measures the extent to which there is a negative response where no action is taken in response to a partner request.
2. Our partner relies on the legal contract to make us comply with their request to adopt a particular course of action – The aim is to measure the extent to which the contract is used to ensure a request for action is carried out.

3. Our partner provides us with a specified reward where we comply with their request to adopt a specific course of action – This measures the extent to which a particular action is rewarded when linked to a partner request to carry out the action.
4. When our partner wants us to do something, they inform us without making clear the consequences of compliance or non-compliance – The aim is to measure the extent to which requests to do something are made in the absence of information about what will happen if the partner agrees or disagrees.
5. Our partner indicates we will be better off if we follow their suggestion about a specific course of action or course of actions – This measures the degree to which one partner highlights the benefits of adopting a suggested course of action.

Information Exchange – Defined as, ‘a bilateral expectation that the parties will proactively provide information useful to their partner,’(Heide and John, 1992) the author chose to examine the use of information exchange separately from the other influence strategies because it is a practical activity that is central to both formal and informal control in inter-organisational partnerships and differs from the other influence strategies (recommendations, promises, requests, legalistic pleas and threats). For example, it is necessary for partners to exchange information freely to achieve the joint planning necessary in a relational exchange. Additionally, during the expert interview process the importance of the mutual exchange of information to the relationship was highlighted as a means of enhancing the relationship between partners.

The four scale items were adapted from Heide and John (1992) and the measure statements contextualised for this study. Responses were based on a seven point Lickert scale in which the anchors were 1 = Strongly Disagree and 7 = Strongly Agree.

The four scale items adapted from Heide and John (1992) are:

1. In this partnership it is expected information that might help the other partners will be provided to them – This measures the degree to which the partners will offer helpful information to each other where this information is not available to both partners.
2. Exchange of information in this partnership takes place frequently and informally, not only according to a pre-specified agreement – This measures the extent to which the partners actively and regularly exchange information on both a formal and informal basis.
3. It is expected that each of the partners will share proprietary information where this will benefit/assist the other – This measures the extent to which one partner will share ‘valuable’ information where they think it will help their partner.
4. It is expected that as partners we keep each other informed about events or changes that may affect each other – This measures the extent to which the partners communicate about issues that could adversely impact the other.

7.2.3 Relationship Quality

Relationship quality can be considered an overall assessment of the strength of the relationship (Garbarino and Johnson, 1999; Smith, 1998). Extant relationship quality research (e.g., Bejou *et al.* 1996; Crosby *et al.* 1990; Dorch *et al.* 1998; Hennig-Thurau and Klee, 1997; Kumar *et al.* 2001; Storbacka *et al.* 1994; Walter *et al.* 2003, de Wulf *et al.* 2001) has examined and tested relationship quality in various research contexts, however, there is little consistency in the operationalisation of this construct.

Naude and Buttle (2000) point out that there is not one measure for relationship quality but that it is a construct comprising of multi-components and that different components need to be combined to arrive at an overall relationship quality measure. The author agrees that the concept of relationship quality is a higher level construct consisting of several distinct but related components.

Exploring relationship quality in a business to business context Woo and Ennew (2004) identify that relationship quality is generally accepted as a higher order construct, but that there

is a lack of consensus about the precise meaning of the term and about the number and nature of the dimensions it comprises. They note one reason for this lack of consensus lies in the variety of different types of relationship that can be observed across consumer and business to business markets.

To overcome the predominance of extant research that focused on the consumer market and the three components of trust, satisfaction and commitment, Woo and Ennew (2004) used the IMP interaction model which provides a well established and rigorous conceptualisation of relational exchange in a business to business context. They considered this important as business markets are characterised by a higher level of stability instead of change, long lasting relationships instead of short business transactions and a closeness instead of a distance between buyers and sellers (Håkansson, 1982). Two features make the IMP research appropriate for defining the construct of relationship quality in a business to business context: first the relationship was the unit of analysis and secondly, as Ford (1997, p.15) notes, 'in business markets ... we are concerned with marketers and purchasers who are both active within relationships.' Since the IMP conceptualisation provides a more realistic representation of the nature of the relationship between suppliers and customers it should provide a better starting point to examine buyer-seller interactions and hence relationship quality.

In their empirically grounded research Woo and Ennew (2004) confirm their operationalisation of relationship quality based on the dimensions of cooperation, adaptation and atmosphere drawn from the IMP research accurately captures the relationship quality construct. The rigour of the IMP research and the empirically grounded conceptualisation provide one of two reasons for adopting the Woo and Ennew (2004) operationalisation. The second, is that as this study was designed to identify how partners use available governance mechanisms to manage a partnership it is consistent that relationship quality should be measured by reference to the outcomes generated by the use of the governance mechanisms.

Therefore, based on a review of the available literature and its suitability to long-term inter-organisational partnerships the author adopted the Woo and Ennew (2004) operationalisation

of relationship quality. The original scales were contextualised for this study and the seven point Lickert scale (Strongly Disagree=1, Strongly Agree=7) used originally was adopted.

Cooperation

The three scale items are:

1. As partners we co-operate closely in the management of the partnership – This measures the degree to which the partners work together to manage the relationship.
2. Our partner responds objectively to our complaints about their performance – This aims to measure the extent to which there is a positive response where one partner complains about the others performance.
3. Our partner is collaborative in resolving conflicts in the partnership – This aims to establish if the partners work together to solve conflicts.

Adaptation

The four scale items are:

1. Our partner keeps us abreast of new developments in project service areas - This measures the extent to which the partners keep each other informed about new service delivery solutions.
2. Our partner proactively offers us new service delivery solutions where service requirements change – This measures the extent to which the partners offer new ways of working without a prompt when service requirements change.
3. Our partner would change/has changed their management structure if/when requested – This aims to establish the degree to which partners will change/have changed their team in response when requested to do so.
4. Our partner is able to co-ordinate activity across multiple areas of service delivery as required – This aims to establish whether the partners are capable of coordinating activity across a number of service areas.

Atmosphere

The three scale items are:

1. We consider the atmosphere surrounding the working relationship with our partner as harmonious – This seeks to determine the extent to which the partners have a good working relationship.
2. We regard the overall relationship with our partner as close – This aims to measure the closeness of the partners relationship.
3. We believe mutual expectations for the project have been established with our partner – This aims to establish the extent to which the partners have established agreed expectations for the project.

7.2.4 Performance

Based on the author's first hand experience and the feedback from industry experts it was identified that the key indicators of performance were service and finance based. To this end, the construct compromises two components; Service Performance and Financial Performance.

Service Performance

Defined as a, 'global assessment that results from a comparison of service expectations and perceptions of actual performance,' the scale for this construct comprises three items and was contextualised and adapted from the scale used by Woo and Ennew (2004).

1. Overall our experience of dealing with our partner is excellent – This measures the extent to which the partners have a positive view of the experience of working together.
2. Our partners service performance is to the required standard – This measures the extent to which a partners performance is as anticipated.
3. In terms of service delivery things have very seldom gone wrong – This will establish the extent to which there have been problems with service delivery.

Financial Performance

Defined as, the extent to which the partners financial objectives have been achieved,' this construct comprises two items that were identified during the 'expert' interviews where despite the difficulties of securing full and frank disclosure of financial data, the importance of measuring financial performance was stressed. Using the expert comments as the basis for the scale, a new scale was developed for this study.

1. Our financial objectives for the project have been met – This aims to determine the extent to which financial objectives have been met.
2. The cost of delivering partnership services has exceeded expectations – This aims to establish the extent to which the cost of service delivery is higher than expected.

7.3 CONCEPTUALISATION OF THE RESEARCH CONSTRUCTS (REFLECTIVE VS. FORMATIVE)

Authors such as Jarivs *et al.* (2003) have expressed concern as to the potential effect that mis-specification of the conceptualisation of latent variables (LV) might have had in theory development and testing. More specifically, the debate revolves around issues related to reflective versus formative latent variable (LV) conceptualisations (Diamantopoulos and Winkhofer, 2001; Diamantopoulos 1999). As all of the research constructs in this study are LV's, it is considered relevant to review this debate and to relate this to the LV's in this study.

Reflective LVs (RLV) are cases where the indicators are considered to be influenced or affected by the underlying LV. The key feature of such LVs is that '... a change in the latent variable will be reflected in a change in all indicators' (Diamantopoulos, 1999, p. 445). This implies that there is a one-to-one correspondence between the LV and its indicators (i.e., the indicators are seen as empirical surrogates for a LV). The underlying assumption is that the LV exists, rather than being constructed and is measured by its indicators or by other lower/first order factors/LV's. Such LV's have their origins in the classical domain-sampling model (Nunnally and Bernstein, 1994) that assumes that the indicators are partially or entirely inter-correlated because of their underlying common LV.

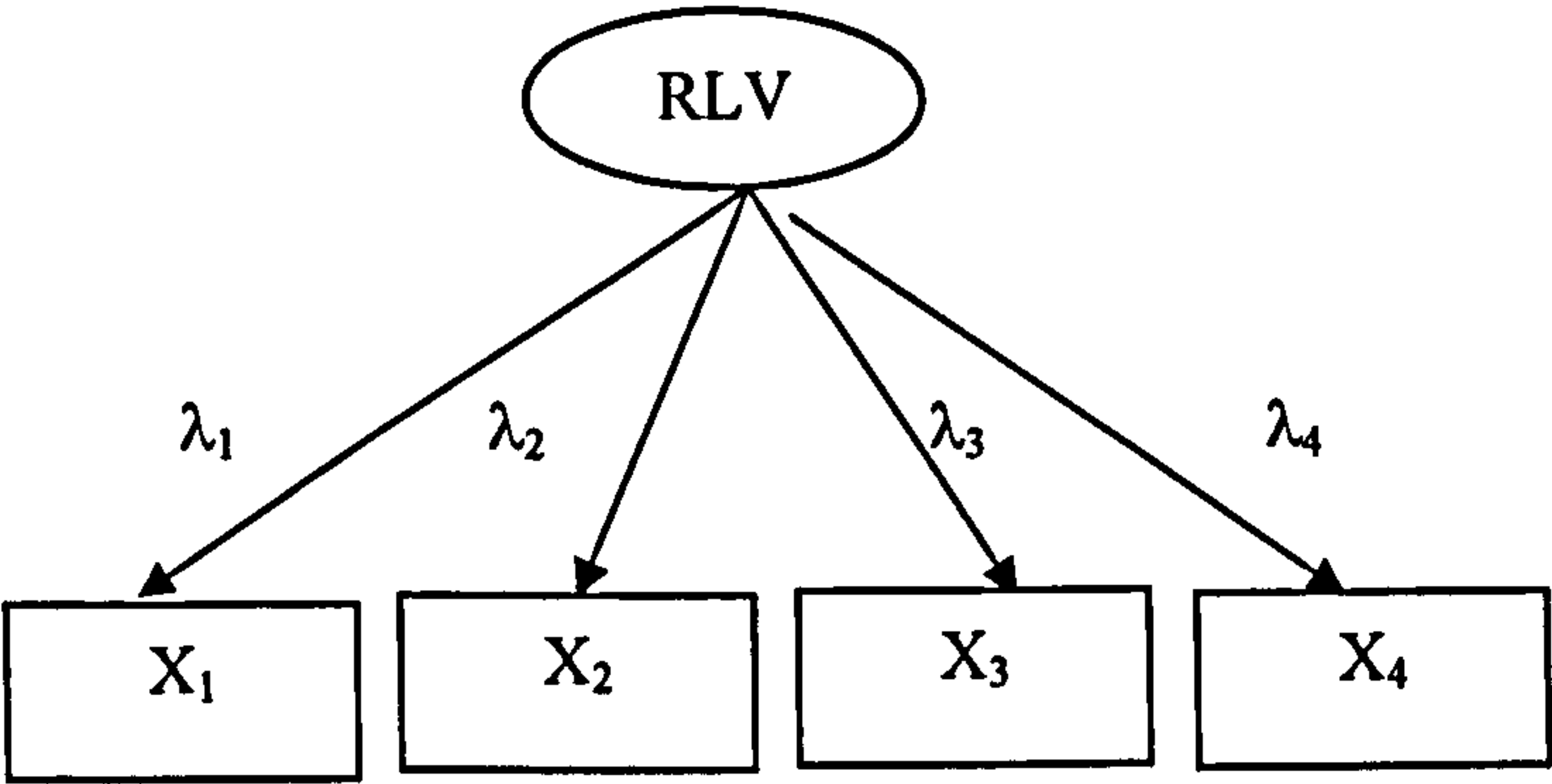


Figure 7-2 An Illustration of a Reflective Latent Variable (RLV)

It consequently follows that under such a perspective examination of the *loadings* (λ_i) would be a measure of the relative importance of each indicator (i.e. X_1 to X_4) in reflecting the overall RLV. An illustration of a RLV is provided in Figure 7-2.

Formative LV's (FLV) represent variables whose indicators are viewed as causing rather than being caused by the underlying LV. Under such conditions '... a change in the latent variable is not necessarily accompanied by a change in all its indicators; rather if any one of the indicators changes, then the latent construct would also change,' (Diamantopoulos, 1999, p.446). In other words FLVs represent *emergent constructs* that are formed from a set of indicators.

Unlike RLVs there is no theoretical reason to examine interdependencies (i.e., correlations) among the indicators, as the indicators are not necessarily correlated and can occur independently. It is therefore their relative weights (γ_i) that are used to construct the FLV and these highlight the relative importance of each indicator (i.e., X_1 to X_4). As a result, FLVs do not conform to the classical test theory of factor analysis models that treats indicators as effects of a construct (Bollen and Lennox, 1991). An illustrative example of a FLV is provided in Figure 7-3.

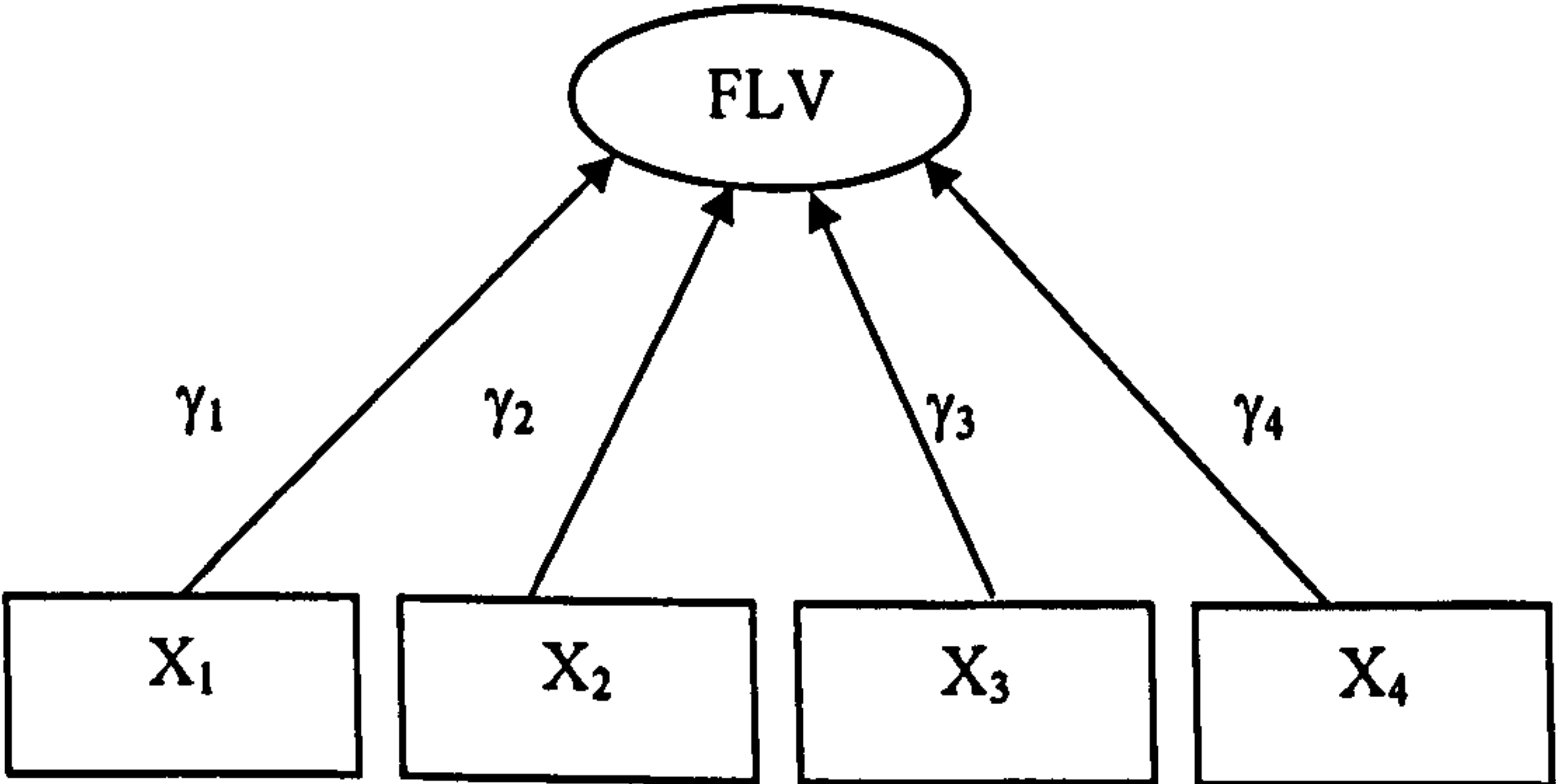


Figure 7-3 – An Illustration of a Formative Latent Variable (FLV)

In this study a combination of RLV’s and FLV’s have been used and the implications for data analysis and subsequent interpretation of this analysis are now identified. As reflective indicators should be internally consistent and because all measures are assumed to be equally valid indicators of the underlying construct, any two measures that are equally reliable are interchangeable. Thus, although reliability estimates of the set of indicators will be lower if fewer indicators are included in the measurement model, the construct validity is unchanged when a single indicator is removed because all facets of a uni-dimensional construct should be adequately represented by the remaining indicators (Bollen and Lennox, 1991).

In contrast, in the composite latent variable model, changes the measures are hypothesised to cause changes in the underlying construct. Thus the measures are formative (Fornell and Bookstein, 1982). Unlike the reflective model, this model does not assume that all measures are caused by a single underlying construct. Rather, it assumes that the measures all have an impact on a single construct. That is, the direction of causality flows from the indicators to the latent construct and the indicators as a group determine the conceptual and empirical meaning of the construct.

The implications of construct mis-specification are that it will severely bias structural parameter estimates and can lead to inappropriate conclusions about hypothesised relationships between the constructs, therefore measurement relationships must be appropriately modelled. Using the classification procedure proposed by Jarvis *et al.* (2003), the study constructs are shown in Table 7–1 and in diagrammatic form in Appendix 4.

Table 7-1 - Classification of Research Constructs

Construct	Dimension	Component	Reflective Latent Variable (RLV)	Formative Latent Variable (FLV)
Integrated Governance Strategy				X
	Explicit Contracts			X
	Relational Governance			X
		Joint Planning	X	
		Joint Problem Solving	X	

Construct	Dimension	Component	Reflective Latent Variable (RLV)	Formative Latent Variable (FLV)
Integrated Control Strategy				X
	Output Control		X	
	Behaviour (process) Control		X	
	Influence Strategies			X
	Information Exchange		X	
Relationship Quality				X
	Adaptation		X	
	Cooperation		X	
	Atmosphere		X	
Performance				X
	Financial Performance			X
	Service Performance		X	

7.4 DESIGN OF THE RESEARCH INSTRUMENT

The author reviewed the processes for designing research instruments set out in (Bryman and Bell, 2007; Churchill and Iacobucci, 2004; MacDaniel and Gates, 2006) and adopted the (Churchill and Iacobucci, 2004) process. Figure 7-4, which should be viewed as a guide or a checklist, depicts the process steps as sequential, however, the various steps are interrelated and should be viewed as such. The nature of the decision to be taken at each step is discussed briefly below.

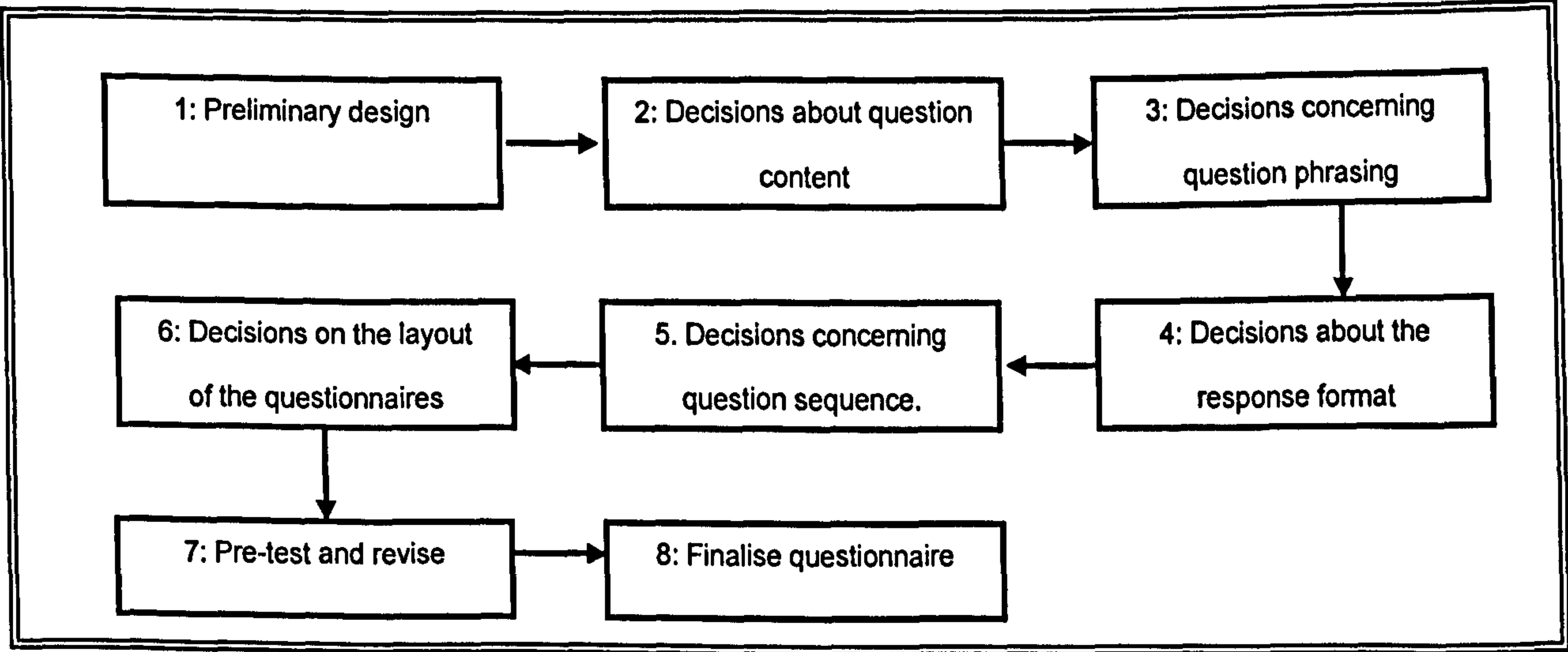


Figure 7-4 – Research Instrument Construction Decisions

Source: Churchill, G. A, Jr. and Iacobucci, D. (2004): *Marketing Research: Methodological Foundations*, 8th ed. Ohio, South Western

- 1) *Preliminary design* - Prior to the construction of the research instrument, decisions regarding the exact type of information sought from different respondents had to be considered in conjunction with the data collection method to be employed. As debated in detail in Chapter 6, Section 6.2.1 the exploratory phase of the study research served to discover ideas about the main issues in the management of long-term inter-organisational partnerships. This phase was also used to identify the constructs, dimensions and components.
- 2) *Decisions about questions content* - Once the topics were decided, due consideration was given to the question content, i.e., the general nature of the research instrument and the data it was designed to obtain. Question content was thoroughly verified during expert interviews (see Chapter 6, Section 6.6.1) and the pilot stage.
- 3) *Decisions concerning questions phrasing* - Due consideration was given to ensuring that the questions were phrased so as to be clearly understood by the respondents. Particular attention was placed on issues such as; avoiding the use of jargon, ensuring the clarity of meaning, avoiding leading, double, or bias questions and ensuring clearly defined research the context.
- 4) *Decision about response format* - A unified approach in the presentation of measurements has been employed. The response format was based on a 7-point Likert scale. The only exceptions were the items in Sections A and F, which were correspondingly ordinal and open/ended/factual. Table 7-2 below provides an overview of the questionnaire structure.
- 5) *Decisions concerning the sequence of question* - The questions were sequenced so as to ease the respondent into the process by starting with non-threatening questions about their organisation. Questions about performance which could have been considered to be more difficult to complete were placed towards the end of the questionnaire.

Table 7-2 – Overview of Questionnaire Structure

Section	Title	Constructs and Components	Number of Questions	Nature of Scale
A	About Your Organisation	N/A	4	Open ended or factual

Section	Title	Constructs and Components	Number of Questions	Nature of Scale
B	Working in Partnership	Integrated Governance Strategy, comprising the dimensions of Explicit Contracts and Relational Governance.	10	7 Point Likert Scale
C	Contract Monitoring	Integrated Control Strategy comprising the dimensions of Output Control, Process Control, Influence Strategies and Information Exchange	16	7 Point Likert Scale
D	Relationship Quality	Relationship Quality comprising the dimensions of Cooperation, Adaptation and Atmosphere	10	7 Point Likert Scale
E	Performance	Performance comprising the dimensions of Service Performance and Financial Performance	5	7 Point Likert Scale
F	Other Relevant Comments	N/A	N/A	N/A

- 6) *Decisions on the layout of the research instruments:* The physical characteristics of the research instruments have been found to affect not only the accuracy of the replies, but also the manner in which respondents react and the ease with which the replies can be processed (e.g., de Vaus 2007). Therefore, particular attention was given to the questionnaire layout in the design and pilot processes. In the latter, respondents were asked to comment on the layout of the questionnaire and the clarity of instructions. As a result of the feedback, the questionnaire was professionally printed with a soft-photo design on the front cover displaying the Kingston Business School and Kingston University logos. Furthermore, it was divided into six manageable sections (labelled from A to F) to overcome respondent concerns about its length and the time needed to complete it.
- 7) *Pre-test and revision* - There is a consensus within marketing literature that pre-testing is an integral part of the research instrument development process and that no survey should be undertaken without an adequate pre-test of the instrument Churchill and Iacobucci (2004, p.352). In highlighting the importance of pre-testing in the research development process, Churchill and Iacobucci (2004: p.353) state that, ‘the researcher who avoids a questionnaire pre-test ... is either naive or a fool. The pre-test is the most

inexpensive insurance the researcher can buy to ensure the success of the questionnaire and the research project.'

The purpose of pre-testing is, '...to ensure that the expectations of the researcher in terms of the information that will be obtained from the questionnaire are met' (Kumar *et al.* 2001: p.268). Furthermore, as language is basically ambiguous and words can have different meanings to different people (Bradburn and Sudman, 1988) it is important to ensure the words used in survey questions have the meaning to the respondents that the researcher intended them to have (Kinnear and Taylor, 1996).

- 8) *Finalise questionnaire* – On completion of the pre-testing activity the author revised the questionnaire to reflect the improvements identified during the pre-pilot and the pilot stages.

CHAPTER 8 - RESEARCH METHODOLOGY (3)

8.1 INTRODUCTION

The shaded cells in Figure 8-1 depict the methodological components yet to be reviewed and which are the focus of this Chapter. The review will start with a consideration of the sampling design related issues, continue with a discussion about the unit of analysis, before addressing efforts to minimise errors, bias and issues related to the response level. The Chapter concludes with a brief description of the statistical methods to be employed in analysis of the collected data.

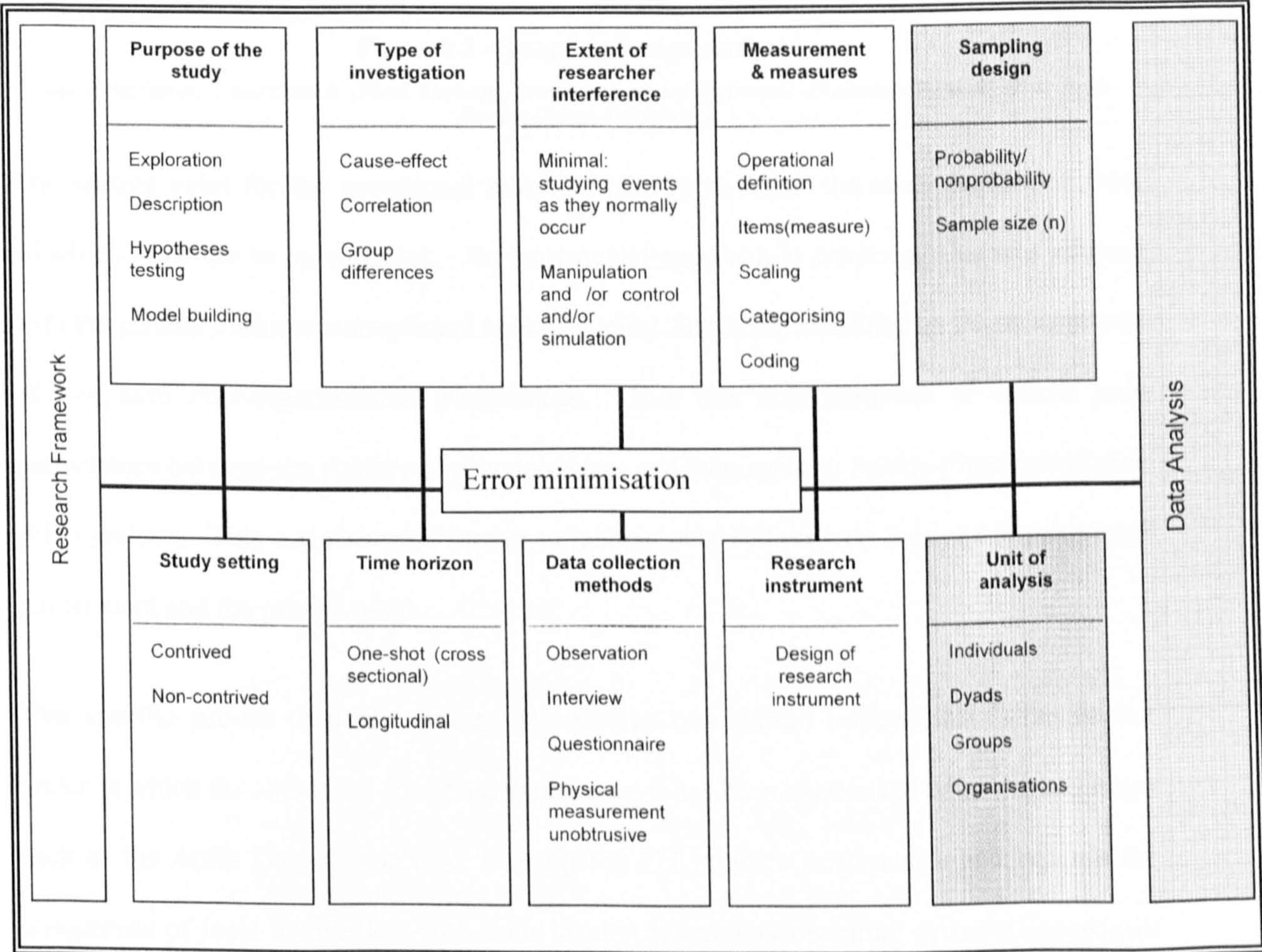


Figure 8-1 – The Research Process (iii)

Source: Sekaran (2003) “*Research Methods for Business: A Skill Building Approach*”, 4th ed., New York: John Wiley and Sons Inc. (p. 93)

8.2 SAMPLING DESIGN AND UNIT OF ANALYSIS

Using the framework suggested by McDaniel and Gates (2006), the seven-step process for developing an operational sampling plan (depicted in Figure 8-2) was employed. Although each of the steps is dealt with in turn, like most methodological considerations, decisions

taken at each stage are contingent on other aspects of the research process (e.g., communication method) and determine subsequent decisions (e.g., permissible type(s) of analysis).

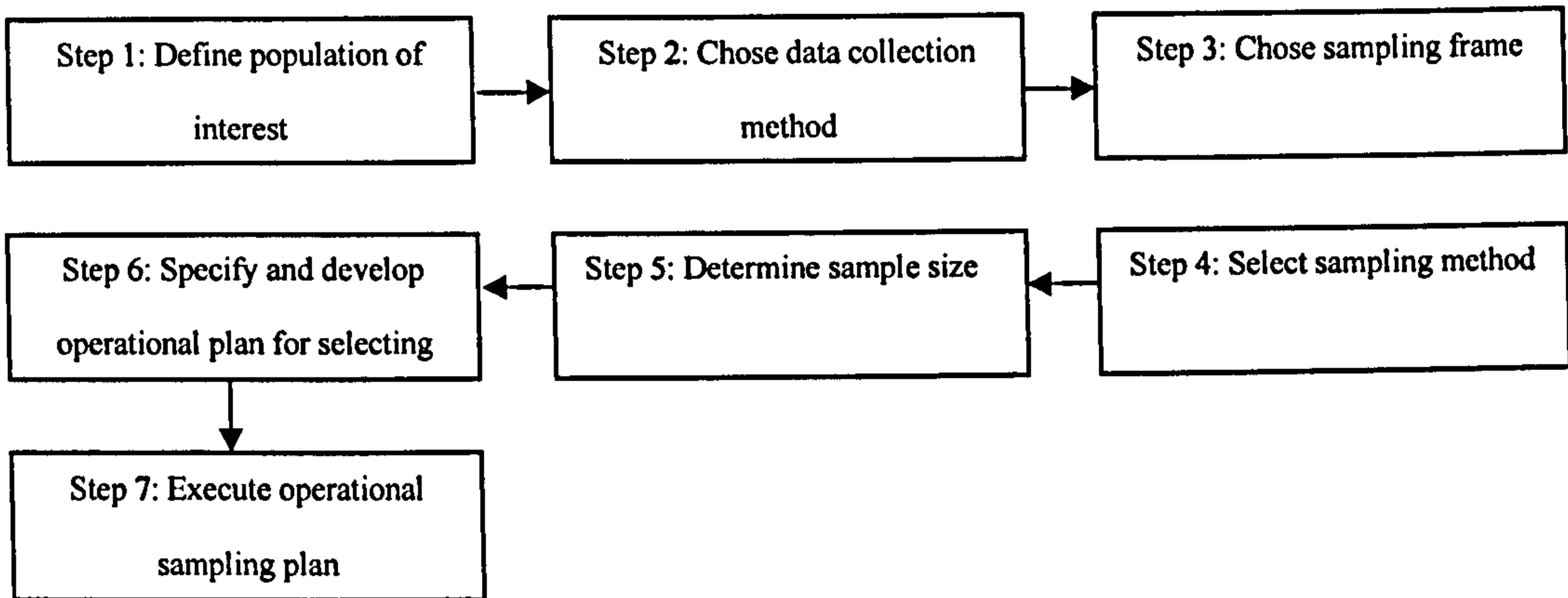


Figure 8-2 - Sampling Design Analysis

Source: McDaniel, C. and Gates R. (2006), Marketing Research: Impact of the Internet, 5th edition, Cincinnati, Ohio: South-Western College Publishing

The starting point for the operational sampling plan is to define the study population from which the data are to be collected. An incremental approach to achieving this was adopted with the general business management area of interest first being identified as the management of long-term inter-organisational partnerships. This was then narrowed to include only partnerships between the public and private sectors and then again to Private Finance Initiative (PFI) projects. This was narrowed further to include only PFI projects between English local government and the private sector.

This specific sub-set of public private partnerships was chosen because this is the market sector in which the author has first hand experience, it has been overlooked when organisations such as the Audit Commission have investigated PFI projects performance and because the uniqueness of local authorities, with their locally determined operating systems, procedures and policies, were likely to adopt different approaches in their management of long-term inter-organisational partnerships.

The aim was to gather data from the senior managers in both the public and private sectors with direct responsibility for managing these partnerships and for making them work. Consequently the research setting and the target population have been defined as follows:

- Element: Senior managers from both private and public sectors;
- Sampling Unit: Operational local authority schools, housing, waste, leisure and transport PFI projects (136);
- Extent: England;
- Time: July 2006 to March 2007 inclusive.

Having identified and defined the study population, the author next considered how best to collect the data from the population. Given the geographic dispersal of the projects across England and the need for specific information about the management of these inter-organisational partnerships a postal survey method was employed (see Chapter 6, Section 6.6.3 for a discussion of the related issues).

Having identified the target population an appropriate sampling frame was needed. An initial search of available project databases available on relevant websites such as HM Treasury and the Public Private Partnerships Programme (4P's) was undertaken. These databases were, however, incomplete as they did not contain all of the information (e.g., name of local authority manager, name of private sector organisation, contact address and/or telephone number), needed by the author. In seeking to 'plug' these gaps, the author investigated additional electronic databases and also contacted local authorities identified as having operational PFI projects to ask for assistance in adding to the existing data. The author chose to contact local authorities because the projects are authority specific and unlike the private sector where ownership and related management responsibilities change, they were stable organisations who would always have a partnership role in the projects. However, this approach was not successful in producing the additional data, primarily because the local authority personnel with responsibility for responding to general enquires often had little or no knowledge of the authority's PFI project.

At the same time as alternative routes were being explored and in mid 2006 the 4P's website projects database was updated to provide sufficient details for the author to proceed. This produced a full list (this was established after cross checking against the HM Treasury list) of the existing operational local authority projects together with contact details for the lead managers from both the public and private sectors. The result was a population of 136 projects

with 272 potential respondents. However, based on the author’s market knowledge of transactions in which the private sector had traded their ownership in such projects, it was clear that significant consolidation of private sector ownership had taken place. This led to further website searches of private sector organisations known to own and manage multiple local authority PFI projects with a result that the number of potential private sector respondents was reduced to eighty five (85). As a result, the number of potential respondents was revised downward to 221.

With a sampling frame established, the author next gave consideration to the sampling method most appropriate for the study. The relative merits and disadvantages of the various sampling methods (see Figure 8-3) are well documented (for a detailed discussion of sampling methods

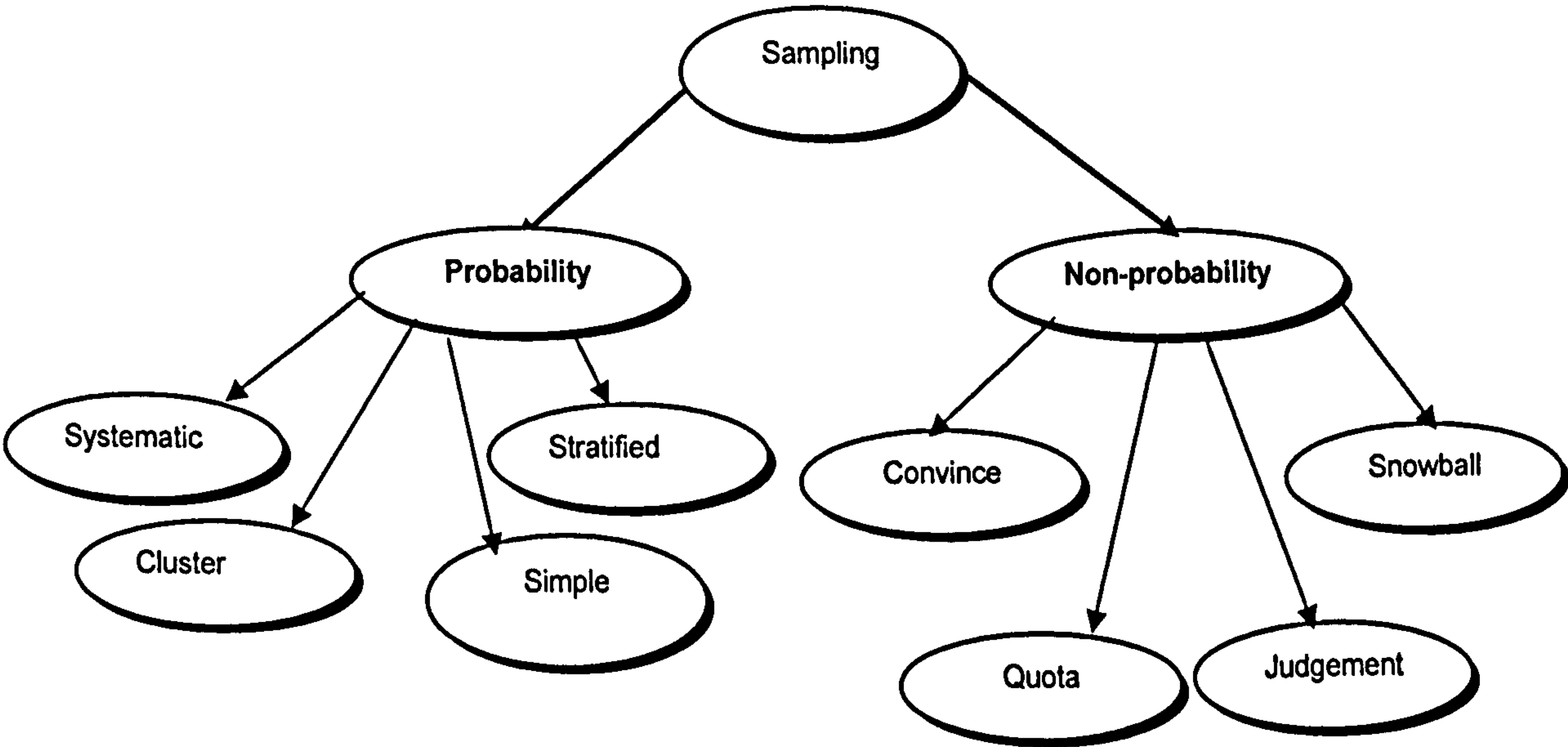


Figure 8-3 - Sampling Method

Source: McDaniel, C. and Gates R. (2005), *Marketing Research: Impact of the Internet*, 5th ed., Cincinnati, Ohio: South-Western College Publishing.

see among others, (deVaus, 2007; Malhotra, 2003; McDaniel and Gates, 2006) and are consequently not debated here. The size of the sample population meant it was unnecessary to consider any of the probability sampling methods and the author settled for a census approach in which data was sought from all senior managers in the target population.

Having established the sampling frame and sample method, the author next considered the issue of sample size. Decisions about sample size and its appropriateness for the study are ones the author should take with care.

There are many factors (see Churchill and Iacobucci, 2004, deVaus, 2007, for reviews) that will influence the size of sample including:

- a) the degree of accuracy required;
- b) the need/or not to examine sub-samples or populations;
- c) nature of population;
- d) proposed analytical technique(s);
- e) the method of survey demonstration;
- f) the cost of additional information;
- g) variation in the variables measured.

With all sample design activity completed, the author developed an operational plan to guide the data gathering activity. This started with the creation of a database comprising all English local authority PFI projects populated with the appropriate contact details. At the same time the postal survey questionnaire, together with supporting information such as the covering letter were designed and trialled. The next step involved the execution of the plan.

In the execution phase, the first step was to make contact with the named senior managers to establish that they were person responsible for managing the PFI project for their organisation, or if they were not to establish who was. Once the person with the relevant responsibility had been identified, the author explained the nature of the study and asked if they would be prepared to assist by completing a questionnaire. If they refused, no further contact was made, however, if they agreed the author confirmed their contact details and forwarded a paper copy of the questionnaire, explanatory note, covering letter, return envelope and card to be completed in the event a copy of the executive summary was wanted.

8.3 ERRORS AND BIAS IN THE RESEARCH DESIGN

As indicated by Malhorta (2003) and Churchill and Iacobucci (2004) any effort to obtain information from a sample is bound to include errors, making the examination for the presence and minimisation of errors and biases a necessary condition for empirical validation of models

and hypothesis testing (Churchill and Iacobucci, 2004). Consequently, a number of errors and biases minimisation techniques have been applied and these are discussed.

An observed measure encompasses a true mean value and an error value, termed “total error”. According to Malhorta (2003) the total error is the variation between the true mean value in the population of the variable of interest and the observed mean value obtained in the research. The ideology of a measure value is illustrated by ‘True Score Model’ where a mathematical expression is provided for the understanding of accuracy of a measure. The observed measure X_O represents the sum of a number of values (see Malhorta, 2003; Churchill and Iacobucci, 2004):

$$X_O = X_T + \text{Total Error}$$

$$\text{Total Error} = (X_R + X_S)$$

Where: X_T represents the true mean value of the characteristic being measured;

X_R represents the random error; and

X_S represents systematic error.

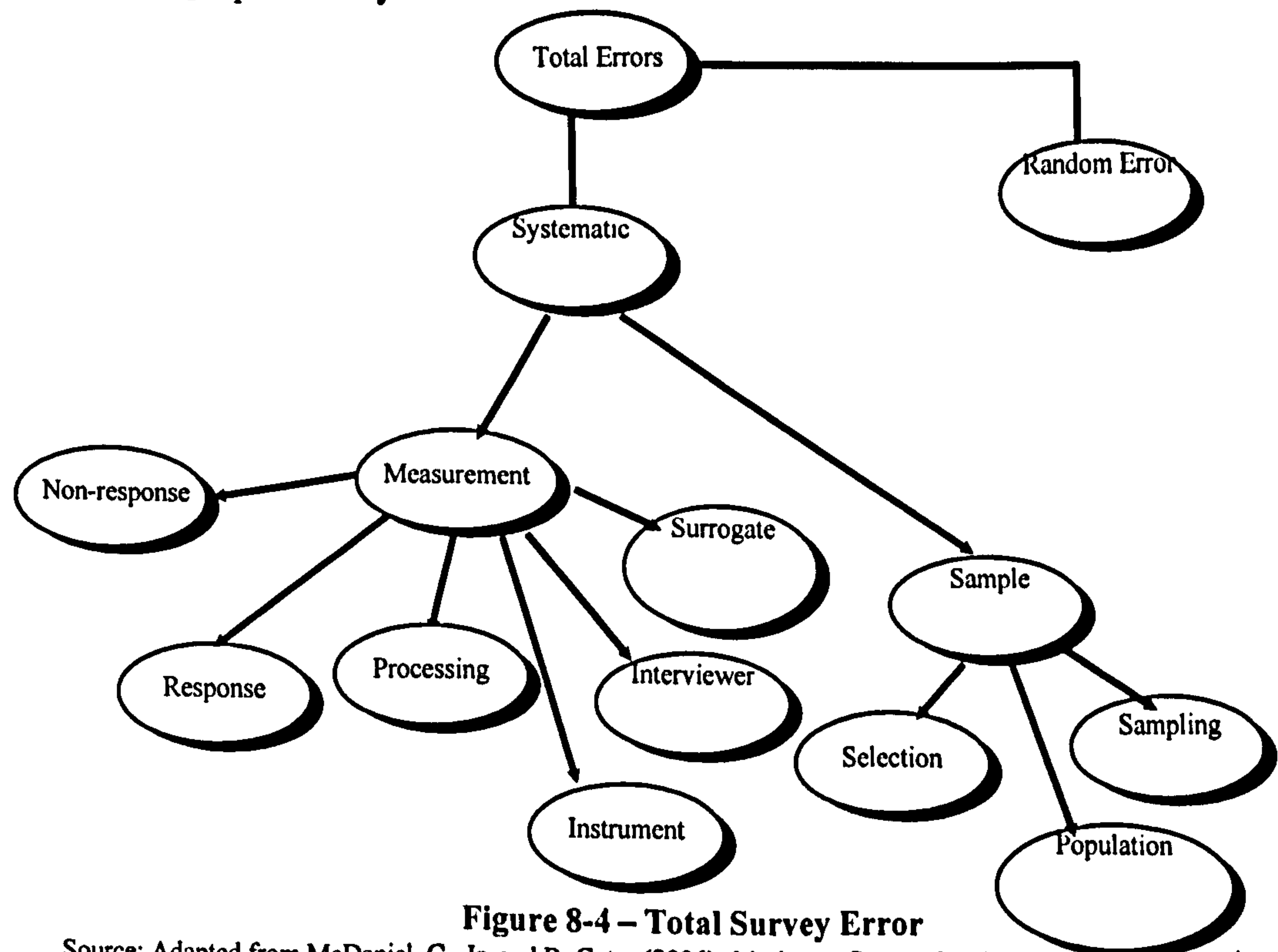


Figure 8-4 – Total Survey Error

Source: Adapted from McDaniel, C., Jr. and R. Gates (2006), *Marketing Research: The Impact of Internet*, 5th ed., Ohio: South Western Publishing Company (p.165)

In addition to depicting the relationship between a measured value, a true mean value and an error value, the True Score Model also expounds two components within a total error value, i.e., random error and systematic error value (also known as bias). For the purpose of a systematic debate on these two types of errors, the classification of the components of the total error synthesised by McDaniel and Gates (2006) is adapted and depicted in Figure 8-4. This Figure demonstrates that the two components of total error are divided into a number of constituent errors and using this Figure to guide the debate, the individual potential errors and methodologies employed to minimise such errors in this study are considered briefly below. For a full explanation and relevant definitions the interested reader is directed to (Kumar *et al.* 2001; Churchill and Iacobucci, 2004; Dillon *et al.* 1994; Kinnear and Taylor, 1996 and Tull and Hawkins, 1992).

8.3.1 Systematic Errors (bias)

Systematic errors affect the measurements in a constant way and are consequently also known as 'constant errors' or 'constant bias' (Churchill and Iacobucci, 2004; Malhorta, 2003). Such errors result from the execution of the research process (McDaniel and Gates, 2006). Efforts were made to eliminate systematic non-sampling errors by ensuring that the information obtained by the measurement technique(s) was a true reflection of a respondent's views and thus provided a reliable platform for subsequent data analysis. Systematic errors can be further grouped into measurement errors and sample design errors both of which are discussed below.

8.3.2 Measurement Errors

Measurement errors result in variation between the information desired and the information observed during the measurement process (Malhotra, 2003; McDaniel and Gates, 2006). Errors resulting from this situation can be further categorised into: 1) surrogate information errors, 2) interviewer errors, 3) instrument errors, 4) office processing errors, 5) response bias, and 6) non-response error, each of which is discussed in detail below.

- 1) *Surrogate information errors* - These errors occur when there is a discrepancy between the information actually required to solve a problem and the information being sought

by the researcher. This problem is primarily related to how well the researcher can define the research problem (McDaniel and Gates, 2006). Through an extensive review of the relevant literature these types of errors have been minimised.

- 2) *Interviewer errors* - These errors result from the interviewer influencing a respondent – consciously or unconsciously – to give untrue or inaccurate answers. During the exploratory stage of the study, the interviewer was the author himself, who is familiar with the research topic and the research process. Furthermore, since the instrument in this case was a self-completion questionnaire and it was posted to the respondents, interviewer error was not considered to be an issue.
- 3) *Instrument errors* - Sometimes referred to as *questionnaire bias*, are the result of problems associated with the research measurement or questionnaire. For example, unclear instructions, confusing terms, irrelevant questions and biased words or phrases (McDaniel and Gates, 2006). The questionnaire test and pre-test activities sought to minimise these errors.
- 4) *Office processing error* - Office processing error is the error that arises when editing, coding, tabulating or analysing the data (Churchill and Iacobucci, 2004; McDaniel and Gates, 2006). The initial coding and data entry activity was cross checked by someone independent of the study and at every stage due care was taken during the processing of the data to minimise the possibility of error.
- 5) *Response errors* - These types of errors occur due to the respondents providing inaccurate information (intentionally or unintentionally). According to Kumar *et al.* (2001) this might be because of the inability of the respondents to comprehend the questions or their misunderstanding the question due to, for example, fatigue or boredom. Response errors can be further categorised into: a) response bias, and b) non-response bias:
 - a) **Response bias** - Also referred to as *field errors* by Churchill and Iacobucci (2004) these are accrued mainly from respondents giving incorrect information or refusing to answer some of the questions. Responses to embarrassing

questions or questions associated with income may be lead to bias (Kumar *et al.* 2001). The author sought to reduce such errors by providing clarity about the purpose of the survey, eliminating requests for disclosure of commercially confidential or sensitive information and by assuring the confidential treatment of all responses in the covering letter. During the telephone conversation with all potential respondents, these issues were reiterated and consequently it is considered no serious response bias is present.

b) **Non-response bias** - This bias is associated with serious bias in terms of replies obtained from respondents and views held by non-respondents (Malhorta, 2003). Mail surveys are associated with relatively poor response rates, which in turn increases the possibility of non-response bias (Kinnear and Taylor, 1996). Therefore, in order to increase response rate and reduce the probability of non-response bias, a number of response inducing strategies were implemented. The most common used methods to improve the response rate are shown in Figure 8-5 and how these were utilised in the study is set out below.

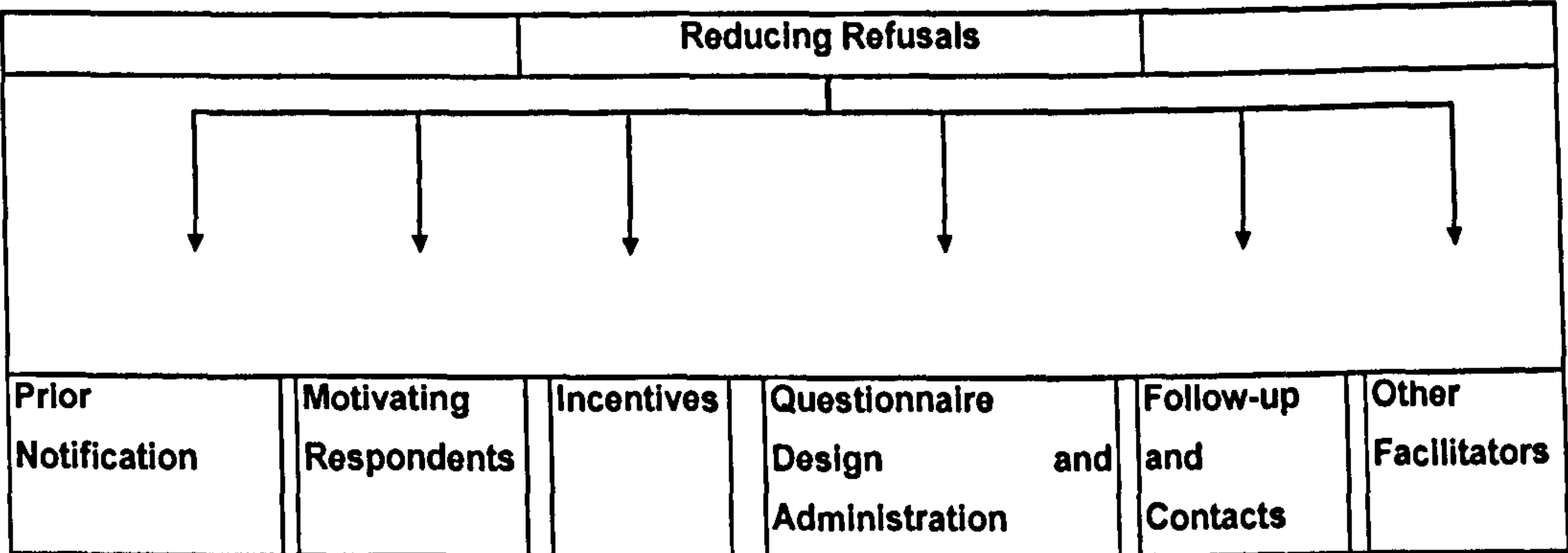


Figure 8-5 - Methods to Reduce Non-Participation

Source: Malhotra, N. (2003), *Marketing Research an Applied Orientation*, 4th ed., New Jersey: Prentice Hall International

This process started with all population members being contacted by telephone to enable the author to provide an explanation of the scope of the nature of the study before they were asked to participate. During this conversation the author sought to motivate potential respondents by emphasising the small number of persons with the relevant expertise and experience, and

relating this to their position within this select group. This was re-emphasised in the covering letter sent to those who agreed to participate. On both occasions this approach was taken to boost their feelings of self importance and generate positive reaction on the understanding that only those motivated would agree to respond.

In a further attempt to boost participation the author noted that according to Diamantopoulos and Schlegelmilch's (1996) study offering incentives has been identified as a useful strategy to encourage recipients to become involved in the survey. The author considered offering book vouchers as an incentive to participate, however, given the probity pressures faced by public sector employees, it was decided this would be inappropriate. Instead, a summary of the results was offered in order to encourage participation as well as the provision of accurate information.

Questionnaire administration - Persuasive wording was used to positively impact the response rate. The covering letter was written following the recommendations of Dillman (2000) and 'egoistic' and 'social utility' requests were incorporated therein. A copy of the covering letter is included in Appendix 2. Other facilitators include:

- a. *Covering letter* – This was printed on official Kingston Business School letterhead;
- b. *Professionally printed questionnaire* - The questionnaire was designed and printed by a professional printing agency. The elegant design and printing of the questionnaire are reported to impact the response rate favourably (Dillman, 2000) and
- c. *Anonymity/confidentiality* - Assurance of confidentiality as well as a promise of non-identification was clearly emphasised.

Where the issued questionnaire was not returned within one month, the author made a follow up telephone call. On making contact, the author first sought to establish if original questionnaire had been lost or not received and where this was the case a new questionnaire

was issued with the potential respondent's agreement. Where the potential respondent indicated willingness to complete the questionnaire but had not yet done so the motivational approaches highlighted previously were repeated. If no contact was made, an unannounced second letter and questionnaire were sent. If these second questionnaires were not returned, no further contact was made.

Despite the above effort, not all recipients replied, which created the possibility of non-response bias. As the research was carried out over a nine month period, the cut-off date for late respondents was set for the date at which data analysis (March 2007) took place. There were no late respondents.

There are two types of non-respondent; those who agreed to participate and did not return their questionnaire and those who could not be contacted to verify their details. An analysis of the non-responses where a questionnaire was issued showed that 17 were from the public sector and 32 from the private sector. However, as a large percentage of the potential respondents could not be contacted (not less than five attempts were made), or choose not to return calls where they had been correctly identified as the appropriate person, it is difficult to assess non-response bias. This leads the author to conclude that non-response bias may have existed, however, in the absence of evidence to the contrary; this is listed as a limitation in Chapter 1, Section 1.5 and in Chapter 11, Section 11.2.

8.3.3 Sampling Design Errors

Sampling design errors result from errors in the sample or sampling process (Malhorta, 2003; McDaniel and Gates, 2006; Tull and Hawkins, 1992) and encompass: sampling frame errors, population specification errors and selection errors, which are debated below.

Sampling frame error refers to the variation between the population defined by the researcher and the population implied by the sampling frame used (Malhotra, 2003). This type of error is encountered by using an inaccurate/incomplete sampling frame (McDaniel and Gates, 2006). A

full debate of the merits of the adopted sampling frame for the target group is provided in Section 8.2 and consequently not repeated here.

Population specification error arises from an incorrect definition of population from which the sample is chosen (McDaniel and Gates, 2006). Based on a careful definition of the population of interest, this error was not considered to be a problem in this study.

Selection error occurs when sampling procedures are incomplete or improper or when appropriate selection procedures are not followed (McDaniel and Gates, 2006). The systematic approach outlined earlier and the fact that all organisations approached did fulfil the criteria that had been set was viewed as a safeguard against such error.

8.3.4 Random Errors

Random errors are measurement errors that arise from random changes or differences in respondents or measurement stations (Churchill and Iacobucci, 2004; Malhotra, 2003). This type of research error affects the observed value in different ways, each time the test is administered. As suggested by (McDaniel and Gates, 2006), these errors can be reduced only by increasing sample size, which in this study was not feasible. In the next sections data collection and analysis are discussed.

8.4 DATA COLLECTION PHASES

The data collection process was split into verification and collection phases. In the verification phase the author sought to contact named individuals by telephone to establish if they were the correct person, explain the research project and seek their participation. Once not less than five telephone calls to the same organisation had been made and messages left, the author assumed the organisation did not want to participate and no further contact was made. All organisations where the author identified the correct individual and spoke to them agreed to participate. Even where a third party had verified the contact as the correct person, no unsolicited questionnaire was issued.

A total of 221 (136 public sector and 85 private sector) potential respondents were in the target population. Of these, 98 could not be contacted to seek their participation. Of the 126 questionnaires issued (13 of which were replacements) some 49 were not returned. A total of 64 completed questionnaires were returned giving a return rate of 57% (64/113) or 29% (64/221) of the potential respondents a response rate in line with similar inter-organisational studies (Claro *et al.* 2003; Carson *et al.* 2006). The percentage of the total public sector population who responded was 29% (39/136) and in the private sector the percentage was 29% (25/85). There is not therefore any apparent bias towards one sector in the response rates.

It was considered the number of returned questionnaires was sufficient to produce valid and reliable results in the data analysis phase of the study.

8.5 DATA ANALYSIS

Having specified the research hypothesis and gathered the data, the next stage of the study involves the analysis of this data. There are four factors to be considered prior to commencing the data analysis activity. The first relates to the number of variables in the research hypothesis or question, which in this study involves more than two variables.

The level of measurement of the variables is the second factor which requires that the author consider the variable categories/attributes. The level of measurement of a variable refers to how the categories (interval, ordinal, nominal) of the variable relate to each other. The level of measurement of a variable is not a fixed or inherent characteristic of a variable, it is a product of the way in which the variable is conceptualised and measured and it is a general rule that it is better to construct variables so they are measured at the highest level de Vaus (2007). The higher the level of measurement, the more powerful are the methods of analysis that can be used.

Proponents of the use of higher-order constructs have argued that they allow for more theoretical parsimony and reduce model complexity. Summarising this as theoretical utility, Edwards (2001) says theory requires general constructs consisting of specific dimensions or

facets. This is closely related to the trade off between accuracy and generalisation. Where dimensions (factors) are used the area of generalisation is narrow and accuracy great, whereas higher order factors reduce accuracy for an increase in generalisation.

The third of the factors relates to how the author wants to use the data, namely for descriptive or inferential purposes. In this study as the purpose is to generalise the results from the sample to a wider population, inferential statistics will be used to provide an insight about whether the patterns described in the sample are likely to apply to the population from which the sample is drawn.

The last of the factors is linked to the ethical responsibilities all researchers have. In particular the reporting of all results (positive and negative) rather than concentrating on those that supportive of the author's purpose. In addition to the fabrication of results the use of inappropriate analysis techniques can also impact on the results and misrepresent these without fabrication.

Having considered the above factors in the context of a hierarchical model, the author concluded that both covariance-based Structural Equation Modelling (SEM) and Partial Least Squares (PLS) path modelling could be used to estimate the parameters. However, in a hierarchical model the former has constraints relating to:

- Distributional properties;
- Measurement level;
- Sample size
- Model complexity;
- Identification; and
- Factor indeterminacy.

In hierarchical models there are additional constraints including:

- The number of lower order factors/variables needed for each higher order factor;
- The number of manifest variables desired for lower order factors (2); and
- Problems with the inclusion of formative indicators.

These problems can be avoided completely with the use of PLS Path modelling. In addition to the list below; PLS path modelling ensures against improper solutions by the removal of factor indeterminacy; latent variable scores are determinate and can be directly estimated.

- The study objective is prediction;
- The phenomenon under study is new or changing;
- The model is relatively complex (i.e. large number of manifest and latent variables);
- Formative constructs are included in the conceptual framework;
- The data does not satisfy the assumptions of (multivariate) normality, large sample size and independence; and
- PLS path modelling can be used for a combination of formative and reflective variables or just one or the other.

The data analysis activity, which is reported in detail in Chapters 9 and 10, was designed to achieve two primary goals. The first of these was to establish the reliability and validity of the research scales is addressed in Chapter 9. The tests of reliability involved the Formative Latent Variables being subjected to a test of multi-collinearity to establish the extent to which the independent variables are correlated, whilst the Reflective Latent Variables were tested by identifying the extent of internal consistency using item-to-item correlation to provide an indication of scale unidimensionality and Cronbach's α to provide evidence of how well a set of variables measure a single latent construct. Additionally, PLS Loadings were used to determine internal consistency.

Validity was tested by examining the Average Variance Extracted to identify the amount of shared or common variance among indicators or manifest variables for a construct, with higher values providing evidence that the indicators are truly representative of the latent construct. Partial Least Square Cross Loadings which were used to identify the levels of correlation between the indicators of the latent variable. These should show a high correlation with the hypothesised latent variable and a low correlation with the other indicators assumed to reflect different sets of common constructs. A more detailed discussion of these reliability and validity statistical tools can be found in Chapter 9.

In Chapter 10, the second order structure is examined and the high level research and lower level operational model hypotheses are tested. In testing the lower order structures the

pathways between the construct and its dimensions are tested by establishing the coefficients and significance of these. The models are subjected to tests to establish the proportion of variance in the dependent variable due to the linear effect of variations in the independent variables (R^2) and the coefficient significance levels. Tests to establish the goodness of fit were also carried out.

CHAPTER 9 - DATA ANALYSIS – TESTING for MULTI-COLLINEARITY and MEASUREMENT ACCURACY

9.1 INTRODUCTION

The data analysis activity has been designed to enable the author to test the hypotheses identified during the research model building process. In determining which of the available data analysis statistical techniques was most appropriate, the author considered the nature of the collected data, the number of variables to be analysed simultaneously, the data distribution and the desired outcome.

The starting point for the assessment of which of the statistical techniques is most appropriate is an appreciation of the difference between the measurement and structural models. As Anderson and Gerbing (1982, p.453) note, ‘the reason for drawing a distinction between the measurement model and the structural model is that proper specification of the measurement model and the structural model is necessary before meaning can be assigned to the analysis of the structural model. That is, good measurement of the latent variables is necessary before meaning can be assigned to the analysis of the structural model.’

In this study, the author needs to examine more than one relationship simultaneously and this means many of the available multivariate techniques - multiple regression, factor analysis, multivariate analysis of variance, discriminant analysis are not appropriate. Additionally, the covariance approach associated with Structural Equation Modelling (SEM) was also rejected for reasons including; the nature of the variables (a mix of reflective and formative), the sample size (64 replies).

An alternative to the covariance based approach is *partial least squares* (PLS), which was developed by Wold (1975). ‘As an alternative to covariance-based SEM analysis, the variance based approach of PLS shifts the orientation from causal model/theory testing to component-based predictive modelling. Rather than focusing on building models that are meant to explain the covariances of all the observed indicators, the objective of PLS is prediction (Chin and Newsted, 1999; p.310).

Compared to covariance-based approaches, PLS imposes minimal constraints/assumptions on the measurement scales. In terms of types of measurements PLS can simultaneously handle metric and categorical types of indicators, its models can comprise both reflective latent variables (RLVs) and formative latent variables (FLVs), there is no assumption of multivariate normality and it can handle sizes as sample small as 30 (Chin and Newsted, 1999; p.314). This is achieved through the employment of an iterative algorithm that consists of a series of ordinary least squares analyses that, (a) make no presumptions as to the distribution of the variables, and (b) almost always converge to a stable set of estimates. Thus PLS avoids the two main problems associated with covariance-based approaches, i.e. inadmissible solutions and factor indeterminacy (Fornell and Bookstein, 1982).

Despite the fact that Fornell and Bookstein (1982) provided a thorough examination and comparison of LISERL and PLS, it is not until recently (mainly due to the availability of software such as LVPLS developed by J.B Lohmöller, the graphics based PLS Graph developed by W.W. Chin and Smart PLS developed by Ringle *et al.* (2005)) that research using PLS started to appear in the literature. Review of the literature indicates that PLS has been applied in a diverse range of business and management problems, e.g., adoption of technology (Barclay *et al.* 1995), positioning (Vandenbosch and Weinberg, 1995), organisational buying (Barclay, 1991) and strategy (Cool *et al.* 1989). See Chapter 10, Section 10.2 for discussion of PLS merits. In the analysis of the collected data the following systematic approach has been followed:

- One of the concerns when employing Formative Latent Variables is the potential for multicollinearity among their indicators. In such cases the derived estimates are highly unstable. Consequently, the first task was to examine for multicollinearity among indicators of the FLVs, prior to running PLS.
- Having examined the Formative Latent Variables, the author next analysed the data for the Reflective Latent Variables to establish measurement accuracy. This will commence with consideration of reliability before progressing to validity.

9.2 VARIABLE TYPES AND MEASUREMENT APPROACHES

The importance of understanding that there are two types of variables, formative and reflective, was first highlighted by Churchill in 1979. More recently, authors such as Jarvis *et al.* (2003) have expressed concern as to the potential effect that mis-specification of the conceptualisation of latent variables (LV) might have had in theory development and testing. In so doing they have highlighted that the implications of construct mis-specification are that it will severely bias structural parameter estimates and can lead to inappropriate conclusions about hypothesised relationships between the constructs. It is therefore important that measurement relationships must be appropriately modelled and central to this is an appreciation of the differing measurement approaches applicable to formative and reflective latent variables. A detailed review of these variable types can be found in Chapter 7, Section 7.3.

In the remainder of this section the author will examine the adopted measures starting with a discussion of multicollinearity for the formative latent variables, followed by a discussion of reliability and validity for the reflective latent variables.

9.2.1 Testing Multicollinearity in the Formative Latent Variables

Formative latent variables (FLVs) are based on cause/causal indicators and involve the creation of an index rather than a scale (Bollen and Lennox, 1991). In this context FLVs are observed variables that are assumed to form the latent construct, as opposed to reflective latent variables (RLVs) where the latent variable causes the observed construct.

In the case of FLV's it is the weights and not the loadings that are of interest since they indicate the extent to which the indicator contributes to the development of the construct. Although, unlike RLV's there is no need to eliminate/omit non-significant indicators, the following passage from (Mathieson *et al.* 2001, p.107) indicates that multicollinearity can be a serious problem: 'the inclusion of non-significant formative measures should not affect the estimates and re-analysis after the dropping of non-significant items is not required. Because PLS is based on standard ordinary least squares regression mis-specification due to the

inclusion of irrelevant items will not bias the estimates of significant items. The only potential problem is if the degree of correlation for the irrelevant item and the other items is high, whereupon standard error estimates can increase.'

Two measures are available to test the impact of collinearity: (1) calculating the tolerance and variance inflation factor (VIF) values and (2) using the condition indices and decomposing the regression coefficient variance. The tolerance value is one minus the proportion of the variance explained by other independent variables. Thus a high tolerance value indicates little collinearity and tolerance values approaching zero indicate the variable is almost totally accounted for by other variables. The VIF is the reciprocal of the tolerance value meaning THAT low VIF values indicate low intercorrelation between the variables. In this research a conservative VIF value of 5.0 has been adopted.

Condition Index is the measure of the relative amount of variance associated with the eigenvalue so that a large condition index indicates a high degree of collinearity. The eigenvalue is the measure of the amount of variance in the correlation matrix so that the sum of the eigenvalues is equal to the number of variables. Hair *et al.* (2003) state that the condition index threshold is usually in the range of 15 to 30 with 30 the most commonly used value. In this research a more conservative approach, using a value of 25, has been adopted. In cases where the adopted benchmark was identified the variance proportions of the constructs were examined with a benchmark of 90% (0.90). If two or more constructs met or exceeded the benchmark, purification in the form of removing one or more variables was required.

Multicollinearity analysis was carried out for the formative latent variables; explicit contracts, influence strategy and financial performance and the results along with the identification of the dependent variable are presented in Tables 9-1, 2 & 3 below.

9.2.1.1 *Multicollinearity Analysis*

The results presented in Tables 9-1, 2 & 3 confirm multicollinearity is not a concern with any of the FLVs. All VIF values are below the adopted benchmark of 5.0 and the Condition

Indices confirm no value above the adopted benchmark of 25, thus ruling out the need to examine indicator variances.

Table 9-1 - Collinearity Analysis - Explicit Contracts

Indicators	Collinearity Statistics	
	Tolerance	VIF
Our partnership is governed predominately by the written contract [EC1]	0.731	1.368
Communication on formal basis [EC2]	0.658	1.520
We have developed ways of working with our partner not identified in the written contract. [EC3]	0.868	1.152

Note: Dependent Variable: As partners we cooperate closely in the management of the partnership.

Model	Indictaor	Eigenvalue	Condition Index	Variance Proportions			
				(Constant)	Written contract governs partnership	Communication on a formal basis	Working in ways not identified in the contract
1	1	3.717	1.000	0.00	0.01	0.01	0.00
	2	0.178	4.569	0.05	0.73	0.00	0.07
	3	0.064	7.598	0.11	0.25	0.99	0.07
	4	0.400	9.168	0.83	0.01	0.00	0.86

Note: Dependent Variable: ‘As partners we cooperate closely in the management of the partnership.’

Table 9-2 - Collinearity Analysis - Influence Strategy

Indicators	Collinearity Statistics	
	Tolerance	VIF
Client uses negative sanctions [IS1]	0.724	1.381
Reliance on legal contract to make partnership work [IS2]	0.723	1.383
Rewards for complying with specific course of action [IS3]	0.856	1.168
Client wants something but does/ does not make consequences clear [IS4]	0.856	1.169
Better of for following a specific course of action [IS5]	0.906	1.104

Note: Dependent Variable: ‘The client monitors the extent to which established procedures are followed.’

Model	Indicators	Eigenvalue	Condition Index	Variance Proportions					
				(Constant)	Client uses negative sanctions	Reliance on legal contract to make partnership work	Rewards for complying with specific course of action	Client wants something but does/ does not make consequences clear	Better of for following a specific course of action
1	1	5.601	1.00	0.00	0.00	0.00	0.00	0.00	0.00
	2	0.152	6.708	0.00	0.07	0.29	0.08	0.00	0.11
	3	0.101	7.437	0.00	0.00	0.10	0.12	0.55	0.00
	4	0.084	8.152	0.01	0.10	0.14	0.12	0.01	0.61
	5	0.046	10.997	0.01	0.75	0.43	0.07	0.16	0.26
	6	0.016	18.841	0.98	0.07	0.04	0.60	0.29	0.01

Note: Dependent Variable: ‘The client monitors the extent to which established procedures are followed.’

Table 9-3 - Collinearity Analysis - Financial Performance

Indicator	Collinearity Statistics	
	Tolerance	VIF
Our financial objectives for the project have been met.[FP1]	0.996	1.004
The cost of delivering partnership services has exceeded expectations. [FP2]	0.996	1.004

Note: Dependent Variable Experience of dealing with our partner is excellent.

Model	Indicator	Eigenvalue	Condition Index	Variance Proportions		
				(Constant)	Project financial objectives met	Cost of delivering partnership services has exceeded expectations
1	1	2.760	1.000	0.01	0.02	0.02
	2	0.173	3.995	0.01	0.71	0.34
	3	0.067	6.429	0.98	0.26	0.64

Note: Dependent Variable Experience of dealing with our partner is excellent.

9.3 TESTING MEASUREMENT ACCURACY

This section presents results related to the accuracy of the Reflective Latent Variables (RLVs) in the form of reliability and validity. Churchill (1979) points out that if a measure is valid it is reliable, however, Spector (1980) suggests the essential property of reliability should first be established before conducting validity tests. Accordingly, THIS author first reports the results from the tests of reliability before proceeding to discuss those from the tests for validity.

9.3.1. Reliability

Reliability is an assessment of the degree of consistency between multiple measurements of a reflective latent variable and relates to the degree of consistency when a scale is used repeatedly (Chisnal, 2001; Malhotra & Birks 2005). A number of approaches have been recommended to assess reliability including: test retest reliability (repeated reliability), alternative form reliability, internal consistency reliability and individual item reliability (see among others, DeVellis, 1991; Malhotra and Birks 2005; Tull & Hawkins, 1993; Zikmund, 1997). In the remainder of this section the author discusses only those reliability test used in the study which because of practical difficulties of engaging geographically dispersed senior executives excludes retest reliability and alternative form reliability.

Composite Reliability - is a measure of the overall reliability of a collection of heterogeneous but similar items/indicators, which applies to multiple-indicator measures, with the key issue

being whether the indicators that make up the scale are consistent. In testing internal reliability (consistency) because no single item is a perfect measure of reliability, internal consistency has been assessed by calculating Cronbach's Alpha (α) and item-total-correlation.

Cronbach's Alpha, is the most widely used measure of internal consistency, which produces a correlation figure known as coefficient. This varies between 0 (no internal correlation and therefore no internal consistency) and 1 (perfect correlation and therefore complete internal consistency). There is a degree of variability amongst academics about the benchmark for acceptable Cronbach's Alpha values, e.g., Malhotra & Birks (2005) and Tull & Hawkins (1993) suggest 0.6 and Churchill (1997) proposes 0.7. In this study the cut-off value of 0.7 has been adopted, meaning that if the Cronbach's Alpha value is less than 0.7 any item which could be removed to improve this value and increase the reliability of the scale was removed.

The item-to-total correlation measure is designed to provide information about the unidimensionality (the degree to which each item measures the same underlying concept) of the scale. Ranging between 0 and 1 the *item-to-total* coefficient tests the fit between the item and the rest of the scale with higher numbers indicating the best fit with the scale. The Hair *et al.* (2003) rule of thumb that the item-to-total correlation should exceed 0.50 was adopted with the result that scale items exhibiting an item-to-total correlation of less than 0.5 were deemed to be inconsistent and removed.

Where reflective indicators under PLS exhibited loadings with the intended construct of 0.60 or more and were found to be significant following bootstrapping analysis these were retained. The following sections present the detailed results of the above tests in the sequence in which the tests were undertaken.

9.3.1.1 *Integrated Governance Strategy*

In this section the reliability data for the relational governance dimensions of joint planning and joint problem solving is reported.

As shown in Table 9-4 below the initial Cronbach's α for joint planning was 0.785 and for joint problem solving 0.834. We can see from the table that all item-to-total correlations were above 0.50, the PLS solution loadings were significant and the composite reliability values of 0.876 and 0.897 are also above the benchmark of 0.7. Consequently, no change to the scale items was considered necessary.

Table 9-4 - Reliability Data - Joint Planning and Joint Problem Solving

Scale Items	Cronbach's α Test – Final Value		PLS Loadings		
	Item-total Correlation	α Value	Final Solution	T Statistics	Composite Reliability
Joint Planning					
JP1	0.721	0.785	0.793	12.84***	0.876
JP2	0.606		0.654	5.91***	
JP3	0.564		0.717	9.38***	
Joint Problem Solving					
JPS1	0.758	0.834	0.867	26.70***	0.897
JPS2	0.764		0.841	18.49***	
JPS3	0.579		0.662	6.97***	
JPS4	0.605		0.742	13.11***	

Note: * $p<0.05$, ** $p<0.01$, *** $p<0.001$

9.3.1.2 Integrated Control Strategy

In this section the reliability data for the control strategy dimensions of output control, process control and information exchange is reported. The information presented in Table 9-5 indicates that for all these dimensions of integrated control strategy, the benchmarks adopted have been met. The initial Cronbach's α for output control was 0.755, for process control this was 0.773 and for information exchange 0.905, whilst the composite reliability results were 0.827, 0.815 and 0.930 respectively. Please note that OC1 the first of the output control measures had a low item to item correlation and was removed. In so doing the Cronbach's α was increased to the reported level.

Table 9-5 - Reliability Data- Output Control, Process Control and Information Exchange

Scale Items	Cronbach's α Test – Final Value		PLS Loadings		
	Item-total Correlation	α Value	Final Solution	T Statistics	Composite Reliability
Output Control					
OC2	0.631	0.755	0.834	3.65***	0.827
OC3	0.577		0.862	4.45***	
OC4	0.605		0.760	2.711**	
Process Control					

Scale Items	Cronbach's α Test – Final Value		PLS Loadings		
	Item-total Correlation	α Value	Final Solution	T Statistics	Composite Reliability
PC1	0.661	0.773	0.849	14.84***	0.815
PC2	0.686		0.871	23.93***	
PC3	0.496		0.775	10.37***	
Information Exchange					
IE1	0.817	0.905	0.900	25.34***	0.930
IE2	0.806		0.891	26.54***	
IE3	0.695		0.792	4.14***	
IE4	0.839		0.912	18.05***	

Note: * $p<0.05$, ** $p<0.01$, *** $p<0.001$

9.3.1.3 Relationship Quality

In this section the reliability data for the Relationship Quality dimensions of cooperation, atmosphere and adaptation is reported. The information presented in Table 9-6 indicates that for these dimensions of relationship quality the majority of the benchmarks adopted have been met. The initial Cronbach's α for cooperation 0.869, for atmosphere this was 0.922 and for information exchange 0.716, whilst the composite reliability results were 0.921, 0.944 and 0.817 respectively.

Table 9 - 6 - Reliability Data – Cooperation, Atmosphere and Adaptation

Scale Items	Cronbach's α Test – Final Value		PLS Loadings		
	Item-total Correlation	α Value	Final Solution	T Statistics	Composite Reliability
Cooperation					
RQC1	.740	0.869	0.896	29.48***	0.921
RQC2	.688		0.844	15.54***	
RQC3	.828		0.933	33.91***	
Atmosphere					
RQAT1	.873	0.922	0.933	45.86***	0.944
RQAT2	.889		0.934	38.77***	
RQAT3	.774		0.898	18.72***	
Adaptation					
RQAD1	.687	0.716	0.888	31.67***	0.817
RQAD2	.476		0.768	10.77***	
RQAD4	.528		0.742	8.07***	

Note: * $p<0.05$, ** $p<0.01$, *** $p<0.001$

9.3.1.4 Performance

In this section the reliability data for the Performance dimension of Service Performance is reported. The information presented in Table 9-7 indicates that for this dimension of

performance the benchmarks adopted have been met. The initial Cronbach’s α for service performance was 0.835, whilst the composite reliability result was 0.907.

Table 9-7- Reliability Data - Service Performance

Scale Items	Cronbach’s α Test – Final Value		PLS Loadings		
	Item-total Correlation	α Value	Final Solution	T Statistics	Composite Reliability
SP1	0.771	0.835	0.907	36.96***	0.907
SP2	0.724		0.886	23.08***	
SP3	0.624		0.827	19.043***	

Note: * $p<0.05$, ** $p<0.01$, *** $p<0.001$

9.4 VALIDITY

The validity of the research model constructs is tested to determine whether a construct measures what it is intended to measure (Churchill, 1979). Validity is further inferred from the manner in which a scale was constructed, its ability to predict specific events or its relationship to other constructs. In this section the three types of validity (content, convergent and discriminant) that correspond to these operations is examined.

9.4.1 Content Validity

Content validity refers to whether the domain of the characteristics of the constructs is captured by the measure (Churchill, 1979) by determining whether the measure includes an adequate and representative set of items that would tap the concept.

In order to develop measures capable of capturing the content of the research constructs, the procedure proposed by Churchill (1979) was followed during the operationalisation of the measurements. The procedure started with an extensive study of the subject matter in order to gain a thorough understanding of and grounding in the issues involved. The examination of theoretical literature (see Chapters 2, 3 and 4 – Literature Review and Chapter 5 – The Research Models and Related Hypotheses) highlighted that with the exception of performance, the research constructs had been the subject of previous empirical research studies in which the measures had been operationalised. Having identified the constructs and their measure empirical definitions, it is usual to review these with professionals and practitioners from the

target population. However, in this case as the target population were difficult to locate and geographically dispersed there was no easy way to achieve this. Instead the author discussed these with colleagues and other professionals who were known to the author and who worked in the same field. In respect of performance, the measures used were identified during these discussions.

9.4.2 Convergent Validity

Convergent validity assesses the degree to which two (or more) measures of the same construct are correlated. As the convergent validity of a construct represents the ratio of the amount of variance of its indicators captured by the construct, relative to the amount of total variance due to measurement error (Cool *et al.* 1989) such validity can only be examined where reflective latent variables are used. Convergent validity requires that a measure should only correlate highly with other measures of the same construct (Malhotra and Birks, 2005) if the scale is measuring its intended concept. Two approaches were utilised for the purposes of this research study, namely; Average Variance Extracted and Cross Loadings both obtained from PLS. These are discussed in the sections below.

Average Variance Extracted (AVE) – Average variance extracted reflects the overall amount of variance in the indicators accounted for by the latent construct and higher variance extracted values occur when the indicators are truly representative of the latent construct. As suggested by Fornell and Lacker (1981), AVE provides a measure of convergent validity. In this research study their recommendation that AVE should be greater than 0.50 (i.e. that 50% or more of the indicators' variance should be accounted for) is adopted.

PLS Cross Loadings – Similar to employing factor analysis, the loadings and cross loadings of the reflective latent construct indicators generated by PLS were also examined. The indicators should show high correlation on a hypothesised latent variable and low correlation with other indicators assumed to reflect different sets of common underlying dimensions/latent variables. Although all constructs were examined simultaneously, in order to simplify the

presentation of the results only the cross-loading of those constructs allocated to the same dimensions are presented.

9.4.2.1 Integrated Governance Strategy

As shown in Table 9-8 the AVE values for the relational governance dimensions of joint planning (0.702) and joint problem solving (0.688) above the adopted benchmark of 0.5. A comparison of the respective cross loadings shows these to be consistently higher than for the other dimensions.

Table 9-8 - PLS Cross Loadings for Reflective Dimensions in the Relational Governance Construct

Constructs		Joint Planning (R)	Joint Problem Solving (R)
Joint Planning	JP1	0.918	0.615
	JP2	0.778	0.472
	JP3	0.870	0.533
Joint Problem Solving	JPS1	0.630	0.912
	JPS2	0.571	0.909
	JPS3	0.415	0.725
	JPS4	0.529	0.751
AVE		0.702	0.688

9.4.2.2 Integrated Control Strategy

As shown in Table 9-9 the AVE values – output control 0.583, information exchange 0.771 and behaviour (process) control 0.699 - are above the adopted benchmark of 0.5. A comparison of the respective cross loadings shows that the magnitude of these is consistently higher than for other dimensions with the exception of PC3. It is noted that the cross loading between information exchange and PC3 indicates the respondents could not distinguish between the two.

Table 9-9 -PLS Cross Loadings for Reflective Dimensions in the 'Integrated Control Strategy' Construct

Constructs		Output Control (R)	Information Exchange (R)	Process Control (R)
Output Control	OC2	0.753	0.343	0.466
	OC3	0.676	0.450	0.446
	OC4	0.860	0.247	0.365

Constructs		Output Control (R)	Information Exchange (R)	Process Control (R)
Process Control	PC1	0.499	0.165	0.972
	PC2	0.375	0.288	0.830
	PC3	0.243	0.452	0.422
Information Exchange	IE1	0.217	0.897	0.167
	IE2	0.168	0.902	0.120
	IE3	0.364	0.791	0.259
	IE4	0.307	0.909	0.148
AVE		0.583	0.771	0.699

9.4.2.3 Relationship Quality

As shown in Table 9-10 the AVE values – cooperation 0.795, adaptation 0.539 and atmosphere 0.849 - are above the adopted benchmark of 0.5. A comparison of the respective cross loadings shows that the magnitude of these is consistently higher than for other dimensions with the exception of AD3. It is noted that the cross loading between atmosphere and AD3 indicates the respondents could not distinguish between the two.

Table 9-10 - PLS Cross Loadings for Reflective Dimensions in the Relationship Quality Construct

Constructs		Cooperation (R)	Adaptation (R)	Atmosphere (R)
Cooperation	RQC1	0.888	0.626	0.791
	ROC2	0.873	0.702	0.641
	RQC3	0.919	0.577	0.790
Adaptation	RQAD1	0.697	0.888	0.284
	RQAD2	0.557	0.762	0.466
	RQAD3	0.232	0.497	0.446
	RQAD4	0.510	0.752	0.365
Atmosphere	RQAT1	0.818	0.521	0.943
	RQAT2	0.704	0.441	0.934
	RQAT3	0.758	0.409	0.887
AVE		0.795	0.539	0.849

9.4.2.4 Performance

As shown in Table 9-11 the AVE value for service performance is 0.760 and is above the adopted benchmark of 0.5.

Table 9-11 - PLS Cross Loadings for the Reflective Dimension in the Performance Construct

Constructs	Service Performance (R)
Service Performance SP1	0.923
SP2	0.903
SP3	0.791
AVE	0.760

9.4.3 Discriminant Validity

Discriminant validity is the degree to which two conceptually similar concepts are distinct, thus implying a measure should correlate poorly with other dimensions/items that are supposed to be different (Churchill and Iacobucci, 2004). Discriminant validity means that a latent variable is able to account for more variance in the observed variables associated with it than a) measurement error or similar external, unmeasured influences; or b) other constructs within the conceptual framework. If this is not the case, then the validity of the individual indicators and of the construct is questionable (Fornell and Larcker, 1981).

If discriminant validity is not established then conclusions regarding relationships between constructs under investigation may be incorrect. For example, the strength of the relationship may be over stated, or a relationship may be confirmed which does not exist.

One method of establishing the extent of discriminate validity is to examine the square root of the construct's AVE which should be noticeably greater than its bivariate correlation with other constructs in the model. An alternative is to use the average variance extracted (AVE) versus shared variance test which was presented by Fornell and Larcker (1981) as a method of assessing the discriminate validity of two or more factors. This methodology involves the comparison of the AVE for each construct with the shared variance (the amount of variance that a construct is able to explain in another construct, represented by the square of the correlation between any two constructs) between constructs, arguing that where the AVE for each construct is greater than its shared variance with any other construct, discriminant validity is supported. This was acknowledged by Hair *et al.* (2006, p.778) who note that, 'variance extracted estimates should be greater than the squared correlation estimate.' Additionally, Fornell and Larcker (1981, pp.45-46) indicate that for any two constructs, A and B, the AVE for both A and B need to be larger than the shared variance between A and B. It is this methodology that has been used in this study and the results are shown in Table 9-12.

Table 9-12 highlights that there is insufficient discriminant validity between the Joint Problem Solving and Cooperation constructs. In this case, the shared variance correlation exceeds one

of the AVEs, namely Joint Problem Solving. This suggests that the cooperation measures explain more of the variance than the Joint Problem Solving observed variables (4), despite the fact that these measures are meant to explain cooperation. This creates doubt as to the merits of the Cooperation variable as well as casting doubt about the interpretation of the hypothesis between Joint Problem Solving and Cooperation, which was found to be significant. This has been identified as a limitation in the full list of limitations included in Chapter 11, Section 11.6.

Table 9-12 - Correlation Matrix for the Research Constructs Dimensions

Dimensions	Governance Strategy			Control Strategy				Relationship Quality			Performance	
Constructs	Explicit Contracts	Joint Problem Solving	Joint Planning	Output Control	Process Control	Influence Strategy	Information Exchange	Cooperation	Adaptation	Atmosphere	Service Perf.	Financial Perf.
Explicit Contracts	N/A	0.421	0.305	0.013	0.007-	0.209	0.496	0.348	0.141	0.261	0.165	0.007
Joint Problem Solving	0.649	0.688	0.393	0.101	0.072	0.362	0.533	0.767	0.468	0.735	0.684	0.142
Joint Planning	0.552	0.627	0.702	0.155	0.192	0.222	0.462	0.498	0.520	0.305	0.318	0.045
Output Control	0.114	0.318	0.394	0.583	0.239	0.020	0.202	0.195	0.228	0.125	0.101	0.097
Process Control	0.028	0.269	0.438	0.489	0.699	0.008	0.134	0.117	0.419	0.026	0.116	0.036
Influence Strategy	0.457	0.602	0.471	0.141	0.026	N/A	0.235	0.309	0.113	0.445	0.297	0.142
Information Exchange	0.704	0.730	0.680	0.449	0.366	0.485	0.771	0.555	0.373	0.445	0.607	0.092
Cooperation	0.590	0.876	0.706	0.442	0.342	0.556	0.745	0.795	0.496	0.692	0.607	0.122
Adaptation	0.376	0.684	0.721	0.478	0.647	0.336	0.611	0.704	0.539	0.236	0.318	0.037
Atmosphere	0.511	0.857	0.552	0.354	0.161	0.647	0.667	0.832	0.486	0.849	0.753	0.288
Service Performance	0.406	0.827	0.564	0.318	0.340	0.545	0.594	0.779	0.564	0.868	0.760	0.344
Financial Performance	0.027	0.377	0.212	0.312	0.191	0.377	0.304	0.350	0.193	0.537	0.587	N/A

The AVEs of the reflective latent variables are shown on the diagonal in bold. Correlations are below the diagonal and the shared squared correlations are above the diagonal. Where N/A is printed the construct in question is a formative indicator.

CHAPTER 10 - TESTING for HIGHER ORDER STRUCTURES, the HYPOTHESISED PATHWAYS and MODEL FIT

10.1 INTRODUCTION

This Chapter reports the analysis related to the constructs in both the high level research and lower level operational models. The analytical approach is briefly outlined and is followed by the presentation of analysis of the higher order structures. The results derived from the testing of the direct and indirect pathways between the constructs in the high level research model are discussed before the results of the direct pathways in the lower level operating model are presented. For both models the R^2 and overall model goodness of fit statistics are reported and commented on. The Chapter finishes with a brief discussion of the high level research and lower level operating model results.

As the high level research model is hierarchical in nature the next section outlines how the author will approach the analysis of this model.

10.2 HIERARCHICAL MODEL ANALYTICAL APPROACH

Hierarchical or multi-dimensional constructs are defined as constructs involving more than one dimension (Edwards, 2001) as opposed to uni-dimensional constructs which are characterised by a single underlying dimension (Netemeyer *et al.* 2003). Proponents of the use of higher-order constructs have argued that they allow for more theoretical parsimony and reduce model complexity (Edwards, 2001 and Law *et al.* 1998). Moreover, hierarchical construct models allow matching the level of abstraction for predictor and criterion variables (Edwards, 2001). Fischer (1980) refers to this as measure specificity, that is, predictor and criterion (latent) variables should be related to each other on the same level of abstraction.

Given these characteristics, hierarchical models can be estimated using SEM. Whilst both covariance-based SEM and Partial Least Squares (PLS) path modelling can be used to estimate the parameters in a hierarchical model, the former has constraints relating to: distributional properties, measurement level, sample size, model complexity, identification, and factor indeterminacy (Chin, 1998) In hierarchical models, there are additional constraints including:

the number of lower order factors/variables needed for each higher order factor, the number of manifest variables desired for lower order factors and problems with the inclusion of formative indicators.

These problems can be avoided with the use of component-based SEM or PLS path modelling (Chin, 1998 and Chin and Newstead, 1999). Fornell and Bookstein (1982) show that PLS path modelling ensures against improper solutions by the removal of factor indeterminacy; latent variable scores are determinate and can be directly estimated. Additionally, Chin and Newstead (1999) observe that PLS is especially appropriate where: the main objective of the study is prediction, the phenomenon under study is new or changing, the model is relatively complex (i.e., large number of manifest and latent variables), formative constructs are included in the conceptual framework, and the data do not satisfy the assumptions of (multivariate) normality, large sample size and independence.

PLS allows for the conceptualisation of a hierarchical model through the repeated use of manifest variables (e.g., Tenenhaus *et al.* 2005). A higher order latent variable can thus be created by specifying a latent variable that represents all the manifest variables of the lower order latent variables. For example, if a second order latent variable consists of two underlying first order latent variables, each with three indicators the second order latent variable can be specified using the six first order latent variable indicators. Consequently, the manifest variables are used twice: for the first order latent variables (the primary loadings) and for the second order variable (the secondary loadings). Having thus specified the outer model (measurement model) the inner model (structural model) accounts for the hierarchical component of the model, as it represents the loadings of the second order latent variable on the first order latent variable. An illustrative example is presented in Figure 10-1.

Consequently, in Figure 10-1, the higher order latent variable is operationalised as a composite of the two lower order latent variable indicators X1 to X6. For the structure to be supported, the regressions coefficients γ_1 and γ_2 should be statistically significant.

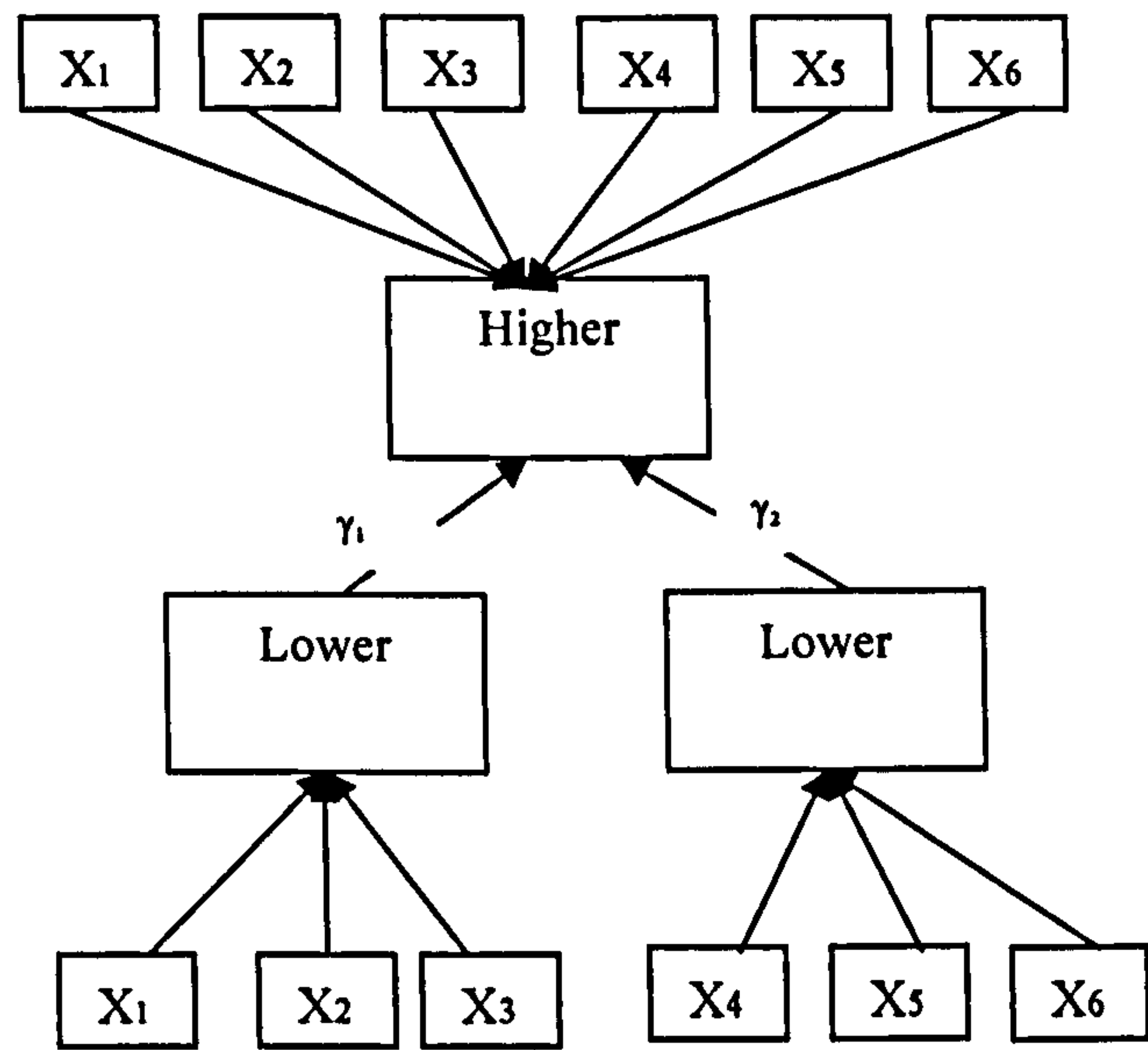


Figure 10-1 – Example of Testing Higher Order Structures Using Repeated Measures.

The above sets out a strong rationale for the use of PLS path modelling to analyse the study data and in the next section, to statistics used to assess the high level research and lower level operational models are discussed.

10.2.1 Model Assessment

The higher order structures will be tested by identifying the regression coefficients and t-statistics of the direct pathway between the lower and higher order constructs. The same two statistical tests will also be used in examining the direct pathways between the constructs in the high level research and the lower level operational models. Together these statistics provide the reader with information about the strength and direction of the relationship between the constructs and evidence as to the likelihood that the observed differences reflect real differences in the population and did not happen by chance.

In assessing the statistical significance of loadings, weights and pathway coefficients (given as standardised values) a bootstrapping analysis was employed (Chin 1998 for justification of bootstrapping over jack-knife) with estimates on 500 samples (Mathieson *et al.* 2001). Using Student t-value tables with n-1 degrees of freedom (where n is the number of samples) resulted in one-tail critical values for 0.05, 0.01 and 0.001 levels of significance, of 1.65, 2.33 and 3.09 respectively.

The explanatory power of the models has been tested by calculating the amount of variance explained by the model R^2 . Specifically, this provides information about the proportion of variance in the dependent variable due to the linear effect of a set of interval level independent variable. The interpretation is similar to that employed under traditional multiple regression analysis, i.e., if R^2 is low (below 0.3) then the predictions are likely to be subject to a lot of error, however, if R^2 is high then the regressions and estimates made on the basis of the regression coefficients are likely to have greater accuracy.

A second test will be used to assess overall model fit. Known as goodness of fit (GoF) this measures the correspondence of the actual or observed input matrix with that predicted from the proposed model, in other words, the degree to which the specified indicators represent the hypothesised constructs. As PLS has been used in this study, and PLS makes no assumptions about the distribution of the variables traditional parametric-based approaches cannot be employed to establish model goodness of fit. However, Tenenhaus *et al.* (2005) have proposed that a path model can be validated by calculating a global criterion of goodness-of-fit (Amato *et al.* 2004) as the geometric mean of the average communality and the average R^2 and this approach has been adopted. Whilst there is no established threshold for GoF, the higher the values the better the fit.

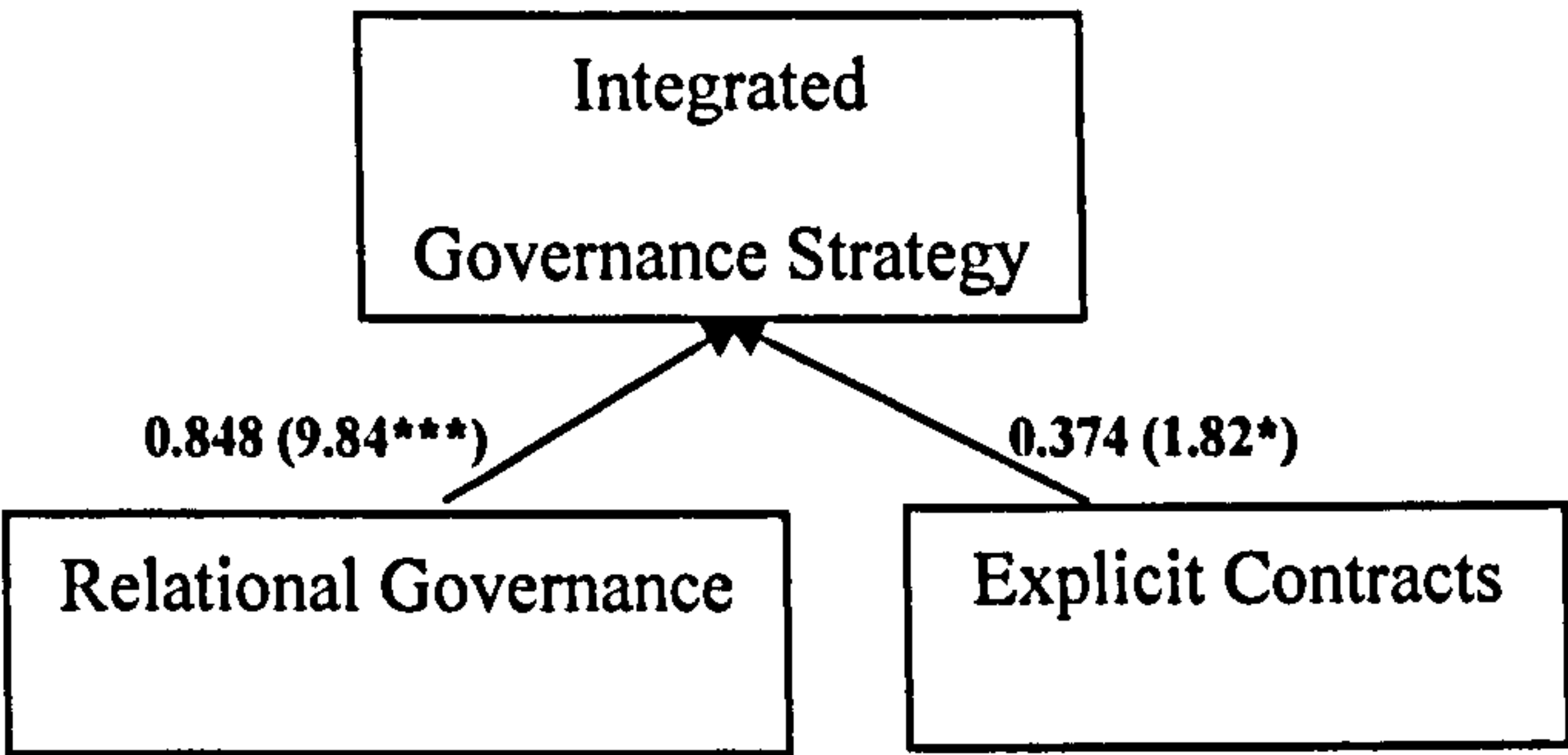
The model assessment activity starts with the testing of the higher order structures in the next section.

10.3 TESTING HIGHER ORDER STRUCTURES

The high level research model which can be found in Chapter 5, Section 5.2 comprises the constructs of integrated governance strategy, integrated control strategy, relationship quality and performance, which are conceptualised as higher order constructs. In this section, the author will examine the conceptualisation of these constructs using the approach outlined in 10.2 above.

10.3.1 Integrated Governance Strategy

The pathways linking the lower order dimensions to the hypothesised construct integrated governance strategy were examined with Figure 10-2 confirming both pathways are significant and thereby the conceptualisation of integrated governance strategy as a higher order factor of the explicit contracts and relational governance dimensions.

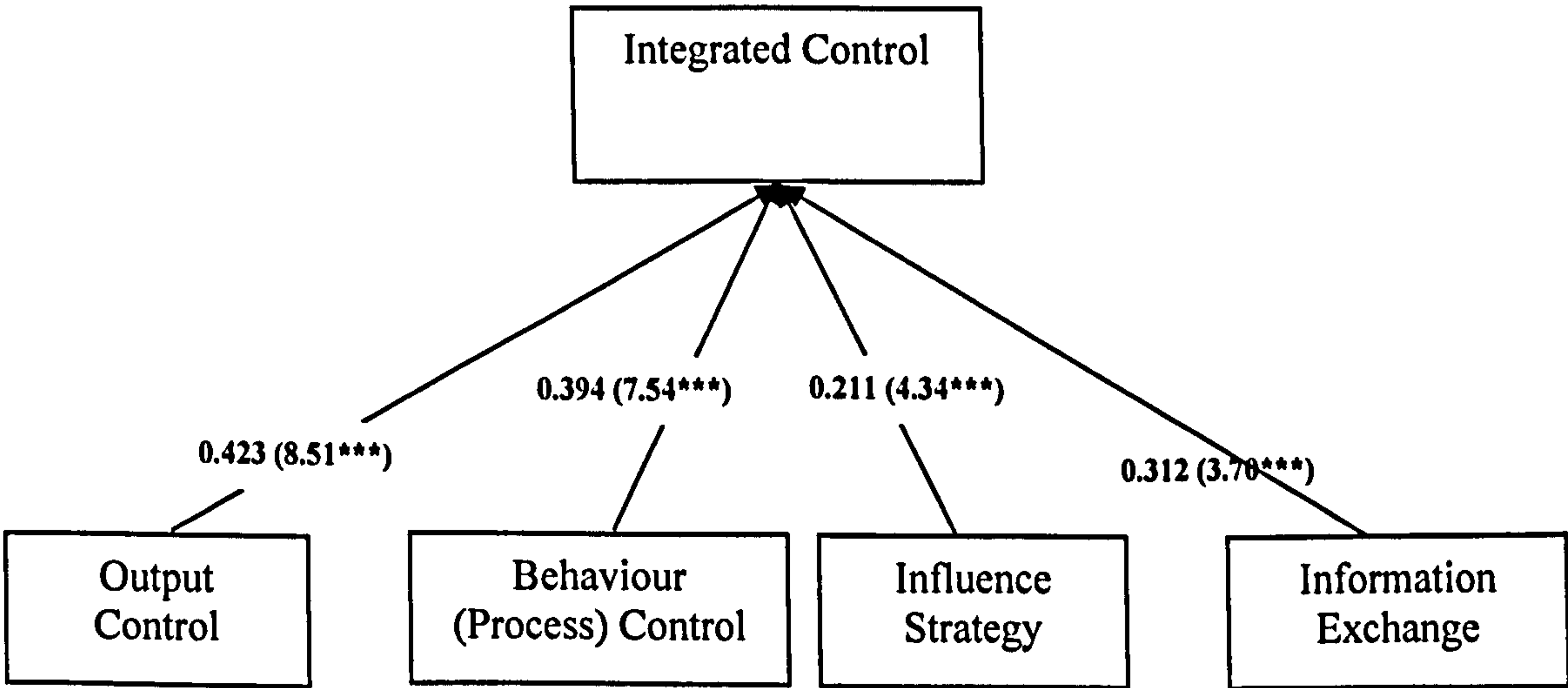


Note: * $p<0.05$, ** $p<0.01$, *** $p<0.001$

Figure 10-2 – Integrated Governance Strategy Dimension - PLS Results of Second Order Solution

10.3.2 Integrated Control Strategy

The integrated control strategy construct comprises the dimensions; output control, behaviour (process) control, influence strategy and information exchange.



Note: * $p<0.05$, ** $p<0.01$, *** $p<0.001$

Figure 10-3 - Control Strategy Dimension - PLS Results of Second Order Solution

Figure 10-3 confirms all pathways are significant thereby validating the conceptualisation of the higher order integrated control strategy construct.

10.3.3 Relationship Quality

The pathways linking the dimensions cooperation, atmosphere and adaptation, to the hypothesised higher order relationship quality construct were examined and are shown in Figure 10-4.

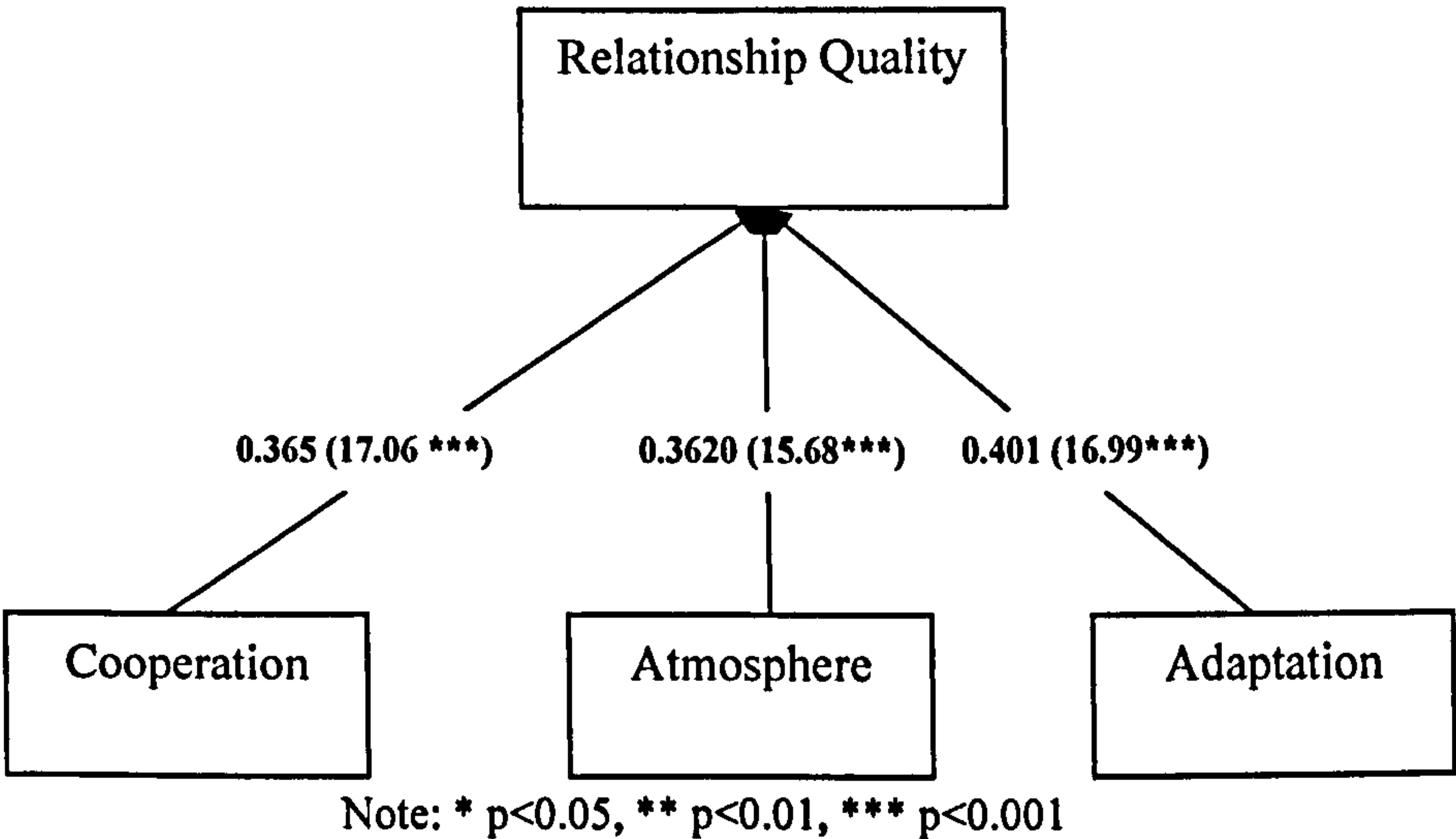
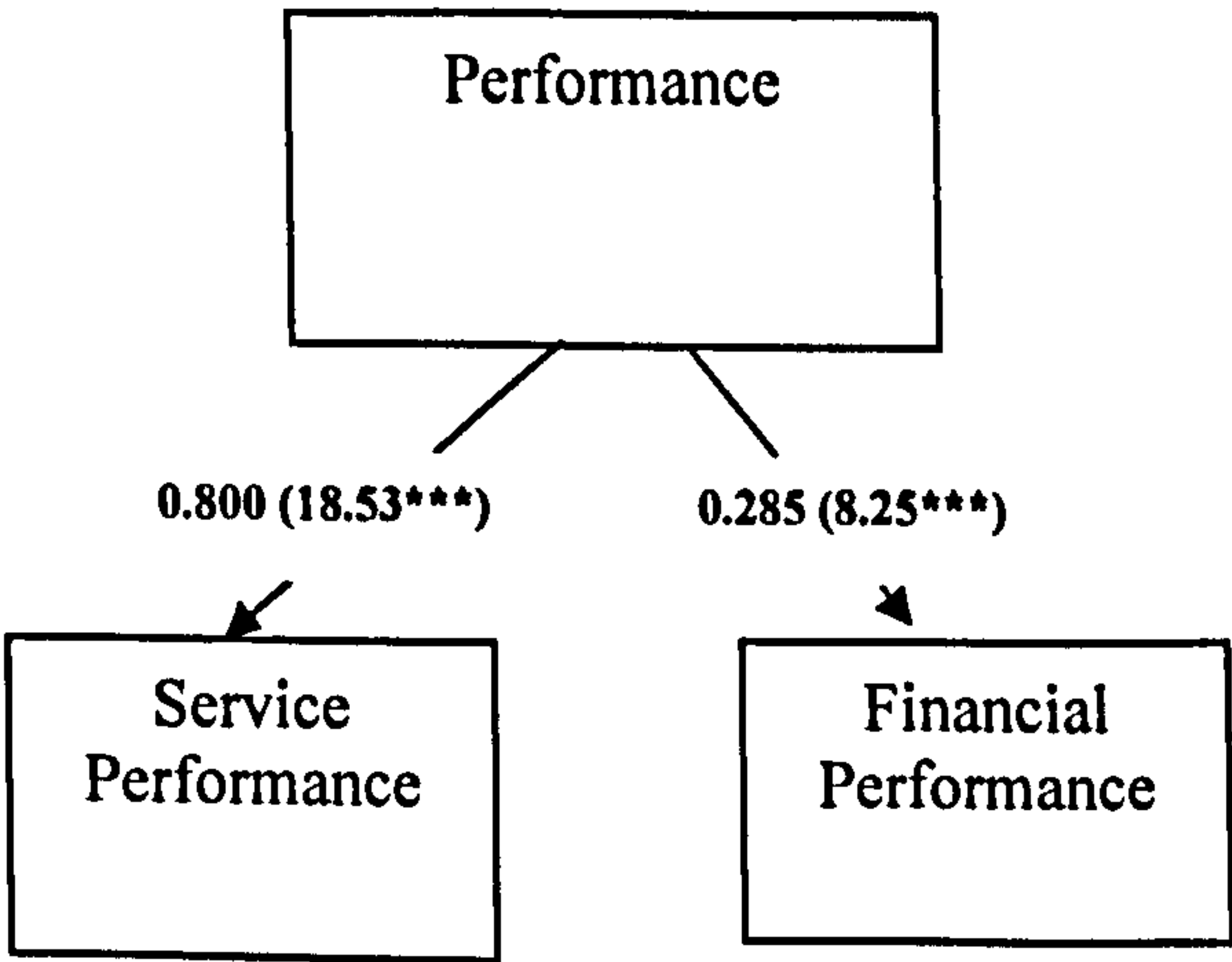


Figure10-4- Relationship Quality Dimension - PLS Results of Second Order Solution

This Figure confirms all pathways are significant, thereby validating the conceptualisation of the relationship quality construct as a higher order factor of the cooperation, atmosphere and adaptation dimensions.

10.3.4 Performance

The pathways linking the dimensions financial performance and service performance to the hypothesised higher order performance construct were examined.



Note: * p<0.05, ** p<0.01, *** p<0.001

Figure 10-5 - Performance Dimension - PLS Results of Second Order Solution.

Figure 10-5 confirms both pathways are significant thereby validating the conceptualisation of performance construct as a higher order construct of the financial performance and service performance dimensions.

10.4 TESTING THE HIGH LEVEL RESEARCH AND LOWER LEVEL OPERATIONAL MODELS

In this section the author presents the results from the testing of the high level research and lower level operational models, starting with the high level research model. Once a solution is obtained, following recommendations by Barclay and Benson (1990), and in line with traditional regression analysis, an iterative process of eliminating non-significant pathways as well as examination of correlations for possible additional pathways is employed. The process is repeated until a stable solution is obtained.

10.4.1 The High Level Research Model

Table 10-1 shows the initial and final solutions for the research model. The initial solution indicates that the hypothesised relationships between integrated governance strategy and integrated control strategy and performance were not supported. These were removed in line with the iterative process outlined above until a stable solution was achieved in which four of the six hypothesised pathways were supported (see final solution column). The R² figures for the dependent variables are all above 0.60 and the overall goodness of fit values are notable.

Table 10-1 – PLS Solution for the High Level Research Model

Pathway	Initial Coefficient & T Statistics	Final Solution Coefficient & T Statistics
Integrated Governance Strategy → Integrated Control Strategy	0.826 (17.04***)	0.830 (19.00***)
Integrated Governance Strategy → Relationship Quality	0.703 (8.66***)	0.693 (7.78***)
Integrated Governance Strategy → Performance	0.19	-
Integrated Control Strategy → Relationship Quality	0.242 (2.39**)	0.247 (2.15*)
Integrated Control Strategy → Performance	0.24	-
Relationship Quality → Performance	0.899 (4.83***)	0.833 (24.77***)
	R ²	R ²
Integrated Control Strategy	0.682	0.689
Relationship Quality	0.833	0.826
Performance	0.694	0.694
	GoF	GoF
Goodness of Fit Value	0.49	0.49

Note: * p<0.05, ** p<0.01, *** p<0.001

In addition to reporting the direct relationships between the constructs in Table 10-1, the indirect relationships between the constructs are reported. In so doing the author has employed the Aroian version of the Sobel test (<http://people.ku.edu/~preacher/sobel/sobel.htm>), a widely used procedure to test the significance of mediation effects. Using the unstandardised regression coefficients and their respective standard errors the Sobel test provides a z value that is tested for significance against critical values from the standard normal distribution. The z values and their significances are reported in Table 10-2 below where we can see that all indirect effects are significant.

Table 10-2 – The PLS Solution for the High Level Research Model - Indirect Effect z Values and Significances

Pathway	T Statistics
Integrated Governance Strategy → Relationship Quality (via Integrated Control Strategy)	2.02*
Integrated Governance Strategy → Performance (via Relationship Quality)	4.93***
Integrated Control Strategy → Performance (via Relationship Quality)	2.14*

Note: * p<0.05, ** p<0.01, *** p<0.001.

The Integrated Governance Strategy (IGS) to Integrated Control Strategy (ICS) to Relationship Quality (RQ) to Performance (P) indirect effects is not included in Table 10-2 as the limitations of the Sobel test prevented the author from calculating this. However, the actual values (as multiplicative products) of the indirect effects are calculated and reported in Table 10-3 in order to allow the author to identify a proxy for significance, namely the indirect effect index.

Table 10-3 – The PLS Solution for High Level Research Model Indirect Effects

Pathway	Indirect Effects Index
Integrated Governance Strategy → Relationship Quality (via Integrated Control Strategy)	0.587
Integrated Control Strategy → Performance(via Relationship Quality)	0.240
Integrated Governance Strategy → Performance(via Relationship Quality)	0.438
Integrated Governance Strategy → Performance(via Control Strategy and Relationship Quality)	0.564

The indirect effect of Integrated Governance Strategy to Relationship Quality (via Integrated Control Strategy), which is significant in Table 10-2, has an index of 0.587. A similar index is, i.e. 0.564, is reported for Integrated Governance Strategy to Performance (via Control Strategy and Relationship Quality), consequently it is logical to expect that the latter indirect effect is also significant.

10.4.2 Lower Level Operational Model

In testing this model, the same iterative process outlined in Section 10.1.4.1 was followed. In the lower level operational model, the original constructs were replaced with the second order constructs, whilst retaining the original hypothesised pathways. The lower level operational model produced a total of 53 pathways, which were systematically tested. At the point a stable model was achieved, 35 of these pathways had been removed leaving 18 as supported hypothesis. Table 10-4 shows the initial and final solutions for the lower level operational model.

Table 10-4 – PLS Solution for the Lower Level Operational Model

Pathway	Initial Coefficient & T Statistics	Final Solution Coefficient & T Statistics
Explicit Contracts → Output Control	0.228	-
→ Behaviour (Process) Control	0.311 (1.81*)	0.277 (2.05*)
→ Information Exchange	0.341 (3.66***)	0.352 (3.86***)
→ Influence Strategy	0.095	-
→ Atmosphere	0.129	-
→ Cooperation	-0.037	-
→ Adaptation	-0.048	-
→ Service Performance	0.033	-
→ Financial Performance	0.295	0.335 (2.74**)
Joint Planning → Output Control	0.331	0.394 (1.89*)
→ Behaviour (Process) Control	0.514 (3.64***)	0.583 (5.07***)
→ Information Exchange	0.290 (2.48**)	0.286 (2.61**)
→ Influence Strategy	-0.198	-
→ Atmosphere	0.045	-
→ Cooperation	0.158	0.192 (2.56**)
→ Adaptation	0.303	0.350 (3.54***)
→ Service Performance	0.017	-
→ Financial Performance	0.105	-
Joint Problem Solving → Output Control	0.237	-
→ Behaviour (Process) Control	0.131	-
→ Information Exchange	0.328 (2.94**)	0.324 (3.29***)
→ Influence Strategy	-0.404 (2.60**)	-0.602 (7.62***)
→ Atmosphere	0.740 (5.64***)	0.734 (8.82***)
→ Cooperation	0.630 (6.05***)	0.706 (10.38***)

Pathway	Initial Coefficient & T Statistics	Final Solution Coefficient & T Statistics
————>Adaptation	0.294 (2.04*)	0.292 (3.15***)
————>Service Performance	0.286	0.225 (1.73*)
————>Financial Performance	0.053	-
Output Control ———>Atmosphere	0.217	-
————>Cooperation	0.132	-
————>Adaptation	0.037	-
————>Service Performance	0.077	-
————>Financial Performance	0.072	-
Behaviour (Process) Control ———>Atmosphere	0.153	-
————>Cooperation	0.005	-
————>Adaptation	0.409 (3.46***)	0.415 (4.39***)
————>Service Performance	0.219 (1.97*)	-
————>Financial Performance	0.177	-
Information Exchange ———>Atmosphere	0.159	-
————>Cooperation	0.077	-
————>Adaptation	0.037	-
————>Service Performance	0.126	-
————>Financial Performance	0.187	-
Influence Strategy ———>Atmosphere	0.190 (2.36**)	-0.205 (2.55**)
————>Cooperation	-0.037	-
————>Adaptation	0.020	-
————>Service Performance	-0.022	-
————>Financial Performance	-0.190	-
Atmosphere ———>Service Performance	0.705 (4.07***)	0.647 (5.15***)
————>Financial Performance	0.740 (2.31*)	0.708 (6.72***)
Cooperation ———>Service Performance	0.029	-
————>Financial Performance	0.236	-
Adaptation ———>Service Performance	0.022	-
————>Financial Performance	0.098	-
	R ²	R ²
Output Control	0.175	0.246
Behaviour (Process) Control	0.252	0.155
Influence Strategy	0.383	0.362
Information Exchange	0.672	0.678
Cooperation	0.822	0.816
Atmosphere	0.789	0.762
Adaptation	0.709	0.705
Service Performance	0.821	0.808
Financial Performance	0.428	0.371
	GoF	GoF
Goodness of Fit Value	0.52	0.51

Note: * p<0.05, ** p<0.01, *** p<0.001

Note: Although Chinn (1998; p.13) recommends all coefficients not greater than 0.2 are removed, the author has retained the joint planning/cooperation coefficient as this is very close to 0.2.

Although some of the constructs (e.g., output control, behaviour control) are associated with relatively low R² values, the model demonstrates considerable explanatory power for most of the constructs (see five above 0.60) and the overall goodness of fit value (GoF) is acceptable.

10.5 MODEL TESTING CONCLUSIONS

To conclude, the final solution for the high level research model demonstrates integrated governance strategy is a highly significant determinant of integrated control strategy and of relationship quality, that integrated control strategy has a weak but significant impact on relationship and relationship quality is a highly significant determinant of performance.

In the lower level operational model, which uses the high level research model construct dimensions, the results provide a 'richness' of detail not available in the research model. This confirms explicit contracts to be a significant determinant of behaviour (process) control and information exchange. It was also found to have a significant impact on financial performance. Joint planning was found to be a key activity with positive and significant relationships with output control, behaviour (process) control, information exchange and adaptation. Joint problem solving is positively and significantly linked to information exchange, atmosphere, cooperation, adaptation and service performance. It has though a negative but significant impact on influence strategy.

Behaviour (process) control has a positive and significant relationship with adaptation, and influence strategy has a negative but significant relationship with atmosphere. Atmosphere has also been found to have a positive and significant impact on service and financial performance. The results further confirm the integrity of the models and their predictive relevance.

The next Chapter (11) contains a comprehensive debate of the results from both models which can be found in Section 11.4.

Chapter 11 - CONCLUSIONS and DISCUSSION

11.1 INTRODUCTION

The purpose of this Chapter is to provide a brief overview of the study, its findings and limitations (see Section 11.2) before presenting a short debate related to achievement of the study's four objectives (see Section 11.3). Thereafter, a detailed debate of the empirical results linked to the extant literature is provided (see Section 11.4). Based on the study findings contributions to theory advancement are presented (see Section 11.5.1) and normative guidelines for the management of long-term inter-organisational partnerships are offered (see Section 11.5.2). Study limitations are presented (see Section 11.6) before future research opportunities are identified in Section 11.7. The Chapter concludes with a short conclusions section.

11.2 OVERVIEW OF STUDY FINDINGS AND LIMITATIONS

The literature review revealed that extant long-term inter-organisational partnerships management research has concentrated on the study of governance strategy (see Chapter 3) or control strategy (see Chapter 4) as independent management tools despite each being recognised as having a role to play in managing long-term inter-organisational partnerships (e.g., Aulakh and Genctürk, 2000; Claro *et al.* 2003). Within this body of research, the complementary use of formal and informal (an integrated approach) governance or control mechanisms has not been widely investigated despite researchers in both strategy areas (e.g., Carson *et al.* 2006; Cravens *et al.* 2004) acknowledging the benefits of this approach and its importance as an area for future research. The author was unable to locate research examining the effect of governance and/or control strategy choices on relationship quality, nor the effect of governance strategy choices on control strategy. A mediating role for relationship quality has also not been investigated in inter-organisational partnerships.

Having identified gaps in the extant research, two theoretically grounded models were developed. The first, the high level research model, examines the impact of using integrated governance and control strategies to manage the partnership. However, as this only provides guidance about the overall impact of governance and control strategy choices, a second lower level operational model was developed. This model allowed the author to examine the impact of the individual governance and control strategy mechanisms, thereby providing improved insights as to the impact of these choices. Both models demonstrated satisfactory R^2 and goodness of fit results and together they provide the author with the data and information needed to achieve the study aim and inform the development of an inter-organisational partnership management framework.

The model results enabled the author to achieve the stated study aim of establishing a management framework that will inform those managing inter-organisational partnerships about how their choice of governance and control strategies will impact on the quality of the partner relationships and on partnership performance. In so doing the study has contributed to the development of theory and managerial practice in the inter-organisational partnership management domain. In the rest of this section, a brief overview of the study contributions is provided and the key study limitations are identified. This starts with the high level research model.

The high level research model contained four constructs and six hypotheses, of which four were confirmed. This established that an integrated governance strategy had a positive and significant affect on relationship quality and on integrated control strategy. However the expected significant relationship with performance was not identified. Integrated control strategy was found to have a positive and significant relationship with relationship quality, though again the expected significant relationship with performance was not established. The positive and significant relationship of relationship quality with performance was confirmed.

Identifying new integrated governance strategy, integrated control strategy significant relationships advances theoretical knowledge. The absence of significant relationships between integrated governance strategy, integrated control strategy and performance is at odds with extant research (e.g. Bello *et al.* 2003; Heide *et al.* 2007). However, the number of reported inter-organisational partnership studies where these relationships have been examined is small in number and none included relationship quality in the mediating role it plays in this study. The managerial contributions are directly linked to the use of integrated governance and control strategies. The former are important as they will impact on both control strategy and relationship quality, whilst the latter impact on relationship quality. The significant relationship between relationship quality and performance is also important for managers to understand, as is the interaction between integrated governance strategy, integrated control strategy and relationship quality in enhancing partnership performance.

The lower level operational model uses the twelve lower order constructs to produce and 53 hypotheses, of which 18 were supported. The different impacts of the governance strategy constructs (explicit contracts, joint planning and joint problem solving) were easily identified and confirmed that all had a positive and significant relationship with at least one of the control strategy constructs. Joint planning and joint problem solving were found to have significant relationships with at least two of the relationship quality constructs but explicit contracts did not. Although at the higher level, no significant relationship with performance was identified, at the lower level both explicit contracts and joint planning were found to have positive relationships with financial performance and service performance respectively.

Of the control strategy constructs (output control, behaviour (process) control, influence strategy and information exchange) only behaviour (process) control and influence strategy were identified as having significant relationships with relationship quality. The former has a

strong positive relationship, whilst the latter has a strong negative relationship. None of the hypotheses with the performance constructs were supported.

Only atmosphere of the three relationship quality constructs (atmosphere, cooperation, adaptation) was found to have a significant relationship with the performance constructs. This was strong with both financial and service performance. The lower level operational model advanced theory by examining a number of relationships for the first time and was central to the development of the management framework by providing information about the impacts of individual governance and control strategy mechanisms.

As with all research studies, this study has a number of limitations that suggest future research would benefit from a different approach. Firstly the study data is from a sub-set of business services public private partnership projects, which may limit generalisation to other business sectors and to more traditional business to business partnerships. The absence of control variables meant it was not possible to identify whether more experienced partnership managers used a different management framework than their less experienced counterparts. It would also be helpful to understand how the passage of time impacts on governance and control strategy choices, something a longitudinal study would assist in identifying. A further potential limitation is related to the measurement of relationship quality, in which atmosphere could be viewed as a proxy for relationship quality as the partnership climate (atmosphere) is derived from the extent of the relational behaviours associated with cooperation and adaptation. This would explain why neither cooperation nor adaptation has a significant link with either of the performance constructs. A full list of the limitations can be found in Section 11.6 of this Chapter.

In the next section the research objectives are debated before the study findings are discussed in detail in Section 11.4.

11.3 RESEARCH OBJECTIVES

Four objectives have been defined in order to achieve the study aim and these are debated below.

Objective 1 – To develop through an extensive literature review a theoretically grounded model that will enable the evaluation of the impact of governance and control strategy on relationship quality and partnership performance in long-term inter-organisational partnerships. The review presented in Chapters 2, 3 and 4 confirmed that this study's constructs had, with the exception of financial performance, been incorporated in earlier empirically researched models. Building on this knowledge, the author combined suggestions for future research from earlier empirical studies and his experience of working in public private partnerships to develop the high level research model (see Chapter 5, Section 5.2, Figure 5-1). This model has as its constructs integrated governance strategy, integrated control strategy, relationship quality and performance. Integrated governance is hypothesised as having a direct and positive relationship with integrated control strategy, relationship quality and performance. Integrated control strategy is hypothesised to have direct and positive relationships with relationship quality and performance. Relationship quality is hypothesised as having a direct and positive relationship with performance. In the lower level operational model (see Chapter 5, Section 5.3, Figure 5-5), the high level research model constructs are disaggregated to produce a model in which the lower order constructs are used. For example, instead the higher order construct of relationship quality, this model utilises the three lower order relationship quality constructs of atmosphere, adaptation and cooperation.

Objective 2 – To operationalise the model constructs. With the exception of financial performance, all the constructs had been used and operationalised in previous empirical research (see Chapter 7 and Appendix 3 for details). The majority of these were borrowed from extant literature and subsequently adapted and contextualised for this study, however, the

operationalisation of financial performance was based on discussions with public private partnership experts (see Chapter 6, Section 6.6.1). The reliability and validity of this operationalisation was tested and the results confirmed the use of this scale (see Chapter 9, Section 9.2.1.1).

Objective 3 – To use appropriate data collection methods and analytical tools to analyse the study data and provide the information needed to evaluate the relative importance of importance of governance and control strategy choices on relationship quality and partnership performance in long-term inter-organisational partnerships. A three stage approach was adopted in order to gather the research data. Initially, the author sought to identify the person with the requisite responsibility through interrogation of existing databases and the accuracy of this data was checked via telephone contact with the named individual. Once the correct person had been identified, the author sought their verbal confirmation they would participate in the research before posting them a self administered questionnaire. See Chapter 8, Section 8.2 for a detailed discussion.

Having gathered sufficient data, partial least squares software was used to test the proposed model structure and hypothesised casual pathways in the high level research and lower level operational models (see Chapter 10). With both models demonstrating satisfactory R^2 and goodness of fit results, the author has reported both sets of findings. However, the lower order operational model comprising lower order construct relationships produced improved granularity that shed light on the confounding effects of higher order structures. This yielded a ‘richness’ of detail that supports a greater understanding of construct relationships and in turn how the choice of, say, the different governance strategy mechanisms impact on partnership performance. The findings are debated in Section 11.4 below.

Objective 4 – To develop, based on the empirical results, normative managerial guidelines setting out how the choice of governance and control strategy mechanisms will impact on

partner relationships and partnership performance. To provide the background to this, the study findings debated and related to extant literature before the theoretical contributions and managerial implications are presented in Sections 11.5.1 and 11.5.2 respectively later in this Chapter.

11.4 DETAILED DISCUSSION OF THE STUDY FINDINGS

Having provided a brief discussion of the study aims and objectives, the study findings and limitations, the high level research and lower level operational model (see Chapter 5 Sections 5.2 and 5.3) findings are reported and debated. In order to make these easily digestible for the reader, the author has provided a table towards the front of each section setting out the constructs relationships, hypotheses and the hypotheses status. This is followed by a discussion of the findings which is explicitly related, where available, to extant research. This starts with the integrated governance strategy construct.

11.4.1 High Level Research Model

The findings related to the six hypotheses in this model are debated below.

11.4.1.1 Integrated Governance Strategy Hypotheses

Integrated governance strategy is hypothesised to have a direct and positive relationship with three constructs as shown in Table 11-1.

Table 11-1-Integrated Governance Strategy Hypotheses and Results

Relationship	Hypotheses	Status
Integrated Governance Strategy → Performance	H1+	Not Supported
→ Relationship Quality	H2+	Supported
→ Integrated Control Strategy	H3+	Supported

The absence of a significant relationship with performance (H1) is incompatible with the findings of (e.g., Cannon *et al.* 2000; Ferguson *et al.* 2005; Poppo and Zenger, 2002) who all found performance to be improved through the complementary use of contracts and relational governance. In Cannon *et al.* (2000) an integrated governance strategy was found to enhance

performance in buyer/supplier relationships. Both contractual and relational governance were found to independently enhance performance and when used together they enhance performance in circumstances where there was high transactional uncertainty. Where transactional uncertainty was low the relational governance was not needed and did not enhance performance. As public private partnership projects have low levels of transactional uncertainty (indeed the transaction level is fixed for the duration of the partnership), this may explain the absence of a significant performance relationship.

The Ferguson *et al.* (2005) research investigated partnerships between bank account managers and their business customers. It examined the use of both contractual and relational governance and found them to have a significant relationship with performance, however, it examined their use in isolation rather than in a single strategy and this combined with the different type of relationship may explain why no significant performance affect was found in this study. In Poppo and Zenger (2002), who investigated outsourced information services partnerships in North America, relational and contractual governance were identified as working in a complementary manner to influence satisfaction with exchange performance. This approach has been replicated in this study, however, the measurement of performance differs, which may explain why no such finding was replicated. A further reason could be the mediating role of relationship quality was not a feature of these research studies and the identification of a strong positive significant relationship between relationship quality and performance (see Section 11.4.1.3) has eliminated any direct performance affect for an integrated governance strategy.

The support for the relationship quality (H2) and integrated control strategy (H3) hypotheses was anticipated, despite neither having being previously researched. The findings indicate that the partners decisions about which governance mechanisms to employ in the high level management of the partnership will directly affect their relationship. It also indicates the importance of these decisions to the chosen control strategy and that there should be alignment

between the choice of governance mechanism and the nature of control strategy employed. For example a governance strategy which did not encourage joint working would be incompatible with a control strategy based on behaviour (process) control which would require the partners to agree the required behaviours and amend these as circumstances dictated.

11.4.1.2 *Integrated Control Strategy Hypotheses*

Integrated control strategy is hypothesised to have a direct and positive relationship with two constructs as shown in Table 11-2.

Table 11-2-Integrated Control Strategy Hypotheses and Results

Relationship	Hypotheses	Status
Integrated Control Strategy → Performance	H4+	Not Supported
→ Relationship Quality	H5+	Supported

The two reported research studies (Genctürk and Aulakh, 2007; Heide *et al.* 2007) examining the use of integrated control strategy in inter-organisational partnerships that have identified improved performance where both formal and informal controls are used in a complementary manner. In Genctürk and Aulakh (2007) the use of relational norms and formal controls was examined in inter-organisational partnerships between manufacturers and their foreign based distributors. The independent use of both was examined with relational control being found to strengthen performance and increase satisfaction, whilst formal controls did not have any performance affect, but did enhance satisfaction. This research did not assess the impact of the simultaneous use of both and this together with the research population may explain why no significant relationship was found with performance in this study.

In the Heide *et al.* (2007) research, the use of behaviour (process) and output control were examined in conjunction with the use of social norms, to establish the impact on opportunism. They found that in both instances opportunism was reduced and although the impact of this on performance was not stated, it is reasonable to conclude reduced opportunism would be aligned to improved performance. The absence of any such relationship in this study may be explained

by the difference in the nature of the exchange (e.g., products vs. services). A further reason could be the mediating role of relationship quality was not a feature of the two referenced research studies and the identification of a strong positive significant relationship between relationship quality and performance (see Section 11.4.1.3) may have eliminated any direct performance effect for an integrated control strategy.

Extant control research has identified both formal and informal controls as having positive impacts on relationships (see Chapter 5, Section 5.2 for details) and therefore the support for the relationship quality (H5) hypothesis was anticipated, though no previous research had explored this relationship. This finding indicates that the partners decisions about which control mechanisms to employ in the operational management of the partnership will directly affect their relationship.

11.4.1.3 Relationship Quality Hypotheses

Relationship quality is hypothesised to have a direct and positive relationship with one construct as shown in Table 11-3.

Table 11-3-Relationship quality Hypothesis and Results

Relationship	Hypotheses	Status
Relationship Quality → Performance	H6+	Supported

Although there is limited research that has examined the direct relationship between relationship quality and performance in long-term inter-organisational partnerships, (e.g., Fynes *et al.* 2008) this has found a strong positive significant relationship exists. This study has also established the existence of such a relationship, despite the research population comprising public and private sector partners and the nature of the exchange being business services.

11.4.1.4 High Level Research Model Indirect Effects

Whilst integrated governance strategy and integrated control strategy both have significant direct relationships with relationship quality neither has a significant direct relationship with

performance. However, the introduction of relationship quality as a mediating variable establishes a significant indirect effect with performance for both integrated governance strategy and integrated control strategy. These findings demonstrate the importance of relationship quality as a determinant of partnership performance. Testing the indirect relationship between integrated governance strategy and relationship quality via integrated control strategy, also highlights a significant indirect effect exists. This confirms that integrated control strategy choices have an effect on the quality of the partners relationship.

11.4.2 Lower Level Operational Model

11.4.2.1 Explicit Contracts Hypotheses

Explicit contracts are hypothesised to have a direct and positive relationship with nine constructs as shown in Table 11-4. The absence of a significant relationship with service performance (H1a) is incompatible with the results of Ferguson *et al.* (2005) and Poppo and Zenger (2002). This research was carried out in North America examining service based partnerships between private sector partners, using satisfaction with partner performance as the measure of performance.

Table 11-4-Explict Contract Hypothesis and Results

Relationship	Hypotheses	Status
Explicit Contracts→Service Performance	H1a+	Not Supported
→Financial Performance	H1b+	Supported
→Atmosphere	H2a+	Not Supported
→Adaptation	H2b+	Not Supported
→Cooperation	H2c+	Not Supported
→Output Control	H3a+	Not Supported
→Behaviour (Process) Control	H3b+	Supported
→Influence Strategy	H3c+	Not Supported
→Information Exchange	H3d+	Supported

In this study, the partnerships are UK based and between the public and private sector and performance was measured by evaluating the extant to which agreed standards service delivery expectations were met. This contextual difference might provide a reason why the study's findings differ from the existing research in the form of the different way in which the two

cultures value service. As service in the UK is not as highly regarded as it is in North America this might account for the absence of significant effect. A further reason might be the construction of the contracts used in Private Finance Initiative partnerships. These do not provide financial rewards where service performance exceeds agreed standards contracts and it is possible this encourages a 'do the minimum needed' approach thereby eliminating any explicit contracts performance impact.

In respect of the explicit contract/financial performance relationship (H1b), this is consistent with research which has found explicit contracts have been found to have a positive affect on financial performance (Ferguson *et al.* 2005; Luo, 2002; Poppo and Zenger, 2002). This might be as a result of the written contract making an intangible service more tangible, thereby facilitating the management of the required service delivery and thus resulting in higher performance (Vandaele *et al.* 2007). However, at a practical level, this relationship is likely to be a result of the financial disincentives for non-performance these partnership contracts contain.

Explicit contracts were found not to be significant determinants of the relationship quality dimensions of atmosphere (H2a), adaptation (H2b) and cooperation (H2c). This is at odds with existing research results showing explicit contracts to positively (Ivens, 2005; Lusch and Brown, 1996; Poppo and Zenger, 2002) and adversely (Frazier and Summers, 1984; Lyons and Meheta, 1997; Young and Wilkinson, 1989) affect relationship quality dimensions. The absence of any affect could be the result of a failure to incorporate contract obligations to engage in activities that support a strong relationship. Other reasons for this affect might be; the partners cultural differences perpetuating suspicions that inhibit joint working or too much focus on the control function of the contract at the expense of the coordination one.

The study has established that the explicit contracts are a significant determinant of behaviour (process) control (H3b) and information exchange (H3d). Having been unable to locate extant

research in which the relationship between explicit contract and integrated control strategy has been investigated, the author has no prior insight as to what could be expected of these relationships. Based on personal experience, it is suggested that the partners are actively using the contract and the framework it creates to negotiate agreed systems and processes - (behaviour (process) control - which will involve the exchange of information. These negotiations could be limited to updating the contractual method statements included in Private Finance Initiative contracts or may involve the agreement of detailed processes that are actively used to deliver operational services.

That no significant relationship exists with output control (H3a) suggests that although this control type is the basis of all Private Finance Initiative projects, the partners have rejected this in favour of alternative control types to manage service delivery. This could be because as a service based partnership the partners believe that to the end customer the 'service experience' is as, if not more, important than the output, a belief which would reinforce the use of behaviour (process) control. The absence of a significant relationship with influence strategy (H3c) indicates that the decision to use or not use power to gain compliance and how this is used is not affected by formal governance associated with explicit contracts. This is not unexpected as the explicit right to use or abuse of power is not in the author's personal experience something that will be dealt with in the contract.

11.4.2.2 Joint Planning Hypotheses

Joint planning is hypothesised to have a direct and positive relationship with nine constructs as shown in Table 11-5. The positive and significant relationship with financial performance (H1d) is consistent with the findings of Claro *et al.* (2003) who found joint planning to have a direct and positive influence on performance as measured by sales growth. This suggests the partner planning activities are focused on activities designed to secure future contractual financial rewards.

Table 11-5-Joint Planning Hypothesis and Results

Relationship	Hypotheses	Status
Joint Planning → Service Performance	H1c+	Not Supported
→ Financial Performance	H1d+	Supported
→ Atmosphere	H2d+	Not Supported
→ Adaptation	H2e+	Supported
→ Cooperation	H2f+	Supported
→ Output Control	H3e+	Supported
→ Behaviour (Process) Control	H3f+	Supported
→ Influence Strategy	H3g+	Not Supported
→ Information Exchange	H3h+	Supported

The absence of any positive relationship with service performance (H1c) is consistent with the finding that joint planning is not significantly linked to performance as measured by perceived satisfaction Claro *et al.* (2003). One reason for this might be that joint planning activities are restricted to a token review of service delivery, alternatively this could arise because as an activity with a medium to long-term focus the impact of joint planning is not immediately translated to service performance and therefore not recognised by the partners.

Having been unable to locate research in which the relationship between joint planning, atmosphere (H2d), adaptation (H2e) or cooperation (H2f) has been investigated, the author has no prior insight as to what these relationships might be. However, if the partners undertake joint planning they will be working together, which suggests there will be a level of partner cooperation. Cooperation has been identified as important in providing the flexibility that strengthens bi-lateral commitment (Claro *et al.* 2003; Dyer and Singh, 1998, Granovetter, 1985; Macneil, 1983), thus finding that joint planning is a significant determinant for cooperation (H2f) is consistent with expectations.

It is reasonable to expect that partners who were seeking to optimise the quality of their relationship would jointly plan any adaptations, which are described as ‘the adjustments that one or other party may make in either the elements exchanged or the process of exchange,’ (Håkansson, 1982, p.18). Work planning partnership direction and activity could be expected to lead to changes in the way the partners manage the partnership and/or in the way services are

delivered and a logical consequence of this activity would be the partners adapting existing practice to facilitate and implement the agreed changes. As such, the identification of joint planning as a significant determinant for adaptation (H2e) was expected.

The absence of a significant relationship with atmosphere (H2d) can be explained by the fact that joint planning is a practical activity with behavioural manifestations, whilst atmosphere describes the climate of inter-firm relationships (Johnson, 1999) and as such is cognitive. Being cognitive, the positive feelings that contribute to the atmosphere can only be generated by the interaction between the partners. Whilst the cooperation and adaptation associated with joint planning will involve interaction, the extent and scope of this will be influenced by the medium to long-term focus and planned nature, which is less likely to stimulate a quick wins and the associated 'buzz'. Instead, it is likely this activity will contribute to a close and harmonious working relationship over a longer period of time.

The positive and direct relationship with the integrated control strategy constructs of output control (H3e), behaviour (process) control (H3f) and information exchange (H3h) suggests that though joint planning is a relational activity it is central to putting in place an effective control strategy. Whilst the author has been unable to glean any insights from previous research examining the effect of relational governance on control strategy, it is not unexpected that joint planning would have a direct and significant relationship with behaviour (process) control (H3f) and information exchange (H3h) given the nature of the activity linked to these control mechanisms. More surprising is the relationship with output control (H3e) which is designed to provide agents with the freedom to decide how they deliver their services and as such would not be expected to involve joint planning activities. This might be explained by the joint activity involved in agreeing output measures and targets. The absence of a significant relationship with influence strategy (H3g) is not unexpected as joint planning is a relational governance activity whose purpose is to create a socially embedded relationship where the

maximisation of joint utility is promoted over self interest. The finding confirms that as an activity designed to shape the future direction of the partnership and align the interests of both partners the interaction will be non-threatening thereby eliminating the need for either partner to use coercive influence strategies to achieve their mutual goals or to use non-coercive influence strategies such as requests or recommendations.

11.4.2.3 Joint Problem Solving Hypotheses

Joint problem solving is hypothesised to have a direct and positive relationship with nine constructs as shown in Table 11-6.

Table 11-6-Joint Problem Solving Hypothesis and Results

Relationship	Hypotheses	Status
Joint Problem Solving→Service Performance	H1e+	Supported
→Financial Performance	H1f+	Not Supported
→Atmosphere	H2g+	Supported
→Adaptation	H2h+	Supported
→Cooperation	H2i+	Supported
→Output Control	H3i+	Not Supported
→Behaviour (Process) Control	H3j+	Not Supported
→Influence Strategy	H3k+	Not Supported
→Information Exchange	H3l+	Supported

The positive significant relationship with the service performance (H1e) is consistent with findings of Claro *et al.* (2003) who found joint problem solving to have a positive influence on perceived satisfaction with performance. It is not unexpected that this relationship should exist given the role that joint problem solving would have in ensuring partnership service objectives are achieved.

However, the absence of a direct and significant relationship with financial performance (H1f) contrasts with the results of Claro *et al.* (2003), who found a positive and significant effect on financial performance as measured by sales growth. This might be explained by the differences in the nature of the partnerships examined and in the basis of the exchange in each. In Claro *et al.* (2003) the partnerships investigated were between private sector organisations and the exchange involved goods (flowers), whilst this study examined service based exchanges in

partnerships between public and private sector organisations. From this comparison two plausible explanations for the absence of a significant effect on financial performance arise. The first is that sales growth as a measure of financial performance is inappropriate for a Private Finance Initiative project where maximum income levels are fixed. This cap on income could significantly reduce the importance of joint problem solving on financial performance rendering its impact non-significant. The second relates to the difference between an exchange of tangible goods and intangible services. In the latter, it is highly likely that there will be a greater focus on getting the service delivery right particularly given the financial cap and the public sector service partner's service ethos. This again suggests less emphasis being placed on the financial impact of joint problem solving.

Having been unable to locate existing research examining the relationship between joint problem solving and relationship quality, the significant relationships with atmosphere (H2g), adaptation (H2h) and cooperation (H2i) have not previously been reported. However, given the nature of the interaction when partners work together to rectify partnership problems the logical consequence, as identified in this study, is the need to cooperate (H2i) and adapt (H2h) to achieve their objectives. In so doing, this would be expected to lead to a good atmosphere (H2g) between the partners as has been found in this study.

No extant research has been located in which the relationship between joint problem solving and control strategy has been examined. In the absence of reference point against which to compare the study findings, the author has set out below his interpretation of these. The positive and significant relationship with information exchange (H3l) is as expected given that information exchange is positively associated with relational activity (Boyle *et al.* 1992) and that an exchange of information would be needed for the partners to fully understand the nature of problems and develop workable solutions. The significant relationship with influence strategy (H3k), which is negative, indicates that the process of working together to solve

problems does affect the choice of influence strategy. Joint problem solving is the only governance strategy mechanism found to be a significant determinant for influence strategy, a finding that could be linked to the type of partner interaction associated with this activity. The nature of problem solving means the partners are likely to be thrown together to solve problems at short notice and an intense period of joint working will ensue. To overcome the problem a mutually acceptable solution will be needed and it may be that this intense period of partnership working is responsible for developing strong bonds and mutual expectations as evidenced by the significant effect of joint problem solving on atmosphere. As an activity with a positive relational impact, the finding suggests that the use of any influence strategy (coercive or non-coercive) is avoided as the partners objectives will be aligned in solving their problems.

The absence of any significant relationship with behaviour (process) control (H3j) indicates that as a governance strategy with a medium to long term focus the nature of the problems being solved are contractual in nature rather than operational. There could, however, be an operational effect as both joint problems solving and behaviour (process) control have been found to be significant determinants of adaptation, which suggests that joint problem solving has an indirect operational effect through the adaptation process. The finding that joint problem solving is not a significant determinant of output control (H3i) suggests that either the problems are of a contractual nature, or that operational problems are resolved independently by the agent service provider who would have the authority to take these decisions without involving a partner. A third possibility is that output control has been abandoned by the partners in favour of behaviour (process) control given the importance of service delivery in providing the end user with a positive service experience.

11.4.4.4 *Output Control Hypotheses*

Output control is hypothesised to have a direct and positive relationship with five constructs as shown in Table 11-7.

Table 11-7-Output Control Hypothesis and Results

Relationship	Hypotheses	Status
Output Control → Service Performance	H4a+	Not Supported
→ Financial Performance	H4b+	Not Supported
→ Atmosphere	H5a+	Not Supported
→ Adaptation	H5b+	Not Supported
→ Cooperation	H5c+	Not Supported

The study has found all hypothesised pathways are not significant. In respect of the hypothesised significant positive service (H4a) and financial performance (H4b) relationships, extant output control research has found this to be associated with lower agent performance (Aulakh and Gencturk, 2000) and to enhance economic performance (Bello and Gilliland, 1997). It would have therefore been reasonable to expect a significant relationship, be that positive or negative. However, the above research investigated international partnerships in which the exchange was one of goods rather than services and these two key differences could provide an explanation for the absence of any significant relationship. For example, the distance between partners may be a key feature in dictating what control type they utilise and it may be that output based controls are being used because of the difficulty of remote process monitoring in international partnerships. In contrast, this study involved partners based in the same country and often the same town or city and this proximity would make it easier to employ process monitoring controls, which the study identifies are in use. Alternatively, more problems are related to the monitoring of partner performance in service settings because of their intangibility, simultaneity and people-orientated character (Erramilli and Rao, 1993) and these concerns linked to the importance of service delivery could have led to the partners overlooking output control as a control mechanism.

The relationship between output control and relationship quality has to the best of the author's knowledge not previously been directly researched. There has however been limited extant research in which the impact of output control on relational activities has been reported. For example, Celly and Frazier (1996) found output control to be fundamental to inter-firm coordination, Aulakh and Genctürk (2000) found it to encourage deviant behaviour and

Dahlstrom and Nygaard (1999) found it increased levels of opportunism. Though not directly investigating relationship quality these findings indicate that it was reasonable to expect a significant relationship between output control atmosphere (H5a), adaptation (H5b) or cooperation (H5c). No significant relationships were identified and the author has identified two possible reasons for this. The first is the respective research contexts, with the extant research examining the exchange of goods rather than services. This may, for the reasons outlined above, have resulted in the abandonment of output control in the study partnerships. A more fundamental explanation might be found by examining the underlying rationale for employing output control, namely that agents are assumed to be best placed to determine the direction and level of effort necessary to achieve a firm's goals, Oliver and Anderson (1994). Were the service provider to adopt this degree of independence, there would be little or no opportunity for the partners to work together severely curtailing any effect on cooperation, adaptation and/or atmosphere.

11.4.4.5 *Behaviour (Process) Control Hypotheses*

Behaviour (process) control is hypothesised to have a direct and positive relationship with five constructs as shown in Table 11-8.

Table 11-8-Behaviour (Process) Control Hypothesis and Results

Relationship	Hypotheses	Status
Behaviour (process) Control → Service Performance	H4c+	Not Supported
→ Financial Performance	H4d+	Not Supported
→ Atmosphere	H5d+	Not Supported
→ Adaptation	H5e+	Supported
→ Cooperation	H5f+	Not Supported

Behaviour (process) control has been found to have no significant effect on the service or financial performance constructs. The absence of a significant relationship with financial performance (H4d) is consistent with extant research (Aulakh and Genctürk, 2000; Bello and Gilliland, 1997) and with the basis of payment in Private Finance Initiative contracts where

payment is based on achieving agreed levels of performance and not on how well processes were complied with.

In respect of service performance (H4c), Dahlstrom and Nygaard (1999) examined the behaviour (process) control service performance relationship and identified a positive and significant relationship with service performance which is at odds with this study's findings. The research examined the service performance of petrol station retailers and franchisees and identified that the specification of expected behaviours fostered performance. However, in Private Finance Initiative contracts service performance is assessed by measuring outcomes rather than compliance with agreed processes and this could explain why this relationship was not found in this study.

The only significant behaviour (process) control relationship quality relationship identified is with the relationship quality dimension adaptation (H5e). This is consistent with Aulakh and Genctürk, (2000) who found behaviour (process) control to have a positive and significant impact on relationship flexibility, though this was in an internal exchange. Identifying this relationship in an inter-organisational partnership, suggests that the importance of getting the service process correct is not impacted by the setting and that the overriding concern is high quality service delivery. Regardless of the setting, this would involve adapting the service to address shortcomings and/or to reflect new priorities and for this reason the identification of this relationship is not unexpected.

The absence of a significant behaviour (process) control relationship with cooperation (H5f) is at odds with extant research that highlights this relationship should exist. For example, behaviour (process) control to be fundamental to inter-firm coordination processes Celly and Frazier (1996) and to lower opportunism Aulakh and Genctürk (2000) and Dahlstrom and Nygaard (1999). In contrast, it has also been found to motivate opportunism Gilliland and Manning (2002) and increase opportunism when compared to output control (Heide *et al.*

2007). However, while more formal mechanism may help to define goals and limit opportunism, they may also limit the willingness of parties to engage in relational behaviours (Ghoshal and Moran, 1996). In the case of behaviour (process) control, the service provider may resent this close monitoring of activities and even where the partners acknowledge the importance of the service experience, the employment of behaviour (process) control is not helpful in promoting cooperation. The study finding suggests there is a degree of partner concern about the use of behaviour (process) control. The absence of a significant relationship with atmosphere (H5d) can be explained by the lack of partner interaction identified above and despite the socialisation opportunities generated by bringing parties closer together (Anderson and Oliver, 1987; Eisenhardt, 1989) it suggests that even where processes are adapted the methodology used to reach this point does not engender a close working relationship.

11.4.4.6 *Influence Strategy Hypotheses*

Influence strategy is hypothesised to have a direct and positive relationship with five constructs as shown in Table 11-9.

Table 11-9- Influence Strategy Hypothesis and Results

Relationship	Hypotheses	Status
Influence Strategy→Service Performance	H4e+	Not Supported
→Financial Performance	H4f+	Not Supported
→Atmosphere	H5g+	Not Supported
→Adaptation	H5h+	Not Supported
→Cooperation	H5i+	Not Supported

Research examining the effect of influence strategies on performance is limited, though Chelariu *et al.* (2006) found the use of the non-coercive influence strategy, ‘recommendations’ enhanced economic performance of local distributors in export channels. Based on this study, a positive and significant relationship with financial performance (H4f) could have been expected. However, the absence of a significant relationship with service (H4e) and/or financial (H4f) performance suggests if the partners are using influence strategies in the management of their relationship, these are not powerful enough to directly affect performance.

The study did find one significant relationship with atmosphere (H5g), however, the direction was negative rather than positive as hypothesised. In line with previous research that identified a negative effect on dyadic solidarity in inter-firm partnerships (Kim, 2000), this suggests that coercive influence strategies are being used to control operational activity and are responsible for souring the atmosphere between the partners. Extending this logic, the author would have expected a significant negative impact on adaptation (H5h) and cooperation (H5i), however, this is not the case. One reason for this might be that as the impact of coercive influence strategies is cognitive it is not materially affecting behavioural activities such as partner cooperation and/or adaptation. This situation could exist where the partners desire is to deliver the services and secure the financial rewards regardless of the state of their relationship.

11.4.4.7 Information Exchange Hypotheses

Information exchange is hypothesised to have a direct and positive relationship with five constructs as shown in Table 11-10.

Table 11-10 - Information Exchange Hypothesis and Results

Relationship	Hypotheses	Status
Information Exchange → Service Performance	H4g+	Not Supported
→ Financial Performance	H4h+	Not Supported
→ Atmosphere	H5j+	Not Supported
→ Adaptation	H5k+	Not Supported
→ Cooperation	H5l+	Not Supported

Boles *et al.* (2000) suggest that information exchange is the conduit through which all relationship behaviour, attitude and information are communicated between buyer and seller and in this study information exchange is defined as a bilateral expectation that parties will proactively provide information useful to their partner (Heide and John, 1992; Jap and Ganesan, 2000).

The absence of any significant relationship with service performance (H4g) or financial performance (H4h) in this study is inconsistent with extant research. For example, information exchange has been found to have a significant impact on alliance marketing performance Voss

et al. (2006), to be positively related to supplier performance improvement Vereecke and Muylle (2006) and as a dimension of relationalism to be positively associated a foreign distributor's performance in export channels Bello *et al.* (2003). However, the research setting for the extant research was international inter-organisational partnerships involving the exchange of goods and products. These partners are separated by a considerable distance and this may increase the importance of information exchange in achieving performance objectives. In contrast, in this study the partnerships are service based between UK based organisations and as the partners are in the same country, or town and city information important to performance might be freely available to both with the result that even where information is exchanged its impact on performance is limited. It is therefore suggested that the availability of information to both parties is the reason for the absence of any significant performance effect in this study. Alternatively, as the use of coercive influence strategies (information exchange is a non-coercive influence strategy) is dominating the exchange this could mean that little or no information exchange is taking place.

Previous research has identified information sharing as an antecedent of relationship quality (Smith, 1998), as a non-coercive influence strategy (Frazier and Summers, 1984) and as having positive significant relational outcomes (Boyle *et al.* 1992; Frazier and Rody, 1991). Additionally, Voss *et al.* (2006) found quality information exchange to be a significant antecedent of calculative and affective commitment, a construct confirmed as a dimension of relationship quality in numerous studies (e.g., Rauyruen and Miller, 2007; Walter *et al.* 2003). However in this study no significant relationship was found with atmosphere (H5j), adaptation (H5k) or cooperation (H5l). The absence of a single significant relationship is at odds with previous research and is not readily explained unless no such activity is taking place. One other possible explanation is that the exchange of important information may be taking place in the joint planning and joint problem solving activity thereby decreasing its importance as a stand-

alone activity. In addition, partner proximity and information availability may limit opportunities for relationship building and interaction through information exchange.

11.4.4.8 Atmosphere Hypotheses

Atmosphere is hypothesised to have a direct and positive relationship with two constructs as shown in Table 11-11.

Table 11-11- Atmosphere Hypothesis and Results

Relationship	Hypotheses	Status
Atmosphere → Service Performance	H6a+	Supported
→ Financial Performance	H6b+	Supported

Extant research (Cannon *et al.* 2000) has identified the positive affect of relationship quality on satisfaction with partnership performance and where relationship quality is high, improved performance Jap *et al.* (1999). In Fynes *et al.* (2008) performance was found to be positively effected by relationship quality, whilst relationship quality has also been found to be positively and significantly linked to sales effectiveness (Huntley, 2006) and service quality (Woo and Ennew, 2004), both of which are measures of performance. In this study, atmosphere is a significant determinant for service (H6a) and financial (H6b) performance a finding consistent with extant research and a sound working relationship.

Previous research has not examined relationship quality’s mediating role and this study has found that atmosphere is central to this linking joint problem solving and behaviour (process) control to performance. As the cognitive manifestation of relationship quality, the atmosphere between the partners is based on the belief that they have a close working relationship and shared expectations for the partnership. As this study indicates, there are multiple activities that contribute to this including, cooperation and adaptation, and it is the reinforcing impact of these relational behaviours that is aligning the partners behind shared goals and generating a positive partnership climate. The study suggests that it is this positive climate that is the key factor in supporting partnership performance.

11.4.4.9 *Adaptation Hypotheses*

Adaptation is hypothesised to have a direct and positive relationship with two constructs as shown in Table 11-12.

Table 11-12- Adaptation Hypothesis and Results

Relationship	Hypotheses	Status
Adaptation→ Service Performance	H6c+	Not Supported
→ Financial Performance	H6d+	Not Supported

The author has been unable to locate any research in which the effect of adaptation on service (H6c) and/or financial (H6d) performance has been directly examined. Adaptation was, however, included as a relationship quality in research (Woo and Ennew, 2004) that identified relationship quality was positively and significantly linked to service quality and as such it was reasonable to expect a significant relationship to exist. The study however found that adaptation is not a significant determinant of either service (H6c) or financial performance (H6d). One reason for this might be that as an activity with behavioural manifestations, adaptation contributes to the overall quality of the partners relationship, which is cognitive and is summed up in the partners feelings about their partnership. As such, it could be that adaptation has an indirect performance effect through the positive contribution it makes to the partners feelings about the overall quality of their relationship.

11.4.4.10 *Cooperation Hypotheses*

Cooperation is hypothesised to have a direct and positive relationship with two constructs as shown in Table 11-13.

Table 11-13- Cooperation Hypothesis and Results

Relationship	Hypotheses	Status
Cooperation→ Service Performance	H6e+	Not Supported
→ Financial Performance	H6f+	Not Supported

The author has been unable to locate any research in which the effect of cooperation on service (H6c) and/or financial (H6d) performance has been directly examined. Cooperation was,

however, included as a relationship quality in research (Woo and Ennew, 2004) that identified relationship quality was positively and significantly linked to service quality and as such it was reasonable to expect a significant relationship to exist. The study however found that cooperation is not a significant determinant of either service (H6c) or financial performance (H6d). One reason for this might be that as an activity with behavioural manifestations, cooperation contributes to the overall quality of the partners relationship, which is cognitive and is summed up in the partners feelings about their partnership. As such, it could be that cooperation has an indirect performance effect through the positive contribution it makes to the partners feelings about the overall quality of their relationship.

11.5 Theoretical Contributions and Managerial Implications

Theoretically grounded models that represent an extension of the inter-organisational partnership management literature have been proposed and tested. Specifically, they investigated the impact of the choice of governance and control strategy mechanisms on the partners relationship, examined the relationship between governance strategy and control strategy and explored the impact of the partners relationship on performance. The model fits were tested vigorously and found to be parsimonious.

The research is regarded to have made an original contribution to the scholarly study and literature on the management of long-term inter-organisational partnerships. The rest of this section delineates the study's specific theoretical contributions and the managerial implications.

11.5.1 Theoretical Contributions

The study's specific theoretical contributions are:

1. By using two models, one comprising higher order constructs and the other the related lower order constructs, the author has been able to make a valuable contribution to the inter-organisational partnership management literature. Specifically, this has been

achieved by exploring new and existing relationships at both construct levels, thereby advancing knowledge at both levels simultaneously. In so doing, the author has been able to identify the importance of the lower order constructs to their respective higher order one and the impact each lower order constructs has on others. The use of a single model would not have produced this knowledge.

2. The research has added to the list of known relationship quality antecedents by identifying the governance strategy mechanisms, joint planning and joint problem solving as positive antecedents. This is the first occasion that the positive relationship between governance strategy and relationship quality has been reported.
3. Identification of the control strategy mechanisms behaviour (process) control and influence strategy as antecedents of relationship quality provides the first recognition of a relationship between control strategy and relationship quality. Whilst behaviour (process) control has a positive effect on adaptation, influence strategy adversely affects atmosphere. However, a review of the respective functional relationships confirms that it is behaviour (process) control that dominates and is the more important.
4. The relationship between governance and control strategy has been explored identifying explicit contracts, joint planning and joint problem solving as positive antecedents of control strategy.
5. The mediating role of relationship quality in linking governance and control strategy with performance was tested. The study confirmed relationship quality as having indirect and direct performance effects. Whilst the effect of relationship quality on supply chain performance has been examined (see Fynes *et al.* 2008), this is the first study to investigate relationship quality in a mediating role.

These contributions add to the governance strategy, control strategy, relationship quality and partnership management bodies of literature. The constructs could be added to existing models

to attempt to provide answers to unexplained or inconsistent results. Alternatively, they could be combined with new constructs to explore new relationships.

In the next section the managerial implications are discussed.

11.5.2 Managerial Implications

In order to relate the study's findings to the practice of managing long-term inter-organisational partnerships, the author interviewed three senior managers with extensive experience of managing these partnerships. A set script of questions was established and used to guide the interviews, which were recorded. Details of the questions used and the full interview transcripts can be found at Appendix 5. In considering analysis of the qualitative data, the author was guided by the overview of qualitative analysis in (Hussey and Hussey, 1997, pp.248-256).

The senior management interviews highlighted the benefits of guidance across all areas of the integrated partnership management framework and their relevant comments are set out at the start of each section below.

1. Integrated Governance Strategy

E2 'I think managers would benefit from guidance on how to structure and use their governance strategy as interaction comes from the obligations in the documentation and not from day to day thinking about how the relationship should be managed. This would help them understand how best to manage the relationship with each other.'

The formal governance strategy mechanism should be an explicit contract incorporating clauses designed to stimulate interaction between the partners. For example a contractual requirement to share information or to jointly design service processes. The contract should also be designed to provide incentives based on

performance such as financial penalties for non-performance and bonuses where service performance exceeds expectations.

The relational governance strategy should be based around activities that encourage the partners to work together to foster better partner relationships and improved partnership performance. These should not be explicit contractual obligations that could encourage the 'I'll do this because I have to approach,' rather they should be informal and have the clear goal of building closer working relationships. In particular, this should involve regular and adhoc meetings to address partnership planning issues and joint working to solve partnership problems.

Reliance on one governance mechanism at the expense of another should be avoided. Instead, managers should identify how and where the governance mechanisms complement and reinforce each other, combining formal and relational mechanisms in an integrated governance strategy. For example, explicit contracts, joint planning and joint problem solving are all significant determinants of control strategy and failure to use all three governance mechanisms would adversely impact on control strategy effectiveness.

For PFI practitioners, it is important that they appreciate that the explicit contract they enter into is not the only governance mechanism available. They should identify how relational governance mechanisms can be employed to complement explicit contracts and the formal guidance that supports these projects should be updated accordingly.

2. Integrated Control Strategy

E2 'I think it would be very helpful for managers of these contracts to understand the importance of the control strategies as far too much reliance is put on contractual requirements around the output specification. Integrated control strategies come as a

means to an end in order to just communicate on a daily basis, therefore to provide guidance and information that shows the difference between these would be useful.'

In management the term 'control' is understood to be a process by which a partner influences the behaviour and output of other partners. However, managers should recognise that efforts to do this will not directly affect performance and efforts to do so should be avoided.

Instead, they should concentrate on designing a control strategy that will enhance the quality of their relationship. Central to achieving this is the employment of behaviour (process) control which must always be a part of the control strategy. Conversely, they should avoid using threats or power advantages to coerce their partners to act in a particular way or do a particular thing, as this will damage their relationship. They should therefore identify and use non-coercive mechanisms such as 'requests' to generate the shared values and beliefs that will underpin and enhance their relationship.

Given that output control is stipulated control type in PFI projects, of specific concern to managers of PFI projects is the absence of any significant pathway between output control and either relationship quality or performance. This suggests that the guidance for such projects should be urgently updated to allow partners to use alternative control mechanisms.

3. Relationship Quality

E1 *'advice on how good relationships work and how perhaps initially to develop those relationships between various parties is in any long term partnership would be very useful.'*

E3 *'I think for me this is one of the key aspects of the report because it deals with how we can get a better relationship.'*

Managers should fully understand the importance of relationship quality in maximising partnership performance. In addition to its direct impact on both financial and service performance, relationship quality links governance strategy and control strategy to performance.

In developing and maintaining strong partner relations, managers should take all actions necessary to develop a positive working relationship and generate a harmonious atmosphere between the partners. A willingness to adapt behaviour and expectations and to cooperate to achieve mutually derived goals, will be integral to this being achieved. They could for example proactively offer new service delivery solutions in response to a change in circumstances, offer information about new development in partnership service areas, or promote close partnership working and a collaborative approach to conflict resolution.

The implication for managers is that they need to acknowledge that relationship quality in inter-organisational partnerships demands a different style of management if they are going to achieve the desired levels of performance. Rather than seeing investment in building and maintaining relationships as an expense they should recognise that their approach to management should be designed and implemented to achieve relational outcomes.

Managing business relationships is not a linear process of moving them from one direction to another. Instead in building a successful relationship, which may take a while to establish, the partners must accept that this demands continuous effort and that over time changing circumstances will require the partners to realign the partnership to overcome the challenges these pose.

PFI practitioners are not provided with any guidance about the role of relationship quality, indeed, the public sector partners are actively being encouraged to find problems with the services provided, behaviour that will sour relationships. Formal guidance needs to be updated to provide all PFI contract managers with the information about the benefits of establishing and maintaining a high quality partner relationship.

4. Integrated Performance Management Framework

E2 *'my experience of this is that general managers, CEO's of SPV's and the public sector have not tended to link governance strategies and control strategies. By implication they do not particularly understand the importance of the link between the governance strategy and the control strategy to better meet the needs of the contract and the relationship.'*

E3 *'My view is that if you don't manage this as an integrated approach then you won't be able to provide a flexible customer focused approach to your client. Unless you take both into account and both are part of your strategy you will have to almost have two independent strategies and two ways of thinking which just brings complexity.'*

Managers should be invest time, thought and effort in designing their governance and control strategies and the activities and actions to be used in developing a strong relationship. However, in so doing they must be aware of the bigger picture recognising that these are not independent and that the interaction between them makes them essential elements of a larger partnership management framework.

By acknowledging the partnership management framework as comprising three interdependent elements, managers elemental design efforts will be shaped by the dual objectives of designing optimal elemental approaches whilst capitalising on their

mutually reinforcing strengths by integrating them in such a way as to make the whole greater than the sum of the parts.

This can be achieved by identifying and implementing behaviours/activities that support joint action, mutual expectation development and close working relations. This should include; transparent communication, a willingness to share information to benefit the partnership as a whole, working together to design processes, being flexible and promoting cooperation at all levels.

As indicated above one of the keys to the partners achieving their relationship quality and performance objectives is aligning the complementary effect of governance and control strategy mechanism in an integrated performance management framework. Where these overlap with each other and with relationship quality - the zone of maximum alignment (see Figure 11-1) – they will provide support the building and maintenance of a strong relationship and in turn excellent partnership performance.

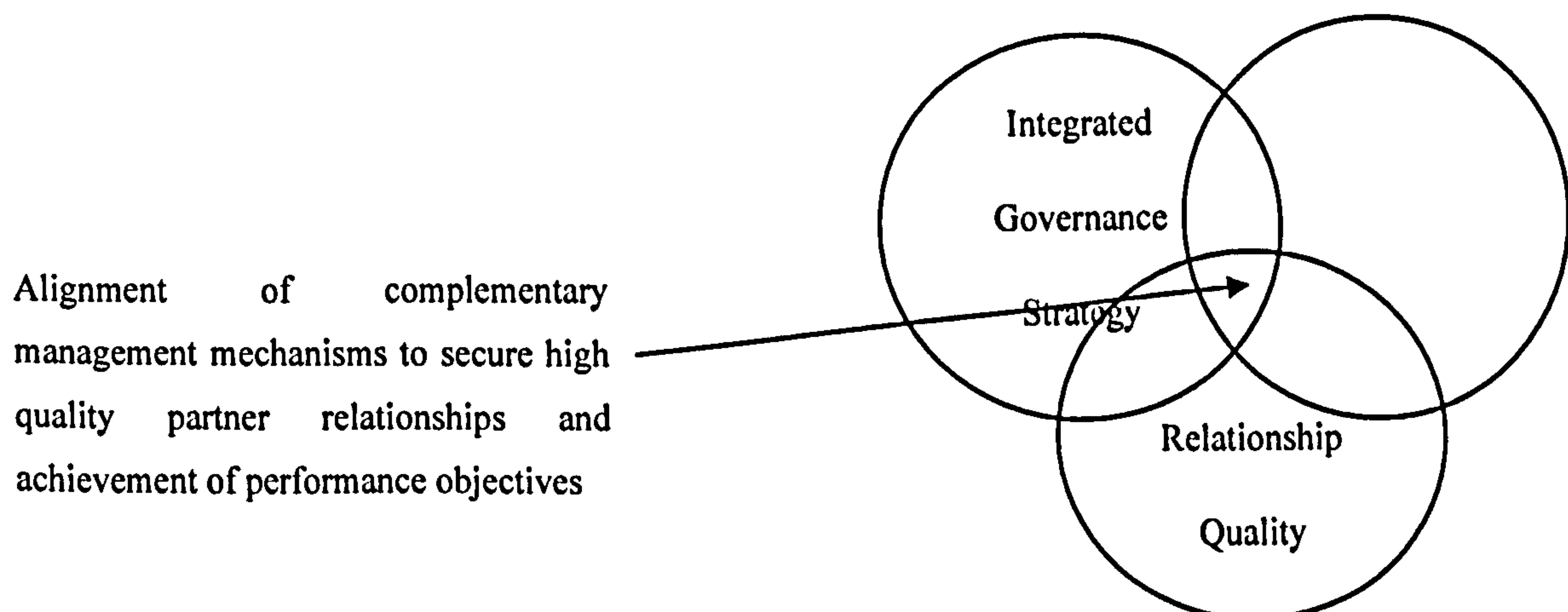


Figure 11-1 – Maximising Partnership Relationship Quality and Performance

The above will be of value to those establishing new partnerships and those in existing ones. Existing partnerships should audit their current management framework using these guidelines as their frame of reference, to identify where this could be strengthened. To assist in this respect, Table 11-14 provides managers with a ready means of identifying the impact of their chosen governance and control strategy choices.

Table 11-14 - The Affect of Partnership Management Mechanisms

Management Mechanisms	Significant Pathways Identified												
	Explicit Contracts	Joint Planning	Joint Problem Solving	Behaviour (Process) Control	Output Control	Influence Strategies	Information Exchange	Atmosphere	Cooperation	Adaptation	Service Performance	Financial Performance	
Explicit Contracts	-	-	-	X			X					X	
Joint Planning	-	-	-	X	X		X		X	X		X	
Joint Problem Solving	-	-	-				X	X	X	X	X		
Behaviour (Process) Control				-	-	-	-			X			
Output Control				-	-	-	-						
Influence Strategies				-	-	-	-						
Information Exchange				-	-	-	-						
Atmosphere								-	-	-	X	X	
Cooperation								-	-	-			
Adaptation								-	-	-			
Service Performance											-	-	
Financial Performance											-	-	

The scale and scope of the study’s managerial implications are significant. Partnership managers should make strenuous efforts to devise an integrated management framework for the partnership and devote time and effort to ensure alignment between the governance and control strategies employed. Only then will they maximise the quality of their relationship and enhance partnership performance.

In the next section the study limitations are presented.

11.6 STUDY LIMITATIONS

Although considerable efforts have been made to ensure the robustness of the study, there are a number of limitations that must be highlighted:

1. The findings are derived from a small sub-set of United Kingdom public private partnership projects (English local authority PFI projects) which may limit generalisation to other business sectors and more traditional business to business partnerships;
2. No control variables (for example; length of relationship, size of contract, experience of PPP partnerships) were examined and their introduction could highlight a difference in approach in large contracts and/or between experienced and inexperienced partnership managers;
3. The study was a cross sectional one and it is entirely possible that the choice of governance and control strategy may change over time with a consequent effect on the quality of the partner's relationship and/or performance. A longitudinal study examining the research constructs over a period of time would provide an insight to whether this is an important consideration;
4. Questionnaires were only sent to respondents who, during a prior conversation, had agreed to participate in the research, which could have produced a degree of self selection bias;
5. As a large number of the potential respondents could not be contacted, the author was unable to be certain about the possibility of non-response bias;
6. The inadequate discriminant validity between the Joint Problem Solving and Cooperation constructs indicates that the summated scales are insufficiently distinct from each other. It creates doubt as to the merits of the Cooperation variable as well as casting doubt about the interpretation of the significant hypothesis between Joint Problem Solving and Cooperation.

11.7 SUGGESTIONS FOR FUTURE RESEARCH

Whilst the author believes the study has made a number of original contributions to the advancement of knowledge in the management of long-term inter-organisational partnerships, the author has identified the following areas for future research:

1. With the exception of behaviour (process) control, the control mechanisms used in this study were not found to be important for building relationships or achieving performance objectives. There are however, a number of alternative informal control mechanism that could be examined. For example, the relational norms of flexibility, solidarity and commitment (Alder, 2001) have been widely used in extant research as control dimensions and investigating their use would enhance extant knowledge.
2. Additionally, researchers could examine the extent to which partner proximity dictates the nature of the control mechanisms used to manage the partnership. For example is the use of output control in inter-organisational partnerships only appropriate where distance prevents the use of alternative control strategies?
3. To deliver the strongest possible positive relationship with relationship quality, different conceptualisations of relational governance from that used in this study (e.g., Cannon *et al.* 2000; Poppo and Zenger, 2002), should be examined using these to supplement or replace the joint planning and joint problem solving dimensions.
4. Given the relationship quality's mediating role linking governance and control strategy to performance seeking to build a comprehensive set of relationship quality dimensions used to strengthen the partners relationship would be beneficial. For example, trust (Rauyruen and Miller, 2007), conflict (Jap *et al.* 1999) and commitment (Walter *et al.* 2003) have been used and adding and/or removing dimensions to those used in this study would represent progress towards generating greater consensus about the scope and number of relationship quality dimensions.

5. The role of information exchange in supporting partner cooperation should be examined to assess whether asymmetry of information availability and/or the distance between the partners adversely affects its relationship building effects.
6. Test the proposed framework in other market sectors and in other types of long-term inter-organisational partnerships. This would assist in providing answers in those areas where the author has resorted to making reasoned judgements and would fully test the generalisability of the study findings.
7. The introduction of control variables such as the period for which the organisations have been partners or their experience of previous long-term inter-organisational partnerships would be useful in establishing whether, experience of working together or with other partners would change the way in which they manage partnerships.
8. Another research approach would be to undertake a longitudinal rather than a cross-sectional study (Miller and Friesan, 1982). A longitudinal study would provide a 'dynamic' treatment of time rather than the current 'static' treatment, thereby allowing the stability of the reported results to be tested over time. However, the problem of undertaking a suitable longitudinal study is faced by most researchers and does not detract from the findings of this study.
9. In-depth interviews and qualitative data analysis in the form of case studies for data collection and analysis could provide cross-validation of the results.

11.8 CONCLUSIONS

Despite the study having a number of limitations, it has advanced knowledge and practice in the field of inter-organisational partnerships management, one of growing significance. It has successfully achieved the study aim by providing managers with a management framework that they can use to manage their inter-organisational partnerships and highlighting the important role of a high quality partner relationship. In so doing, it has provided managers with insights about the impact of different governance and control mechanisms and how these can be used

simultaneously to capitalise on complementary and reinforcing benefits. It provides them with the first information about the relationship between governance and control strategy mechanisms and of both governance and control strategy choices on relationship quality. Above all it confirms they should not think of governance strategy, control strategy and relationship quality as three independent tools to get the best out of a relationship. Instead, they must recognise that the three are interdependent and that when they achieve maximum alignment between them, they will maximise partnership performance.

Theory has been advanced by examining many relationships for the first time and by the use of both two models, one comprising higher order constructs and the other lower order constructs. For example as well as recognising the positive and significant impact of an integrated governance strategy on the quality of the partners relationship, not previously researched, the author has been able to identify how the different mechanisms comprising the integrated governance strategy relate to relationship quality. This approach has advance knowledge in the governance strategy literature as well as the sub-sets of literature that explore the use of explicit contracts and relational governance. The same has happened in the control strategy and relationship quality literature.

The use of public private partnerships as the research setting was also a first and was a warranted extension to the inter-organisational partnership management literature, drawing together as it does partners from the public and private sectors in a business services exchange.

At a general level, the study has responded to calls to carry out further research in to the simultaneous use of formal and informal governance and control mechanisms, the call for further inter-organisational partnership research and in particular those which are based on an exchange of business services.

Despite the study providing a number of new insights it has raised many new questions, for example how should relationship quality be operationalised? In so doing the study should provide future researchers with ample opportunity to establish new models to find answers to the many unanswered questions.

Appendix 1 – Managing Relationships in Public Private Partnerships – The Questionnaire

Section A – About Your Organisation							
Which of the statements below best describes your organisation?							
A public sector organisation 1				A private sector organisation 2			
In relation to the PPP project you manage how long (to the nearest year) has the partnership been working together to deliver operational services? (The period should be calculated from the date the contract went ‘live’.							
1	2	3	4	5 or more			
Which of the following sums of money best represents the value (in pounds) of the annual Unitary Payment (including any variations)							
Under £2.50m – 1	£2.51 to £5.0 – 2	£5.01 to £7.5m – 3	£7,51 to £10.0 – 4	Over £10.01m - 5			
In how current PPP projects is your organisation or its principal shareholders actively participating?							
1	2	3	4	5 or more			
Section B – Working in Partnership							
	Strongly Agree	Agree	Slightly Agree	Neutral	Slightly Disagree	Disagree	Strongly Disagree
Our partnership is governed predominately by the written contract.							
The only way we communicate effectively with our partner is when everything is formally spelt out in detail.							
We have developed ways of working with our partner not identified in the written contract.							
As partners we share our short term plans with each other.							
As partners we meet regularly to review our plans and assess their impact on partnership performance.							
As partners we share our long-term plans with each other.							
As partners we work together to solve problems affecting the partnership.							
As partners we do not mind owing each other favours.							
In most aspects of our partnership responsibility for getting things done is shared.							
Section C – Contract Monitoring							
	Strongly Agree	Agree	Slightly Agree	Neutral	Slightly Disagree	Disagree	Strongly Disagree
The contract identifies service performance targets to be achieved.							
The extent to which contractual service performance targets are achieved is actively monitored.							
Where service performance targets are not met, a reasoned explanation for not doing so is required.							

Section C – Contract Monitoring Continued							
	Strongly Agree	Agree	Slightly Agree	Neutral	Slightly Disagree	Disagree	Strongly Disagree
Contractual payments are based on the extent to which service performance targets are achieved.							
Contractual payments are based on the extent to which established procedures are followed.							
The procedures used to meet service performance targets are regularly evaluated by the client.							
The client proposes procedural amendments when service performance targets are not achieved.							
Should we not comply with our partner's requests they use negative sanctions to force our compliance.							
Our partner relies on the legal contract to make us comply with their request to adopt a particular course of action.							
Our partner provides us with a specific reward where we comply with their request to adopt a specific course of action.							
When our partner wants us to do something, they inform us without making clear the consequences of compliance or non-compliance.							
Our partner indicates we will be better off if we follow their suggestion about a specific action or course of actions.							
In this partnership it is expected information that might help the other partner will be provided to them.							
Exchange of information in this partnership takes place frequently and informally, not only according to a pre-specified agreement.							
It is expected that each of the partners will share proprietary information where this will benefit/assist the other.							
It is expected that as partners we keep each other informed about events or changes that may affect each other.							
Section D – Relationship Quality							
	Strongly Agree	Agree	Slightly Agree	Neutral	Slightly Disagree	Disagree	Strongly Disagree
As partners we cooperate closely in the management of the partnership.							
Our partner responds objectively to our complaints about their performance.							
Our partner is collaborative in resolving conflicts in the partnership.							

Section D – Relationship Quality Continued							
	Strongly Agree	Agree	Slightly Agree	Neutral	Slightly Disagree	Disagree	Strongly Disagree
Our partner keeps us abreast of new developments in project service areas.							
Our partner proactively offers us new service delivery solutions when service requirements change.							
Our partner would change/has changed their management structure if/when requested.							
Our partner is able to coordinate activity across multiple areas of service delivery as required.							
We consider the atmosphere surrounding the working relationship with our partner as harmonious.							
We regard the overall relationship with our partner as close.							
We believe mutual expectations for the project have been established with our partner.							
Section E - Performance							
	Strongly Agree	Agree	Slightly Agree	Neutral	Slightly Disagree	Disagree	Strongly Disagree
Overall, our experience of dealing with our partner is excellent.							
Our partner's service performance is to the required standard/s.							
In terms of service delivery things have seldom gone wrong.							
Our financial objectives for the project have been met.							
The cost of delivering partnership services has exceeded expectations.							
Section F – Please add any other relevant comments							

Appendix 2 - Questionnaire Covering Letter and Instructions

Dear

Doctorate of Business Administration Research - Managing Relationships for Optimum Performance in Public Private Partnerships –XXXX Local Authority Projects

Thank you for contacting me and for agreeing to participate in this research.

As a company whose senior executives have a lead role in overseeing/leading an operational Local Authority Private Finance Initiative (PFI) project you represent a small and select group with first hand expertise in using this increasingly important tool for securing capital infrastructure investment and the delivery of related services. Your expertise and operational experience will provide a unique insight into the management of public private partnership relationships.

You will note a unique identification number is located in the top right hand corner of the questionnaires. This is present to facilitate tracking of responses and will be omitted, thus preserving confidentiality, when entering your responses into the spreadsheet used to collate and record all responses from United Kingdom based local authority PFI experts participating in this research. Once recorded, these responses will be analysed with the aim of producing practical guidance outlining how these relationships should be structured and managed to achieve optimal partnership performance.

You can also secure a copy of the research findings in executive summary form as soon as this is available by completing the cards attached to the questionnaire. In the meantime, if you have any questions about this research, you can contact either my supervising professors (Stavros Kalafatis – Tel: 020 8547 7121 or Philip Samouel – Tel: 020 8547 8861) or myself on the number shown below.

My timetable is such that it would be helpful if the completed questionnaires were returned as soon as possible.

Thank you once again for your assistance.

Yours sincerely

David Hay

Doctorate of Business Administration Student

Kingston University Business School

Tel: 01322 612307

Instructions For Completing Questionnaire

Context for Responses

The questionnaire is designed to capture information about the relationship between the public and private sectors. All references to 'partner' or 'the partnership' refer to this public private relationship rather than the relationship between members of the private sector consortium.

In considering your responses to the questionnaire please base these on your experience of the current PPP project for which you are responsible.

Completing the Questionnaire

The questionnaire has 6 discrete sections and has been designed in a multiple choice style. The bulk of the questionnaire is in Sections B to E. Each is made up of a number of statements adjacent to which there is a row of numbers to allow you to indicate the extent to which you agree or disagree with the statement. There are seven possible responses to each statement, with each number having a discrete meaning as shown above the first row of numbers in each section. In responding please circle the one number that best describes your response to the statement. For example, if you strongly disagree with a statement you would circle the number 7, whilst if you agreed with it you would circle the number 2.

In Section A there are 4 questions designed to establish basic details about the contract, your organisation and its wider PPP experience. In responding to question 2, please use the date immediately after contractual and financial close as being the date at which the contract went 'live'. In question 4, I am seeking to establish the extent of PPP experience across your organisation (or the experience of its principal shareholders if a special purpose company has been established for your project). Please ensure in responding to this question that your count only includes those projects that have reached contractual and financial close.

Please do not hesitate to contact me (Tel: 01322 612307 or 07764 286441) if you have any questions about the questionnaire content.

Thank you for agreeing to participate in this research.

Appendix 3 – Research Model Dimensions and Replication of Existing Scales

The following tables identify the dimensions and original scale items from the proposed research model that have been previously investigated. Where it is proposed to amend the original scale, the proposed research scale is shown in the last column.

Section B – Working in Partnership

This section contains the governance strategy constructs (explicit contracts and relational governance) the latter of which comprises the two lower order constructs of joint planning and joint problem solving. This section contains ten questions of which three relate to explicit contracts, three to joint planning and four to joint problem solving. Details of the final research question wording can be found at Appendix 1.

Table A3-1 – Integrated Governance Strategy – Explicit Contracts and Relational Governance Measures

Explicit contracts are defined as, ‘agreements in writing between two or more parties, which are perceived, or intended as legally binding’ (Lyons and Mehta, 1997: p.241.

Relational Governance is defined as, ‘as the strength of the social norms present in the exchange and has often been referred to as relationalism (Ferguson *et al.* 2005).

Joint Planning is defined as, ‘the extent to which future contingencies and consequential duties and responsibilities in a relationship have been made explicit *ex ante* (Heide and John, 1990; Heide and Miner, 1992).

Joint Problem Solving is defined as, ‘the extent to which recent disagreements with a partner have been productively resolved (Heide and Miner, 1992; Lusch and Brown, 1996).

Researcher/s	Research Dimension	Original Scale/s	Proposed Scale/s	Original Scale Measures	Proposed Scale Measures
Jap and Ganesan (2000)	Explicit Contracts	Seven Point Likert Scale – Strongly	Seven Point Likert Scale – Strongly	Our relationship with X is governed primarily by written contracts.	Our partnership is governed predominately by the written contract.

Researcher/s	Research Dimension	Original Scale/s	Proposed Scale/s	Original Scale Measures	Proposed Scale Measures
		Disagree=1, Strongly Agree = 7.	Disagree=1, Strongly Agree = 7.	The only way we seem to communicate effectively with X is when everything is spelled out in detail.	The only way we communicate effectively with our partner is when everything is formally spelt out in detail.
				Over time we have developed ways of doing things with X that never need to be expressed formally.	We have developed ways of working with our partner not identified in the written contract.
Claro, Hegelaar and Omta (2003)	Relational Governance – Joint Planning	Seven Point Scale – Not at All=1, Very Much = 7.	7 point Likert Scale – 1=Strongly Disagree, 7=Strongly Agree.	Our company plans volumes and demands for next season together with this buyer.	As partners we share our short term plans with each other.
				Our company plans the new products and varieties demands for next season together with this buyer.	Not replicated.
				This buyer provides us with sale forecasts for the products our company sells to them.	As partners we meet regularly to review our plans and assess their impact on partnership performance.
				Our company shares long-term plans of our products with this buyer.	As partners we share our long term plans with each other.
				This buyer and our company deal with problems that arise in the relationship together.	As partners we work together to solve problems affecting the partnership.
Claro, Hegelaar and Omta (2003)	Relational Governance – Joint Problem Solving	Seven Point Scale – Not at All=1, Very Much = 7.	7 point Likert Scale – 1=Strongly Disagree, 7=Strongly Agree.	This buyer and our company do not mind owing each other favours.	As partners we do not mind owing each other favours
				In most aspects of the relationship with this buyer, the responsibility for getting things done is shared.	In most aspects of our partnership responsibility for getting things done is shared.
				This buyer and our company are committed to improvements that may benefit the partnership as a whole.	As partners we work together to benefit the partnership as a whole.

Section C – Contract Monitoring

This section contains the control strategy constructs (output control, process control, influence strategy and information exchange). This section contains sixteen questions of which four relate to output control, three to process control, five to influence strategies and four to information exchange. Details of the final research question wording can be found at Appendix 1.

Table A3-2 – Output Control

Output Control is defined as, ‘measurement of outcomes, ‘Ouchi and Maguire (1975: p.559).

Researcher/s	Research Dimension	Original Scale/s	Proposed Scale/s	Original Scale Measures	Proposed Scale Measures		
Aulakh and Genctürk (2000), and Jaworski <i>et al.</i> (1993)	Output Control	Five Likert Scale, Strongly Disagree = 1, Strongly Agree = 5.	Seven Likert Scale, Strongly Disagree = 1, Strongly Agree = 7.	We specify targets for this foreign agent. Aulakh and Genctürk (2000).	The partner has specific service performance targets to achieve.		
				Specific performance targets are established for my job. Jaworski <i>et al.</i> (1993).			
				My immediate boss monitors the extent to which I attain my performance goals. Jaworski <i>et al.</i> (1993).	The client monitors the extent to which its partner achieves contractual service targets.		
				If my performance goals were not met, I would be required to explain why. Jaworski <i>et al.</i> (1993).	Where service targets are not met, the client requires its partner to explain why.		
						If this foreign agent fails to achieve the specific targets, we penalise it. Aulakh and Genctürk (2000).	Contractual payments are based on the extent to which service performance targets are achieved.
						My pay increases are based upon how my performance compares with my goals. Jaworski <i>et al.</i> (1993).	

Table A3-3 – Behaviour (Process) Control

Behaviour (Process) control is defined as, ‘personal surveillance,’ (Ouchi and Maguire, 1975: p.559).

Researcher/s	Research Dimension	Original Scale/s	Proposed Scale/s	Original Scale Measures	Proposed Scale Measures
Aulakh and Genctürk (2000), and Jaworski <i>et al.</i> (1993)	Process Control			Our firm closely monitors the extent to which the foreign agent follows established procedures. Aulakh and Genctürk (2000).	The client monitors the extent to which established procedures are followed.
		Five Likert Strongly Disagree = 1, Strongly Agree = 5.	Seven Likert Strongly Disagree = 1, Strongly Agree = 7.	My immediate boss monitors the extent to which I follow established procedures. Jaworski <i>et al.</i> (1993).	
				My immediate boss evaluates the procedures I use to accomplish a given task. (Jaworski <i>et al.</i> 1993).	The procedures used to meet service performance targets are evaluated by the client.
				My immediate boss modifies my procedures when desired results are not achieved. Jaworski <i>et al.</i> (1993).	The client proposes procedural amendments when service performance targets are not achieved.
				I receive feedback on how I accomplish my performance goals. Jaworski <i>et al.</i> (1993).	The client provides feedback of how service performance targets are delivered.

Table A3 - 4 – Influence Strategies

Influence strategies is defined as, ‘the alternative means of communication available to a firm’s personnel in their influence attempts with associated channel members,’ (Frazier and Rody, 1991).

Researcher/s	Research Dimension	Original Scale/s	Proposed Scale/s	Original Scale Measures	Proposed Scale Measures
Frazier and Summers (1986).	Influence Strategies	Seven Point Scale - Strongly Disagree=1, Strongly Agree=7	Seven Point Scale - Strongly Disagree=1, Strongly Agree=7	The source communicates to the target that it will apply negative sanctions should the target fail to take the desired action.	Should we not comply with our partner’s requests, they use negative sanctions to force our compliance.
				The source contends that the nature of the formal legal contract and or informal binding agreement between the parties either requires or suggests the target should perform a certain action.	Our partner relies on the legal contract to suggest we comply with their request to adopt a particular course of action.
				The source pledges to provide the target with a specified reward contingent on the target’s compliance with its stated desires.	Our partner pledges to provide us with a specified reward providing we comply with their desired course of action.
				The source informs the target of the action/s it would like the target to take without mentioning or directly implying any specific consequences for subsequent compliance or non-compliance.	When our partner wants us to do something, they do not specify or imply the consequences of compliance or non-compliance.
				The source predicts that the target firm will be more profitable if the target follow its suggestions about some specific action or set of actions.	Our partner predicts that we will be better off if we follow its suggestion about some specific action or course of actions.

Table A3 - 5 – Information Exchange

Information Exchange is defined as, ‘a bilateral expectation that the parties will proactively provide information useful to their partner,’ (Heide and John, 1992)

Heide and John (1992)	Information Exchange	Seven Scale Completely Inaccurate Description=1, Completely Accurate Description=7.	Seven Scale - Strongly Disagree=1, Strongly Agree=7	Point - Point	In this relationship, it is expected that any information that might help the other party will be provided to them.	In this partnership it is expected information that might help the other partner will be provided to them.
					Exchange of information in this relationship takes place frequently and informally and not only according to a pre-specified agreement.	Exchange of information in this partnership takes place frequently and informally and not only according to a pre-specified agreement.
					It is expected that the parties will provide proprietary information if it can help the other party.	It is expected each of the partners will share proprietary information where this will benefit/assist the other.
					It is expected that we keep each other informed about events or changes that may affect the other party.	It is expected that as partners we keep each other informed about events or changes that may affect our partner.

Section D - Relationship Quality

This section contains the relationship quality constructs (cooperation, adaptation and atmosphere). This section contains ten questions of which three relate to cooperation, four to adaptation and three to atmosphere. Details of the final research question wording can be found at Appendix 1.

Table A3-6 – Relationship Quality

Relationship quality is defined as, ‘a higher order construct comprised of positive relationship outcomes that reflect the overall strength of the relationship and the extent to which it meets the needs and expectations of the parties,’ Smith (1998: p.4).

Researcher/s	Research Dimension	Original Scale/s	Proposed Scale/s	Original Scale Measures	Proposed Scale Measures
Woo and Ennew (2004)	Cooperation	Seven point scale – 1=Strongly disagree, 7=Strongly agree	Seven point scale – 1=Strongly disagree, 7=Strongly agree	The consulting engineer (CE) cooperates closely with us in project management	As partners we cooperate closely in the management of the partnership.
				The CE is able to handle our complaints.	Our partner responds objectively to our complaints about their performance.
				The CE is collaborative in resolving conflicts with us.	Our partner is collaborative in resolving conflicts in the partnership.
	Adaptation	Seven point scale – 1=Strongly disagree, 7=Strongly agree	Seven point scale – 1=Strongly disagree, 7=Strongly agree	The CE constantly improves technical abilities to keep abreast with new developments in the engineering profession.	Our partner keeps abreast of new developments in project service areas.
				The CE proactively offers us new technical solutions when conditions change.	Our partner proactively offers us new service delivery solutions when service requirements change.
				The CE makes operational changes to project management when required by our project team.	Our partner would change/has changed their management structure if/when requested.
				The CE is able to coordinate the various engineering disciplines when required by our project team.	Our partner is able to coordinate activity across multiple areas of service delivery as required.

Researcher/s	Research Dimension	Original Scale/s	Proposed Scale/s	Original Scale Measures	Proposed Scale Measures
Woo and Ennew (2004)	Atmosphere	Seven point scale – 1=very adverse, 7=very harmonious	Seven point scale – 1=Strongly disagree, 7=Strongly agree	I consider the atmosphere surrounding the working relationship with the CE as...	I consider the atmosphere surrounding the working relationship with our partner as harmonious.
		Seven point scale – 1=very distant, 7=very close		I regard the overall relationship with the CE as ...	I regard the overall relationship with our partner as close.
		Seven point scale – 1=to a lesser extent, 7=to a greater extent		I believe mutual expectations for the project have been established with CE	I believe mutual expectations for the project have been established with our partner.

Section E – Performance

This section contains the performance constructs (service quality and financial performance). This section contains five questions of which three relate to service quality and two to financial control. Details of the final research question wording can be found at Appendix 1.

Table A3 - 7 – Performance

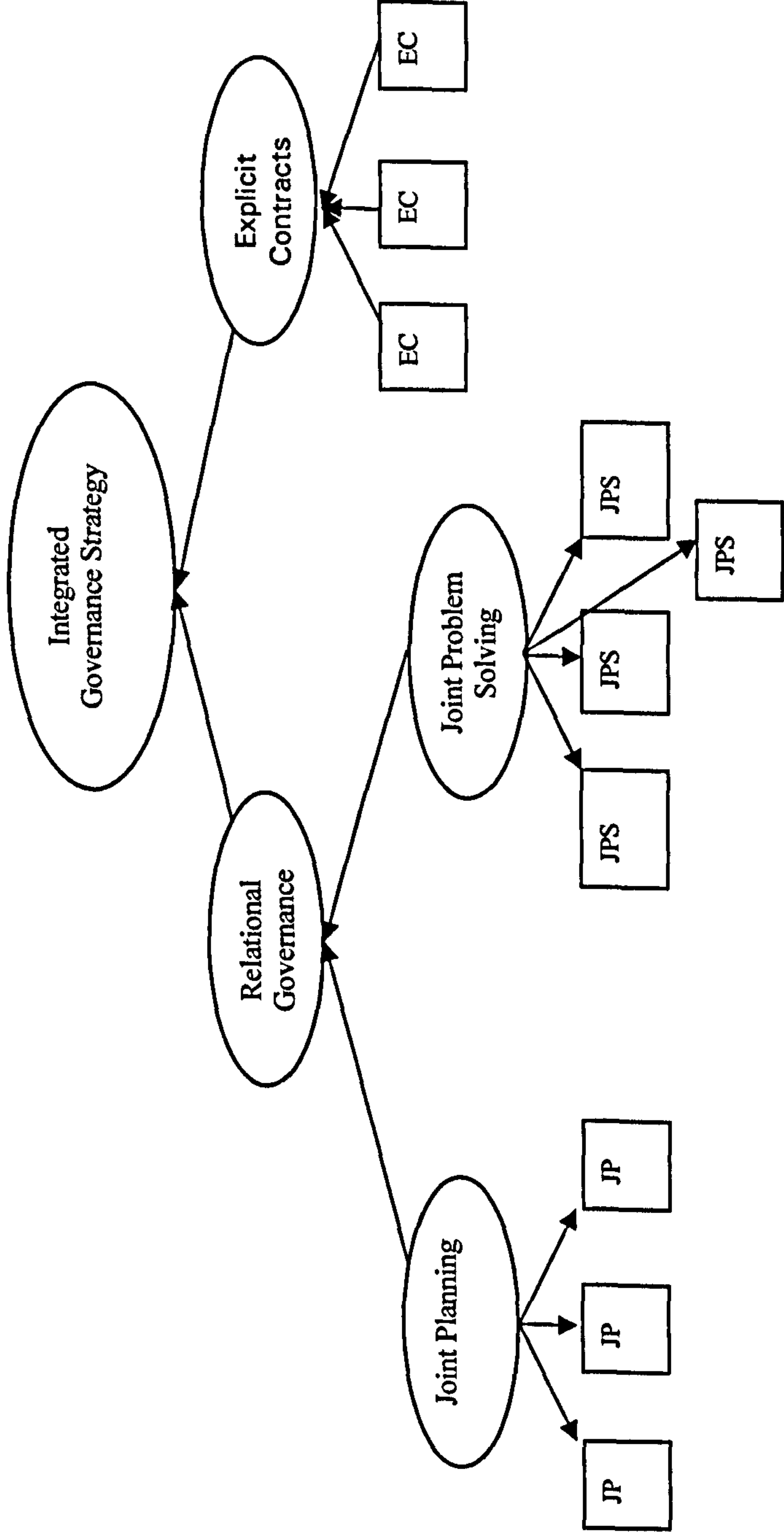
Service performance is defined as, ‘as a global assessment that results from a comparison of service expectations and perceptions of actual service performance.’

Financial Performance is defined as, ‘the extent to which the partners financial objectives have been achieved.’

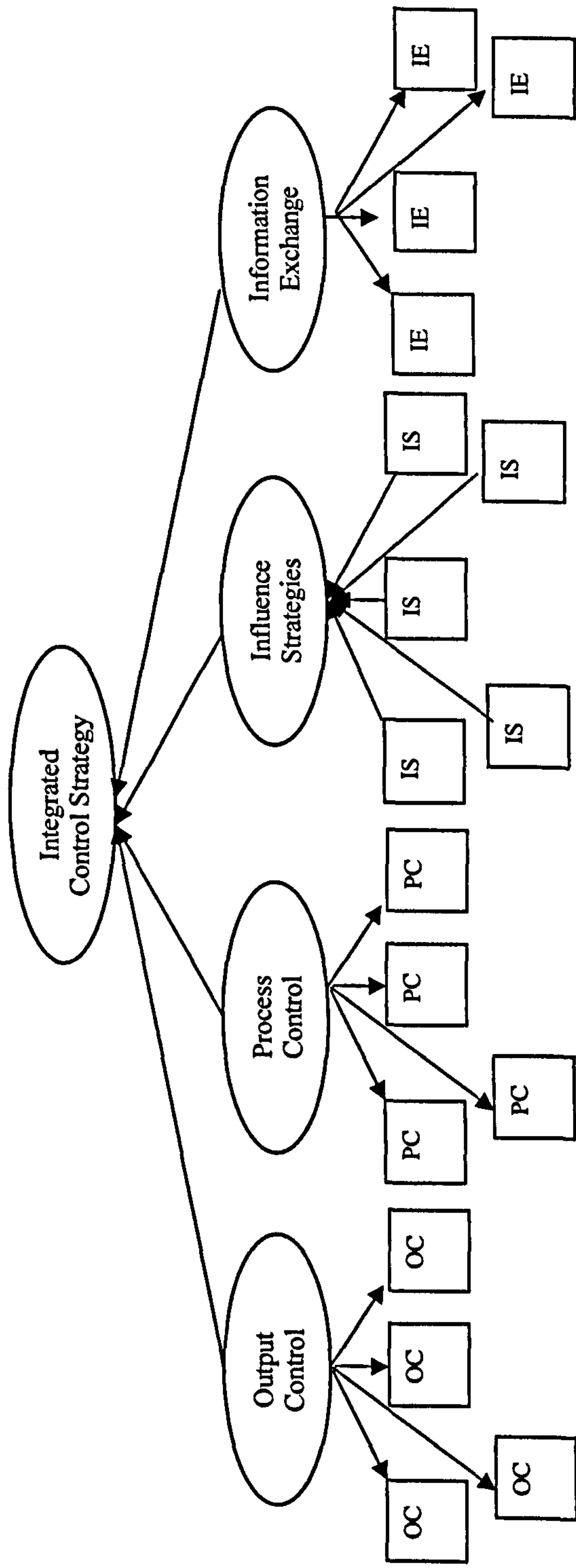
Researcher/s	Research Dimension	Original Scale/s	Proposed Scale/s	Original Scale Measures	Proposed Scale Measures
Woo, Ennew (2004)	Service Performance	Seven point scale – 1=very poor, 7=excellent	Seven point scale 1=Strongly disagree, 7=Strongly agree	Overall, our experience in dealing with the CE is ...	Overall, our experience of dealing with our partner is excellent.
		Seven point scale – 1=falls short of our expectations, 7=exceeds our expectations		The service performance of the CE fits our project requirements.	Our partner’s service performance is to the required standard/s.
		Seven point scale – 1=very often, 7=very seldom		In terms of service reliability, things have gone wrong.	In terms of service delivery things have very seldom gone wrong.
Scale items identified and tested during expert interview process.	Financial Performance	N/A	Seven point scale 1=Strongly disagree, 7=Strongly agree	N/A	Our financial objectives for the project have been met.
					The cost of delivering partnership services has exceeded expectations.

Appendix 4 - Research Model Constructs and Measures

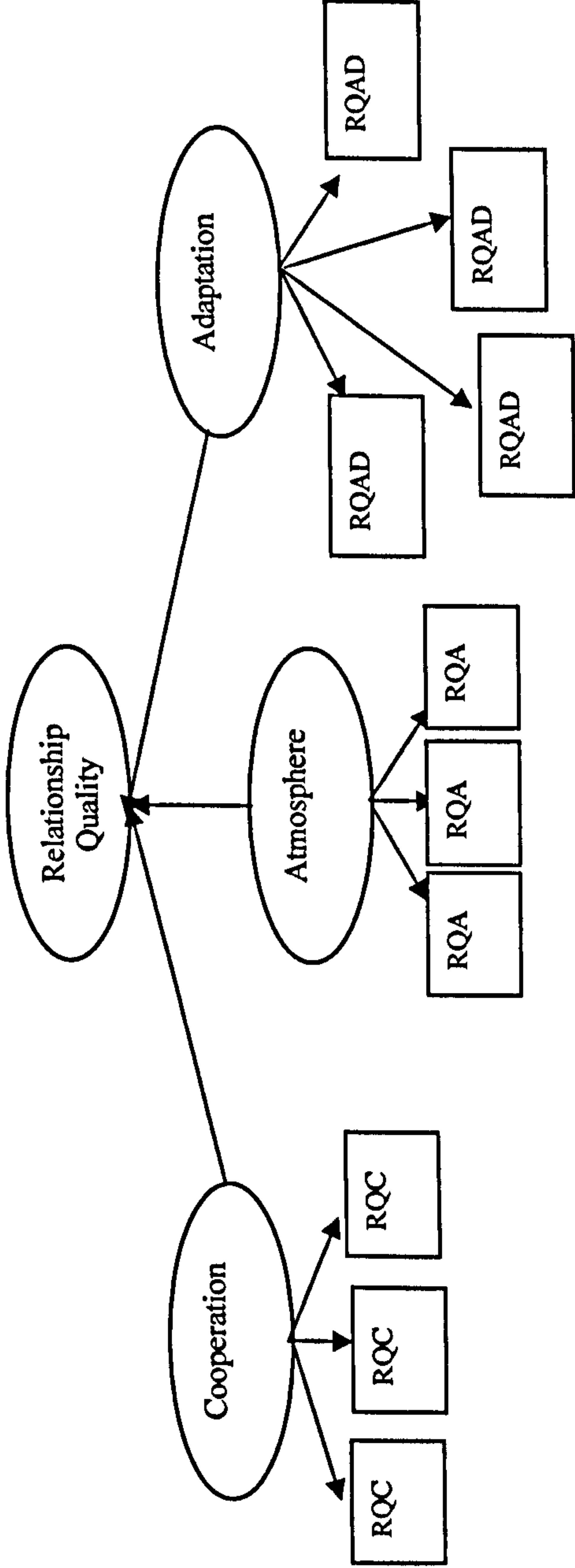
Proposed Governance Strategy Structure



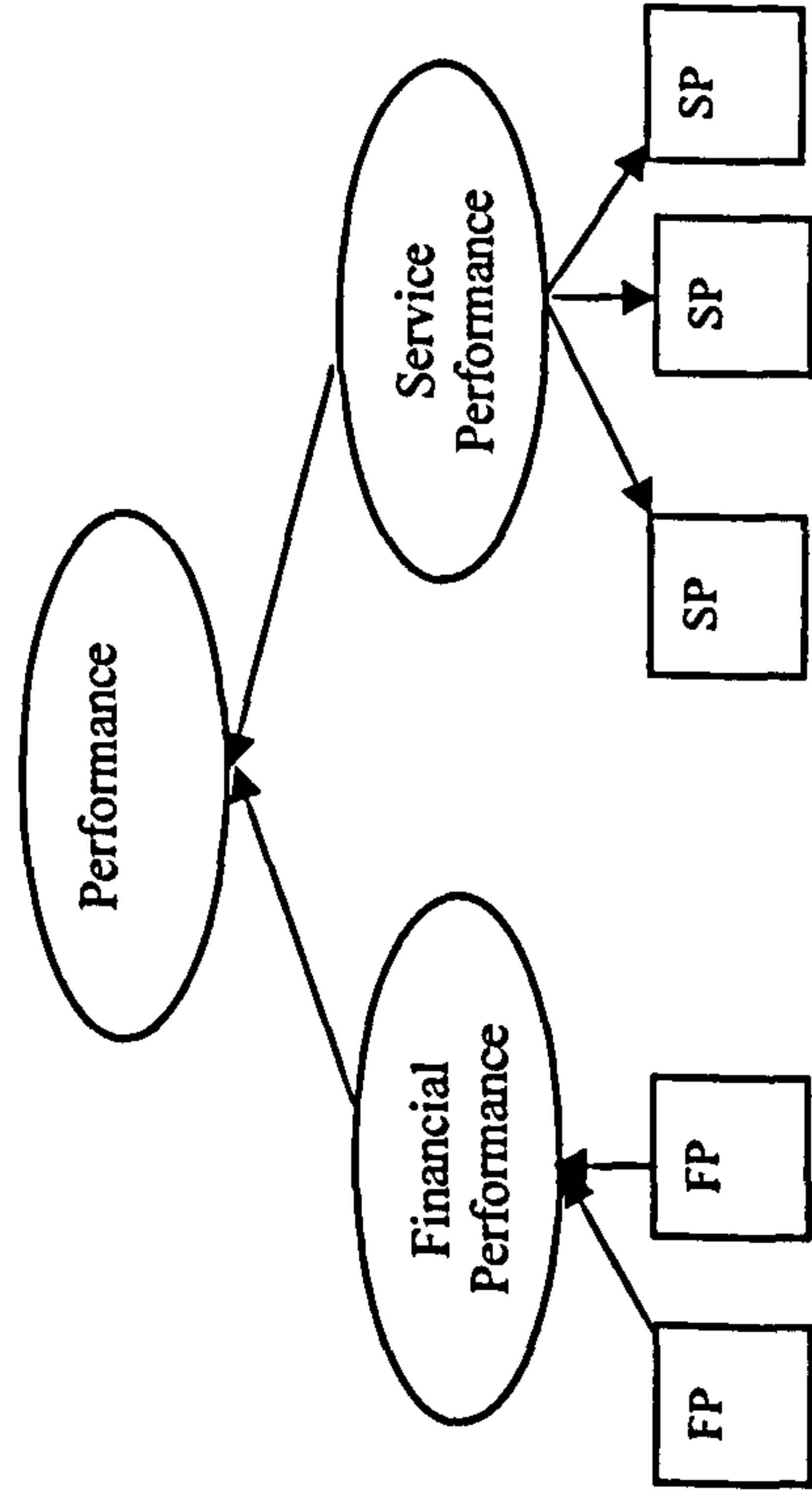
Proposed Integrated Control Strategy Structure



Proposed Relationship Quality Structure



Proposed Performance Structure



Appendix 5 – Expert Interviews

Three expert interviews were carried out. Each started with the author explaining the research and competing models and confirming the study results. The following set questions were used in the interviews.

Question 1 - Based on your experience of managing long term partnerships in the area in which this data was collected, are the studies findings consistent with your experiences and do you think the findings would be of interest to managers of long term public/private partnerships? If so why?

Question 2 - Given the positive and direct relationship between relationship, quality and performance – would managers benefit from guidance or advice about the importance of a relationship quality in achieving your performance objectives and why do you think if they would benefit from that, it would be beneficial?

Question 3 - Given the positive and direct relationship between integrated control strategy and relationship quality, would managers benefit from guidance advice about how to design their control strategy and how do you think that would help if that advice were?

Question 4 - Given the positive and direct relationship between integrated governance strategy and relationship quality, would managers benefit from guidance advice about how they should structure their governance strategy in order to maximise the quality of the relationship and why do you think this would be helpful?

Question 5 - Given the positive and direct relationship between integrated governance strategy and integrated control strategy, do you think managers would benefit from advice or guidance highlighting that these two seem to work together to establish the total management framework for the contract rather than as independent unconnected management mechanisms?

Question 6 - Given that the research has covered both integrated governance strategy and integrated control strategies in which both have formal and informal mechanisms working in a complimentary and reinforcing manner, do you think it would be helpful for managers to receive advice about the importance of adopting this combination of formal and informal mechanisms and if so, have you any thoughts as to why that would be important?

Question 7 - In terms of the governance and control strategies, do you think it would be helpful for managers to receive advice and guidance about the specific impacts of the various formal and informal research constructs included in the governance control strategies and if so do you think you could tell me why that would be helpful?

The transcripts from the interviews are shown below

Expert 1

I certainly think the findings will be interesting for managers and how they approach perhaps the planning of the partnerships and the planning of the management tools that they are going to use. The question about does it intuitively relate to my view, some of it does. Clearly the issues around having the different form of integrated governance strategy, yes that would, I think you've got to have a basis of a hard, strong contractual relationship but it's very important to have the softer skills around that as well. Some of the other issues around the integrated controls, not necessarily driving performance, I found quite surprising that the thing for me, having good performance management systems indicates that you will have good integrated control strategies and that perhaps doesn't quite fit.

I definitely do think, any research like this will inform any partnership and I think that some guidance notes on perhaps identifying best practice that has come of this research would be very helpful. Going intuitively performance will be driven by many things, quality of relationship can be one of them and very often it is easier to get a good performance where you've got an honest

open relationship that works in real terms. But again you need good controls behind that in my view to make sure it works. I suppose for specifics around performance and looking to driving up the performance measures, some advice on how good relationships work and how perhaps initially to develop those relationships between various parties is in any long term partnership would be very useful, particularly coming from again the relationship with governance as well. That's where it starts and finishes and it's how that then driven through a project team and the management team to ensure that performance standards are dealt with in the right way. Its also about how those relationships are built on trust initially and trust has to have some foundation and that then goes back to your integrated governance strategy having good controls and good contracts. But certainly around transparency, honesty, integrity, all those sort of good things around what builds good relationships in the first place and some advice on how that all fits together I suppose in a coherent way.

Yes I do, I also think that it would be useful to have. Can't put that in some sort of context because different partnerships require different levels of integrated governance and then certainly control systems and I think it would be useful to try and understand what type of projects at project specific level what the most appropriate format might be. Now whether that research can do that I'm not sure but its important that in any contractual relationship and that's essentially what we're talking about that the context of that contractual relationship is right and the appropriate governance management and control systems are in place. Yes we can look at a general model that works for specific types of contractual relationships, they may need tweaking and it might be interesting in any guidance notes to have that sort of caveat around this, that it may not be appropriate for all situations.

Indeed, in my experience that informally happens anyway depending on how strong your client is for example. You may decide you need different control measures in place for your own benefit to ensure that you are meeting your obligations, for example I can remember a contract that we managed at a very weak client but we wanted to make sure that we were bullet proof as far as all

of the other things concerned so we insisted on having our own control measures in place that proved that we were doing those things right..

Yes I definitely do and I think it's again important that those are recognised and that it's made clear that in some relationships you need a stronger one or the other.

I think that would be very useful and it's also interesting that you're showing in the model that there is some disconnection but there actually needs to be a consistency of approach in terms of governance if you've got a strong contract you're then thrown out of that to me intuitively you'll have strong control measures coming from that now that doesn't necessarily mean that the informal need to be part of the thing, its getting the balance right but also having the consistency of approach between the formal and informal but also understanding that your project management tool in its entirety is a mix of both controls and governance as well and some advice and guidance on best practice around that and certainly what your research has shown would be very interesting at least. I think anyone setting up a new business model to deliver something like this, would find that very valuable. Again going back to my earlier point that there is horses for courses in these things in making sure the context is whether you're doing things right, certainly think some guidance around best practice and what the research has shown would be very useful.

I suppose another issue for the research findings would be an opportunity to use it pre-contract and indeed maybe understand if there is a difference between what people felt as they were putting the contract together and what they felt perhaps when the projects were operational and I think there maybe a slightly different view there. Very often you go into contractual relationship or a partnership with very strong views on how the contracts going to work and how the control measures are going to work within that but the reality is once its up and running, it might be that the contract almost runs itself and the relationship issues then come to the floor. So using this guidance as perhaps a guide to best practice in setting up partnership arrangements and contracts might be very useful as well

Expert 2

I think the findings are broadly as I expected. There are some variances around some of the financial performance where I thought the variety of strategies and relationships may come out with different answers in terms of the significance. So, although broadly in line with what I thought, there are some variances which have surprised me. I think the information and the output of your analysis would be beneficial to relationship managers and people looking to manage contracts such as PFI and PPPs and would be helpful in enabling them to understand what the drivers are to ensuring a successful long term partnership.

Firstly, I am not surprised by the strong relationship between relationship, quality and performance. I think relationship managers would very much benefit from understanding outputs there. It would certainly help them to understand which aspects of the contract and of the relationship they need to work on in order to ensure the goals of the project are met. I think that it would be very helpful for all sides of the relationship to benefit from this information both delivered separately and ideally at the beginning of a contract. So, if you could have the public sector and the private sector working through this and having the information together, I think that would probably strengthen the ongoing results.

I certainly think they would benefit from the guidance and advice around the integrated control strategies. I think far too much reliance is put on contractual requirements around the output specification and almost the integrated control strategies come as a means to an end in order to just communicate on a daily basis. Since the research was carried out, I certainly had experience of partnerships and PFI and PPP contracts being managed on a partnering basis such as Building Schools For the Future and the NHS LIFT frameworks where co-location of the public sector and the private sector has enabled behaviour controls and influencing strategies to break down some of the barriers that previously existed which were just linked to the contractual framework and have enabled better atmospheres, better adaptation and better cooperation. I think therefore to continue

or to provide the guidance and information that shows the difference between these working relationships would be useful for managers going forward in these contracts.

Again I think managers would benefit from guidance on how to structure their governance strategy. A lot of reliance is again put on requirements in the output specification and how the two parties should meet and share information. When the research was done, very little thought was put in to the future changes, future requirements of these long term contracts. It was almost as if the contracts were written on the basis of nothing will really change over the course of 25 or 30 years when in reality we know that is very different. I think in more recent contracts that we have seen, the standard documentation has been drafted to require more strategies to allow more change, however, it is very much done on the basis that this is a requirement in the documentation and not on a day to day this is how we go about managing our relationships. Therefore, coming back to the point, the relationship managers would very much benefit from the research done here in order to understand how best to manage the relationship with each other

My experience of this is that general managers, Chief Execs of SPV's have tended to not link the governance strategies with control strategies. That could also be said of the public sector as well. What I tended to see is that managers have focussed on delivering the contracts and some of the governance strategies that go around there whereas the control strategies have not really been enforced as a strategy, they have just been a means to an end in delivering the contract. I think it would be very helpful for managers of these contracts to understand the importance of the control strategies and particularly understand the importance of the link between the governance strategy and the control strategy to better meet the needs of the contract and the relationship quality.

I think it would be important, very much so. What we have tended to see is particularly when this research was carried out, the use of formal communications and formal strategies were the main method for communicating and the main platform on which the relationship was built. Since the research was carried out, I certainly have had experience of contracts where there has been more

of a close working relationship, co-location and the need for more informal as well as still having the formal strategies in place, and that has helped to benefit the relationship quality and some of the performance outcomes and therefore I think it would be very important for the research and information conducted here to be shared with managers that are potentially going to manage future contracts

Again I think this would be very useful for managers. The research conducted shows that there are different aspects to the governance strategy, the control strategy both on an informal and formal basis and general managers need to understand the detail between each of the areas in order to best deliver a quality relationship and the output performance that both public and private sector are seeking to deliver through the partnership.

Expert 3

Yes I do think the research is beneficial and certainly something that I would certainly use because historically I have looked for information of this nature and found it very difficult to find, even on the areas where you talk me through it, I thought well actually that's wrong there must be a trait there. However, when you give it some thought, you can put an answer to it. So yes, the research is very useful and consistent with my thinking – more consistent than I expected when first looking through the document and yes it would be beneficial in my area, not just for the operational phase but also for the business development activities as well.

Yes, it would be beneficial but what I think would be extremely useful is the way a document like this would be more than just a theorised paperwork exercise, would be if there was real practical examples given and even maybe half a dozen scenarios that would help the reader to understand how they could bring this guidance in to their workplace to actually use it almost as a daily tool and to use it in meetings with the client and maybe even open this sort of research up to the client to demonstrate how you can work in a partnership to develop a better understand and a better relationship between us.

Yes I do think it would be very useful and whether by accident or strategy, having output control as the first table is the key for it for me because I would see that as being number one anyway, because output control is what everything comes out of. You have got your output, you have to respond to your output but the only area which scored a significant status was cooperation. If your cooperation is right, that says to me your partnership is right and if you have got that right and you are actually cooperating in a sensible way, then that will link in to the other tables where you have got process control to service performance significance and process control to adaptation. If you didn't have your cooperation right then they wouldn't be right either because if your process controls were wrong and your adaptation was wrong and you didn't do them properly then your cooperation would not be significant because you wouldn't be managing that. So if you have got that cooperation right it will feed in to the other tables

I think for me this is one of the key aspects of the report because yes, it deals with how we can get a better relationship with the client on the current operational project where actually with regards to the strategy, how can we use the information that we have got to open more doors for the future. NHS Trusts and local authorities are infamous with not wanting to put all their eggs in one basket so helping us demonstrate that working with us on a joint partnering approach right across the board would not only benefit them but also provides opportunities for us which makes us look at our strategy on a wider remit and gives them more strings to their bow by what we can provide and invest in, because if we have got opportunities additionally with that authority or trust then we can invest more money on the current project as well. Therefore everybody wins. But it is how you can unlock those areas and avenues that we have had difficulty with in the past.

I think you have to look at these two together otherwise you fall in to the trap as to how it has probably been done before, particularly within local authorities and trust management structures where they look in isolation rather than as a joined up theory. My view is that if

you don't manage this as an integrated approach using both, then you won't be able to provide a flexible customer focused approach to your client. You will be doing it too rigidly. So, unless you take both into account and both are part of your strategy you will have to almost have two independent strategies and two ways of thinking which just brings complexity

I think the way this should be portrayed is almost building on one of my answers from earlier, in having some simple scenarios on how the two are linked and almost a step by step approach on how you would manage specific relationship or specific issues using an integrated and systematic approach to being able to deal with them. In a table format, with a step by step approach on examples of dealing with this, I would see this as being a very simple way of doing something that actually could be quite complex.

To develop your own customer focused strategy for your client, this is a key area because you need to understand the implications if you go for a specific way of dealing with your

client about maybe process driven or whatever, but you need to understand the implications of that with regard to your sub-plot because if you know that you will be completely blown out of the water and this isn't going to work then you can go another route but if actually you can see the pitfalls and they are not great but they are pitfalls, you can develop your strategy to deal with those pitfalls and therefore in the end it becomes an integrated approach even though you have looked at it through one specific route.

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